History of the College of Agriculture at the University of Idaho

Written by Clifton E. Anderson

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, LeRoy D. Luft, Director of Cooperative Extension System, University of Idaho, Moscow, Idaho 83844. The University of Idaho provides equal opportunity in education and employment on the basis of race, color, religion, national origin, age, gender, disability, or status as a Vietnam-era veteran, as required by state and federal laws.

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Banquet in the dairy barn for Old Violet - Porche Ormsby, 1923.

Photo courtesy of University of Idaho historical photograph collection

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Preface

From its formation in 1889, the University of Idaho has endeavored to serve the agricultural interests of the Gem State. Farm families and agriculture-related industries supported the university as it struggled to establish its research and Extension programs on a statewide basis. When agricultural problems occur, Idahoans turn to the University of Idaho College of Agriculture for help. Time and again the problem-solving resources of the UI College of Agriculture have helped the people of Idaho overcome difficulties and achieve significant progress.

In the following pages, I review the record of the excellent cooperation that has linked Idaho's agricultural industry and the UI College of Agriculture. During a century of working together, rural people and University educators have forged a productive and harmonious partnership. How this partnership has developed through ten decades is my central theme in this history.

The primary sources used are University of Idaho papers and records, and articles printed in the *Idaho Farmer-Stockman* (and its predecessors, *Gem State Ruralist* and *Idaho Farmer*). Many of the UI papers I used were collected and assembled by Maurice E. Johnson. Because of his diligence, useful historical materials have been preserved. Papers that he rescued from oblivion include interviews Marion Hepworth conducted with pioneer rural women and reminiscences of early-day Extension workers. These reminiscences were written in the 1950s in response to requests made by J. Warren Barber, who wanted to compile the candid recollections of old-timers who helped establish the Extension work in Idaho.

In the University of Idaho archives, I consulted several collections of papers dealing with College of Agriculture programs. Especially interesting were the scrapbooks of E. J. Iddings, long-time dean of the College.

Bill Stellmon shared with me tapes of interviews he conducted several years ago with retired College of Agriculture faculty members. These interviews provide valuable information about Idaho agriculture and the University of Idaho during the past 50 years. I hope it will be possible in the years ahead to add new recordings to this important oral history series.

Historical facts up to 1960 were compiled by C. W. Hungerford in his *Historical Review of the Idaho Agricultural Experiment Station* (Idaho Agricultural Research Progress Report, No. 36, April 1960). Information about UI

entomologists and entomology projects is well presented by A. R. Gittins and D. R. Scott, *History of Entomology at the University of Idaho* (1989).

The history of the Parma Agricultural Experiment Station is told fully and in a lively, interesting manner by DeLance Franklin in a series of newspaper articles, beginning with “Farmers’ fight against weevil led to Parma research center” (*The Idaho Free Press* and *The News-Tribune* Feb. 24, 1976, Nampa and Caldwell, Idaho).

I am certain that many present and former residents of Idaho have additional information concerning the UI College of Agriculture’s help to the state’s agricultural industry. If you have such information, please share it with us. Address your communications to: Ag College History, c/o Agricultural Communications Center, University of Idaho, Moscow, Idaho 83844-2332.

Clifton Anderson

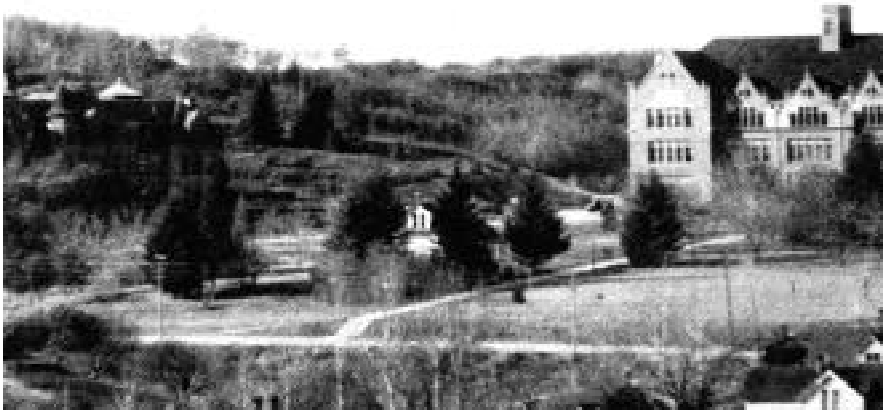
A Partnership is Created

A nine-member Board of Regents met for the first time April 25, 1889, and organized the University of Idaho. At that meeting, regents must have discussed two laws passed by Congress. What would be the educational mission of the new university? What financial help could the federal government provide? To deal with these questions, the founders had to consider the provisions of the Morrill Act, passed in 1862, and the Hatch Act, enacted in 1887.

The Morrill Act established the U.S. land-grant educational system. The federal government would use a portion of its holdings of public land to foster education in agriculture and mechanical arts. To qualify for a land grant, the government required a state or territorial educational institution "to teach such branches of learning as are related to agriculture and the mechanic arts — in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Responding to the financial inducements of the Morrill Act, state governments in all sections of the country set up new college and university programs. State educational institutions became centers for scientific research, and they initiated programs for the instruction of agriculturists, engineers, and scientists in many academic specialties.

The Hatch Act supplemented the Morrill Act by providing funds earmarked for agricultural research. The act encouraged each state or territory to operate an experiment station at its land-grant institution. By establishing an ag-



UI campus early in the century.

Roy E. Taylor Photo Collection

ricultural experiment station and complying with the provisions of the Hatch Act, the University of Idaho would be assured an annual appropriation of $15,000. In order to obtain this subsidy, the Board of Regents voted on February 26, 1892, to immediately organize the Idaho Agricultural Experiment Station on the university campus at Moscow. When the University of Idaho opened for classes on October 3, 1892, the experiment station had been in operation for seven months.

University Gains Federal Funds

Financial help from the federal government was of critical importance to the University of Idaho in its early years. Congress in 1890 enacted a second Morrill Act, providing an award of $15,000 a year to each land-grant college for instructional programs. This assistance would increase in the years ahead. In the future, funds for agricultural experiment stations would be augmented also.

In its first year of operation, the University of Idaho could depend on grants of $30,000 from the federal government — $15,000 in Morrill Act funds and $15,000 in Hatch Act funds. Grants increased in subsequent years. The federal government was being more generous than the state government in providing support to the University, complained Joseph P. Blanton, the second UI president. “The largest (state) appropriation that has ever been given to the institution is $6,000 a year. The federal government, on the other hand, gives $39,000 annually,” Blanton said in 1898.

Science Offers Bright Prospects

During the 1800s, science and technology transformed many aspects of American life. This was the century of the telegraph and the telephone, steam-driven ships and railroads, petroleum-powered internal combustion engines, and factories geared for mass production. Biological researchers achieved life-saving improvements in surgery,

An early horticulture class (about 1899) was photographed in the greenhouse.

Historical Photograph Collection, UI Library, 1-210-10

medicine, and nutrition. Investigators were beginning to understand microorganisms and their relationships to other living things. Scientists created a modern, pragmatic approach that was at one and the same time visionary (optimistically looking forward to the systematic, step-by-step solution of major problems) and practical (recognizing the complexity of persistent problems and the need for ongoing appraisal and refinement of scientific knowledge).

In Idaho as elsewhere, people had high expectations about science's ability to improve the standard of life. Idaho's population in 1890 was predominantly rural, and rural life was beset with problems.

Science offered possible solutions to pressing difficulties encountered by farmers who settled Idaho. New varieties of wheat, oats, and other crops were needed to take the place of varieties that performed well in the East but were not suited to Idaho conditions. There were serious animal health problems — livestock diseases, poisonous range plants, and nutritional deficiencies. Irrigation problems required attention, and the management of Western soils was often a difficult challenge.

Experiment Stations Offer Help

The McCormick reaper, invented in 1831, had promised to usher agriculture into a new era of mechanization. Similarly, effective chemical controls of crop pests appeared to be in prospect when the Bordeaux mixture became a popular fungicide in France. In 1890 farmers were still waiting for the golden age. Machines had not yet taken the hard work out of farming and there were few chemical weapons in agriculture's arsenal.

When grasshoppers invaded Idaho agricultural areas settlers used a primitive type of warfare. They dug ditches and tried to trap the insect hordes in these perimeter defenses. If the grasshoppers got past the barriers an attack could be mounted with a homemade device called the hopperdozer. This was a sled-like affair drawn by horses with a platform mounted on runners and a cloth shield stretched between two supports at the rear of the platform. Pans filled with coal oil or water (or coal oil plus water) were placed in front of the shield. As the hopperdozer moved through a field, grasshoppers flew up, hit the shield and, if all worked well, dropped into the pans.

To cope with their problems the only help farmers could depend on was self-help. Newspapers carried stories about the advances of science, but farmers were receiving few benefits. Through its agricultural research programs the University of Idaho proposed to bring science to the service of Gem State farmers.

The problems of Idaho farmers varied from region to region, and the Board of Regents recognized at the outset Idaho's need for several agricultural experiment stations. In 1892, after establishing the home station in Moscow, the board created three research facilities in Grangeville, Idaho Falls, and Nampa. Although these branch stations were closed in 1896, research units were opened at other locations in later years. Service to the rural people of the state was the primary goal of the Idaho Agricultural Experiment Station, according to its first director, Robert Milliken. Writing in an 1892 report, he said: "The work of the Station belongs exclusively to the farmers of Idaho. In this work the Authorities of the Station have but one end only in view, and that is the rendering of definite, practical assistance to the farmers of the State."

Researchers Seek Two Goals

As set forth in the Hatch Act, the two goals of agricultural experiment stations were to develop "useful and practical information on subjects connected with Agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." In other words, an agricultural experiment station should be concerned with immediate, problem-solving research and also with long-term investigations. On the one hand, it would deal with "useful and practical information"; on the other, it would engage in bonafide scientific investigation.

How to balance the two aspects of experiment station work was a continuing problem. The U.S. Department of Agriculture provided oversight of station operations, and this influenced the direction agricultural research moved. USDA officials were determined that state agricultural experiment stations should conform to exacting standards of scientific research. Directors of state experiment stations developed important research programs, but at times they had to settle for less-than-perfect research procedures.

Research Projects Not Always Adequate

It was not easy for a young university to launch a comprehensive program of agricultural research. What could be accomplished with meager funds, a small staff, and extremely limited research facilities? Early projects at the UI had serious inadequacies. Before 1900, UI researchers attempted to evaluate several varieties of potatoes. They sent 600 packages of seed potatoes to farmers in every county of the state and asked them to make test plantings and then report the results. In much the same way, UI researchers sent out samples of sugar beet seed far and wide. Experiments of this type had limited value because the researchers could not control the conditions under which the potatoes or beets were grown, harvested or evaluated. Lack

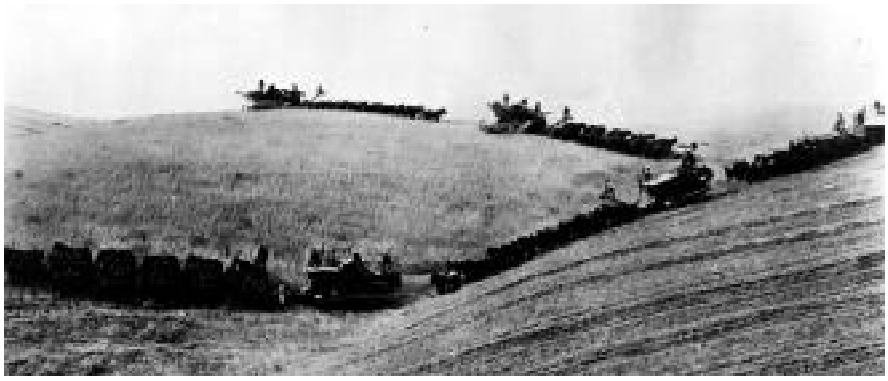
of controls handicapped researchers and so did a shortage of instruments and equipment. UI College of Agriculture scientists had virtually no research facilities when the university opened in 1892. Year by year, facilities improved. Then, in 1906, agricultural research suffered a setback. The Administration Building was destroyed by fire and most of the equipment and records of College of Agriculture researchers were lost.

Building A Research Staff

In the university's first year of operation, six faculty members were paid from Agricultural Experiment Station funds. The station's director was an "agriculturist," while the other faculty members were trained in chemistry, geology, and other academic disciplines only tangentially connected with agricultural science. Similar situations occurred at other land-grant colleges and universities. At some institutions administrators used considerable imagination while making agricultural research appointments. Coming to Washington Agricultural College in Pullman as the new president in 1895, Enoch A. Bryan found that an assistant horticulturist on his staff knew little about horticulture but was an accomplished musician and an excellent song leader. Other colleges and universities sometimes used agricultural experiment station funds to augment their instructional budgets. Before long, however, land-grant colleges and universities were adding well-qualified researchers to their faculties.

A turn-of-the-century photo shows well-dressed UI tree planters at work.

Historical Photograph Collection, UI Library, 1-210-15



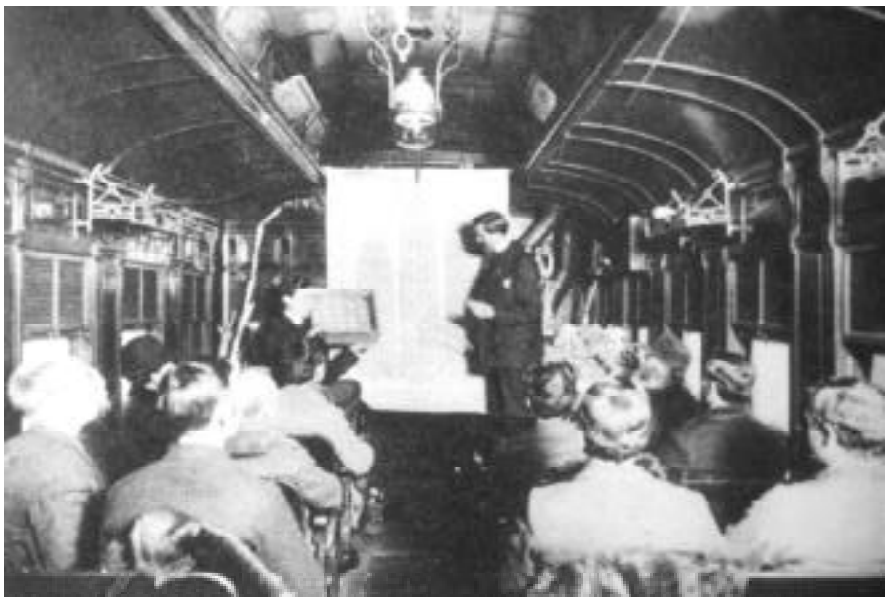
Five large combine harvesters, each powered by a 33-horse team.
Historical Photograph Collection, UI Library, 14-68

From the beginning the University of Idaho succeeded in attracting to its faculty scholars of great ability. In 1893, John M. Aldrich came to the UI as professor of zoology. After 1905, he was professor of biology. A professional entomologist, he specialized in the study of *Diptera* (winged insects). Aldrich became one of the nation's most eminent scholars in his field. He assembled a large entomological collection, investigated the history of the box elder bug, and experimented with methods of controlling grasshoppers and mosquitoes. He found that pouring kerosene on stagnant water was an effective method for preventing a mosquito population explosion. To control grasshoppers, Aldrich attempted to infect them with a fungus obtained from South Africa.

Aldrich Encounters Problems in Idaho

Aldrich built a beautiful home on the edge of the campus. He intended to stay in Moscow permanently, but this was not possible. In 1913, as the result of a long-standing dispute between James A. MacLean and faculty members of the University of Idaho, Aldrich was summarily dismissed from the university with six of his colleagues.

MacLean, a young Canadian with a Ph.D. in economics, became the third president of the University of Idaho in 1900. Several UI faculty members were concerned by MacLean's apparent lack of knowledge concerning agricultural matters, and their concern became more intense in the next few years. In 1904, Aldrich and five other professors asked the UI Board of Regents to dismiss MacLean on the grounds of incompetence. The Board of Regents dismissed neither MacLean nor the protesting faculty members. Instead, a compromise was effected, an uneasy truce that endured for eight years.



Demonstration train brought UI research to the public in 1903.
Roy E. Taylor Photo Collection

In 1912, MacLean accepted appointment as president of the University of Manitoba. W. L. Carlyle was named UI acting president. Before leaving Idaho, MacLean reportedly gave the Board of Regents a list of professors who should be dismissed. In April 1913 MacLean traveled to Idaho from Manitoba and conferred with Carlyle. Shortly after that meeting, the Board of Regents voted to dismiss Aldrich and six colleagues.

At the time of his dismissal, Aldrich was completing his twentieth year of distinguished service at the University of Idaho. He was widely known and respected in academic circles. To educators throughout the nation, the Idaho incident raised important issues of academic freedom. In his book, *American Entomologists,* Arnold Mallis writes: "In l913, Aldrich's association with the University of Idaho was terminated in a fashion that shocked the academic world." Although Mallis offers no particulars, he does quote a memorial written by A. L. Melander — Aldrich's friend and colleague, and an entomologist at Washington State College — in which Melander states: "It is unnecessary to reopen the sorry case and discuss the vagaries of an incompetent administration other than to recall that those of us who knew the situation well regarded the dismissal as an outrageous and unwarranted interference."

Aldrich accepted a position in Washington, D.C., as custodian of *Diptera* and associate curator of insects at the Smithsonian Institution. The

Smithsonian had published his great reference work, *Catalogue of North American Diptera*, in 1905. During his tenure on the staff of the Smithsonian, Aldrich traveled widely and collected 45,000 specimens of *Diptera*. He became president of the Entomological Society of America in 1921. At his request, Aldrich's ashes were shipped to Moscow for burial in 1934. At the University of Idaho, a memorial for this scholar exists in the form of an entomological association for students and faculty members, the Aldrich Entomology Club.

Henderson Studies Weeds and Insects

Also joining the UI faculty in 1893, Louis F. Henderson served as professor of botany and plant pathologist at the Agricultural Experiment Station. In 1905-1906, Henderson taught an entomology class and engaged in entomological research. He had studied at Cornell University under David Starr Jordan, the distinguished naturalist.

In Idaho, Henderson did studies of an insect, the grape *phylloxera*, that had become troublesome in the Juliaetta area. He also investigated aphids, the codling moth, and apple leafhoppers. Henderson conducted studies dealing with potato scab and smut on wheat and oats.

Henderson toured the state in 1898 investigating weed problems. He reported his findings in a bulletin entitled *Twelve of Idaho's Worst Weeds.* He rated the dangerous dozen in this order: (1) wild oats, (2) prickly lettuce, (3) Russian thistle, (4) tumbling mustard, (5) cockle, (6) Canada thistle, (7) dodder, (8) false flax, (9) sunflower, (10) squirrel-tail grass, (11) tumbleweed, and (12) horehound.

The Idaho residents Henderson contacted were not greatly concerned about infestations of Canada thistle. The town marshal in Sandpoint found the purple flowers attractive, and he did not want to exterminate such a pretty plant. "Even the city officers of Boise seemed indifferent to the matter," the UI professor reported.

Henderson left the UI in 1909. He was a guest of honor at the ceremony commemorating the university's fortieth anniversary in 1932.

The Administration Building fire in 1906 was costly to both Aldrich and Henderson. For thirteen years Aldrich had been developing a collection of Pacific Northwest insects. Some of his specimens were destroyed in the fire. Henderson had assembled a botanical collection that was a featured exhibit at the World's Columbian Exposition in Chicago. It was a casualty of the 1906 fire.

Other Early Agricultural Researchers

F. A. Huntley, a horticulturist, was a member of the faculty from 1897 to 1903. George A. Crosthwait, the first agronomist at the UI, served from 1894 to 1907. The university's first animal husbandry specialist was C. P. Fox, director of the Agricultural Experiment Station from 1893 to 1898. J. Shirley Jones organized the Department of Agricultural Chemistry in 1906. He was director of the Idaho Agricultural Experiment Station from 1914 to 1918. J. H. Frandson, from Iowa State College, became the first head of the Department of Dairy Husbandry in 1907, remaining at the UI until 1911. In 1908, L. R. Parsons joined the College of Agriculture faculty for one year as bacteriologist. He was knowledgeable concerning bacteriology, having worked in the Detroit laboratories of Parke, Davis & Co. for six years, and he was also skilled in business and financial matters. He later became the UI comptroller and valued advisor to UI President A. H. Upham.

Hiram French Provides Leadership

Hiram T. French held positions of leadership in the College of Agriculture from 1899 to 1910. When he joined the faculty, he had the title of "agriculturist." At that time, the UI president held the position of director of the Agricultural Experiment Station. French performed most of the duties a sta-

UI Administration building — built in 1899 was destroyed by fire in 1906.

tion director would normally handle, and in 1902 he was named director. French was active at the UI during a period when College of Agriculture services were being extended far beyond the campus. He expanded the Farmers' Institute educational programs out in the state. He helped provide for southern Idaho farmers a research center equipped for the study of crop production under irrigation. He was responsible for initiating wide-ranging improvements on the Moscow campus.

In Idaho, Farmers' Institutes were organized in the late 1890s. These were two-day educational meetings held in towns and villages around the state. Two, three, or four university professors would speak on topics of interest to farm people. To economize on travel, the professors would be scheduled for several weeks of Farmers' Institute duty. After one institute ended, the UI team of experts would depart for the next town on the circuit. In the year beginning July 1, 1905, UI professors held twenty institutes in seven counties. Altogether, 5,000 people attended the meetings.

A week-long educational event, called the "Normal Institute for Farmers," was presented in Caldwell by UI professors in 1906. There were three sessions a day—morning, afternoon, and evening—and some seekers of knowledge attended each one of the twenty sessions. To interest farm women, cooking demonstrations were scheduled. Elizabeth Ryan, UI home economist, presented the popular demonstrations. In a few years, the Normal Institute was renamed the "Movable School." Because it delivered a great deal of useful information to the people of a locality the week-long school was a positive force for community betterment, French maintained.

With the cooperation of railroads serving Idaho, French initiated demonstration trains that brought UI professors and their traveling exhibits to the attention of people in outlying areas. In 1907, the first demonstration train toured northern Idaho, running over Northern Pacific lines. In 1908, the Oregon Short Line brought a demonstration train to towns in southern Idaho. At each stop, UI professors presented short lectures. A demonstration train was sent out almost every year in the pre-World War I period.

Realizing that agricultural research conducted in northern Idaho had limited relevance for farmers in irrigated areas of southern Idaho, French recommended the establishment of a branch experiment station in the south. He wanted the station to include irrigated and non-irrigated acreage, so dryland and irrigated systems of farming could be compared. Public-spirited residents of Payette, Weiser, Emmett, Blackfoot, and Caldwell offered to donate land for the university's use. After comparing the proposed sites, UI officials chose a 320-acre tract five miles south of Caldwell. The station was established in 1906, with Elias Nelson employed as station manager and

irrigationist. In 1909, a branch station was opened at Gooding. Research here concerned field crops grown under irrigation. This station was closed in 1913.

Problems of cut-over land in Bonner County were investigated at a second branch station the UI established in 1909. The land was donated by Paul Clagstone, and the station was known as Clagstone Farms. It was closed in 1913 after the Sandpoint Branch Station was established.

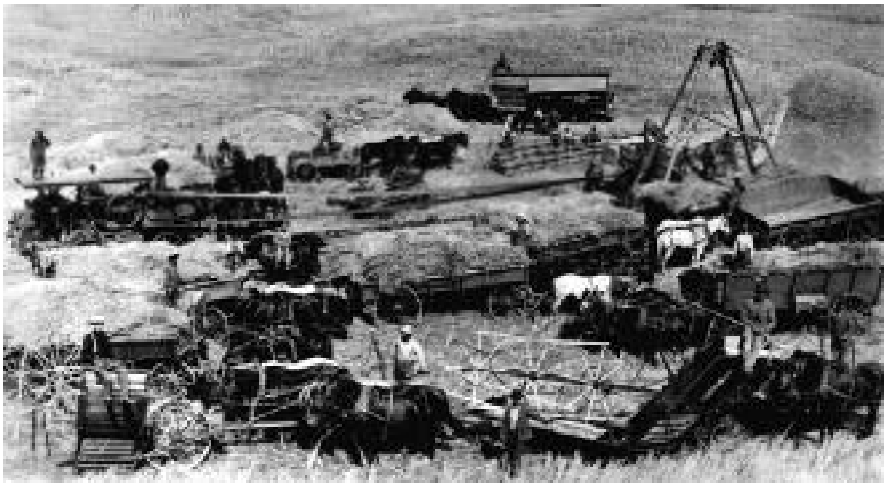
French improved research facilities at Moscow. In 1896, land for a UI farm had been purchased with funds donated by UI faculty and citizens of Moscow. This was a tract of about 94 acres, one-half mile west of the campus. An opportunity to purchase additional land occurred in 1904. Then, in 1905, 63 acres of land located between the original UI farm and the recently acquired tract became available. It was leased and later purchased. Much of the UI farmland was severely infested by wild oats. An intensive effort was made to eliminate the weed problem.

French was interested in livestock. On a trip east, he purchased a small herd of Shorthorn cattle in New York state. These were dual-purpose animals, bred for milk and beef production. A cow named Dorothy became a pet of students and faculty. A Spokane newspaper, reporting on developments at the University of Idaho, published an artist's picture of an imaginary parade through the UI campus. Leading the parade was French with his arm draped around Dorothy's neck.

UI Constructs Morrill Hall

After fire destroyed the Administration Building in 1906, the Board of Regents approved a plan for construction of a three-story Agricultural Building. This was to be of brick and stone construction, "fireproof as far as possible."

The construction project was French's main concern for the next year. He directed excavation and building of the basement. Pren Moore, the UI farm foreman, drove a team of horses and manipulated the fresno scraper that scooped out the basement excavation. The building was named Morrill Hall in honor of the U.S. senator who authored the historic Morrill Act. The first floor included offices, classrooms, a milk testing laboratory, and rooms for creamery work and cheese making. The second and third floors had classrooms, laboratories, offices, a library, and a large room for the exhibition of fruits, grains, grasses, and other agricultural and horticultural specimens. At the rear of the building there was a covered pavilion for livestock judging and agricultural meetings.



Wheat harvesting scene in the early 1900s. The harvest required one thresher, two headers, eight header wagons, and a crew of 27 workers aided by 60 horses.

Historical Photograph Collection, UI Library, 14-123

The loss of laboratories and scientific equipment in the 1906 fire handicapped agricultural researchers for several years. In 1907, the USDA withheld a portion of the agricultural research funds the Idaho Agricultural Experiment Station had expected to receive. Idaho was not qualified to receive federal funds that had to be used for "strictly scientific, research work which must be performed largely under laboratory conditions, and not in the field," French explained in his annual report.

A laboratory for the study of wheat quality was under construction on the UI campus in 1907. This was primarily a flour mill used to prepare wheat samples for chemical analysis and baking trials. The two-story building was on the site now occupied by Renfrew Hall. It was torn down in 1961. The machinery for milling wheat was obtained from the Allis-Chalmers Company and was installed by a professional millwright. The mill included a fanning mill, a scoring machine, three sets of grinding and reduction rollers, a sifter, an aspirator, and a 20-horsepower motor.

Jones Leads Wheat Quality Research

J. Shirley Jones made use of the laboratory-mill in wheat quality research he conducted. He tested wheat grown on the UI farm and also samples from various dryland and irrigated regions of the state. He was particularly interested in the variations in gluten content of wheat grown at different locations. To test the baking quality of his wheat samples, Jones enlisted the help of Moscow housewives. They baked bread using the batches of flour milled by Jones, reporting their results on a scorecard he provided. Wheat quality laboratories had been established in the Midwest, but Jones' laboratory at the UI was the first of its kind in the Pacific Northwest.

A careful researcher, Jones wanted to consider all aspects of the topic he was studying. Study of wheat quality should include analysis of the soils in wheat-growing areas, he said. He was engaged in extensive research concerning the chemical composition of apples and other fruit. He was the author of a report, *Conditions Affecting the Production of Denatured Alcohol in the Northwest*. In the conclusion of the report he predicted that Idaho farm crops "will eventually be grown extensively for the express purpose of being converted into alcohol for industrial purposes." The report was published in 1907.

This field on campus contained horticultural research plots in the late 1890s.

Historical Photograph Collection, UI Library, 1-210-1

Ill-fated Goats Used in Research

One research project undertaken by French achieved a considerable amount of notoriety. French was seeking an inexpensive method for clearing brush from cut-over land in northern Idaho. Goats might be the answer, he decided, so he obtained a flock of 190 Angora goats and kids in 1905. The goats were pastured on 640 acres of leased land six miles north of Moscow. During the first or second winter of the goat-grazing experiment, disaster struck. Snowstorms followed by days of minus 40-degree weather made travel to the pasture difficult, and the worker responsible for caring for the goats neglected them. When he did arrive, all of the goats were dead, victims of hypothermia. The failure of the University's goat project was widely discussed and lampooned by state politicians and journalists. French's career was damaged by the goat episode. It was a black mark on his record, and many critics persisted in criticizing him.

Elliott Becomes Dean of College

The College of Agriculture was officially established by UI President James A. MacLean in 1901. Previously, the university had consisted of departments, including the Agriculture Department. MacLean said he was establishing the collegiate plan of organization "in order that people might be familiar with the conception of a university as an organization based on a group of colleges or faculties." At first there were only three full-fledged colleges — the College of Agriculture, the College of Letters and Sciences, and the School of Applied Science — and no deans were appointed. MacLean indicated that it would take some time before each college was headed by a dean. In 1908, the first dean of the College of Agriculture was appointed. He was Edwin E. Elliott, a faculty member at Washington State College in Pullman. He had served as head of the WSC division which conducted Farmers' Institutes in all sections of Washington.

French, who had expected to be named dean, was disappointed by the turn of events. In several speeches he gave to farm groups around the state, French was extremely critical of President MacLean. He left the UI in 1910 and spent the next four years in editorial work for farm papers. He then accepted a position at Oregon Agricultural College in Corvallis, where he had been employed for 10 years before coming to Idaho. French was the author of a three-volume work, *History of Idaho*, published in 1914.

Early photo shows farmers touring UI field plots.

Roy E. Taylor Photo Collection

Carlyle is the College's Second Dean

W. L. Carlyle succeeded French as director of the Idaho Agricultural Experiment Station in 1910. In that same year, he became the second dean of the UI College of Agriculture. Elliott left after one year of service. By 1910, the college had become established as a strong pivotal unit in a vigorous state university. The college also was improving the range and quality of its services to the citizens of Idaho. The foundation had been established for a productive partnership in the Gem State — a partnership linking Idaho farmers and the UI College of Agriculture.

Finding a Focus

The University of Idaho College of Agriculture entered a critical phase of development in 1910. Like most young institutions, its future possibilities conceivably could be extensive but its immediate prospects were severely restricted. There was no possible way for the college suddenly to gain all of the expertise and other resources it would need to become a complete, first-class college of agriculture, at the cutting edge of every field of agricultural science. The college could build in that direction, slowly, a step at a time. Or, alternately, it could accelerate progress by achieving prominence in one area of study and then parlaying the first success into a long series of subsequent academic triumphs. The second course of action was the one the college followed. Excelling first of all in animal husbandry work, the UI College of Agriculture built on that success and soon achieved distinction in other areas as well.

Two men gave strong leadership to the College of Agriculture during the years when the institution's pattern of development was being shaped. William Levi Carlyle served as the dean from 1910 to 1914. His successor, Edward John Iddings, was the college's leader from 1915 until his retirement 31 years later.

Carlyle Provides Leadership

Carlyle joined the UI faculty in 1910 as head of the new Department of Animal Husbandry. He was a Canadian, a graduate of the University of Toronto. An expert judge of livestock, he had a wide circle of close friends in the fraternity of purebred livestock producers. At the beginning of the 1910-1911 school year, he was named dean of the UI College of Agriculture and director of the Agricultural Experiment Station. Carlyle was acting president of the UI for one year — Jan. 31, 1913 to Jan. 23, 1914.

Before coming to Idaho, Carlyle had served as dean of the Colorado Agricultural College. He left the UI in the autumn of 1914 to become dean of agriculture at Oklahoma A & M College. He resigned that post after three years, returning to Canada where he managed several large ranches. From 1919 to 1942, he managed an Alberta ranch owned by the Prince of Wales.

For many years Carlyle was a judge at the International Livestock Exposition in Chicago and other major shows. Although he had to make close calls in the show ring, Carlyle won widespread acclaim for his fairness as a livestock judge. During his years in Idaho, he had good rapport with livestock producers and invited their help in building the college's livestock program.

Iddings Succeeds Carlyle as Dean

E. J. Iddings, Carlyle's successor as dean, was a graduate of Colorado Agricultural College. He had served as Carlyle's assistant at Colorado and came to Idaho at the Canadian educator's invitation. Iddings worked during the summer of 1909 on an agricultural research project in the Southwest under the sponsorship of the Dry Farming Congress. In the spring of 1910 he was living in Spokane and organizing for the Dry Farming Congress a new educational project — a correspondence course in bookkeeping for farmers. He wanted to have a more permanent job at an agricultural college and the UI position seemed to be exactly what he was seeking. And it did prove to be permanent. Iddings remained at the UI until he retired in 1946.

Iddings' first assignment at the college was to direct the School of Practical Agriculture, a non-degree program that provided instruction to farm youth during the winter. After one year, he left this program and taught animal husbandry to UI undergraduates. Iddings enjoyed public speaking and had many out-of-town speaking assignments. Through the years, he probably spoke at more field days, agricultural conferences, and Chamber of Commerce luncheons than any other Idaho educator of his generation.

UI Excels in Animal Husbandry

Under the leadership of Carlyle and Iddings, the College of Agriculture developed an excellent Department of Animal Husbandry. The college also expanded its educational influence far beyond the Moscow campus by developing the statewide Extension Service. A third achievement was the systematic development of research and instruction programs in the major fields of agricultural science. Substantial progress in these areas was made in the 1910-1919 decade.

In 1910, the university operated a farm of 80 or 90 acres. It was not an impressive place, Iddings recalled 40 years later. There was just one building,

The crowd assembles for Farmers' Day at the Aberdeen Experiment Station in 1916.

Historical Photograph Collection, UI Library, 5-15-1a

"an area-type structure used to shelter both horses and cattle. The horses were of the Palouse farm type. There were no sheep, the swine herd was limited to some Poland Chinas of the old 'chuffy' type, no poultry, no beef cattle, and no dairy cattle of the specialized type." The Milking Shorthorn cattle French had purchased in the East were still there, but Iddings did not think they were suitable for display at an agricultural college.

Livestock Breeders Aid UI Program

The College of Agriculture farm progressed rapidly in the next few years. With improved buildings, ample herds and flocks of pedigreed livestock, and additional research projects, the farm would become an outstanding educational laboratory. Many public-spirited individuals helped bring about improvements in the college's livestock programs.

Livestock breeders "were willing and really eager to loan outstanding sires, and to give small but outstanding herds and flocks to help build strong animal and dairy husbandry departments at the university," Iddings said.

Other support came in the form of personal interest, friendly advice, and special services. According to Iddings, the persons who were especially helpful included the following:

- B. T. BYRNS, a Moscow farmer, volunteered the use of his fine Shorthorn herd for judging practice. In 1910, soon after meeting Iddings, he donated a steer for UI students to feed and enter in area livestock shows.
- JOHN L. SMITH, a Spokane area farmer, was a large, imposing man with red hair and a red beard. He travelled to Moscow to help train student livestock judging teams. At different times, he loaned four of his outstanding Holstein bulls for service in the dairy herd the university was establishing. One of these bulls was the sire of "Old Violet," one of the most famous foundation cows in the UI herd. She won national recognition for high production records sustained during a long lifetime.
- EDWARD S. SWEET, a Grangeville farmer, helped organize the Northwest Livestock Show at Lewiston. By participating in the show, UI students learned much about livestock and livestock judging. A member of the UI Board of Regents, Sweet visited the college farm frequently and was interested in its progress.
- A. G. BUTTERFIELD of Weiser helped the university establish excellent flocks of Shropshire and Rambouillet sheep. While dispersing his sheep holdings in Idaho, he gave the UI one of the best Rambouillet rams in the country. He also donated a flock of purebred Shropshires.

- MRS. MINNIE MILLER, owner of the Thousand Springs Farm in the Hagerman Valley, offered the university the opportunity to select the best sows and gilts from her herd of Duroc Jerseys. For the purebred swine, the UI paid only the market price for meat animals. As a donation, Mrs. Miller gave the university two outstanding Duroc boars.

- JAMES FARMER of Boise presented the university with a small flock of Cotswold sheep. The long-wooled Cotswolds were used for student practice judging and for cross-breeding trials.

- GEORGE V. LEIGHTON of Ustick, a breeder of purebred livestock, was the owner of award-winning Percheron horses that had won high honors at the International Livestock Exposition in Chicago. He took a personal interest in the UI animal husbandry program. When he retired, he gave several of his best purebred Percheron mares to the university for a nominal price.

- BOB BROCKIE and FRED LAIDLAW, ranchers at Muldoon, Idaho, developed the Panama breed of sheep. The Panamas became very popular in the range country. Eager to cooperate with the university's sheep program, Brockie and Laidlaw delivered to the UI farm as a gift a flock of six Panamas.

- W. T. RITCH, an English businessman, visited Iddings in 1919 and said the Suffolk sheep breeders of England would be interested in donating a small flock of Suffolks to the university. The offer excited Iddings. This would be an opportunity for the UI to establish the first Suffolk flock west of the Rockies. Arrangements were made with the Suffolk Sheep Society in England, and three ewes and a ram arrived in Moscow in the autumn of 1919. This was the beginning of the University's purebred Suffolk flock. It also marked the beginning of a new chapter in the range sheep industry in Idaho. Laidlaw and Brockie of Muldoon wanted to use Suffolk rams in their range flocks for siring blackface market lambs. They agreed to buy all the rams the UI flock produced. They were pleased with the results of their cross-breeding program and other sheepmen were impressed. Before long, purebred Suffolk rams were being used in virtually all range flocks in the state.

- HENRY L. FINCH of Soda Springs took delivery of the donated Suffolk sheep in England and transported them to the United States with some Hampshires he was importing. Through the years, he cooperated in many ways with the UI animal husbandry program.

- FRANK M. ROTHROCK of Sprague, Wash., had a lively interest in the UI College of Agriculture. His was one of the largest purebred Shorthorn

herds in the country. At one time he owned 1,200 head of cattle. He donated purebred calves to the college that students could exhibit at regional livestock shows. Proceeds from the sale of these cattle were used as a loan fund to assist needy students in the College of Agriculture.

Improvements Made at UI Farm

The Holstein dairy herd at the UI farm was established in 1911, and a half-shingle, half-stucco dairy barn was built that same year. It was large enough to accommodate 50 cows. The university acquired five purebred Hereford cows in December 1911. Throughout the decade, the quality of livestock at the farm was upgraded. Facilities at the farm were improved. A horse barn, 40 feet by 112 feet, was constructed in 1918. A sheep barn and a hog barn were built in 1918 also. Two silos were constructed in 1915, and two more went up in 1916. A poultry service building, containing incubators and laboratory facilities, was built in 1919.

As additional livestock and new buildings were added, progress also was made in animal husbandry research. Feeding trials were conducted with sheep and cattle. These research studies were concerned with the effective use of Idaho-grown feedstuffs in livestock rations. In a pioneering study completed in 1919, UI researchers found that chopped hay was superior to long hay in steer-fattening rations.

Farmers Learn About UI Work

Idaho's farmers and ranchers learned about the UI animal husbandry program in a number of ways. The university published bulletins reporting on its major research projects. The director of the Experiment Station prepared a newsletter that was mailed regularly to about 10,000 rural families. Members of the College of Agriculture faculty at-

Farming methods of 1914 were based on horses and hand labor as demonstrated in this picture at Maple Hill Farm near Twin Falls.

Historical Photograph Collection, UI Library, 6-17-22

tended agricultural meetings in the state and had many contacts with farmers. They contributed articles to the *Idaho Farmer* and other farm papers.

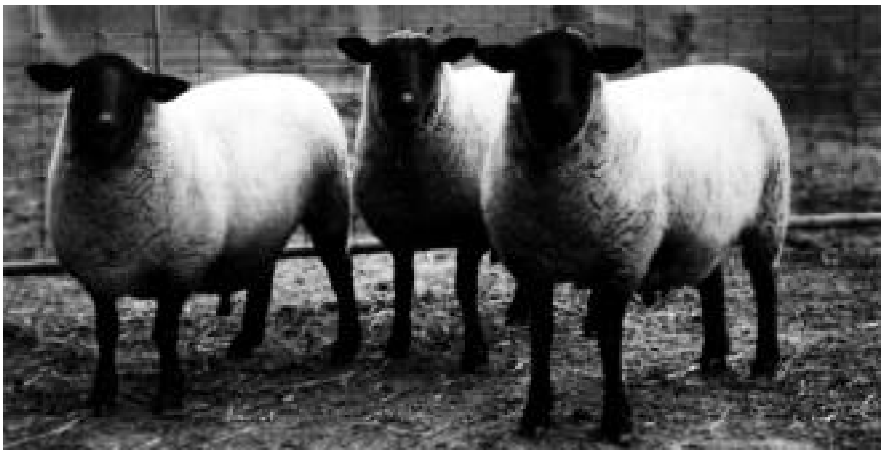
Demonstration trains sponsored by the College of Agriculture took faculty members and their work on tours around the state. Faculty members brought with them exhibits they could display in show-and-tell reports to rural people. About 75 towns and hamlets would be visited in a two-week tour.

J. E. Nordby, who became an animal husbandry specialist on the UI faculty, grew up on the Palouse in northern Idaho. Years later, he recalled his impressions as a young student when the UI demonstration train arrived in his hometown. and professors delivered their reports. "The multitudes were 'listening in,' and as I happened to be standing fairly well to the rear of the assembly it was difficult for me to imbibe much from what was being said in a speech on 'Preserving Fruit by Sealing,'" he said. "The next speaker was Professor Iddings who appeared with a grand champion Percheron mare, and in his own words 'A Percheron mare that was the grand champion of America, as demonstrated at the Chicago International, almost a perfect specimen of draftiness, which was so vigorously displayed in the massive form, style, action, conformation and quality throughout.'" Nordby said the audience all at once "came to life" and listened intently to Iddings' presentation.

Pren Moore's Poultry Lessons

Poultry raising gained increased emphasis at the university after 1910. Earlier, the only chickens at the UI farm were a small flock of Wyandottes owned by Pren Moore. A self-taught agriculturist, Moore went to work on the farm as herdsman in 1902. He was promoted to farm superintendent two years later. To supplement the small salary he received from the university, Moore improved his flock of chickens and became a breeder of champion poultry. His Wyandottes won ribbons at local shows and his grand champion roosters might sell for $50, an amount equal to Moore's monthly salary. In 1913, the UI Poultry Department was established, and Dean W. L. Carlyle named Moore head of the department.

Moore acquired an encyclopedic knowledge of poultry husbandry. He was particularly effective as an informal teacher, sharing with farm people his vast fund of knowledge. When he got the chance, Moore could give farm people convincing demonstrations of how to select, cull, and care for poultry. After the University of Idaho Agricultural Extension Service was established, Moore was able to go to rural communities all over the state, encouraging farm families to maintain money-making flocks of chickens. For its statewide educational outreach, the university needed to have a good



Imported from England, these Suffolk sheep helped establish the UI as a major center of livestock research in the West.

Historical Photograph Collection, UI Library, 1-204C-14

Extension poultry specialist. Moore's qualifications fit the bill, and he was appointed to the post in 1919.

Informal Educational Programs Succeed

Extension educational programs became a success in Texas early in the twentieth century. Seaman Knapp, an educator working with the U.S. Department of Agriculture, demonstrated the effectiveness of informal educational methods. In his work, Knapp showed that scientific methods of farming would be accepted if farmers saw them being used to good advantage by other farmers. Knapp's success in Texas led other states to launch informal educational projects of their own.

Idaho Establishes an Extension Program

The U.S. Department of Agriculture encouraged state land-grant colleges to set up Extension programs. Many did so during the 1907-1914 period. In 1914, Congress passed the Smith-Lever Act providing financial help to Extension programs conducted by agricultural colleges. This legislation gave strong impetus to the development of cooperative state-federal programs of Extension education. In 1917, after the nation's entry into World War I, Congress provided additional funding for Extension programs in support of the food-will-win-the-war campaign.

In Idaho, the UI College of Agriculture started to establish an Extension program in southern Idaho in 1910. The Extension office in Boise originally had a staff of two — a director and a field man in dairying. E. V. Ellington,

the dairy specialist, said later: "The major activities undertaken by the Extension office during 1910 and 1911 were the holding of Extension schools, the establishment of result demonstrations, sponsoring and assisting with agricultural fairs, and giving personal assistance to individuals desiring to develop special lines of agriculture."

On the Stimson farm near Nampa, Ellington labored for ten days, helping to build a concrete silo. Although silos were becoming popular in the Midwest, this was the first silo in Idaho. When local farmers saw the structure several constructed silos of their own. Ellington helped two farmers establish purebred dairy herds. He participated in Extension schools that apparently made significant contributions toward Idaho's agricultural progress. In Ellington's words: "During the summer of 1911 quite a number of Extension schools were held throughout the southern part of Idaho. These schools consisted of two-day meetings with talks and demonstrations. The dairy people at that time were having considerable trouble with securing fair milk tests from commercial creameries. For this reason, as a part of the Extension school program, dairymen were invited to bring in samples of their milk. These samples were tested and the results of the tests given to the persons bringing in the milk. This part of the program contributed greatly to the organization of co-op creameries."

Farrell Directs Idaho Extension Program

F. D. Farrell, director of the Extension office in Boise during 1910-1911, was later to become president of Kansas State College. While employed by the University of Idaho, his official title was "Director of Southern Idaho Sub-Stations." Farrell left Idaho in 1911, and Ellington moved to Moscow to conduct the dairy husbandry program at the UI.

The demands for Extension educational programs in southern Idaho were "far beyond our powers to fulfill," Farrell wrote in 1952.

> "As a result, we recommended and the university administration adopted a budget calling for considerably more than double the sum available to us in 1910. The legislature of 1911 accepted the facts as we presented them and approved, almost without a dissenting vote in either house, the Extension budget which we had recommended. Then, after the legislature had adjourned and gone home, the governor reduced the Extension item about 60 percent. . . . I left Idaho in July 1911 and returned to the Department of Agriculture in Washington."

Farrell traveled widely in Idaho using courtesy passes provided by the railroads. "The first 12 months I was in Idaho, I traveled more than 20,000 miles on what is now the Union Pacific Railroad without paying one cent for railroad fare." Traveling with a group of university professors who were to speak at an Extension school in Carey, Farrell had a pleasant surprise. The group got off the train at Picabo and were welcomed by a man from Carey.

> "We got into his Ludlow and proceeded to Carey. When we were about a mile west of Carey, we noticed a great cloud of dust approaching us, and we were informed that it was the Carey 'Silver Cornet Band' coming to meet us. We were probably the only agricultural extension party ever actually to be 'met by a brass band.' To the accompaniment of martial music, we entered the town of Carey and went to the hotel where we had luncheon."

Olin and Rinehart Come to Idaho

In 1911, W. H. Olin succeeded Farrell as director of the university's outreach program. He was about fifty years old at the time and had served previously in irrigated regions of Colorado and Wyoming. In 1913, Olin published a fact-filled handbook, *American Irrigation Farming*. The foreword to the book was written by Dean W. L. Carlyle. The UI dean declared it was safe to say "that no man has a wider knowledge or a wider acquaintance of successful irrigation farming practice than has Professor Olin."

E. F. Rinehart, who had served as Extension dairyman in Ohio, came to Idaho to fill the position Ellington had held. The USDA's Dairy Division paid Rinehart's salary at this time, and in later years there were periods of time when his salary was paid by other federal agencies. These salary payments helped to ease the university's budgetary problems.

Rinehart, arriving in the state in 1912, found that building a thriving dairy industry was one of the chief goals of Idaho's newly established Extension Service. He sought help from E. V. Ellington, his predecessor as dairy specialist.

"Ellington had spent much of his time in the summer helping build concrete silos on the farms," Rinehart said in his memoirs.

> "They were so popular I was to follow his program. Corn was not grown extensively, but the university (though not many of the people) thought it could be a profitable crop.

"As I did not know how to build a silo, Ellington was sent down to work with me. First, the forms must be built. These were usually built by a dealer in lumber and cement and rented to a farmer and went from farm to farm. The most popular were three feet high. They would be filled each day, the concrete permitted to dry overnight, then raised to repeat the process the next day. We would spend an average of four days on the farm to make sure the structure was properly started and reinforced and that the concrete was mixed in accordance with government specifications. In the meantime, we would be watching the corn fields, the alfalfa crop and irrigation. Most farmers were inclined to use too much water and not enough cultivation in the corn field.

"Until we commenced to build pit silos for beet tops, no one had thought of any ways of ensiling corn except in a high, upright silo. If any one had, perhaps there would have been more silos. . .

"In the meantime, we were attending meetings being held to raise the money and arrange to bring in dairy heifers. Several trips to Wisconsin were made by Carlyle and Ellington to buy springer heifers to bring to Idaho. The cattle were well selected and carefully bought, nearly all making good and paying for their original cost the first lactation period.

"Not that there were not good herds in Idaho. There were — mostly Holsteins and Jerseys, but a few Guernseys. Three of the Holstein herds were as good as any I had ever known in Ohio. The Alfred Budge herd of Paris was bought by the Pabst Brewing Company to take back to their farm in Wisconsin. George Leighton of Boise had a herd that was purchased by the Carnation Milk Company to form the foundation of their Seattle herd. The H. W. Hulbert herd of Nampa remained in Idaho for many years at the Intermountain Institute of Weiser."

Pioneers Faced Many Difficulties

Financial problems plagued all state employees at that time, according to Rinehart. Reimbursements for expenses were slow in coming. "The fiscal year ended December 31. On legislative years, all state departments went without money from January until late in March," he said.

Travel was an ordeal. In his memoirs, Rinehart wrote:

> "We had passes on all the railroads. The stages were all horse drawn, the kind now held up by the bandits in the movies. Trips to the country were made by saddle horse or buggy. The roads were unimproved, full of ruts and chuck holes, dusty in the summer and muddy or drifted in the winter. In the summer, all tried to ride on top of the stage to escape the dust inside. A ride to the country was more comfortable in a saddle than on a vehicle."

New Extension Positions Created

In 1913, Idaho's Extension program had substantial growth. The state legislature funded new positions in animal husbandry, entomology, horticulture, pure seed, and home economics. The dairy fieldman's position continued to be supported by the USDA's Dairy Division. One year before the nationwide Extension Service was officially established, Idaho was building a many-faceted Extension educational program.

In the counties, two Extension agents were employed in 1913. Honus Hochbaum served as the agent in Ada County. He also taught agricultural courses in the Boise High School. Harry Ireland was appointed agent of Canyon County. During the summer of 1910, the university had placed part-time field agents in Bonner and Lincoln counties. These agents, who carried out demonstration work for a few months, were the precursors of the county-based UI Extension agricultural agents.

Records at the University of Idaho give these dates for the employment of the first county agents in Idaho's counties:

1913 — Ada and Canyon
1914 — Franklin and Lewis
1915 — Twin Falls and Power
1916 — Fremont
1917 — Bingham, Blaine, Bonneville, Gooding, Kootenai, Lincoln, Madison, Minidoka, and Oneida
1918 — Adams, Bannock, Bear Lake, Benewah, Camas, Cassia, Custer, Elmore, Gem, Jefferson, Latah, Lemhi, Payette, and Washington
1919 — Bonner, Boundary, Idaho, Jerome,and Nez Perce
1920 — Clark and Valley
1922 — Caribou and Teton
1936 — Clearwater
1946 — Butte
1947 — Owyhee

Idaho Names Extension Entomologist

The establishment of an Extension program in entomology came about in response to the demands of Idaho farmers. The alfalfa weevil invaded Idaho in about 1911, and the insect was considered to be a serious threat to the state's economy.

Hay was the No. 1 agricultural commodity Idaho farmers produced in 1910. Idaho-grown alfalfa hay was shipped to livestock producers throughout the West. The alfalfa weevil had become a destructive pest in Utah, and its appearance in Idaho worried alfalfa growers. The growers' concern increased when California and Montana imposed quarantine restrictions, banning the importation of hay from weevil-infested areas. The Idaho Legislature, responding to demands from hay growers, voted an appropriation to finance the hiring of an entomologist. This program would be of the Extension type, aimed at getting a weevil-control campaign started. The entomologist would be engaged in an action project, working directly with farmers, and this meant he would perform a function much different from the research role entomologists customarily performed. On April 1, 1913, T. H. Parks began work on an anti-weevil Extension program in Idaho. The date is significant. One year before Congress created the Extension Service, Idaho was organizing an Extension program in economic entomology.

Idaho's campaign to control the alfalfa weevil set a precedent for other states to follow. The appointment of Parks marked the beginning of Extension work in entomology. This was the first program of its kind in the nation. Unfortunately, the campaign soon came to a halt in Idaho. Parks remained in Idaho one year only. His program's budget was slashed as an economy move, and he resigned in 1914. For the remainder of this decade, there was much discussion concerning the alfalfa weevil problem but little effective action. Funds appropriated by the state legislature in 1917 for the investigation and control of insect pests were spent primarily on studies of the clover aphid. In 1919, the appropriation for Extension entomology included funds for hiring a field entomologist, and Claude Wakeland was hired in 1920.

Local Groups Aid Extension Workers

After the Smith-Lever Act was enacted, the Extension Service became a reality. Extension was a unique governmental agency because its funding came from federal, state, and county governments. As the state's land-grant university, the University of Idaho had the responsibility for administering Extension programs in Idaho. At the county level, Extension agents worked with committees or "farm bureaus." These local groups gave support and guidance to Extension agents. When

the county board of commissioners considered setting up an Extension program, the recommendations of an active farm bureau carried much weight. The Smith-Lever Act provided support for Extension programs dealing with agriculture and home economics. Idaho developed both types of programs, but home demonstration work was conducted principally by district agents, each of whom served a number of counties. Later, county home economists were appointed.

Home Demonstration Work Begins

Many farm women attended the Farmers' Institutes and the Movable Schools the university conducted in Idaho towns during the 1901-1911 period. In 1912, for the first time, domestic science classes were added to the Movable Schools. Women were appreciative of this innovation, and they also were pleased when a full-time home demonstration specialist was added to the staff of the Extension office in Boise in 1913. Amy Kelly, the specialist, traveled extensively in the state, holding meetings and demonstrations. Her canning demonstrations helped women understand the principles of safe food preservation. The information she presented reached a wide audience,because the women attending a demonstration would tell friends and neighbors about it. Always on the move in this early period and not able to do much follow-up work in the communities she visited, Kelly could not provide sustained educational programs to any locality. She did reach many women in the rural sections of the state, however, and the talks and demonstrations she presented whetted her audiences' appetites for more. Wherever she went, she interested women in gaining knowledge in order to build better lives for themselves and their families.

To carry out home demonstration work in Idaho, Kelly had the help of two part-time workers from 1913 until July 1917. An emergency appropriation passed by Congress in 1917 provided money for the employment of Extension home demonstration agents throughout the nation. These emergency workers were responsible for gaining women's cooperation in the wartime food conservation program.

In the autumn of 1917, two district home demonstration agents were at work in Idaho. One was headquartered in Gooding, the other in Moscow. Later that year, agents were stationed at Pocatello, Idaho Falls, Blackfoot, Boise, and Coeur d'Alene. An assistant state home demonstration leader, a clothing specialist, and a trained nurse were added to the state Extension staff.

Twin Falls County was the first county to employ a home demonstration agent. Appointed on April 1, 1918, Gertrude Denicke served for five months. Her successor was Mrs. Caroline Brown. In Bonneville County, Leila Bullock became home demonstration agent on May 23, 1918. Canyon County

employed Louise Riddle on July 1, 1918. Food preservation and conservation, care of poultry and development of markets for eggs, clothing construction, and a hot lunch program for rural school children were the major projects of the home demonstration agents in Twin Falls County during 1918.

The UI Extension Service issued a series of publications during 1918 in support of the expanded home demonstration program. The bulletins included *Preservation of Eggs, Save the Meat, Save the Fat, Save the Sugar, Save the Wheat, Home-Made Fly Traps,* and *Potatoes Three Times a Day*. Conserving food was a major emphasis of home demonstration work during World War I.

Pioneer Women Gain Help and Encouragement

According to Mrs. L. C. Larsen, an early resident of Bonner County, Extension home demonstration agents brought encouragement and inspiration to Idaho farm women.

"It was a new country with poor roads," she said in later years. "We didn't get around very much so when someone like an Extension worker came we were eager for what she had. We would drive miles to get this help, and we had fun doing it. Then, when we took lunch along, we had to remember to feed the horses, too. We were not only eager to get information, but we were glad to pass it on."

Home demonstration work came as a result of the Farmers' Institute programs the university conducted in rural areas early in the century, said Mrs. J. S. Kunkel, an early settler in Twin Falls County. She explained:

> "Because the roads were bad and distances great, the lecturers who came to give the programs had to stay all night in the homes. This served as an advantage in many ways and much information was given both ways. The settlers got more information and the speakers got a better insight into the problems of the people and much good resulted. . . . The University of Idaho was brought to the homes of the county. Later, in about 1914, home demonstration work was started as a result of these earlier meetings, and women were able to get help of a more permanent nature. We learned how to cull out poultry flocks and how to can beef and vegetables and also how to make hats and construct dress forms. We often drove a team 15 miles and more over very poor roads to get this information, and then we 'passed on' this information to our neighbors who couldn't attend the meetings."

Concerning her early years in Idaho, Amy Kelly, in a letter written in 1952, said:

> "We worked a great deal on better bread and gave many bread demonstrations. Most of the women on irrigated projects had come from states such as Iowa, Kansas, Missouri, where they had used at least a portion of . . hard red flour. The use of the irrigated wheat flour was quite a bit different.
>
> "Of course, a great deal was done on canning, and many canning demonstrations were given throughout the state. We were able to secure the Denver Pressure Canner and that was a great help. . . . At first, we used the methods of the boiler in which we cooked the food for an hour one day, then let it stand and cooked it an hour the next day, and then repeated the process the third day. There finally evolved the technique of canning with hot water, covering the jars with water, and cooking the food for three hours.
>
> "From the very first," added Kelly, "the 4-H club work played a very important part in Extension activity, and both boys and girls were given a good deal of consideration. I doubt if very many people know that encampments were held in Idaho before World War I. Of course, we had many more after that, but some of our best 4-H demonstrations were given at that time."

High Schools Serve Idaho Communities

There were only three high schools in the state when the University of Idaho opened its doors to students in 1892. To meet the varied needs of students, the UI offered several programs of instruction of less-than-college grade.

In a program established in 1905, the UI provided vocational training in agriculture. In this program, known since 1909 as the "School of Practical Agriculture," the UI accepted all applying students over fifteen who had completed the eighth grade.

UI-conducted vocational training served a real need in Idaho for more than a decade. Local high schools increased in number, however, and by 1918 agriculture courses were being offered in seventy-three Idaho high schools. As vocational education improved at the local level, the UI reduced its involvement in instruction of less-than-college grade.

Graduates of the UI College of Agriculture were in demand as instructors in high schools that had established courses in vocational agriculture. Federal funds to aid state vocational education programs became available after

Congress passed the Smith-Hughes Act in February 1917. The legislation added to the growth of high school vocational agriculture instruction in Idaho.

To qualify for federal funds, high school vo-ag programs needed to meet the standards set by the Federal Board for Vocational Education. In 1917-1918, schools at Blackfoot, Buhl, Idaho Falls, Lewiston, and Twin Falls met those standards. Schools in Boise and Lapwai qualified the next year. By 1920-1921, vo-ag programs in twenty-eight Idaho high schools qualified for state and federal funding.

The Smith-Hughes Act has been credited with making quality vo-ag education available to young people throughout the nation. In Idaho, early high school agricultural classes were based on inadequate textbooks, and the instructors usually had little knowledge of agriculture. In the years following 1917, vo-ag education has emphasized "learning-by-doing" activities and projects, employing instructors specially trained at the UI College of Agriculture and similar institutions.

Statewide Youth Program Begins in 1911

In the early 1900s, neither the name "4-H" nor the youth group's distinctive four-leaved symbol were known in Idaho. Boys' and girls' club work was attracting attention, however. Schools in various parts of the state sponsored clubs that involved boys and girls in useful learn-by-doing projects. There was no organized, statewide youth program until 1911. In that year an attempt was made to have all schools participate in school garden programs. Altogether sixty-four school gardens were planted in 1911. The following year there were 466 school gardens planted and cared for by students.

Grace M. Shepherd, state superintendent of public instruction, took charge of boys' and girls' club work in 1912. A statewide program was organized and the UI College of Agriculture and the U.S. Department of Agriculture were invited to cooperate. To help club members take part in educational projects, the College of Agriculture prepared bulletins on potato culture and sewing. Throughout the state, thirty potato clubs and nineteen sewing clubs were organized. The clubs had 570 members. Contests and exhibits were held in the school districts. Winning exhibits were displayed at the county fairs, and county fair prize winners were sent to the state fair. A state club camp was held at the state fair.

4-H Gets Early Start in Lemhi County

Philip Soulen, an associate professor of education at the University of Idaho, urged county superintendents to interest rural school teachers in the boys' and girls' club program. "The teachers were enthusiastic and cooperative," Elizabeth McDonald Reed, a Lemhi County pioneer, recalled in 1966. As county superintendent of schools in 1912, she promoted club work in Lemhi County. Three or four clubs were organized.

Elizabeth McDonald Reed was an energetic supporter of education in Lemhi County. Born in l880, she began her career as a teacher in l898. She taught at the Bridge School near Salmon; at Patterson, in the Pahsimeroi Valley; at the Baker School in the Lemhi Valley; at Bannister, up the Lemhi River; and at Salmon. In 1908, she was elected county superintendent of schools. She served until 1915.

When she learned that boys' and girls' clubs were being organized statewide in 1912, Bessie McDonald became an active, determined champion of the 4-H youth program in Lemhi County. In 1975, at the age of 94, Mrs. Elizabeth McDonald Reed spoke with Mrs. Don Ian Smith about that exciting time. Here is Smith's report of that interview:

> "The 4-H program was getting a start in Idaho, and Miss McDonald took it upon herself to help it grow in Lemhi County. She drove her horse and buggy to Gibbsonville, thirty-three miles away, to gather mothers together and explain 4-H. She started a 4-H sewing group in Gibbsonville, another in Leadore, over 80 miles distant, and a third up the Salmon River at Iron Creek.
>
> "After a summer of work, she wrote to Mr. Soulen at the University of Idaho in Moscow, telling him of the successful start of 4-H and that they were planning a display of 4-H work in a vacant building in Salmon. Mr. Soulen wrote back that he would come to Salmon to see this wonderful 4-H display. Miss McDonald then began to worry that the small beginnings of 4-H in Lemhi County would look very meager to Mr. Soulen. She went to see Mr. Abbott, the editor of the *Lemhi Herald*, and asked him to promote local interest in an exhibit of local fruits and vegetables to be held in conjunction with the 4-H work. . . . So they held the exhibit, with the 4-H display in one side of the building and the local produce in the other. This was the beginning of the county fair in Lemhi County."

Boys and Girls Participate in State Fair

Mrs. E. N. Cooke of Jerome, an early-day club leader, accompanied several club members on a train trip to the state fair in Boise in 1912. In an interview in 1965, Mrs. Cooke said club members who won blue ribbons at county fairs were given trips to the state fair.

Boys' and girls' clubs in Idaho experienced rapid growth in 1911-1912. In her annual report as superintendent of public instruction, Grace M. Shepherd described the youth encampment at the state fair:

> "With the cooperation of the railroads, a number of the banks, and the Inter-Mountain Fair Association, the first prize winner in each county was brought to the state fair for the week [and] they were given instruction in some phase of agriculture and domestic science by instructors from the Agricultural Department of the State University and a Government dry farming expert. A large tent was provided for the children's exhibits; another for their community dining room, and smaller ones for their sleeping and living quarters."

Youth Activites Near Idaho Falls

One of the early 4-H clubs in Bonneville County was organized and led by teacher Edith Thornberg. When school was out for the summer, the leader was Mrs. Kate Bevard. Three sisters — Virginia, Eunice, and Hazel Peterson — were active in the club in 1914 and later. Recalling her experiences as a 4-H member, Virginia Peterson Russell of Idaho Falls said in 1982 that she and her two sisters entered clothing exhibits in the 1914 county fair. As blue-ribbon winners in the county fair, their entries were sent to the state fair in Boise. There they also won blue ribbons.

The local clubs were called "Idaho Falls Girls' and Boys' Clubs" and the name "4-H" was not used until 1920, Mrs. Russell said. "Our club work winners were sent to the Eastern Idaho State Fair in Blackfoot just as our club winners are now," she said in a letter to Maurice Johnson, state 4-H leader at the UI. "The eastern Idaho counties all came to the Blackfoot fair. Our family went there by buggy. Dad would tie his horses to the buggy wheels. People parked their buggies just about where they park their cars now."

In 1913 a boys' and girls' club field man was employed by the State Department of Public Instruction. The Idaho State Bankers Association made a contribution toward the field man's travel expenses. Canning and poultry clubs were organized.

More than 6,500 boys and girls participated in club work in 1914. Potato, corn, poultry, swine, bread, sewing, and canning clubs were seeking members. Because the College of Agriculture was organizing the UI Agricultural Extension Service, the State Board of Education in 1914 transferred the boys' and girls' club program to the college. Later, with the program under the college's direction, county and district 4-H agents were appointed.

Success Linked to 4-H Membership

The UI Extension Service considered 4-H Club work to be extremely important but recognized that a statewide program would require increased funding, Extension director O.D. Center told the State Board of Education in his report for 1915-1916. "This branch of Extension service has never had the financial support its importance warrants, and it is impossible to give the necessary assistance to the large number of boys and girls in Idaho who desire this work," he said.

"Enthusiastic reports from county superintendents, teachers and parents testify to the value of club work as a branch of Extension service that connects the home and the school in a way never before possible," Center said. He shared with the Board of Education these 4-H success stories:

> "George Mason, a sixteen-year-old Madison County club member, grew 110 bushels of potatoes on one-eighth of an acre in 1915. He is now employed by the leading potato-handling firm of Rigby, and although but eighteen years old, he has purchased many carloads of potatoes this past fall.
>
> "Nellie Chase, a sixteen-year-old Clearwater County club member, won the state championship for best potatoes in 1916. She won four first premiums on potatoes in open competition, winning both at the State Fair and the Spokane Inter-State Fair.
>
> "Thelma Later, a thirteen-year-old Madison County club girl, has canned more than 500 quarts of fruits and vegetables during 1916.
>
> "Elwin Scheyer, a sixteen-year-old Latah County club boy, made a net profit of $76.95 from his garden.
>
> "Lloyd Gilson and Walter Remer, club boys of Nez Perce County, were poor students in school until they became interested in club work. They are now honor students and have secured three acres to continue their club work upon next year."

Agents Promote 4-H in Canyon County

Canyon County's early county agents were enthusiastic supporters of 4-H club activities. The first county agent, Harry Ireland, was interested in 4-H, and so was his successor, W. T. McCall. With the help of the county superintendent of schools, Z. Fay Fowler, the county agents organized 4-H groups, principally pig clubs, in Canyon County. The county at that time included present-day Gem and Payette counties, and the county had the largest fair in the state.

McCall became the UI's first state 4-H club leader, and Miss Fowler served as his assistant. By 1918, the university's 4-H program was headed by three state leaders. According to E F. Rinehart's recollections in 1954, there were 16 county 4-H leaders in 1918.

Self-reliant Girl Guards Her Lambs

In 4-H projects, young people were encouraged to be industrious and self-reliant. Adaline Moses of LaBelle, Idaho, evidently possessed these qualities in full measure. Here is her description of her work with orphan lambs in the summer of 1919:

> "I joined the lamb club because I was going to the dry farm and could not do any other club work. The dry farm is in sheep grazing country, and there are lots of bum lambs to be had. If someone does not rescue them, they die; so I decided to rescue all I could.
>
> "After we got to the dry farm, Papa called me at four o'clock every morning. I would catch my saddle horse, ride the country for 10 or 12 miles to the sheep camps to get the lambs. I did this for three months. When I got a little lamb, I would turn back and go home with it and feed it with a spoon until it was strong enough to suck the nipple on the bottle. Finally it got so tame I could not keep it out of the house.
>
> "I fed my lambs a pint of milk twice a day and some salt and sulphur to keep them healthy. This is a good way to feed bum lambs: Make a trough long enough to accommodate the number of lambs you have. Make a hole in the trough for each lamb. Take spools and whittle off one end to fit into the holes; then place a nipple on each spool. Pour the milk into the trough, and the lambs will do the rest.

> "I soon turned the lambs loose on the green pasture, but when it was stormy I had to put them in a good place to keep them from getting cold. The coyotes are bad early in the morning and late at night. Sometimes I would take the gun and go around my lambs and shoot into the air two or three times to keep the coyotes away. I raised 25 good lambs, and they averaged 50 pounds each. I have some that weigh 65 pounds. I stopped feeding them milk the last of September, and now they are no bother at all."

In 1917 the state legislature approved an agreement that specified that county Extension programs would derive part of their support from county government funds. From the beginning of the UI Agricultural Extension Service, county boards of commissioners had contributed to the support of Extension programs in their counties. The 1917 agreement formalized this arrangement.

Extension Responds to Wartime Challenges

After the United States entered World War I, conservation of food and increased agricultural production became primary goals of the U.S. Department of Agriculture and the new Food Administration. Extension programs in Idaho were centered on these two objectives. To strengthen and broaden Extension Service programs in the states, the Food Administration in 1917 announced an emergency plan to add county agents and specialists to state Extension staffs. Salaries of the new Extension personnel were provided by the federal government. Idaho's newly created Extension Service underwent rapid expansion in wartime. Idaho had seven county agricultural agents in 1914, sixteen in 1917, and thirty in 1918. Throughout the United States, 1,600 new emergency Extension agents were appointed during wartime. The emergency program included both agricultural agents and home economists.

In wartime Idaho, Extension home demonstration agents taught canning methods in virtually every rural neighborhood. They taught housewives how to prepare meatless meals and sugar-free desserts. They encouraged farm families to grow war gardens. Extension agricultural agents were involved in the Food Administration's campaign to boost production of wheat and meat animals. Farm labor was in short supply, and Extension agents had the task of locating workers for Idaho farms. Because the services of Extension agents were considered to be essential to the war effort the agents were exempted from military service.

Extension Programs Give Positive Results

Cooperating in Extension programs, farm people could accomplish worthwhile tasks. Farmers recognized the need for standardizing the commodities they produced. In the case of wheat, Idaho's farmers often were penalized for selling wheat that did not conform to the standards set for the various market grades. A mixed-grade wheat sample might contain kernels representing half a dozen different varieties of wheat. Because there were few dependable sources of pure seed, Extension agents publicized the procedures for organizing a seed certification program. The program, once it got under way, received leadership and support from farmers who became champions of quality seed. In Latah County, improvement of the seed supply of Jenkins club wheat was a project that interested Frank Benscoter of Kendrick. In 1917 he went out in a wheat field and picked by hand a bushel of wheat heads that were good examples of the Jenkins club variety. Four years later, the county had 1,339 acres of Jenkins wheat pass inspection for seed certification and most of this wheat was the progeny of the heads Benscoter picked in 1917.

Extension agricultural agents challenged livestock producers to improve the quality of their herds and flocks. Unproductive animals decreased the farmer's net income, the agents pointed out. They showed farmers how to identify costly "boarders," animals that did not produce enough income to offset the cost of the feed they consumed. Dairymen were urged to join a cow-testing program. Culling of the poultry flock was recommended. To help farmers learn how to cull unproductive boarders from their flocks, poultry specialist Pren Moore pointed out the good and bad points of 194,000 farm flock hens in culling demonstrations he conducted in one year's time.

Versatility was the hallmark of Extension programming. When their clientele did not respond to one program, Extension personnel could change their approach and offer help in some other way. For years the UI College of Agriculture recommended seed treatment for the prevention of fungus diseases in cereal crops. Grain infested with smut was difficult to market. There was also a safety problem, because fires could occur when smutty grain was being threshed. Extension agents advocated treatment of grain seed, but bunt and smut infestations still occurred. In 1918 the UI addressed the safety aspect of the smut problem, sponsoring demonstrations of methods for dealing with the fires which commonly followed smut explosions in threshing machines.

Expansion Strains College's Resources

A young institution with resident instruction and research programs not yet fully staffed, the UI College of Agriculture had to stretch limited resources during the 1914 to 1918 period when a statewide Extension program was built. Research projects suffered during this period, according to J. S. Jones, director of the Idaho Agricultural Experiment Station. In his annual report for 1917, Jones complained that research projects were being sidetracked due to the research staff's heavy involvement in the burgeoning Extension program.

The staffing of UI Extension Service county offices became a problem after 1917, when emergency wartime appointments were made. In several cases forest rangers became county agricultural agents. When peace returned, the UI was again able to find agents who had college degrees in agriculture or home economics and were fully qualified for their assignments.

An important benefit the College of Agriculture received from the rapid development of its Extension activities was the statewide recognition the College obtained when Extension agents and specialists were visibly at work in all sections of the state. Many Idaho residents did not have the opportunity to travel to the UI campus at Moscow, but the public could and did gain first-hand knowledge of the work being done by the UI Extension Service. Through its far-flung activities, the Extension Service was demonstrating that a primary purpose of the College of Agriculture was to provide problem-solving assistance to the people of Idaho.

Recollections of Early Extension Agents

Back in 1918 the country around Rupert was "a wide expanse of sand, sagebrush, and silence," T. B. Murray said later. He visited his Extension colleague, Ed Rinehart, who was then helping settlers on the Minidoka Project. "I found him using a tent for an office," Murray said. Murray remembered shoving Extension agent Ray Smith's Model T Ford out of mudholes in Oneida County. As an early-day Extension worker, Murray was involved with co-workers who had the pioneering spirit in full measure. "Amy Kelly was a bundle of nerves and energy, and she gave the women in the small towns a lift with her enthusiasm," he said.

"The old-time county agent had to be somewhat of a promoter, an evangelist, and a driver to get his program across to the people and have it influence their thinking. The early-day programs were very largely action in nature and scope."

Putting up hay on the Avant and Crawford Farm, Twin Falls, Idaho.
Historical Photograph Collection, UI Library, 6-17-71.

P. M. Jesness became a county agent in 1918. He went by train to his new location, Fairfield, accompanied by an assistant county agent leader from the state office. The train was small—a locomotive, a baggage-express-mail car, and a passenger car.

> "After a ride across snow-covered land we pulled up at the railway station in the county seat on a cold January day. My advisor, who was to start me off on this new career, was still with me, and in justice to him it must be said he did get off the train. He looked around at the town, squinted over toward the hotel, appraised the depth of the snow and strangely decided that some unfinished business at the state office required his return immediately. In an hour's time, he had boarded the train for the return trip. With the departure of that little train I was really on my own. It was with a sinking feeling that I trudged through the snow, to the hotel, and I wondered if the whole thing wasn't a mistake."

At first Jesness considered the local people "to be practically all of the Missouri extraction. At the meetings they had gleams in their eyes that showed how thoroughly they enjoyed asking questions that the county agent was unable to answer." In time the county agent gained a sort of acceptance from the populace. He even had moments of triumph, as in the county's campaign against ground squirrels.

> "The day for the big campaign finally arrived, and our platoons of Farm Bureau members, equipped with poisoned oats, went into action on a 30-mile front. The bait, mixed by hand, using flour and strychnine paste on whole oats, seemed potent. . . . In any case, the mortality rate among the squirrels seemed

> high, and before the day was over — besides the countless squirrels — three horses were also accounted for, and the new county agent had acquired a nickname, 'Strychnine Mike.'"

First County Agent Was a Great Salesman

E. F. Rinehart worked with most of the pioneer Extension agents and agricultural educators in Idaho. He was a lifelong friend of Honus Hochbaum, Idaho's first county agent, who initiated Extension work in Ada County in 1913. "I consider him possibly the best salesman we ever had in Idaho," Rinehart said in 1953. "Hochbaum could sell the Farm Bureau membership to hard-up farmers . . . could make a group of farmers think they were faced with disaster if they did not buy a dollar membership in the Farm Bureau." In the early days, farmers in a county showed their support of Extension work by paying for membership in the local Farm Bureau. County agents were not assigned to counties in which there was low participation in the Farm Bureau.

Extension workers have always been ready to respond to crises and national emergencies, E.J. Iddings said in the 1940s:

> "During the first world war those in charge of the war program requested that the Extension Service be alerted to assist in those phases of the domestic war effort that had to do with food production. The slogan was 'A county agent in every agricultural county!'
>
> "I personally participated in some agricultural areas in organizing farm groups and assisting them to approach county commissioners regarding initiation of Extension work and the appointment of a county agent. This movement did much to increase . . . recognition by the people of Extension work as an agency to meet emergency situations and as an aid to farming and homemaking."

At the UI campus, enrollment declined in 1917-1918. Many faculty members asked for leaves of absence during the war. The Dairy Department moved into a new three-story brick building that was to be its home until the Dairy Science Building was constructed in 1942. Increased production of milk was the Dairy Department's first order of business during the war. At the Department of Home Economics, wartime programs emphasized food conservation.

Fruit judging on Agricultural Products Judging Day, 1917.
Historical Photograph Collection, UI Library, 1-210-4.

Home Economics Courses Are Offered

The Department of Domestic Science (later Home Economics) was established at the University of Idaho in 1902. Mary E. Young, the department's first director, served until 1908. Her title was "Preceptress and Director of the Department of Domestic Science." Dora Porter was "demonstrator for the cookery course" from 1902 to 1905. Succeeding her was Elizabeth Ryan. She served on the faculty from 1905 to 1908. Bernice Maynard taught the foods courses from 1907 to 1911. The clothing classes were taught by Jessie M. Hoover from 1908 to 1912.

In 1911 the department's title changed to "Home Economics." Jessie M. Hoover was department head from 1912 to 1917. Although the department was administered by the College of Letters and Science, UI home economists cooperated in many projects sponsored by the College of Agriculture. For the second Farmers' and Housekeepers' Week on the Moscow campus in 1915, home economics faculty and students planned and served a gala University-Grown Products Banquet featuring meat, vegetables, and fruit produced at the UI.

The College of Agriculture did not offer home economics courses in its regular academic program. However, from 1915 to 1919, the college conducted a School of Household Arts and School of Homemaking. Classes

were offered during the winter months for young women who had not had the opportunity to attend high school.

University Conducts Research Statewide

In southeastern Idaho, the High Altitude Experiment Station was started in 1919. Twenty acres of irrigated land were purchased near the town of Felt. An additional 100 acres of state land were leased for dry-land experimental work. The farm was located four miles west of Felt on the Teton River. The area was drought-stricken in 1919, and no experimental work with crops could be completed. W. A. Moss was the station superintendent.

The Sandpoint Experiment Station was founded in 1912. A lumber company donated land near Sandpoint for the university's use in researching cut-over land problems. A house and barn were built in 1916, with funds contributed by local business firms and area residents.

In 1913 research projects that had been started at the Clagstone Farms were shifted to the Sandpoint station. W. N. Heidemann was the station superintendent until 1916, and his successor, F. H. Lafrenz, served until 1920.

Research work of great value to farmers on the Snake River Plain was begun in 1912 at Aberdeen. Aware that the university planned to establish a

Harvesting grain in 1919 with a converted self-propelled Holt engine.

Historical Photograph Collection, UI Library, 14-81

research station in the area, residents of Aberdeen campaigned vigorously to have the station located at their town. With the help of the Aberdeen Commercial Club, an 80-acre tract of land was leased for the university's use for 20 years. Residents of the area contributed money and labor for the construction of farm buildings. The USDA Bureau of Plant Industry cooperated with the university in the research work undertaken at Aberdeen. L. C. Aicher, superintendent of the Caldwell station, was transferred to Aberdeen in 1911, and he was station superintendent there until 1921.

The USDA Office of Irrigation Investigations cooperated with the university in establishing a research station at Gooding. Alfalfa, small grains, and root crops were grown under irrigation on a 40-acre farm. The station was opened in 1909 and closed in 1917. John Krail was station superintendent from 1909 to 1911, and J. S. Welsh was in charge from 1911 to 1917.

At Jerome, the university and the USDA collaborated on agricultural research from 1912 to 1921. Research centered on problems involved in the production of sugar beets, potatoes, and sugar beet seed. The station superintendent from 1916 to 1918 was G. W. Dewey. S. S. Corbett was superintendent in 1919 and 1920.

A new building at the Caldwell Experiment Station was designed for feeding trials of cattle and sheep. It had space for 144 steers and 1,000 sheep. J. E. Nordby supervised construction of the feeding plant in 1918-1919.

College's Administrative Structure Changes

Carlyle resigned the university of Idaho presidency in 1914. The university's new leader, M. A. Brannon, decided to administer the university's agricultural work as three divisions—the Extension Service, the Agricultural Experiment Station, and the College of Agriculture. In this plan, the head of each division would report directly to the UI president. J. Shirley Jones, UI agricultural chemist, was named vice director of the Agricultural Experiment Station in 1914 and in 1915 was made director. O. D. Center of North Dakota was appointed director of the Extension Service. E. J. Iddings, who had been vice-dean of the college since 1913, continued in that position for a year and was appointed dean of the college in 1915.

In 1918, following the resignation of President Brannon, the UI Board of Regents consolidated the three divisions and placed them under the direction of "the Dean of Agriculture." Iddings was appointed to the new deanship. Under the new plan of organization, which still prevails today, the directors of research, Extension, and resident instruction report directly to the College of Agriculture dean.

Pigs were on display at a 1915 show. This photo was reproduced from a lantern slide.

UI College of Agriculture photo.

Jones and Center resigned in 1918. Iddings took over the duties of Experiment Station director at that time. H. P. Davis was appointed vice director of the Experiment Station in 1919, and he continued in that post until 1921. To replace Center, L. W. Fluharty was appointed director of Extension in 1918. A graduate of the University of Idaho, Fluharty had worked for the U.S. Bureau of Plant Industry and Washington State College. He served until 1922. Upon Fluharty's resignation, Iddings added the directorship of Extension to his other duties. In addition to his overall responsibilities as dean, Iddings was in charge of the college's three divisions—research, Extension, and resident instruction. For the remainder of his service at the UI, Iddings continued to hold the deanship and the three directorships.

Enduring the ’20s

For the industrial and commercial sectors of the United States economy, the post-war recession of the early 1920s was short-lived — a rather brief interlude of readjustment and reorientation. Agriculture found it difficult to adjust to post-war realities. American farmers had prospered during World War I when commodity prices were high and the worldwide demand for United States foodstuffs had no apparent limits. After the war, the nation’s agricultural exports dwindled and prices of farm commodities declined. For American farmers, the post-war recession continued throughout the 1920s.

In Idaho agricultural income was sufficiently high to sustain continued growth in the state’s economy during the 1920s. Idaho’s psychological climate was not always conducive to expansion of tax-supported educational programs, however. The university of Idaho had serious problems with the state legislature and governor, and several budgeting crises resulted. Nevertheless, the university experienced substantial growth during the decade. In an agricultural state, the College of Agriculture was earning the confidence and support of a majority of the people. The positive contributions of the College of Agriculture helped to advance the programs of the entire university.

E. J. Iddings, College of Agriculture dean, was a persuasive spokesman for the university. He had a remarkable talent for describing educational programs and explaining their common-sense basis. In his talks to audiences around the state, Iddings always made the point that the College of Agriculture was helping the people of Idaho reach worthwhile goals they could not attain on their own.

Surveying the agricultural scene in the early 1920s, Iddings said the College of Agriculture could help farmers understand their economic situation and then work out a solution. He said farmers needed three things: (1) knowledge of economics, (2) improved crops and livestock, and (3) effective methods to combat pests and diseases.

“The farmer . . . needs to learn how to apply economic information to his farming business,” Iddings said. “Another essential of Idaho farming is the production of the best of plants and animals.” Use of superior livestock, high-yielding crops, and efficient production practices would help the farmer to achieve success. Finally, “protection of plants and animals from disease” had to be achieved. To follow this three-point program, farmers needed help from UI researchers and educators. Advances in Idaho’s agri-

culture would be achieved through a creative partnership uniting farmers and their College of Agriculture.

Farmers who visited the College of Agriculture could see at first hand what Iddings meant by "the best of plants and animals." Crop-breeding work was in progress in Moscow, and there were impressive livestock programs involving purebred cattle, hogs, and sheep. In the mid-1920s, the UI purchased a 240-acre tract of land east of the original college farm. The new acreage provided much-needed hay and pasture for College of Agriculture livestock.

In the early 1920s, a visitor to the UI farm would see about 36 head of purebred beef cattle, including Herefords, shorthorns, and Aberdeen Angus. In addition, there would be a dozen or more steers which were used by student judging classes. The UI sheep flock would include about 175 mature animals of the leading breeds — Rambouillet, Hampshire, Lincoln, Southdown, and Suffolk. The UI obtained four Suffolk sheep in 1919 as a gift from the Suffolk breeders of England. These sheep were the foundation of the first Suffolk flock in the western United States

At that time the university owned eight purebred horses — Percherons, Clydesdales, and shires — and several grade animals. The UI swine herd included several dozen Duroc and Poland China hogs. The high-producing dairy herd had about 40 cows of milking age — both Jerseys and holsteins. There were flocks of chickens as well. In all phases of its livestock program the College of Agriculture emphasized quality. Its animals regularly won major awards the Pacific International Livestock Exposition and other important shows.

An Outstanding Livestock Program

By the early 1930s, the UI dairy herd numbered 100 head. The beef herd included 75 purebred Herefords and shorthorns. There were 25 excellent Percheron horses. Sheep and swine numbers had increased as well.

For College of Agriculture students, the UI farm was an extensive laboratory. Here they tested knowledge gained in classrooms and textbooks. In the 1920s every agriculture student was required to take livestock judging classes as a freshman and sophomore. Students who developed a strong interest in animal husbandry would continue their judging work as juniors and seniors. At the university of Idaho, students were in contact with some of the most knowledgeable livestock experts of that time — men like C. W. Hickman, Julius E. Nordby and E. F. Rinehart.

C. W. Hickman, head of the Department of Animal Husbandry, came to Idaho in 1914 when beef cattle were raised on the range and shipped out of the state for finishing. Hickman recognized the economic gains that could come to the state if more beef steers were finished for market on Idaho farms and ranches. He developed research projects that showed farmers how profitable it would be to convert Idaho-grown feeds into beef steaks. An enthusiastic advocate of research, Hickman also had the pioneer animal husbandry expert's respect for the skills of livestock judging. To evaluate livestock, a judge needed to have clearly in mind an "ideal type" — a standard of perfection for that particular class of livestock. For animal husbandry practitioners of Hickman's generation, livestock judging was an important, intellect-sharpening activity.

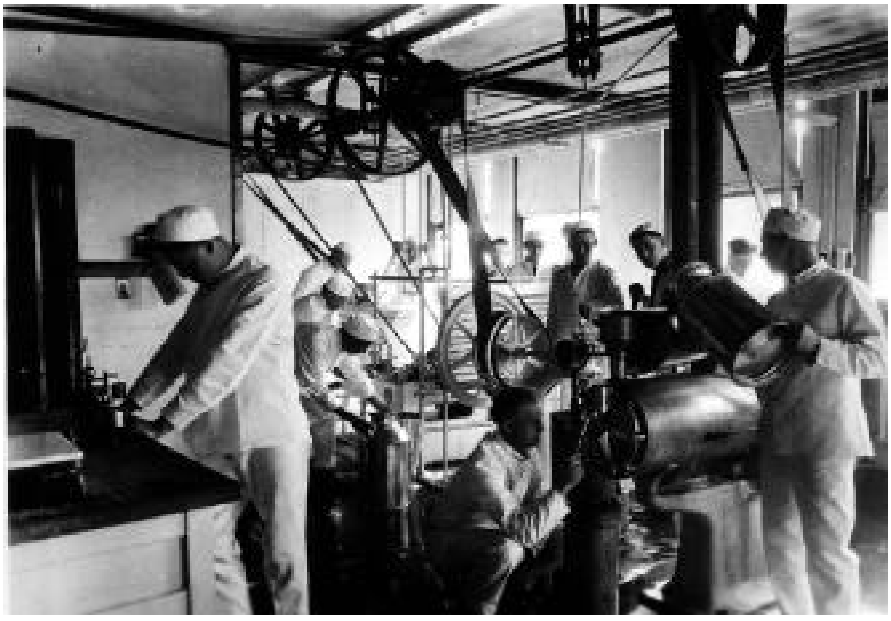
Julius E. Nordby, a 1915 graduate of the UI College of Agriculture, obtained a master's degree at the university of Illinois. Livestock was the dominant interest in his life. In addition to teaching animal husbandry at the UI, he helped his brother Rudolf operate a farm near Genesee. They had a prize-winning herd of purebred shorthorn cattle. An outstanding livestock judge, Nordby authored and co-authored a series of handbooks that covered the techniques for judging cattle, sheep, horses, hogs, and poultry. In his books Nordby strongly defended the educational value of livestock judging. The judging process was an exercise in logical, orderly thinking, he said. Moreover, students who entered judging contests should be required to give a talk discussing the merits and shortcomings of the animals in the show ring; in this way, they would gain valuable, confidence-inspiring experience in self-expression.

E. F. Rinehart, long-time Extension livestock specialist, was a friend and confidant of cattlemen, sheep raisers, and swine producers. Known throughout the state as "Riney," he was an important link between the College of Agriculture and the state's stockmen and farmers. For rural people, he translated into clear-cut terminology the sometimes abstruse language of university academics.

To his colleagues at the university, Rinehart explained simply and candidly how their activities were being viewed by rural people. A practical person, oriented toward results, Rinehart supervised cattle-feeding experiments at the UI station in Caldwell. When Iddings could find no UI funds to buy cattle and feed, Rinehart went ahead with the feeding trials anyway. He and Iddings signed a note at 9 percent interest per annum covering the cost of the feeding trial. The first year they did this, cattle prices declined and they lost money. The next year, prices rose and they recouped their loss and made a profit.

By the mid-1920s, the animal husbandry program at the university of Idaho College of Agriculture had an excellent reputation. Prominent livestock experts said it was an outstanding program, second to no other university program in the West. UI graduates were hired by large livestock operations, in the East as well as in the West. In 1923, College of Agriculture students conducted their own Little International Livestock Show. This became an annual event.

UI projects with livestock set off reverberations beyond the borders of Idaho. By 1923, the College of Agriculture was fashioning a new set of goals for its swine breeding program. J. E. Nordby was certain that extremely heavy hogs would soon lose their popularity. Because a smaller, earlier-maturing hog would be more profitable to produce, it would become the swine industry's preferred type, replacing the traditional heavy hog, he predicted. Nordby was right. In a few years the new type of hog developed at the UI College of Agriculture was winning awards at livestock shows. The United States Department of Agriculture published a bulletin describing the new type of hog which was commanding preference both in the market and in the show ring. To illustrate their publication, the USDA authors used photos of swine from the breeding herd of the UI College of Agriculture.



Making ice cream in a UI dairy science laboratory section.

Historical Photograph Collection, UI Library, 1-205-17

Expanding the Agricultural Curriculum

Determined to build a first-rate college curriculum, Iddings hired additional faculty and added new departments to the College of Agriculture as rapidly as finances would permit. He saw the need for programs dealing with economics and was able to obtain a farm management specialist on loan from the United States Department of Agriculture. Byron Hunter was engaged in farm management studies at the UI from 1919 to 1922. In 1926, after federal funding for agricultural economics became available, the Department of Agricultural Economics was added.

Extension Funding Problems

Iddings wanted to expand Extension programs that channeled information to the people of the state. Unfortunately, the state legislature's appropriations for Extension work in agriculture and home economics declined sharply. For the 1919-1920 biennium, the appropriation was $240,000. For 1921-1922, state funding dropped to $128,000. The 1923 legislature appropriated only $86,000 for the 1923-1924 biennium. Cuts had to be made in Extension operations. There had been 35 county agents in 1921; in 1924 the number was reduced to 20.

Faced with a tight Extension budget, Iddings resolved to reduce administrative costs by taking over the responsibilities of the state director of Extension when that position became vacant. The director, L. W. Fluharty, had been considering resigning. After the budget crisis developed, he bowed out of the picture, and Iddings became Extension director (while continuing as College of Agriculture dean and Idaho Experiment Station director). The headquarters of the UI Extension Service were in Boise, in the basement of the State House. Although Iddings maintained his office in Moscow, he traveled to Boise regularly to oversee Extension business.

The traditional rivalry between southern and northern Idaho undoubtedly was a factor in the legislature's decision to reduce the 1923-1924 budget. Misconceptions concerned the funding the UI Extension Service received from the federal government may have contributed also. Another contributing factor may have been a widespread feeling of uncertainty regarding the future of the Extension Service. Since Extension's early days, Extension programs in a county had received support from the "farm bureau" of that particular county. These bureaus originally were loosely structured organizations that functioned like advisory committees, helping the Extension agent formulate programs that addressed the needs of local residents. Later, farm bureaus became agricultural organizations with distinctive programs. County farm bureaus organized state farm bureaus. By 1920 a national or-

ganization — the American Farm Bureau Federation — had been formed. Members of the Grange and the Farmers Union were asking why the Extension Service should be so closely allied with the Farm Bureau.

Extension's Ties with the Farm Bureau

In the early 1920s Extension agents in Idaho were often called "Farm Bureau agents." Fluharty was at one and the same time Extension director and executive secretary of the Idaho Farm Bureau. The Extension-Farm Bureau partnership was applauded by some people and condemned by others. A journalist praised the cooperative relationship that had developed between "the men in overalls" (farmers) and "the men in dusty puttees" (county agents). On the other hand, State Master W. W. Deal of the Idaho State Grange said he opposed "placing the county agent under the control of any private organization such as the Farm Bureau. I think it is wrong to use the state money that way."

Because the United States Department of Agriculture had encouraged county agents to work with local farm bureaus, Secretary of Agriculture Henry C. Wallace decided it was necessary to assure other farm organizations that Extension agents would cooperate with them and with the Farm Bureau. In a statement issued in 1922, Wallace said Extension agents would provide information to all persons and organizations requesting help. Extension personnel would no longer be permitted to "act as organizers for farmers' organizations, conduct membership campaigns, solicit memberships," or manage cooperative business enterprises.

Wallace's statement defined a national policy which the UI Extension Service was obliged to follow. As the policy went into effect, criticism abated. Before long, Extension agents had ceased to be identified as Farm Bureau agents. The exact nature of their relationship with the university of Idaho was not always clearly understood, but UI Extension agents were generally considered to be competent educators and impartial public servants.

Confronting Economic Problems

A period of depressed commodity prices, the 1920s was also a time when concerned citizens came forward with many proposals for ending "the agricultural problem." A plan for controlling overproduction through a system of production quotas set by American farmers attracted nationwide attention. Called "the Idaho Agricultural Plan," the proposal was endorsed by the Boise Chamber of Commerce. In each state, county, and locality, farmers were expected to work together to promote their common interests. They

would hold public meetings, exchange information about crop and livestock prospects, and then set production quotas. This plan had some similarities to the New Deal farm programs of the 1930s, but no provision was made to enforce farmers' compliance with the production quotas. The proposal was to be entirely voluntary.

In Dean Idding's view, there could be "no panacea for the difficulties of the present." Farmers should attempt to build their operations on a more stable basis. They should recognize that it was extremely risky for a farmer to have only one or two commodities as his main source of income. The farmers most likely to survive economic troubles were those with diversified farming enterprises. "As a rule," he said, "diversification means permanence and success."

Idaho farmers could gain profits by raising more livestock, Iddings said. "The hays, forages of various sorts, and other bulky crops of the Idaho farm should in so far as possible be sent to market in the form of beef cattle, mutton, swine, wool, butterfat, cheese, eggs, etc." Small-scale livestock and horticultural enterprises could help to make farm families more self- sufficient, Iddings added. He did not like the prospect of more and more farm families buying their eggs, dairy products, apples, and berries at retail grocery stores.

In the 1920s, farms throughout the state planted locust seedlings from the UI nursery supervised by C. L. Price.

Historical Photograph Collection, UI Library, 1-218-8

Diversifying Idaho's Agriculture

Information about diversification was presented to farm families in Extension meetings around the state. Extension agents conducted educational field-days and demonstrations. On some occasions, the principal speakers would be state Extension specialists. Dairy specialist D. L. Fourt might speak on the management of the small dairy herd. Horticulturist E. R. Bennett might have as his topic apple orchards or berry patches. E. F. Rinehart could discuss farm flocks of sheep, swine production, or any other livestock topic. For a demonstration of the art and science of identifying the non-laying hens in the farm flock, the ideal person would be Pren Moore. Highly competent in his work, he had a physical disadvantage, having lost one arm in a farm accident. During his long career as Extension poultryman, Moore cradled tens of thousands of hens in his good hand as he instructed men, women, and 4-H youngsters in the fine points of culling.

Extension agents working at the county level were key people in the diversification campaign. To explain dairying to farmers, county agricultural agents had to be knowledgeable about silos, butterfat testing, keeping records for a dairy herd improvement program, organizing a cooperative bull ring, and dozens of other matters. They also needed to have extensive information concerning sheep, swine, and poultry. Extension home economists had to know about food preservation and other aspects of diversified farming in which farm women might be involved. College of Agriculture departments kept the county agents supplied with relevant information. Researchers in the Department of Agricultural Engineering developed plans for temporary, low-cost poultry houses constructed of baled straw. They also designed permanent wooden structures for pullets and laying hens.

Home economics students in the 1920s study new cooking methods.

Historical Photograph Collection, UI Library, 1-221-92

Extension agents could report many success stories. The public's response to the diversification campaign was quite favorable. In one county, however, the campaign stirred up considerable controversy. When complaints regarding the UI-sponsored campaign came to the attention of officials in Idaho County, the county commissioners voted to dismiss the Extension agent who was advocating diversified farming. The Extension agent's supporters protested his dismissal, and the matter was referred to Idaho County voters in a referendum election in 1925. A majority of voters supported the county commissioners' action, and for several years Idaho County did not have an Extension agent.

A slogan for the diversification campaign came from an unlikely source. Alfred H. Upham, president of the university of Idaho and an authority on English literature, attended a meeting in which Extension personnel discussed the advantages of diversified farming. That night Upham was inspired to write a poem — a light-hearted ballad extolling the contributions poultry, dairy cattle, and swine could make to Idaho's economy. The name of the poem — "The Cow, the Hen and the Pig" — became a popular slogan for the diversification campaign.

Poultry and Dairy Projects Increase

Poultry raising and dairying steadily gained importance in Idaho during the 1920s. In counties where big gains were registered, Extension agents had been especially successful in encouraging progressive innovations.

In Madison County in 1923, the head of the UI Dairy Department noted milk cans at many farm gates. F. W. Atkeson said it was a scene much like rural Wisconsin, and this was surprising because there had been no dairy processing plants in the county a few years before. Now there were several creameries and three new cheese factories. Farmers had built high-quality dairy herds, and a cooperative Holstein bull association had been organized.

Atkeson said two Extension agents facilitated the development of dairying in Madison County. G. P. Murray served in the county from 1917 until 1921. His successor was John Morrison. In their efforts to improve dairying, the county agents were assisted by community leaders, Atkeson said. George A. Pincock, Sugar City farmer, and F. L. Davis, cashier of the Fremont County Bank at Sugar City, were particularly helpful, he said.

Poultry production in Bear Lake County increased rapidly, thanks to the educational efforts of Chase Kearl, the county agent. In 1924 farmers in the county purchased 100,000 baby chicks — twice as many as they had bought the year before. Income from eggs strengthened to the local economy. There

had been few chickens in the county in 1921. At that time, eggs for home consumption were shipped in from Utah. In Bannock County, impressive gains in poultry production were achieved by Joe Thometz, the county agent.

To publicize new developments in poultry production, the UI College of Agriculture sponsored a "Poultry Special" train that toured southern Idaho in 1924. Operated by the Union Pacific railroad system, the train included a variety of educational exhibits. Four types of poultry houses designed by UI experts were on display. At each town where the train stopped, local people visited the exhibits and heard talks by UI poultry specialists.

In 1928 UI dairy specialists accompanied a special dairy train on a two-week tour of southern Idaho. More than 23,000 farm people visited the train during its stops at 36 towns. The train carried a small herd of cattle — three purebred bulls and purebred cows of the Jersey, Guernsey, Holstein, and Ayrshire breeds.

Farmers Combat Jackrabbits

Jackrabbits were multiplying rapidly in western Oneida County and in the adjacent desert area in Utah. The 1920 annual report of UI Agricultural Extension Service county agent Ray Smith said blacktailed jackrabbits had become "so abundant they invaded fields and devastated the forage and grain crops." Haystacks were attacked during the winter when snow covered grass and brush. "The rabbits congregated in bunches of 1,000 to 3,000 head and would eat the alfalfa and other forage that the farmers had stacked," the Extension report said.

The county Extension agent worked with local Farm Bureau leaders in organizing a series of campaigns against the jackrabbits. At first poison bait was distributed, but this was not very effective in wintertime. Subsequently one mile of wire netting was purchased and farmers constructed large circular corrals. Working together in well-coordinated groups, local residents were able to drive many rabbits into the corrals. In a single day's drive, as many as 4,500 jackrabbits would be rounded up. After the initial drive was completed, a second drive would be conducted in the same area. Forty years later, in the winter of 1960, Oneida County again had a severe infestation of jackrabbits. Farmers conducted rabbit drives on a weekly basis in infested areas between Snowville, Utah, and Holbrook, Idaho.

Two New Programs Initiated

Legislation passed by Congress funded two new programs at the College of Agriculture. The Purnell Act, passed in 1925, provided federal support for research in agricultural economics and home economics. In Idaho an economic study of the principal markets for the state's farm products was launched. H. C. Dale, dean of the School of Business Administration, supervised this research. R. H. Engle, the first head of the Department of Agricultural Economics, was appointed in 1926 and left in 1927. The Department of Home Economics Research was established. Ella Wood, the first department head, served from 1927 to 1951.

At the Aberdeen Experiment Station, UI researchers were working to develop an early-maturing variety of yellow corn. Three varieties of oats had been developed at the station — Golden Rain, Victory, and Idamine. In 10 years of variety testing, all three varieties performed well.

Soil improvement was one line of research emphasized at the Caldwell station. Also of major importance were feeding trials of beef steers and lambs. Breeding and feeding tests of dairy cattle were in progress.

Buckwheat, peas, and other crops not commonly grown in southeastern Idaho were being tested at the university's High Altitude Research Station near Felt. Variety tests of cereals were being continued there. The Sandpoint station was studying sunflowers and root crops as possible alternate crops

Agricultural Engineering tractor lecture, 1929.

Historical Photograph Collection, UI Library, 60-3

to wheat in northern Idaho. In one trial, sunflowers produced twice as much silage as corn did. Carrots gave the highest yields of any root crop.

There was considerable interest in lettuce growing in Idaho during the early 1920s. Growers signed contracts with produce brokers, but yields were generally low. In 1924 UI researchers made tests on a great number of lettuce varieties. They found that several early-maturing varieties gave better yields than the commercial variety commonly planted in the state.

Mosaic and leaf roll of potatoes were under investigation by UI plant pathologists. They also were studying bean and sugar beet diseases. In cereal crops, their research centered on rusts, smut, and blight. Inoculation of legume seed was recommended by the UI Department of Bacteriology. The department prepared and sold the bacterial cultures. A bottle large enough to treat seed for three acres cost 75 cents.

Bean Improvement Work Begins

Common bean mosaic was widespread in southern Idaho. In 1920 many bean fields in Twin Falls County were 100 percent diseased, according to Elmer Brossard, the Extension agricultural agent. Working under the direction of UI plant pathologist C. W. Hungerford, W. H. Pierce undertook a bean improvement project in Twin Falls in 1925. He selected individual healthy plants from fields heavily infested with common mosaic. Using these plants in a breeding program, he obtained four mosaic-resistant varieties that were released as UI 56, UI 59, UI 81, and UI 123.

Seed laboratory

UI dairy wagon with horses in finery before a parade.

Home Economics Enrollment Increases

The College of Agriculture had a few women students in the 1920s. The winter short course — or School of Practical Agriculture — had six graduates in 1920. One was a young woman. The six students had completed a three-year program. Naomi Chapman of Asotin, Washington, received the degree of Bachelor of Science in 1923. Her major field was animal husbandry. The following year she received a master's degree in plant pathology.

Katherine Jensen, head of the UI Department of Home Economics, reported a 25 percent increase in home economics enrollment from 1918-1919 to 1919-1920. During the same time there had been almost a complete turnover in the department's faculty. Jensen herself was a new addition. She served at the UI from 1919 to 1936.

UI Extension home economists tried to interest Idaho families in using and appreciating the resources of their state. Marion Hepworth, Extension state home demonstration leader, explained:

> "It appeared that something could be done to stimulate using all cuts of lamb. The use of beet sugar in the Northwest and Idaho might help to increase materially the sale of beet sugar. The bulletins *Dairy Products For Health and Economy, Apple Time in Idaho*, *Better Use of Poultry Products*, and *Potatoes in Your Meals* all grew out of a desire to help utilize these Idaho products."

Despite Difficulties Educators Are Active

While traveling in Idaho during the 1920s, Extension workers faced rigorous, pioneering conditions. Three decades later, D. L. Fourt recalled his travels as Extension dairyman:

"Communities were widely scattered, and roads were dirt or light gravel. Transportation was almost entirely by Model T Ford or along the main line of the Union Pacific. A few buses were traveling.

"During most of the winter, roads were snowbound and snow-removing equipment was not available. This resulted in communities along the railroad line receiving considerable attention. One example was a three-day farm institute at Victor. I and one other speaker arrived for the first day and other speakers were scheduled to arrive the following two days. A terrific snowstorm with extreme cold weather developed, and the temperature went down to 40 below zero.

"Trains were snowbound for four days. However, the meeting had been previously advertised and the farmers came to town in horse-drawn bobsleds. Other speakers did not arrive as the trains were not operating, yet the local people came to the meetings. After the first day, a new program had to be temporized. A question-and-answer session or roundtable discussion was held, and the whole dairy industry was covered from A to Z."

Auto ad urged county agents to buy this roadster.

Roy E. Taylor Photo Collection

Hattie Abbott, a district home demonstration agent serving 10 counties of north-central Idaho, found it difficult to transport her equipment from place to place. “The poor bus drivers would see us coming, heave one sigh and ask which box held the cookstove and which one the kitchen cupboard,” she recalled later. Her transportation within a county was provided by the county agent. Some communities were accessible only in the summer months.

One hard-to-reach place was Canfield, up from Whitebird, and Extension meetings here were scheduled to last all day.

> “A sample day would run about as follows: Start a bread demonstration. While the bread was rising, give a canning demonstration. Put bread in pans. Give women time for lunch while county agent and home demonstrator met with the 4-H Club. (The 4-H girls always sat in on all of the women’s meetings, for they liked to and their mothers wanted them to get all they could get from the day.) The afternoon was usually given over to sewing or some phase of home improvement. Most of the women and girls of that community came by horseback.”

Combating Serious Insect Pests

To combat insect pests, the College of Agriculture staged a series of campaigns in the 1920s. Don B. Whelan, Extension entomologist, led a statewide fight against grasshoppers in 1922. With the cooperation of farmers and Extension agents, Whelan was able to prepare and distribute more than one-half million pounds of arsenical baits that summer. Whelan’s program was not funded adequately, and he resigned in June 1923.

Claude Wakeland, an entomologist who joined the UI Extension Service in 1920, was stationed in southern Idaho for seven years. Much of his efforts were directed against the clover aphid, the alfalfa weevil, and the codling moth. He also had to deal with other insects — and the “other” category kept expanding. In the mid-1920s, the Colorado potato beetle appeared in Idaho fields and caused considerable damage. To deal with an infestation of false wireworms, Wakeland was stationed at Rexburg for a time.

The destructive alfalfa weevil was difficult to control. USDA scientists intended to import wasp-like parasites that had successfully checked alfalfa weevils in Europe but there were delays in this project. While scouting alfalfa fields in Franklin County, Wakeland found that the predator insects were already in Idaho. Evidently the parasites had accompanied the weevils when they came into Idaho from Utah early in the century. Because alfalfa fields in other sections of the state did not contain the parasites, Wakeland

arranged to have some of the predator insects collected and established in new locations around southern Idaho. By 1925 the alfalfa weevil was under control in Idaho. It did not become a serious problem again until 1944.

Work Initiated at Parma

While the alfalfa weevil was still actively attacking alfalfa crops, many farmers urged the College of Agriculture to study the problem and come up with a solution. Two farmers who were most persuasive in their urging were F. Lee Johnson and R. H. Young, Sr., of Parma. After Johnson and Young met with Dean E. J. Iddings, the UI moved a small frame building to Parma and sent Wakeland there to conduct research on the alfalfa weevil. Residents of the Parma area appreciated having the help of the university. In 1925 the sum of $3,025 was raised by public subscription for construction of a UI office and laboratory in Parma. This facility was called an entomological field station. A decade later a modern agricultural experiment station was built near Parma.

High Schools Offer Vo-Ag Programs

Funding of high school vocational agriculture departments became difficult in the climate of economic retrenchment following World War I. Some Idaho schools discontinued their vo-ag programs, but new programs also came into being. For most of the 1920s, vo-ag programs were operating in about two dozen Idaho high schools.

Under the leadership of William Kerr, the Idaho Department of Vocational Education actively promoted the improvement of vo-ag education programs. Kerr joined the UI Extension Service as a swine specialist in 1917.

Colony poultry houses were utilized by UI researchers in 1922.

Historical Photograph Collection, UI Library, 1-206-2

He became state supervisor of vocational agricultural education in 1921. Two years later, he was named state director of vocational education — a post he held until his death in 1954.

Kerr tried to involve local people in school vo-ag programs. He also wanted vo-ag students to take part in community improvement activities. Through the years, high school vo-ag departments developed a unique community-wide focus in their educational programs.

High schools in the state employed the following vo-ag teachers in 1920-1921: Aberdeen, Boyd F. Agnew; Blackfoot, Walter J. Johnson; Boise, Clarence McCormick; Burley, Arthur R. Denman; Coeur d'Alene, William F. Taylor; Dubois, Clarence C. Figley; Eagle, Ralph Hunt; Filer, Glen I. Banta; Gooding, L. K. Saum; Hailey, John M. Garrett; Lapwai, L. L. Buchanan; Lewiston, Victor Hall; McCammon, Irvin W. Harmon; Montpelier, Ole Christensen; Moscow, Harry V. Matthew; North Fremont at Ashton, J. E. Bates; Shelley, Albert E. Sells; South Fremont at St. Anthony, Will C. Stanton; Sugar-Salem, Verne Oberhansly; Teton at Driggs, Reuben L. Knight; Twin Falls, Warren E. Crabtree; Victor, G. A. Fordham; and Weston, A. P. Anderson.

Organizing Future Farmers of America

William Kerr, Idaho's director of vocational education, joined with other American vo-ag educators in proposing a national organization of all vo-ag students. In 1928 representatives of 18 states met in Kansas City, Missouri, to organize the Future Farmers of America.

Because Kansas City was a major livestock market, Idaho's five delegates to the first FFA convention were able to travel there at virtually no cost. They traveled by freight train working as caretakers of several cars of livestock being shipped to the Kansas City market. Kerr made the trip, together with John Feldhusen, vo-ag instructor at Twin Falls High School, and three of Feldhusen's students. At Kansas City, the Idaho students won first place in the National Livestock Judging Contest, and one of them, John Fries, was the top individual in the judging contest. Another, Carol Baker, was the first Idahoan to win the FFA's prestigious American Farmer Degree.

In Idaho vo-ag teachers and students soon formed local FFA chapters. Idaho received a state association charter in the spring of 1929. In the order they were chartered, the state's initial 15 local chapters were in Malad, Rupert, St. Anthony, Gooding, Twin Falls, Nampa, Aberdeen, Blackfoot, Lapwai, Boise, Firth, Burley, Moscow, Sugar City, and Culdesac.

FFA members in their distinctive blue and gold jackets became familiar sights at Idaho fairs, livestock shows, and other agricultural events. The members of the new youth organization had as their official motto:

Learning to do – Doing to learn – Earning to live – Living to serve

4-H Programs Expand in 1920s

The first 4-H Short Course was held at the university of Idaho in Moscow in 1923. The 4-H Short Course became an annual statewide event. Later it was called the Idaho 4-H Congress. The first week-long gathering was attended by 105 boys and girls from seven counties in northern Idaho. Ninety percent of the young people were visiting the university of Idaho for the first time. R. N. Irving, UI Extension agent in Kootenai County, said the 4-H youngsters "devoted their time very profitably" to their assigned courses of study. "On the morning of the last day, a stock judging contest was conducted, at which time every boy enrolled in the course had to judge livestock and place them, giving reasons for his placing," Irving said.

In southwestern Idaho 4-H dairy projects gained popularity during the 1920s. In 1926 20 boys and 13 girls in southwestern Idaho were enrolled in dairy projects. 4-H members were able to buy purebred Holstein or Jersey calves by signing notes at local banks. Dairymen encouraged 4-H clubs to emphasize dairy projects. Herman Wuck, Holstein breeder at Notus, accompanied 33 4-H'ers on their trip to the 4-H Short Course in Moscow in 1926. Traveling up the North-South Highway in four cars and a big truck, the group stopped for a swim at Starkey Hot Springs.

The next year the Dairymen's Co-op Creamery and the Idaho Holstein Association sponsored the trip to the 4-H Short Course in Moscow. By 1928 4-H dairy projects in the southwestern district involved 155 boys and girls. There were 204 young people enrolled in dairy projects in 1929, and that year a regional dairy show for 4-H members was sponsored by the Dairymen's Co-op Creamery.

Arthur M. Sowder, Idaho's first Extension forester, joined the UI faculty in 1927. He served until September 1930. Much of Sowder's time was spent in farm forest educational work, but he also organized 4-H forestry clubs. In his 1929 report Sowder said:

> "Forestry club work was begun in Idaho the past year. Since there is no printed literature available in Idaho on the trees found in our state, it was necessary to prepare a great deal of material in the way of tree keys, drawings, etc., for carrying on forestry club work in Idaho. . . . Two forestry clubs were organized the past year, both in Lewis County."

A 4-H girls sewing club in Idaho County was led in the 1920s by Mrs. Walter M. Adams. "We met in the home of our leader and sometimes in the Eat Shop, a restaurant in Grangeville," one of the members recalled in 1982. Mrs. Wayne C. York of Kooskia continued:

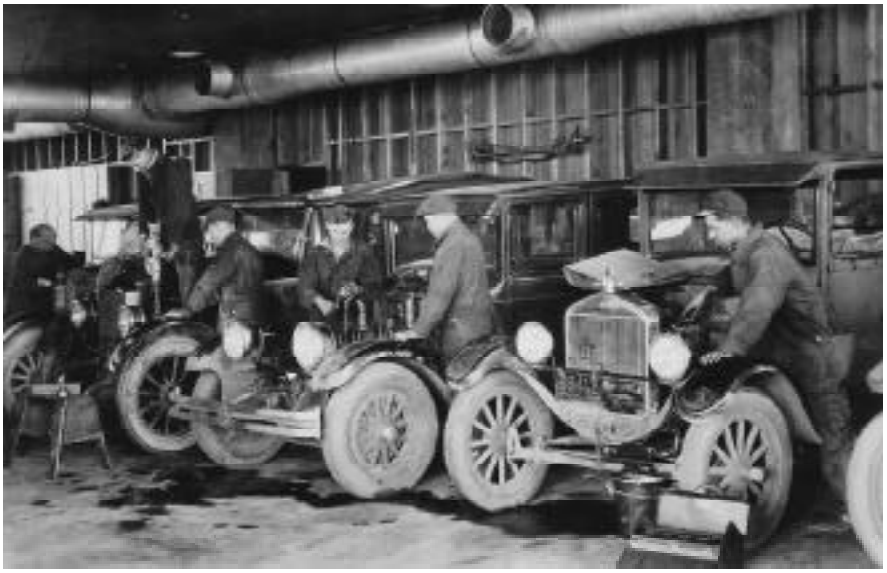
> "We made dish towels, pot holders, aprons and learned to embroider. I was a 4-H member from 1927 to 1930. In 1930, I was sent to the 4-H Congress in Moscow with all expenses paid by the Club. I have been a 4-H leader for 20 years, retiring in 1977. I have taught forestry, weeds, rocks, poultry, rabbits, foods, gardening, outdoor foods, and other projects. I have always enjoyed 4-H and believe it is good for boys and girls to learn these things."

In the early 1920s a 4-H canning club in Bonneville County was led by Martha Jackson. More than 60 years later, Mrs. Clara (Pearson) Adolphson

Extension agents were featured on early farm broadcasts.

Roy E. Taylor Photo Collection

recalled her participation in the club during 1920 or 1921. "Three of us — Miriam Telford, Pearl Martinson, and myself — traveled to Swan Valley with the stock judging team, where we camped in Conant Valley and held several meetings and demonstrated canning tomatoes and peaches. We also prepared and served baked potatoes several years at the fair in Blackfoot. The county 4-H leader was Verna Johannesen and the county agent was Orval Ellsworth."



Agricultural engineering, auto mechanics.

Historical Photograph Collection, UI Library, 611-4

The Great Depression

Jobless workers sold apples on street corners in New York City and other Eastern cities in 1930. Apple growers in the Pacific Northwest showed their compassion and concern by donating many boxes of apples to the workers' self-help effort. The nation was entering an era of unprecedented economic upheaval. Closed factories, bankrupt businesses, and foreclosed farms dotted the American landscape. The magnitude of the crisis was not immediately apparent. Not until 1932-1933 did American public opinion fully accept the fact that the nation's crippled economy might require a long time to mend.

In 1933, with the New Deal under the way, the United States government launched a number of farm relief, acreage control, and conservation programs. College of Agriculture personnel had key roles in organizing and administering these programs in Idaho. Dean E. J. Iddings was a member of the statewide committee set up to organize the Agricultural Adjustment Administration's production control programs in Idaho. UI Extension agents helped to create and operate the administrative machinery for the AAA program.

The Agricultural Adjustment Act was struck down by the Supreme Court in 1936. To replace the original AAA program, Congress created the Soil Conservation and Domestic Allotment program (SCDA). Iddings was the chairman of two statewide conferences that initiated the new program in Idaho in 1936. To supervise the technical phases of the program, Iddings appointed a state committee comprised of H. L. Spence, Jr., Extension agronomist; K. H. Klages, head of the UI Agronomy Department; John L. Toevs, superintendent of the Aberdeen Experiment Station; and G. R. Dole, former Extension soils specialist who was serving on the regional staff of the Soil Conservation Service.

C. O. Youngstrom, UI Extension agricultural economist, was in charge of organizing a statewide, county-based agricultural planning program in 1936. Committees of leading farmers in every county were charged with the task of setting new AAA production and conservation goals in their counties. Extension workers and other UI specialists met with county committees to provide factual information, but they were not supposed to influence the committees' recommendations.

Extension Program Aids AAA Program

Earlier, when the AAA program was brand-new, county agents and other Extension staff members were involved in all aspects of program planning, administration, and trouble-shooting. They organized AAA committees, called meetings, conferred with farmers who were considering participating in the program, and filled out countless forms in multiple copies.

The Extension Service workers' involvement in AAA programs drew criticism from many quarters. An editorial in the *Farm Journal*, written by Wheeler McMillen, was entitled "Give Him Back His Regular Job." McMillen said it seemed certain to many observers that "entirely too much of the county agent's time has been diverted to the administration of the federal farm laws." Russell Lord, a veteran agricultural writer, saw signs of burn-out in county agents who were trying to perform well in their dual roles as Extension agents and government farm program representatives.

M. L. Wilson, an agricultural economist who had served in Montana as the state's first county agent, helped make policy decisions in the United States Department of Agriculture during the New Deal era. He wanted Extension workers to implement the AAA program, insisting that it would be inefficient and wasteful to organize a new agricultural service agency indepen-

Trainers lead horses during a "Little International" livestock exposition in the mid-1930s.

Historical Photograph Collection, UI Library, 1-204A-12

dent of the Extension Service. In the Pacific Northwest, university officials who directed the state Extension programs appeared to be in agreement with Wilson. Iddings was prepared to have UI Extension workers perform the same active role in the new AAA program as they had played in the original AAA. However, in response to complaints from Extension directors in the East and Midwest, the USDA redefined Extension's role in the agricultural adjustment program. Extension workers would take charge of the educational and instructional phases of the program but would not be expected to handle administrative responsibilities, the USDA announced.

WPA Has Agricultural Activities

In its efforts to provide jobs for unemployed workers, the Works Progress Administration sought the College of Agriculture's assistance. A statewide weed control program was organized, and Harry L. Spence, Jr., UI Extension agronomist, was placed in charge. Crews of WPA workers were set to work fighting infestations of morning glory, Canada thistle, goatweed, puncture vine, and cockleburs. This was the first statewide weed control program to be organized under WPA auspices. Jobs were given to 3,000 workers. Nearly all of the nation's supply of sodium chlorate weed killer — estimated at 6 million pounds — was requisitioned for Idaho's weed control program.

With the cooperation of UI entomologist Claude Wakeland, the WPA conducted campaigns to control infestations of grasshoppers and Mormon crickets. W. E. Shull, Extension entomologist, was in charge of field work in cricket-infested territory. Wakeland and Shull spent their summers working in federal entomology projects. When an expanded grasshopper and cricket control program was launched in 1937, Shull was appointed state leader of the program. Wakeland obtained a leave of absence in March 1938 to become project leader of an intensified federal regional program to control Mormon crickets. In October he resigned from the university and became one of the leading entomologists in the federal service.

Federal Programs Involve Idaho

The Civilian Conservation Corps was involved in weed and insect control work in Idaho in addition to its reforestation and soil conservation activities. Seventy CCC camps were opened in Idaho, and 18,200 young men came to the state to learn new skills and to earn money for themselves and for the support of their families.

During the Great Depression drought hit many regions of the country. The federal government developed crash programs to deal with the problems of drought-stricken farmers. E. F. Rinehart, UI Extension livestock specialist,

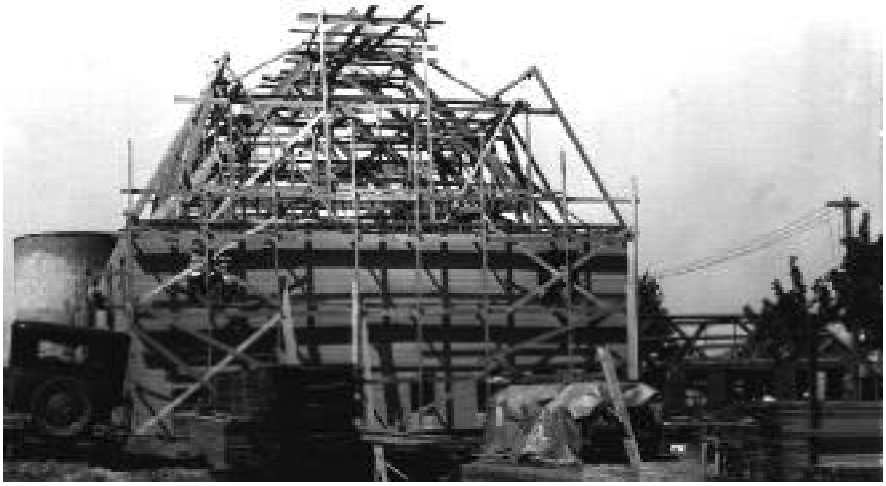
was asked to take part in one of these programs in 1934. Here are his recollections of that assignment:

> "On June 15, I was called to Denver and given an appointment with the Drought Relief Service of the Agricultural Adjustment Administration on one year's leave of absence from the university. Unlike the drought of 1919, there was insufficient feed for all the livestock. It was necessary to reduce livestock numbers to the limited feed supplies. Cattle and sheep were to be purchased and slaughtered. A scale of prices to be paid was worked out at the meeting. Mature cattle were purchased from $12 to $20, calves $4 to $8, and ewes $2 per head."
>
> Idaho had 30 drought counties of which 23 had county agents. Numbers purchased by the Drought Relief Service were: cattle, 41,807, ewes, 145,676 head.

Seeing the Depression at Close Range

The population of Idaho was preponderantly rural in the 1930s. The 1930 census showed that 315,000 of the state's 445,032 people lived either on farms or in towns of less than 2,500 population. Extension agents working in rural counties could see at close range the difficulties Idaho citizens were experiencing during the Great Depression. Buford E. Kuhns later recalled his service as a county agent in Minidoka County.

> "I became quite thoroughly acquainted with the land and the people. I think I could recognize and call by name 90 percent of the country people and knew most of the children. I also knew how much land they owned, the kind and number of livestock they owned, and the size of the farm mortgage. In 1932, 1933 and 1934, most of the farmers in the county applied for emergency feed and seed loans. We made out applications in our office. I remember quite well one farm family that reported that their total income for the previous year was $160 which they received from the sale of beans. And they had a large family.



UI Dairy Barn under construction in the 1930s.
Historical Photograph Collection, UI Library, UA 89-30, 703-4

> "A young bachelor applied for a loan. From the acreage of crops he intended to plant, we determined the maximum amount he could borrow — say $250. Then we listed the proposed uses of the funds. So much for feed, so much for fertilizer. About $30 was unaccounted for. 'Say," he said, 'do you reckon they'd mind if I bought some grub with part of it? I ain't had a damn thing but spuds to eat all winter, and I'm sure getting tired of spuds."'

Lew Williams entered Extension work in the 1930s. In an interview with Bill Stellmon 50 years later, he said:

> "In the Depression, you were fortunate to have any kind of a job. My first assignment when they hired me as county agent down in Jefferson County was to take on the corn-hog program, where we killed the little pigs. We had the wheat program too, acreage control and so forth. We had community committees and county committees, and then we sent up the whole deal to the state AAA office.
>
> "These were USDA programs but Extension had responsibility for them. The government reimbursed the university for our work. That AAA business was the real work those first two years. They paid the bills. There were no hours then; you worked all the time there was."

Events in the Life of a County Agent

Joining the UI Extension Service in 1936, Herman Hilfiker was appointed a 4-H agent in Bannock County. No other county in Idaho had a 4-H agent at that time. In an interview during 1984, Hilfiker told about Extension work in the 1930s:

"At that time, Bannock was the only county in Idaho that had more than one agent. In those days, the home agents were all on a district basis. There were district 4-H club agents, but only Bannock had a county 4-H club agent.

"Those were the days when the AAA program became strong. In addition to my 4-H club duties, I spent a considerable amount of time working with AAA committees around the area. Each year there would be a whole new set of rules and what-not, and we'd have to go out and hold community meetings. Bannock County had 52 school districts, so we had a lot of meetings because most of your communities revolved around the school districts. The county agent those days probably spent more time on AAA work than he did on what we usually term Extension work.

"There was a brief period of about six months when Warren Barber, the county agent leader, took a leave of absence to start the potato buying and dyeing program. That was a surplus

Tunney Crusader, an outstanding UI draft horse in the 1930s, is shown with a handler and animal scientist Julius Nordby.

Historical Photograph Collection, UI Library, 1-204A-14

buying program to bail out the potato producers. They would pay farmers 50 cents per hundredweight for potatoes, and then they would pour purple dye over the potatoes so they couldn't be sold. The farmers could use the potatoes for livestock feed. Barber was in charge of that program, and I took his Extension job for six months. After that, I went to Bingham County as agricultural agent.

"County agents helped start cooperative livestock marketing pools in almost every county. When I was in Blackfoot, I probably had the largest pool. We'd ship five carloads of hogs a week out of there, and occasionally we'd ship lambs and a lot of wool. When the public livestock auctions started, this pretty well killed off the livestock pools because farmers could get their money immediately at the auction instead of waiting four or five days.

"At that time, hogs were bringing mostly four cents — sometimes four and a half cents. When they hit a nickel, we had a big celebration. Cattle and lambs were seven or eight cents. Still, we ran six or seven hundred thousand dollars through this pool in a year.

"Lard used to be worth as much or more than the pork, but when people quit using lard and went to vegetable fats, lard wasn't worth much. Then the packers wanted hogs that were less fat, with a higher percentage of lean cuts. To improve hogs in Bannock County, we organized a purebred sow sale. We couldn't get any hogs locally so we drove all over the eastern end of the state and we finally got 40 bred gilts of various breeds. They sold for $45 a head, and that was phenomenal; the next year our sale had so many bred gilts we had to screen out some of them.

"We also tried to improve dairy cattle in the county. There was interest in dairying in the Depression when it didn't pay to raise sugar beets or potatoes or alfalfa seed. We got a committee together and we bought a couple of carloads of bred heifers from Wisconsin. We roped off Main Street and we had those heifers tied up right on the main drag in Blackfoot; we made a big hoop-dee-do out of it and the farmers bought these cattle and the bank and the creamery financed them. Then I started a cow testing association and a bull association. We got the dairy business going in pretty good shape. Then the war

broke out and the price of potatoes and sugar beets went up — and the farmers got rid of the cattle. There went my dairy program! Anyway, the farmers made a mint of money growing the crops they'd wanted to grow all the time!"

Dairying Grows in Importance

In 1930, Idaho farmers earned more income from milk sales than from any other commodity. Milk sales had a total value of $15 million. Idaho's potato harvest brought in $12 million. Wheat, the No. 1 money-producer in 1929, was in third place with a value of $11.8 million. Butter production in the state rose nearly 30 percent from 1927 to 1931. Creameries in Idaho manufactured 28.6 million pounds of butter in 1931, and the state's dairy industry also produced more than 6 million pounds of cheese, 14 million pounds of evaporated milk, more than 1.3 million pounds of casein, and over 500,000 gallons of ice cream.

Prices of all farm products — including milk and cream — slumped far below 1929 levels as the nation's economic decline continued in the 1930s. D. L. Fourt, Extension dairyman for the UI College of Agriculture, said the state's dairy producers had a comparative advantage because feed costs in

Dairy cattle were on display at the 1936 "Little International."

Roy E. Taylor Photo Collection

Idaho were lower than in other dairying states. He said figures compiled by the USDA indicated that an Idaho cow could be fed from $8 to $24 cheaper per year than cows in other states. Feed costs in Idaho were approximately 23 percent less than the national average, Fourt estimated.

Nutritious alfalfa hay was a mainstay of the Idaho dairy industry. In an attempt to utilize other feedstuffs that were often wasted, UI researchers investigated the feeding value of crop residues and processing by-products. They found that dairy cows performed well when fed apple pomace, the residue left after the juice of apples has been extracted. Cull potatoes, fed with supplemental feeds, compared favorably with corn silage. Researchers also recommended feeding programs which utilized pea and bean straw, beet pulp, cull peas, and alfalfa seed screenings. They said sugar beets, mangels, pumpkins, and squash were valuable accessory feeds for the dairy herd.

Cooperation among milk producers was strengthening Idaho's dairy indstry, D. L. Fourt said. In 1932 there were 20 bull associations in the state. Members of an association owned bulls cooperatively. Altogether there were 465 members whose milking herds included a total of 3,400 cows.

Nine cooperative creameries — seven in southern Idaho and two in the north — served 15,000 Idaho dairy producers in 1931. Back in 1928, the co-ops had manufactured 9.7 million pounds of butter — about 44 percent of the state's total output of 22.1 million pounds of commercial butter. By 1931, cooperative creameries manufactured more than 54 percent of the 28.6 million pounds of butter produced in Idaho.

During the winter months the university of Idaho conducted a short course in practical dairying. Graduates of the course found employment in creameries, cheese factories, and other dairy enterprises. The university also participated in campaigns to control dairy diseases. Bovine tuberculosis was under control in Idaho in 1935. Idaho was the fifth state to be certified TB-free. Progress also was made in a program to control Bang's disease.

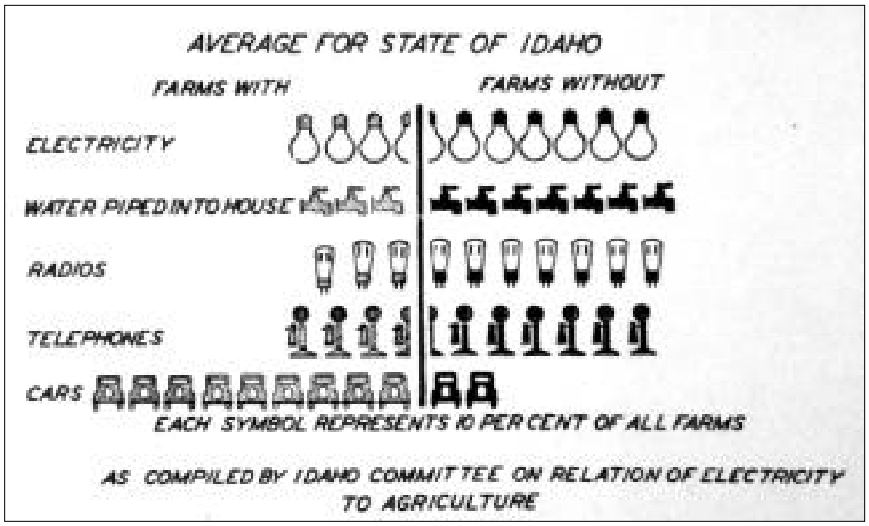
Dairy cows owned by the UI College of Agriculture continued to win national recognition for their record-breaking production of milk and butterfat. Five UI cows each produced more than 30,000 pounds of milk in a year. "No other college or university has produced as many 30,000-pound milk cows," Dean E. J. Iddings said proudly.

Shattuck Aboretum Dedicated

The arboretum on the university campus was officially named in Charles Houston Shattuck's honor in 1933. Shattuck became the first head of the UI Department of Forestry in 1909. In the first college arboretum west of the Mississippi, Shattuck assembled thousands of trees representing 140 different species. Choice trees at the arboretum include outstanding specimens of giant sequoia, Eastern beech, Canadian hemlock, and California incense cedar.

From 1910 until his retirement in 1935, Clement Lee Price was in charge of developing the arboretum. He maintained a tree nursery that provided planting stock to farmers at cost. During Price's 25 years of service, the tree nursery grew and distributed 5 million trees for windbreaks, woodlots, and farmstead shade and beautification throughout the state.

More than 85,000 black locust seedlings were sent to Idaho farmers in the spring of 1930, according to UI Extension forester A. M. Sowder. Many of the seedlings were planted in windbreaks and shelter belts. Black locusts were also being used in farm forest plantings, Sowder said. Planted in favorable locations, black locusts made rapid growth and could be harvested for poles and fence posts in a few years' time.



Seventy percent of Idaho farms lacked radios in the 1930s.

Roy E. Taylor Photo Collection

Electricity Comes to Idaho Farms

About one-third of the farms in Idaho were being served by electric power lines in 1930, Hobart Beresford, head of the UI Department of Agricultural Engineering, reported. He said UI researchers were studying methods of heating water electrically on dairy farms. The College of Agriculture experiment station at Caldwell was the site of an electricity-on-the-farm field day in May 1930. Visitors heard discussions concerning the use of electric-powered equipment for tasks such as chopping hay and grinding grain. An irrigation and drainage pumping demonstration, conducted by James C. Marr of the station's staff, was the headline attraction at the field day.

Agricultural Researchers are Busy

At the UI agricultural experiment station near Sandpoint, researchers studied cereal crops and grasses. An improved strain of Reed's canary grass performed well in wet locations. Michels' grass, a cross between wild rye and wheat, thrived in locations where other grasses did not do well. The originator of the grass was C. A. Michels, a UI agronomist. The hybrid grass was vigorous and high yielding.

J. H. Christ, a botanist, became superintendent of the Sandpoint station in 1922. During his tenure at the station, Christ was keenly interested in testing grasses and legumes for use in cut-over regions of northern Idaho. As a hobby, he collected shrubs and flowering plants in the wild. He planted these native ornamentals at the station, in the yard near the superintendent's residence. He resigned in 1935 in order to take a position with the Soil Conservation Service. His successor was R. E. Knight, a UI graduate.

The agricultural experiment station at Aberdeen was cooperating with the USDA in cereal breeding research. The nation's largest cereal experimental project was located at the station. In 1931, 400 strains of wheat, 240 strains of oats, and 225 strains of barley were grown in experimental plots. Also, in separate short rows, cereal researchers were testing several thousand experimental breeding lines developed in their breeding programs.

At Sandpoint, Aberdeen, and other locations, UI researchers were testing some new oat strains and many new varieties of wheat and barley bred for hardiness, stiffness of straw, yield, and freedom from smut. V. H. Florell, a USDA researcher working at Moscow, was engaged in a barley breeding program. After crossing two varieties, he selected and reselected the progeny until he had 45 different cultivars that showed considerable promise. In 1934, he distributed these barleys to experimental stations throughout the West for further testing. One cultivar did well in Idaho and was released in

1944 as the Gem variety. Other varieties were released in Montana, Arizona, and Colorado.

Testing for Potato Viruses

UI plant pathologists were crossing the Katahdin potato with other varieties, hoping to produce disease-resistant potatoes that would perform well under Idaho conditions. As a service to seed potato growers, the UI Department of Plant Pathology was testing potato seedstock for virus diseases. In the tuber indexing procedure, the health of a potato tuber was determined by growing in a greenhouse a plant from a single eye of the tuber. Healthy tubers were returned to the seed growers. In 1931, 7,453 tubers were tested. Plant pathologist J. M. Raeder said about 20 different potato virus diseases were known to exist, but luckily Idaho did not have all of them.

At Moscow, UI researchers were propagating 1,000 promising new apples and were planning tests in commercial orchards. The apple breeding work at the university had begun a quarter of a century earlier. The 1,000 varieties under study had been selected from 10,000 seedlings which originated in a breeding program that got under way in 1910.

UI agricultural engineers were developing a new type of combine harvester for peas and beans. They also were testing a new high-speed grain combine that had been developed in the Midwest. Hobart Beresford, head of the UI Department of Agricultural Engineering, designed a new UI dairy barn in 1932 to replace one that was destroyed by fire. The new barn's improvements included a fully automatic feed grinder and feed elevating unit and an electric-powered ventilating system.

Canyon County's Countrymen

During the Depression, the Canyon County Board of County Commissioners had been reluctant to fill the position of Extension agent. In the late 1930s a group of progressive agricultural leaders in the county decided to persuade the commissioners to take action. These leaders were members of the Nampa Countrymen's Club. At the club's semi-monthly luncheon meetings, topics of common concern were discussed. Members had succeeded in a campaign they undertook to persuade the local high school's trustees to hire a vocational agriculture instructor. Gaining an Extension agent for the county was their next project. Each member called upon at least a dozen neighbors and solicited their help. Soon, petitions were circulated and the county commissioners agreed to reestablish an Extension program. Buford E. Kuhns became county agent in 1938.

Studying New Ways of Controlling Insects

The Colorado potato beetle was again becoming troublesome in southwestern Idaho in the early 1930s. The UI Department of Entomology had a study under way aimed at determining the point in the beetle's life cycle when it would be most susceptible to insecticides. In field pea districts of northern Idaho, entomologists were studying another new pest — the pea weevil. Grasshoppers, beet leafhoppers, and wireworms were the targets of continuing projects that had begun in the 1920s.

Claude Wakeland, head of the Department of Entomology, succeeded in obtaining federal government funding for a unique project aimed at controlling the destructive codling moth without the use of costly insecticide sprays. In an isolated five-acre apple orchard near Parma, UI researchers introduced two parasitic insects during 1935. One was a tiny wasp, imported from Japan, which attacked the larvae of the codling moth. The other insect fed on the codling moth's eggs. Together, the two parasites would reduce the codling moth's depredations, Wakeland believed. "Calculations have been made which show that if an orchardist can obtain 50 percent of sound fruit at harvest time without the expense of spray and spray removal, he can

Agricultural Engineering display

Historical Photograph Collection, UI Library, UA89-30, 64-10.

make as much out of his apple crop as he would if he had a 95 percent clean crop under the usual spray methods," he said. The experiment, conducted on leased land, was terminated when the land was sold. The new owner ripped out the apple trees.

Seek New Uses for Old Orchard Sites

Because fruit crops were not profitable during the Depression, some orchardists uprooted their apple trees and attempted to find other uses for the orchard land. It was necessary to grow plants that could tolerate concentrations of lead arsenate in the soil. This toxic chemical had accumulated in the soil during years when the trees were sprayed repeatedly for control of the codling moth. The problem of rejuvenating old orchard land interested UI horticulturists Leif Verner and George Woodbury. The UI purchased 11 acres of land near Parma that had formerly been in fruit production. To conduct research at the Parma site, Verner and Woodbury hired Lowell Tucker. He was later replaced by Carl Dietz. From the research it became apparent that production of vegetable seed could be accomplished with considerable success on old orchard land. In subsequent work at Parma, UI researchers investigated a wide range of vegetable seed production problems.

Many Projects in Progress on UI Campus

UI bacteriologists were studying livestock diseases. They also launched an investigation of a perplexing problem: Why did soils that once produced good yields of alfalfa show declines in production for no apparent reason?

With turkey production increasing in Idaho, the UI Poultry Department researched turkey production problems. Studies of poultry nutrition, hatching, and disease control also were in progress.

A demonstration of the steps involved in the manufacture of power alcohol from cull potatoes was presented at the "Ag Day" program preceding the 1936 Little International Live Stock Show. Agricultural engineering students also demonstrated the new single-wire electric fence and a power lawn mower. The demonstrations were coordinated by Hershell Klaas of Filer. Wade Wells of Gooding was manager of the Little International in 1936, and Clare Hunt of Emmett was assistant manager. Devere Tovey of Malad headed the committee in charge of prizes. In the beef cattle division of the show, Tom Chester of Henry showed the grand champion and also won the top award in showmanship. In the Little International Parade through downtown Moscow, a float built by agricultural economics students depicted "Farmer's Paradise." A farmer dressed in a tuxedo sat on a throne, fishing

from a pool labeled "United States Treasury." His throne was supported by blocks representing the AAA and other government programs. Behind the truck — dragging on the pavement, his head in a noose — was "Old Man Taxpayer." This commentary on New Deal farm programs was judged to be the champion entry in the float contest.

Under the direction of Professor Marion Featherstone, home economics students redecorated and refurbished an old seven-room house in May 1932. The house was open to the public for three days, attracting 1,500 visitors. Entered in a national Better Homes Contest, the redecorated house won third place.

In 1938, the UI animal husbandry program included work in the production and processing of meat. The university Meats Laboratory was not yet in existence, and students gained experience in a privately owned, modern packing plant in Moscow. For the study of farm animals, the students used the university's herds and flocks. According to a College of Agriculture information bulletin, the typical UI student in 1938-1939 paid from $247 to $329 per year for fees, books, and room and board.

University Researchers Study Weeds

The university of Idaho occupied a position of national leadership in weed control research during the 1920s and 1930s. The research had begun in 1920, under the leadership of H. W. Hulbert, UI agronomist. He joined the College of Agriculture faculty in 1917 and became head of the Agronomy Department in 1923. After holding that position for 13 years, he resigned and joined the staff of a seed company in Lewiston. Interested in forage research, Hulbert also assisted the USDA in establishing federal grades for peas. The USDA pea grading program went into effect in 1933. Hulbert's successor at the UI was K. H. Klages.

Agricultural economists at the university of Idaho and Washington State College agreed that tractor farming was more profitable than use of horses in the Palouse wheat-growing region. In a report issued in 1930, they compared eight farming systems that differed in their sources of power, their crop rotations, their acreage, and their inclusion or exclusion of livestock enterprises. Profitability was found to be highest in a one-section farm with tractor-powered equipment. Livestock enterprises were considered to be optional, summer fallow was deemed to be undesirable, and use of legumes in crop rotations was recommended.

In eastern Idaho, UI agricultural economists and Extension agents helped farmers to apply sound management principles to their farming operations. Agricultural economics conferences were held in 1931 in Jefferson and

Franklin counties. At each conference production plans were projected for maximizing profits on a good 80-acre irrigated farm. Data for the projections had been obtained by Extension agent D. E. Smith and agricultural economist Paul Eke in a survey of farms in Jefferson County. Eke was head of the Department of Agricultural Economics from 1929 to 1950.

The College of Agriculture graduating class of 1930 included one woman — Dorothy Perkins of Jerome. Agronomy was her major, and she intended to become a seed analyst. The only other woman student in the college was Ruth Perkins, Dorothy's sister. She was a sophomore in 1930.

Display showing benefits of heating livestock water tanks. Substation farm, Caldwell, Idaho, 1931.

Historical Photograph Collection, UI Library, UA89-30, 4550-3 D.

During the spring of 1931, the UI College of Agriculture initiated a series of radio programs. Called the Idaho Farm and Home Hour, the programs featured news concerning agriculture and home economics. The semi-weekly programs were broadcast in April and May over radio stations in Pocatello, Idaho Falls, Twin Falls, Boise, Nampa, and Sandpoint.

University Completes 50 Years of Service

In 1939 the university of Idaho observed its 50th anniversary. On January 10, 1889, a bill providing for the establishment of the university of Idaho at Moscow was introduced in the territorial legislature by J. W. Brigham, a 31-year-old farmer who represented Latah County in the legislature. In 1939, Brigham and his wife participated in the golden anniversary celebration. Mrs. Brigham was the former Nellie Wilson, one of 40 students who were the first group of students to enroll in the university when it opened in the fall of 1892. Six children of the Brigham family attended the university their father helped to establish.

G. P. Mix, a farmer of the Moscow area, had served as Idaho's lieutenant governor in 1931-1932 and 1935-1936. The university's golden anniversary was of special interest to him because he was the first graduate of the UI College of Agriculture. He received his diploma in 1901.

In dairying regions of the state, trucks were collecting cream from farms and transporting it to creameries for processing. Creamery operators said improved farm-to-market roads would make cream collection speedier and more economical. In the Boise Valley, J. R. Brown said his plant's longest cream route was 30 miles. With good roads, truck drivers could follow routes that took them 50 miles away from home, Brown said.

University Aids Idaho Cooperatives

During the 1930s, agricultural cooperatives were experiencing steady growth in Idaho. Extension agents and other College of Agriculture faculty members assisted local co-ops in a multitude of ways. "Farmers of Teton County need improved marketing methods, and these can be obtained through cooperative marketing," Extension agent E. W. Whitman said in his 1936 annual report. Ezra Taft Benson, UI Extension agricultural economist, helped co-op leaders organize the Idaho Cooperative Council in 1933. He was the Council's first executive secretary. He left Idaho in 1938, to become executive secretary of the National Council of Farm Cooperatives. From 1953 to 1961, Benson held the position of Secretary of Agriculture in the administration of President Dwight Eisenhower.

Livestock Events Command Attention

Throughout the 1930s, the agricultural event attracting primary attention from Idaho livestock producers was the annual Pacific International Livestock Exposition in Portland. UI students vied for places on the College of Agriculture judging teams that competed at Portland. Students and staff members carefully fitted and trained college animals that were to be entered in the show. Each year the UI delegation brought back many ribbons. No UI prizes gave more satisfaction to C. W. Hickman, head of the Animal Husbandry Department, than the awards the university swine won at Portland in 1935. Barrows and breeding stock exhibited by the UI won top awards. These were medium-sized hogs of the early-maturing type, not at all like the massive hogs the swine industry had favored during the teens and ’20s.

As early as 1923, UI animal husbandry professors had been aware of a strong trend developing in the swine industry. Believing that a smaller hog would soon replace the extremely large hog as the swine industry’s ideal type, they aimed their breeding program in that direction. They wanted to produce a hog that would mature in five or six months and weigh 200 pounds. The type of hog they envisioned in 1923 had gained widespread favor by 1935, Hickman said. He gave special credit to Julius E. Nordby, a veteran animal husbandman and expert livestock judge.

Nordby left the university of Idaho in 1939 and became superintendent of the United States Sheep Experiment Station at Dubois. The station had been created in 1915 for study of sheep problems under practical range conditions. In 1936, the administrative set-up at the station changed somewhat when an agreement was concluded between the university of Idaho Agricultural Experiment Station and the USDA Bureau of Animal Industry. Under the agreement, livestock at the station and products produced from the livestock became the property of the university.

By crossbreeding, researchers at the Dubois station developed two new breeds of sheep. The Columbia, a large vigorous range sheep, was the result of breeding Lincoln rams to Rambouillet ewes. The Targhee, a medium-sized sheep with wool finer than that of the Columbia, was produced by mating selected animals of the Rambouillet, Corriedale, and Lincoln breeds, and by subsequent interbreeding.

For years the Department of Animal Husbandry held open house prior to the Pacific International, inviting interested persons to visit the university barns and see the livestock that would be entered in the Portland show. Special trains transporting Portland-bound livestock were delayed for four or five hours, either at Lewiston or Sandpoint, in order that Idaho farmers could

A tractor specialist talks to farmers in 1930.

Roy E. Taylor Photo Collection

see some of the fine livestock Eastern exhibitors were sending to the exposition. College of Agriculture representatives always took part in these preview events.

Research Under Way at Tetonia, Twin Falls

Tetonia became the base for UI research in southeastern Idaho. When the High Altitude Branch Station was started in 1918, it was located near the town of Felt. In 1933 the buildings at the original station were moved to Tetonia. A new location for dry farming research was secured in 1939. W. A. Moss, superintendent of the High Altitude Station since its inception, continued to be in charge at Tetonia. Research in progress in the early 1930s included deep tillage experiments and measurements of sweet clover's value as a rotation crop.

The United States Department of Agriculture was cooperating with the university of Idaho in bean and sugar beet research in Twin Falls. In a bean breeding program, new disease-resistant varieties were sought. Sugar beet research was aimed at controlling the curly top virus. The USDA had seven professional entomologists stationed at Twin Falls in 1931.

Several thousand enthusiastic farm women attended the summer camps sponsored by the UI Agricultural Extension Service. Three-day camps were held at Hauser Lake, Fish Haven, Lava Hot Springs, Pond's Lodge, and

Payette Lakes in 1936. That year marked the tenth anniversary of the summer camps. The organizer and director of the women's camps was Marion Hepworth, Extension state home demonstration leader. She said women attended the camps for social contact and in order to gain information regarding health topics, music appreciation, interior decoration, landscaping, and development of rural life generally.

Farm Women and 4-Hers Attend Camps

In 1930, 350 young people gathered on the UI campus for the eighth annual 4-H short course. The following week, a 4-H short course was held in southeastern and south-central Idaho at the university of Idaho Southern Branch in Pocatello. J. H. Rearden, state 4-H leader, said the state had 3,700 4-H members — 1,900 girls and 1,800 boys. A total of 283 adults served as 4-H leaders.

Five 4-H forestry clubs were organized in Idaho in 1930, according to the annual report prepared by Otto Krueger, UI Extension forester. He joined the UI Extension Service in September 1930. He was succeeded by Stanley C. Clarke in l931. Clarke served until 1938. In one of his newsletters, Clarke gave this report on 4-H tree planting projects:

> "The Junior Forest Rangers of Burley, under the leadership of Mr. S.S. Stewart, planted a demonstration windbreak and woodlot on the fair grounds.
>
> "The Bannock Rangers of Pocatello, under the leadership of Wendell Hale who is also a member of the Pocatello Club, planted a one and one-half acre woodlot on the A.H. McGuire farm. The Pocatello Club, led by Mr. R.S. Pugmire, planted trees on the Bannock County fair grounds. The Maid Marian Club of Shoshone planted a windbreak on a farm, under the leadership of Miss Margaret Sinclair. The Wrencoe Club of Sandpoint planted tree seeds instead of seedlings. Mrs. Eudora Blood is the club leader."

Royale K. Pierson became UI Extension forester in 1936. During the 4-H Short Course in the summer of 1937, an intensive training course in forestry was offered and participation increased. In 1939, Pierson reported that Idaho had 18 4-H forestry clubs with a total membership of more than 200.

Throughout Idaho high school students gained wide-ranging knowledge by participating in vocational agriculture classes and allied projects and activities sponsored by the Future Farmers organization.

FFA Expands Student's Awareness

Vo-ag students examined agriculture from many different angles, according to Leonard Arrington. A student at Twin Falls High School in the early 1930s, he received vo-ag instruction from C.L. Mink. Fifty-five years later, Arrington recalled his experiences as a vo-ag student.

"Mr. Mink taught two 90-minute classes: beginning agriculture to freshman and sophomores and advanced agriculture to juniors and seniors. Our class periods were devoted to such activities as identifying and judging seeds, weeds, and meats; proper irrigation and cultivation of crops; and breeds of cattle, sheep, swine, and horses.

"There were lectures and discussions on agricultural finance, pests and disease, agricultural marketing, farm construction, farm organizations, and national farm policy.

"We took frequent field trips to farms and agricultural businesses in the county, visiting the best dairies, swine producers, sheep feeders, hatcheries, cheese plants, meat product enterprises, and 'country' banks. Some of these treks were on school days, others on Saturdays. There were always seven or eight all-day trips on Saturdays in July, August, and September before school started.

"We also visited dry farms, general-purpose farms, and growers of potatoes, sugar beets, beans, wheat, and alfalfa. Groups of us visited fairs held in Idaho, Oregon, Washington, and Utah, where we competed against other vo-ag students in judging livestock and exhibiting crops and livestock.

"Mr. Mink was expanding our vision of agriculture. We sheared sheep, skinned hogs, converted young rams to wethers, and learned to operate a cream separator. We went to Swift & Co. to observe the manufacture of cheese and the curing of meat. We went to a hatchery to see the incubation of eggs. As a special treat, the hatchery owner ordered a few ostrich eggs just to display them in the process of hatching.

"We went to a bank and watched a simulated loan being made, visited the newspaper to watch the preparation of the farm page, and attended political rallies to see what candidates for public office were saying about farm policy.

> "Our vo-ag teacher gave us status by seeing that articles about our activities were reported regularly in the local newspaper. We may not have gotten as much publicity as football players, but we ran a close second. And in 1933, our Twin Falls chapter ranked second among all chapters in the United States in scholarship, leadership, and project activities."

In the fall of 1934 Arrington attended the National FFA Convention in Kansas City and was awarded the FFA's American Farmer Degree. He was also elected to the position of FFA national vice president. In the following year he helped carry out the national organization's program of activities and represented the FFA at conventions of the National Grange and the American Farm Bureau.

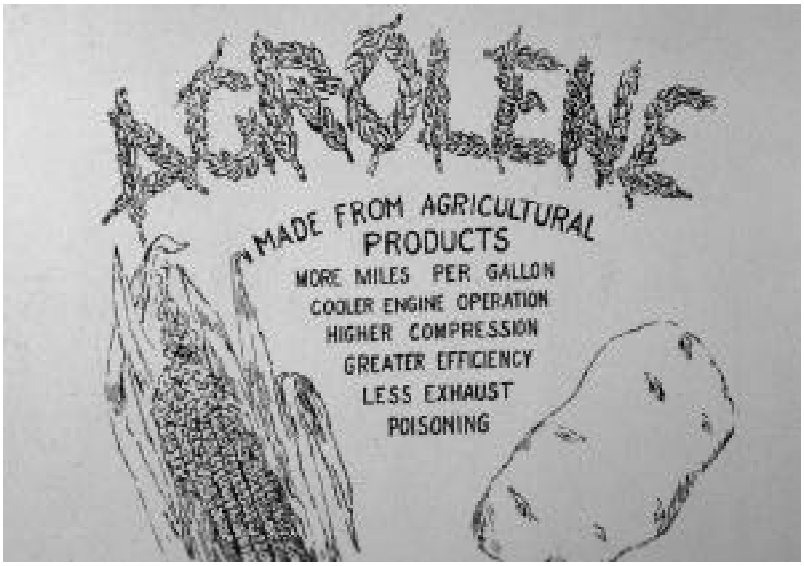
Alcohol was produced at the UI plant at Idaho Falls in 1934.

Roy E. Taylor Photo Collection

Producing Alcohol from Potatoes

Production of alcohol from farm crops was a major UI research project. Laboratory-scale research was in progress in Moscow in the early 1930s. In 1937, the state legislature approved funds for the operation of an experimental plant in Idaho Falls. Here, the College of Agriculture installed distilling equipment and proceeded to convert cull potatoes into industrial alcohol. During the four years the UI plant was in operation, agricultural engineer Hobart Beresford and bacteriologist Leo M. Christensen developed methods to improve the efficiency of the distillery — achieving alcohol yields 25 percent greater than other producers had obtained. The Idaho Falls Chamber of Commerce and the Idaho Advertising Commission gave financial aid to the project. The City of Idaho Falls furnished electric power and water free of charge. The Idaho Potato Growers, Inc., donated 300 tons of cull potatoes during the 1939-1940 season. Thirty tons of beet molasses were donated by the Utah-Idaho Sugar Company.

Leo Christensen became nationally known for his arguments in favor of converting surplus agricultural crops into fuel alcohol. His pamphlet, *Power Alcohol and Farm Relief*, was published by The Chemical Foundation in 1936. Christensen cited extensive scientific reports showing that ethyl alcohol is an excellent fuel for all internal-combustion engines. He claimed the national economy would benefit if unmarketable farm commodities became a major source of fuel alcohol.



Ad in 1930s lauded motor fuel made from potatoes.

Roy E. Taylor Photo Collection

War and Post-war

Cooperating in the nation's all-out effort to increase food production during World War II, American farmers surmounted tremendous obstacles. To hire farm workers was next to impossible. Tractors and implements were difficult to obtain. Manila hemp ropes, binder canvases, insecticides, and dozens of other basic farm supplies disappeared from the market. Despite the many difficulties, American farmers prevailed and set new records in food production. In those years everything was in short supply except determination and ingenuity — qualities that farm people possessed in abundance.

Idaho's farm families responded to the government's calls for increased production. First, in September 1941, the USDA announced "production goals" and encouraged farmers to produce more food for the nation's defense. In January 1942, a month after United States entry into World War II, the USDA increased the goals for most farm commodities. Subsequently, new goals were set annually. A USDA agency, the War Food Administration, conducted the food program in cooperation with a war board in each state. Extension agents had the responsibility of organizing educational programs in support of the wartime food production goals. In each county, Extension agents recruited and trained volunteer Extension neighborhood leaders — public-spirited citizens who tried to bring the "know-how" of modern farming and homemaking to their neighbors down the road.

During wartime, Extension agents devoted much of their time to educational activities on behalf of War Food Administration goals. They also continued their pre-war educational efforts aimed at helping farmers in their dealings with another government agency — the Agricultural Adjustment Administration. At meetings and in conversations with farm people, Extension agents explained how AAA payments could be earned by improving pastures, applying lime and phosphate, and planting soil-improvement crops. Extension agents also worked with wartime emergency boards on projects such as the rationing of farm machinery.

The two government agencies — WFA and AAA — had different orientations. As a wartime agency, WFA was committed to all-out food production. "Food is a weapon" was the official slogan — and a big arsenal of weapons should help win the war. The AAA was created in the Depression years when agricultural surpluses were a major problem. Some basic elements of the AAA program had been acreage controls and other measures designed to prevent overproduction of agricultural commodities. As long as there was a war in progress, the full-production policy advocated by WFA

would have the support of farmers everywhere. The low prices and glutted markets of the 1930s were not forgotten, however, and many farmers must have had uneasy moments as they considered how the agricultural productivity capacity unleashed during the war could be utilized in peacetime. Dean E. J. Iddings, as a member of the Idaho War Board, saw dangers in increasing meat out put too rapidly. He expressed relief when reduced livestock production goals were specified in the state's 1944 production plan.

Surplus Cotton Is Put to Use

The Great Depression may have been fading away after 1937, but its presence was still felt in the early 1940s. A major nationwide project undertaken by the USDA in 1940 called for the construction of five million cotton mattresses which were to be donated to low-income families. Government warehouses were bulging with cotton, and the purpose of the mattress project was to reduce the cotton surplus. The mattress-making project was conducted by the Extension Service in cooperation with the AAA and the Surplus Marketing Administration. The cotton was shipped to county Extension offices where needy people could obtain instruction in mattress making from Extension agents and volunteer leaders.

James E. Kraus, the potato expert who became UI dean of agriculture, operating a potato seed piece machine in 1947.

Historical Photograph Collection, UI Library, 1-217-12

Dorothy Stephens joined the Extension Service in January 1939. As a "home agent at large," she conducted educational programs in seven counties — Ada, Elmore, Gooding, Camas, Owyhee, Boise, and Gem. In an interview in 1985, Stephens recalled the Extension Service's mattress-making project:

> "The South had a surplus of cotton so they sent railroad cars of it to states in the West. We taught the leaders in the county how to make 50-pound mattresses and they in turn took over and taught others. We had sticks we pounded the cotton with in order to flatten it out so it could be used in the mattress. Then, of course, we had to sew around the edges and so forth.
>
> The work was really quite satisfying because we heard of people who were sleeping on piles of rags and straw. We were responsible for making over 20,000 mattresses in Idaho."

"That cotton came in big bales," Lew Williams recalled in the 1980s. In an interview with Bill Stellmon, Williams described how mattresses were made in Jefferson County:

> "At first, we took the cotton out and whipped it with sticks, fluffing it up. Then the people would put it in four-pound batts and stuff them in the mattresses. One day this good gal came in and said, 'Lew, when I was a young girl, I worked in the woolen mill in Ogden [Utah]. They had a big machine that tore old clothing and made it into fluffy wool. If you had that machine, it would save all this work.' We had some money in our hog marketing pool, so I said, 'If you are going down there and if you can get that machine for us to use for $100, you get it.' She brought back a big machine, and we set it up with a five-horsepower electric motor I borrowed.
>
> "My two boys helped run that cotton through. We filled a whole room in the old courthouse, a room full of cotton all fluffed up. When the women came in to make mattresses, they just had to grab bunches of cotton. A club leader showed the women how to do it. Then we got some old sewing machines, and two club leaders came in and put the mattress ticks together. Altogether, we made 1,600 cotton mattresses. The regulations said anyone could get a free mattress if they hadn't made $500 the year before. I asked Hiram Severson, chairman of the AAA committee, to make a little survey on the number of people who were eligible. Later, he said: 'Lew, I can't find anybody who made $500 last year.' So we opened it up and let almost anybody come in and make a mattress."

Gearing Up for All-out Production

Idaho agriculture's shift from restricted output to all-out production occurred rapidly. In 1941, the AAA set sugar beet production quotas at only 820,000 acres for the entire United States. Idaho's allotment was 61,797 acres — down from 73,000 acres harvested in 1940. By 1942 the situation had changed. Sugar beet production was at a new high, and it was a busy refining season for Idaho's sugar beet factories — including the new $2 million plant at Nampa.

On the eve of World War II, the Civilian Conservation Corps was still in operation. The CCC had been set up during the Depression to provide on-the-job training for unemployed youth. The CCC camp at Moscow temporarily suspended its soil conservation activities in the autumn of 1941, and the 80 young men at the camp took jobs pitching grain bundles and doing other harvest work on local farms. All over the state there were farm labor shortages. Some dairy producers sold their herds, and growers of sugar beets and potatoes had difficulties in harvesting their crops. In 1942 nearly 4,000 Japanese-Americans from government detention centers were employed in the Idaho sugar beet harvest.

The grand champion at the UI's "Little International" in 1940 was this Jersey cow.

Historical Photograph Collection, UI Library, 1-204B-7

Home economics students carefully follow a 1940's recipe.

Roy E. Taylor Photo Collection

Passenger car production stopped during the war, but United States factories continued to produce tractors and trucks for farm use. To help dairymen push milk production to new highs, the government authorized manufacture of milking machines. Output of new farm machinery and implements was restricted. Repair parts were manufactured in large quantities, but were not always available. To provide pointers on farm machinery repair, many Extension agents held classes and workshops.

Conservation of Food Emphasized

Extension home economists were responsible for achieving an important War Food Administration objective — conservation of food. In their educational programs, they emphasized food preservation and information regarding nutrition. They helped community groups organize campaigns for the collection of salvage such as rubber, paper, and fat. Extension home economists joined agricultural agents in encouraging people to plant Victory Gardens.

During the war, the College of Agriculture was forced to cancel some courses and some research programs. Student enrollment was down, and many faculty members were on wartime leave. Vacant faculty positions and student research assistantships sometimes went unfilled.

The college lost more than a third of its research staff between 1941 and 1944, said C. W. Hungerford, vice director of the Idaho Agricultural Experiment Station. In his annual report, Hungerford stated: "On the Home Station at Moscow, 12 members of the staff have resigned and have not been replaced, and seven research fellowships have remained vacant due to inability to recruit men for the positions. Three full-time research workers employed by the United States Department of Agriculture have left the university, and these positions have not been filled."

County Agents Provide Help to Farmers

During the 1940s, farmers turned to the UI Extension Service for help in finding workers. As county agent in Twin Falls County, Al Mylroie arranged for German soldiers in a prisoner of war camp to pick potatoes and sugar beets and do other work on local farms. "The prisoners had all fought against the American soldiers in Africa. But they worked out well as farm labor in Idaho. They liked to work," Mylroie said in an interview with Bill Stellmon in 1985.

Like all Extension agents, Mylroie had considerable autonomy in determining how he would conduct his educational program. "I found out that farmers didn't want someone giving them a lecture. They wanted you to come out to their farms and sit there and talk to them — and when you got through, they wanted you to head somewhere else."

By chance, Mylroie became involved in a broadcasting activity that brought the Extension message to homes all over southern Idaho. He was at that time agricultural agent in Bannock County. Here's his story:

> "One day I saw Henry Fletcher of Radio Station KSET, and he wanted to know where I was going. I said, 'To the fair,' and he said, 'Why don't you cut a tape for me?' He gave me the tape and the machine, and I went up there and interviewed an old sheepman. He was looking down at all those sheep, and he cut the best tape I ever got. Anyhow, the Fletchers had me cut more tapes at the fair. And after the fair, they wanted me to do more talks and interviews. So I went on the air, every morning, and this lasted 20 years.

Mylroie found that farm people responded positively to Extension programs that helped them achieve their objectives.

> "The cattlemen were always anxious to get better bulls and improve the herd. To help them, we organized a bull-grading system. We had one man from each grazing association appointed

to a bull-grading committee, and a certain time of the year, we'd go out and grade all the bulls in the county. Once any bulls were turned down, they were out. No fooling about it; you had to get new bulls if yours were turned down.

"The cattlemen were the ones that kept the grading system going. We started it, but they pushed us to keep it going. They'd call up and ask, 'When are you going to do the bull-grading this year?' 'Well, whenever you're ready, we'll come out and do it.' They kept it going, and they raised a lot of good cattle that way."

Home Economists Aid Idaho Families

Extension home economists had multiple-county assignments until the post-World War II era. Dorothy Stephens became a district home demonstration agent or "home agent at large" in 1939 and in 1946 accepted a county home economist position in Ada County. After serving as assistant state home demonstration leader for 11 years, she was appointed state home demonstration leader in 1966. In a 1985 interview, she recalled her work during '40s:

Mary Dale, a 1942 home economics graduate, receives her diploma from her father, UI president Harrison Dale.

Historical Photograph Collection, UI Library, 2-109-219

"At that time, there were only seven Extension home economists in the state. Marion Hepworth was the state leader. There was a clothing specialist who served the entire state. Then there were five home agents at large, as we were called. I was the first married woman ever hired in the position, and Dean Iddings held out for quite a while before he approved my appointment. He was sure I wouldn't be around more than a year or two.

"In wartime, projects like drying fruits and vegetables were very important. We had some homemade wooden dryers. Also we made ourselves a footstool so we could practice tying springs and webbings for our upholstery classes. We never had enough money provided for our projects so we usually had to buy things ourselves. Then they would belong to us whether we needed them or not. If we were giving a food demonstration, we'd charge the women a dime or 15 cents apiece so they could taste the food we were preparing.

"We used to make dress forms that the women could then fit their patterns to. To make a form, we started with a muslin fitted bodice, and then we taped the women round and round so the form could stand by itself when it was cut free. I remember we had one woman faint while she was being taped.

"Marion Hepworth developed women's vacation camps. They had them at Lava Hot Springs, Easley, and other places throughout the state. The women would go to these camps and stay for two or three days. Well-known speakers would come and address the women. The camps were very educational and were a forerunner to the development of the County Homemaker Councils.

"The fairs, of course, were a big part of our lives. In those days, the Extension home economics staff did most of the judging out over the whole state. We spent a great deal of time at the state fairs and the county fairs.

"In 4-H, we didn't have to develop programs for the city people. They asked for them. They could go to the fairs and see what rural 4-H members were learning, and they felt they were entitled to have this help also. The same was true with adult groups.

Extension home economists brought valuable information to homemakers.
Roy E. Taylor Photo Collection

"Even back then, our home economics program included much more than just cooking and sewing. We included how to manage your money, interior decorating, and food preservation and good nutrition. In Extension, we begged for child development and family relations specialists — and they're still begging for these specialists today.

"In each county, we home economists had Home Demonstration Clubs we met with and gave demonstrations to. In Ada County, I enlarged the program from a beginning of one Home Demonstration Club to 10 — and then I got it up to 27. I couldn't go to 27 clubs in a month and get anything else done so I developed a leader training program. I worked with someone from each group and gave them the training so they could take the information back and report it to their groups."

Many Activities in Caribou County

The Depression still lingered in Caribou County in 1939 when Thomas J. Chester returned to his home county as Extension agricultural agent. "Having been in 4-H club work for 10 years, I knew quite a little about Extension — or thought I did. I didn't know that in the smaller counties the county agent got stuck with being secretary to the AAA program. This was frustrating for me. The state AAA committee expected all the AAA work to be done, and the university wanted a decent Extension program in the county. When the Extension program started to

be like I'd planned it, there would be a lot of AAA work come up — compliance and mapping of fields and all that," Chester said in a 1985 interview with Bill Stellmon.

Unlike some of the larger counties, Caribou County was never without an Extension agent during the Depression. Educational programs the Extension Service provided to farmers and homemakers gained the approval of most people in the county, Chester said. However, the public's appreciation of Extension was most notable in regard to the 4-H programs for youth. By providing 4-H programs for the county's young people, the Extension Service amply justified its existence in Caribou County. Throughout Idaho, 4-H was extremely popular.

Dealing with Farm Labor Problems

In Caribou County, Chester had to find time for AAA duties as well as Extension work. When he took up duties as Extension agent in Bonneville County in 1942, there were new demands on his time. To help farmers cope with the wartime labor shortage, the Extension Service had become involved in the Emergency Farm Labor Program. "Transferring to Bonneville County, I walked right into the emergency labor program," he said.

"There was very little mechanized harvesting of potatoes and sugar beets at that time," he pointed out.

> "To dig potatoes, single-row diggers were used — and some double-row diggers. The potatoes were exposed to the air. Then, they had to be picked promptly, to avoid frost damage at night. The school system worked with us; they let all the kids out of school for a full month, so the kids could pick potatoes. The mayor of Idaho Falls closed down the pool halls until 6 p.m., trying to get the pool players to go out and pick a few spuds.
>
> "The sugar company had brought in about 500 Mexican nationals to work in the sugar factory, and we arranged to hire them as farm labor. We brought in several groups of war prisoners, using the old park building in Idaho Falls as a prisoner-of-war camp. The first year I was at Bonneville County, we had the county fair in town, on Broadway Street. The fairgrounds had been taken over for the prisoner-of-war camp.
>
> "With the cooperation of Extension Service directors in Kentucky, Tennessee, Kansas, and Oklahoma, we recruited farm

laborers from those states. They came in by the train load — 550 men per train. For harvesting jobs, we also hired Japanese-American evacuees.

"The last farm labor program we conducted was about 1948. By then, farm mechanization had mushroomed. We had potato and sugar beet harvesters, also larger tractors.

In 1946, Chester was promoted to Extension district supervisor. The Extension district office for southeastern Idaho originally was located at the Southern Branch of the University of Idaho in Pocatello. After Idaho State University was established as a separate entity, the Extension office was moved to the county court house.

"After I became district supervisor, we worked closely with county commissioners and were able to add home demonstration agents or home economists to all the counties in the district with the exception of Teton and Clark," Chester said.

"Up to that time, we had only two district home demonstration agents — one in Pocatello who covered eight counties and one in Idaho Falls who covered all the Upper Snake River counties.

Agricultural Engineering students with model of a fuel injection system for a diesel tractor.

Historical Photograph Collection, UI Library, UA 89-30 I-903-10.

"We also were able to add 4-H agents in about two-thirds of the counties in the district. When Vance Smith was district 4-H agent in the early 1940s, he had to cover the Magic Valley counties as well as these counties in Eastern Idaho. During the 1940s, Extension work was very well accepted, and 4-H programs became very popular. The people wanted 4-H youth programs. They also appreciated the research at the University of Idaho experiment stations — the work with cereals and potatoes at Aberdeen and the dry farming research at Tetonia."

Farm Machinery Shortage is Serious

To help farmers cope with machinery shortages during World War II, Extension Service agents tried a number of approaches. In Clearwater County, Elbert McProud sponsored a machinery exchange. "With the start of the war, we had to scrounge around to help people get some machinery." McProud told Bill Stellmon in a 1985 interview. "We had a Victory Farm Machinery Sale which was really quite a success because people would go in and trade equipment."

McProud joined the UI Extension Service in 1940, accepting the agricultural agent position in Clearwater County. After three years there, he became agricultural agent in Boundary County. "As far as the war effort goes, a county agent during that time was on every kind of board there was — especially machinery allocation," he recalled in 1985. "If you wanted to buy a plow or even a hoe, you had to get the approval of the board. You had to get approval to buy nails, tires or most equipment. Sometimes there was a great difference of opinion, too. When the board made a decision, not everybody was pleased. Nevertheless, that's the way it was."

Potato growers used labor-intensive harvesting and hauling systems in 1940.

Historical Photograph Collection, UI Library, UA 89-30 6-17-63

War Impacts Vo-Ag Training

Vo-ag instructors in Idaho high schools conducted hundreds of courses for out-of-school students during World War II. The courses emphasized food conservation, crop production, and farm machinery repair.

Farmers attended evening classes. For out-of-school youth in agriculture, vocational training was provided in special classes. Vo-ag teachers also offered their customary classes to high school students.

Thanks to the wartime draft, the ranks of vo-ag teachers thinned out in the early 1940s. The regular high school vo-ag program included 41 centers in 1940-1941, but only 31 centers were operating in 1946-1947.

Vocational training for out-of-school farm youth began in 1938 at Weiser, in a program sponsored by the state in cooperation with the National Youth Administration. Similar programs were established throughout the state, and in 1942 there were 3,350 young men enrolled in special classes. In addition, 513 Gem State farmers were taking evening classes in 1942.

The Rural War Production Training Program (renamed the Food Production War Training Program in 1943) trained farmers in efficient production techniques. In 1943-1944 the Idaho program provided training to more than 12,000 individuals. At that time, farm machinery repair classes were popular. Seeking ways to keep their machinery running, Idaho farmers attended 141 classes in 41 different communities.

In 1946 a post-war, on-farm training program was started for World War II veterans. Known as the Institutional On-Farm Program, it was organized and supervised by local vo-ag instructors. In addition to teaching GIs, the vo-ag teachers continued to conduct high school vo-ag classes. In 1950, there were 3,682 Idaho veterans in training under 218 instructors in 99 centers around the state.

Researchers check test results in the Agricultural Biochemistry and Soils Laboratory in 1948.

Historical Photograph Collection, UI Library, 1-216-8

Bean Breeders Score Successes

At a time when bean production was being emphasized by the War Food Administration, the UI bean breeding program at Twin Falls was proving to have tremendous economic value. A new white bean variety, UI 15, bred and developed by plant pathologist Donald Murphy, was productive and disease-resistant. “It is putting it mildly to say that the bean industry in Idaho would have been curtailed except for this breeding work. No. 15 is resistant to both white fly, which causes curly top, and to bean mosaic,” said D.T. Bolingbroke, Extension agent in Twin Falls County. Ray O. Peterson, agent in Jerome County, said the new variety yielded 10 percent to 25 percent more than other varieties.

In his breeding work, Murphy secured resistance to the curly top virus disease by crossing the Red Mexican bean with the mosaic-resistant Great Northern beans that had been developed by W. H. Pierce. The Red Mexican bean has a high degree of resistance to curly top. Murphy originated two Red Mexican varieties, UI 13 and UI 34, that are disease-resistant and

highly productive. His successor in the bean breeding work was Leslie Dean. In the early 1940s, Dean developed large, disease-resistant Pinto beans by crossing the common Pinto with the Red Mexican bean. Dean joined the Navy and, in his absence, his work was carried on by J. M. Raeder.

New Research Facilities at Parma

Because vegetable seed was an essential component of wartime agriculture, studies in seed production were emphasized by DeLance Franklin, UI horticultural researcher. He arrived in Parma in 1942 to conduct research at the UI field station there. In 1946, Franklin was authorized to sell the UI's outdated research facilities in Parma and to proceed with building a new, modern facility on an 18-acre tract out of town. As superintendent of the Parma Experiment Station, Franklin was in charge of the original construction and subsequent expansions. By 1948 the Parma station had made a major contribution to the orchard industry. Franklin and Leif Verner of Moscow collaborated in developing the first commercially acceptable use of floricidal sprays for thinning apples.

Program Revived in Ada County

During the 1920s, the Extension program in Ada County was discontinued. In 1941, Herman Hilfiker came to the county to restart the Extension work. He found that Ada County's farm leaders were responsible for reviving interest in Extension. In an interview with Bill Stellmon, Hilfiker said:

> "The farm leaders got a rather large committee together. It included all the Grange masters and representatives from all the commodity groups. These people went around and got up enthusiasm for the Extension programs, and they prevailed on the county commissioners to budget for an Extension program. Afterwards, the group became permanent. They called it the Agrarian Club. They met every month and still do. So when I came to the county, I had a ready-made group of farm leaders that could serve as my advisory committee."

With farm leaders providing support and encouragement, the Extension program in Ada County grew steadily.

> "I was the only agent for several years. In the fall of 1945, we hired a 4-H Club agent. This was Mark Calnon. He was a College of Agriculture graduate and had been an outstanding 4-H club member. Later, we hired a county home demonstra-

> tion agent — the only county home agent at that time. She was Dorothy Stephens, who had been a district agent. In 1959, Doran Peterson joined our county staff. Then we added another home demonstration agent — Lucia Wilson."

On dairy farms in Ada County, the power of DDT was effectively demonstrated in the early 1940s. Hilfiker recalled:

> "Earl Shull, our Extension entomologist, got the Air Force to give me 250 pounds of 50 percent DDT. The air base at Gowen Field was getting milk from the local dairies, and flies were a real problem. I took a county truck and hired a spray rig. The milk inspector and I went out and sprayed 106 dairy barns — the cattle, cats, dogs, and everything. The DDT killed every fly it hit. It was the most dramatic thing you ever saw. Afterwards, there wasn't a fly around."

A series of radio programs on agricultural subjects was launched by Archie Harney soon after he joined the UI Department of Agricultural Information in 1945. He became known as "the farm radio voice of the state," broadcasting over radio stations in every section of Idaho. Each week, for 17 years, he prepared six taped recordings which featured interviews with College of Agriculture faculty members. The programs also included Harney's gently humorous comments concerning everyday occurrences.

Changes at UI Experiment Stations

Potato disease trials, grain seeding studies, and development of new methods for thinning sugar beets were in progress at the Aberdeen Experiment Station. John L. Toevs, station superintendent since 1931, resigned in 1946 to join the Federal Reclamation Service as head of a land development program in the Columbia Basin. Ralph Knight, superintendent of the Sandpoint Experiment Station since 1935, was named to the superintendent's position at Aberdeen. Succeeding Knight at Sandpoint was Ralph S. Samson. A 1932 graduate of the UI College of Agriculture, Samson had been employed by the United States Soil Conservation Service.

Studying phosphorus needs of sheep, UI researchers at the Caldwell Experiment Station found that good quality alfalfa would supply ewes with adequate phosphorus during pregnancy. When fed phosphorus-deficient rations during pregnancy, ewes might exhibit deficiency symptoms but their lambs would develop normally, said R. F. Johnson, station superintendent.

The UI College of Agriculture purchased 10 acres of land south of the Lewiston airport. A field station for fruit and vegetable research was established in 1949. Raspberries, strawberries, and beans were being grown for freezing trials. Horticulturists were testing vegetable varieties for yield and date of maturity. Plant pathologists studied new crosses of tomatoes to determine their resistance to Western tomato blight.

Planning for Post-war Conditions

Looking ahead to the post-war era, Dean E. J. Iddings told farmers in 1944 that conservation of the soil should be given high priority after the wartime emphasis on all-out production had ended. Crop rotations and other practices that preserve soil fertility should be resumed, he said. Livestock production would be a key element in Idaho's postwar economy, Iddings predicted. He urged livestock producers to follow sound breeding programs. "Types of animals can be just about what we want to make them," he said. "They are malleable as plastic. If we get wrong types, we have ourselves to blame. As breeders, all we have to do is decide what we want and stick together."

Iddings retired in 1946 after more than 35 years of service. He had joined the College of Agriculture faculty in 1910 and had become dean in 1915.

A team of horses plows the hillside south of the Administration Building.

Historical Photograph Collection, UI Library, 1-204A-2

Donald R. Theophilus, head of the Department of Dairy Husbandry, succeeded Iddings in his administrative positions — dean, director of the Agricultural Experiment Station, director of resident instruction, and director of the Extension Service. Theophilus joined the UI faculty in 1927. Under his leadership, the Department of Dairy Husbandry gained international recognition for important research dealing with methods to increase and preserve the riboflavin content in milk. The department also pioneered in research concerning artificial insemination of dairy cattle.

C. W. Hungerford, vice director of the Idaho Agricultural Experiment Station since 1927, resigned that post in 1947 but continued to serve as dean of the Graduate School and head of the Department of Plant Pathology. Glenn Holm, first head of the Department of Veterinary Science, left that newly created department and took the Experiment Station post. Holm resigned from the university in 1949. In that year, James E. Kraus was appointed associate director of the Experiment Station. He had been head of the Department of Horticulture, a post which George W. Woodbury subsequently filled.

Agricultural Engineering Expands

Hobart Beresford, long-time head of the UI Department of Agricultural Engineering, retired in 1946. His successor as department head was James W. Martin. “Beresford was all things — department head, Extension agricultural engineer, and farm electrification program director,” Martin said in a 1985 interview with Bill Stellmon.

“It seemed obvious to me that we needed an Extension agricultural engineer,” Martin continued.

> “I hired Owen K. Brown, our first master’s degree person, for the Extension position. Then the second program that seemed to need immediate attention was the farm electrification program. For this, we hired Bill Knight as director.
>
> “Through the efforts of potato growers, the university developed a program to really mechanize the harvesting of potatoes. I hired Elmer Humphrey, an agricultural engineer, and the Department of Horticulture hired Walt Sparks. Humphrey and Sparks worked together to improve potato harvesting.”

Agricultural Consulting Council Founded

To promote cooperation between Idaho agricultural industries and the University of Idaho, Dean D. R. Theophilus formed the UI Agricultural Consulting Council in 1948. George L. Yost of Emmett was named chairman. Other members were Carl D. Irwin, Kimberly; Marshal Keyes, Idaho Falls; George Hersley, Boise; Mrs. Ferrin G. Harland, Caldwell; J. H. Nettleton, Murphy; John H. Breckenridge, Twin Falls; David Stubblefield, Boise; Jesse Vetter, Coeur d'Alene; C. M. Carlson, Caldwell; and D. W. Clegg, Grace. "I know I speak for every member of the Council when I say we welcome the opportunity to cooperate with the University in making its agricultural programs of maximum value to the state," Yost said.

The City without Flies

Before DDT became available to the general public, the new insecticide was tested at the University of Idaho. In the first round of tests in 1944, the chemical controlled a wide variety of Pacific Northwest insects. It was particularly effective against flies. The barns at the university farm had hardly any flies still alive after spraying crews completed their work. The few remaining survivors were doomed if they touched a wall or other surface that had been sprayed with DDT. All over Moscow people noted the absence of flies and rejoiced. Newspapers ran stories about Moscow, "the city without flies." In 1945, UI entomologist W. E. Shull conducted more than 100 fly-control demonstrations throughout

Waiting to board the 1937 student special.

Roy E. Taylor Photo Collection

Idaho. The next year, he began a statewide campaign to get rid of the fly problem. About this time, Shull resigned to enter the pest control business, and the statewide fly blitz was supervised by H. C. Manis, who succeeded Shull as head of the UI Department of Entomology.

A fly-free state seemed to be in prospect when custom sprayers rolled down rural roads in 1946. For a modest fee, farm families could have their barns and barnyards treated with DDT insecticide. This was the first statewide campaign of its kind, although other states followed suit in 1947. In Idaho, the sprayer crews were out in force again in 1947 and 1948. Trouble was developing, however. Some flies seemed to be immune to DDT. In fact, tests showed a few tough flies surviving even when the concentration of the DDT spray had been raised far beyond the usual formulation. UI entomologists said a number of new insecticides could be included in a fly control program. "We're certainly not going back to swatting flies," Manis said.

Pea weevils were controlled more effectively with DDT than with rotenone dusts, according to a 1948 research report signed by Tom A. Brindley, Ralph Schopp, and Frank Hinman, federal entomologists stationed at the University of Idaho. Brindley came to Moscow in 1931 as director of the newly established Federal Pea Weevil Laboratory. He served in Moscow until 1951. The federal research laboratory was closed in 1953.

C. O. Youngstrom Appointed

C. O. Youngstrom, Extension economist, was appointed assistant director of the UI Extension Service in 1944. He succeeded Harry L. Spence, Jr., who resigned to become manager of the Mesa Company. In addition to being assistant director, Spence also had held the position of Extension agronomist and pure seed commissioner. Buford E. Kuhns, Extension agent in Canyon County, was promoted to agronomist and pure seed commissioner.

Kuhns was the first Extension agent in Canyon County in some years. While serving there, he received this testimonial in the *Idaho Farmer*: "Kuhns is the farmer's idea of what a typical county agent should be. One day's work for him may include a 4-H organization meeting in one end of the county, a check-up of 100 or more AAA applications, a visit to one or more of the county's fertilization projects, a meeting with the commissioners, attendance at a rodent eradication meeting, all topped off with his serving as toastmaster at a banquet session of the Future Farmers."

War Restricts 4-H Activities

The 1940 4-H Short Course, held on the UI campus, was the 18th annual statewide gathering of 4-H'ers. It was the largest meeting yet, said J. W. Barber, state 4-H leader. A total of 403 members from 16 counties attended. Ninety came from southwestern Idaho. In 1941, enrollment at the five-day meeting totalled 352. After World War II, a new record was set — an enrollment of 700 at the 1946 event.

Wartime gasoline rationing and travel restrictions complicated 4-H activities in Idaho. In l942, many county fairs were canceled. Tours and demonstrations were difficult to arrange. Most 4-H forestry activities were on a maintenance basis in 1944, UI Extension forester Vernon Ravenscroft reported. There were only eight forestry clubs and approximately 80 members at that time. By 1947, more than 300 4-H members were enrolled in forestry projects. Enrollment continued to increase each year until 1951.

At the Moscow campus, World War II caused the University 4-H Club to suspend activities for five years. The club became active again in 1947. Cecil Alldaffer of Burley was the club's president, Betty Hopper of Midvale was secretary, and Wilma Joyce Hartman of Parma was treasurer.

Dan Warren's Credo

Dan E. Warren, a 1927 graduate of the University of Idaho and a member of the UI Extension Service since 1929, became state 4-H leader in l944. Warren had served as district Extension agent for 4-H work (1929-1934), Extension agent in Oneida County (1934-1937), and state 4-H specialist (1942-1944). In a report listing the benefits of 4-H membership, Warren said the most important point was: "4-H club work develops enlightened leadership." He also noted these advantages:

> "4-H club work provides an excellent home laboratory project. The field is wide open for scientific projects. Studies in school may be carried over into 4-H projects of entomology, nutrition, horticulture, electronics, meteorology and mineralogy.
>
> "Opportunities for exploring careers are made possible through the 4-H club program. This is especially important since studies show that not more than 15 percent of youth now living on farms can become full-fledged owner-operators of farms.

"Health and physical development is another concern. We know that teenage girls are the poorest fed segment in our population.

"Recreation which is purposeful and wholesome is encouraged by 4-H. Play habits will carry over to adult life and contribute to a wholesome family life.

"A good attitude toward work is another 4-H goal. A positive attitude toward science and learning can be the basis for a happy and useful life."

A football player poses for a 1940 publicity shot advertising Idaho potatoes.

Historical Photograph Collection, UI Library, 2-115-491

Youth Camps are Developed

Vernon Burlison joined the UI faculty in 1946 as assistant to Vernon Ravenscroft, Extension forester. "About 200 to 250 4-H boys and girls around the state were enrolled in forestry clubs," Burlison said in an interview with Bill Stellmon. He continued:

"In a few years, there were around 500 4-H'ers in forestry, and the forestry identification competition got to be one of the most important 4-H events at the district fairs at Jerome and Blackfoot.

"The idea of a 4-H camp was just being tested at that time. The first 4-H camp I attended had youngsters from Franklin County and Oneida County. The eastern counties began to camp more, some of them holding camps up in Yellowstone Park. At Yellowstone, I'd take a group of 4-H kids on a nature walk, and before long the group would have as many tourists as 4-H'ers.

"Before there was a Camp Alpine, 4-H'ers began camping at the site of the old CCC camp there. Dan Roberts, Sterling Schow and other Extension agents then got started on their building program and finally wound up with a good quality dining hall and kitchen and a whole array of cabins around in the woods.

"We started a natural resources camp in northern Idaho. We held it at the old Camp Heyburn for several years. Then we moved to a camp at Twin Lakes. Finally, we moved over on the east side of Coeur d'Alene Lake. I organized the camp in 1958, and it came under the sponsorship of the American Society of Foresters. About the same time, the Soil Conservation Service started a camp near Dayton, and Washington State University organized a range camp in north-central Washington. I took the initiative to unite the camps. We got together and decided to hold one camp for northern Idaho and eastern Washington — and we called it the Inland Empire Natural Resources Management Youth Camp."

Wheat Breeders Develop "Idaed"

Popular among Idaho wheat growers in the late 1940s, Idaed was a variety of wheat that came close to being discarded in the 1930s. It was one of the experimental crosses wheat breeder V. H. Florell produced in the 1920s. Later, C. A. Michels took over the wheat breeding work at the university. At one time, he almost got rid of the selection numbered 20172-V11-4. Fortunately, he kept the selection in the breeding program and developed from it a new variety of spring wheat. This performed well in extensive trials and was released in 1938 as the Idaed variety. The name was a tribute to Edward J. Iddings of Idaho — dean of the College of Agriculture. In 1948, about 250,000 acres of Idaed were planted in the state. Wes Jenkins, Extension agent in Idaho County, said Idaed accounted for 95 percent of the spring wheat grown on the Camas Prairie.

Karl H. Klages, head of the UI Department of Agronomy, in 1949 prepared a list of the top-performing wheat varieties in Idaho. For the dry-farming areas of eastern Idaho, he listed Wasatch and Cache as the preferred winter wheats and Idaed and Komar as the leading spring wheats. Irrigated areas in southern Idaho were growing Elgin winter wheat and three spring wheats — Federation, Lemhi, and Idaed. On the Palouse and the Camas Prairie, farmers reported good results with Rex, Orfed, Golden, and Elgin winter wheats and Idaed and Federation spring wheats. The Idaho Panhandle's best winter wheat was Elgin, while Idaed and Premier were the area's preferred spring wheats.

An annual weed named halogeton was poisoning livestock on desert range. In 1945, one sheepherder brought his band of 1,300 ewes out of the hills onto the Raft River flats of southern Idaho. By noon of the next day, every sheep in the band was dead. The poisonous compound in halogeton is oxalic acid. UI researchers worked with stockmen in preparing a halogeton control program. "Large areas of desert range should not be cleared of sagebush or other undesirable vegetation until more is known about establishing grass seedings. Halogeton appears to invade immediately following soil disturbances," said UI weed scientist Lambert C. Erickson.

Pioneer Poultry Expert Retires

After 47 years of service at the University, Pren Moore retired in 1949. He had been responsible for a great deal of the progress the Idaho poultry industry had achieved through the years. As Extension specialist, he had advised and inspired poultry producers throughout the state. "Idaho has all the qualifications to become a great poultry state," Moore said. "We have the feed in Idaho, energetic and cooperative producers, hatcherymen, and breeders. Right now, in the upper Snake River Valley, there are farms with 1,000 to 3,000 hens. Some even have more."

Other Milestones of the 1940s

An Idaho-developed apple received wide acclaim after it was released in 1942. The new variety, Idared, resulted from an apple-breeding project launched about 30 years before by C. C. Vincent, pioneer UI horticulturist. Leif Verner, Vincent's successor as head of the Department of Horticulture, selected the variety, which was a cross of the Wagener and Jonathan varieties.

In 1948, after serving as department head for 14 years, Verner asked to be relieved of his administrative duties so that he could devote his entire time to fruit research.

Extension home economists conduct upholstery class.

Roy E. Taylor Photo Collection

Owyhee County's first Extension agent was appointed in 1947. J. V. Briggs moved to Marsing and began Extension work in the county. During World War II, Briggs had been assistant farm supervisor of a Japanese relocation camp near Hunt.

Metal silos were finding acceptance in the Pacific Northwest, according to Owen K. Brown, Extension agricultural engineer. Silos made of glued plywood were also successful. For supplementary use, temporary silos could be built of snow fences lined with sisalkraft paper, Brown said.

The first experimental sugar beet harvesters were being tested in 1943. During the 1946 harvest, 337 machines harvested about 10 percent of the state's total sugar beet acreage. A year later, 750 machines handled 25 percent of the state's crop. The International Harvester and similar machines topped, pulled, and loaded beets in a single trip down the row. Other harvesters, including the John Deere, topped the beets before they were pulled, then pulled and conveyed them into windrows to be picked up by a separate loader.

Alvin C. Wiese was appointed head of the UI Department of Agricultural Chemistry in 1946. J. W. Martin was the new head of the Department of Agricultural Engineering. The new head of the Department of Dairy Husbandry was D. L. Fourt, and H. A. Winner was named to head the Department of Agricultural Education. Herbert E. Lattig, assistant dean of the College of Agriculture and head of the Department of Agricultural Education, was named UI director of student affairs and dean of men.

Farmers Are Urged to Diversify

Mechanization was progressing on American farms. Two million farm tractors were in use in 1945. Back in 1910 not one farmer in a thousand had a tractor. By 1920 one farmer out of 28 owned a tractor. Then it was one farmer in seven in 1930, one farmer in four in 1940, and one farmer in three in 1945.

Diversified farming was a goal emphasized by the UI Extension Service in the early postwar period. Elbert McProud took over as Extension agent in Latah County in 1945. "The goal was to have a relatively small acreage, about 25 head of cows, some brood sows and some chickens," McProud said in a 1985 interview. He added:

> "We worked on getting milk routes lined up and breeding associations organized. Of course, there's hardly a dairy in Latah County now, but we worked at promoting dairying.

"After the war, there was a basic change as far as farm size was concerned. Some farmers started increasing their acreages, and of course others went off the farm. Equipment got bigger, and there was a revolution in chemicals — fertilizers, herbicides, and insecticides. When I first came to Latah County, farmers were actually standing in line down at the fairgrounds to buy sodium chlorate. That was the chemical used to kill Canada thistle. After 2-4,D was introduced, that all changed."

Extension Service Gains New Talent

The University of Idaho gained new vitality as veterans returned and took up their studies. In the UI Extension Service, an infusion of new talent brought about changes in the postwar period. Many counties that had been served only by a district home demonstration agent now added home economists to the county staffs. Latah County's first full-time Extension home economist was Esther Nystrom, who was appointed in 1946. Young men, many of them veterans, joined the county staffs as agricultural agents or 4-H agents. In Latah County, McProud was pleased to have Leonard Brooks join the county staff as assistant agent in charge of 4-H programs.

"Brooks started a 4-H program up in Hatter Creek where there hadn't been a 4-H club before," McProud said. He got them started, and almost every one of the 4-H members had a calf. They were all lined up to come to the county fair, but they didn't show up. Leonard got right out there and found the youngsters were scared. They said they were afraid their calves weren't as good as some of the others.

"Anybody who knows Leonard Brooks knows he doesn't take 'No' for an answer. In the end, they got a truck and brought the calves to the fair. The kids might not have won a blue ribbon, but they were involved. Another time, we had a 4-H achievement day in the Harvard community. It was in the spring; it was just thawing. Soon after we arrived at the hall, a firecracker went off — right inside the hall. It sounded like a shotgun. Leonard Brooks had been a sergeant in the Army, and he immediately chased the culprit outside. The water in the street was about ankle deep, and Leonard plowed right through it. He caught the culprit, and they had a good complete understanding about throwing firecrackers in halls. Then the show went on, and we had a good achievement day."

Scientist's Role As Culture-builders

Following World War II, many educators took time to reflect on the goals colleges and universities should be seeking in the postwar world. Karl H. Klages, UI agronomist, addressed the 1947 annual meeting of the American Society of Agronomy. His topic was the training of agricultural scientists. He said:

> "Their training should be guided along lines that may serve to close the present wide and alarming breach between the humanistic and non-humanistic subjects. All of us are confronted at present with the task of rebuilding our culture. Culture and social organizations, with all of their historical roots, are human creations which can be rebuilt on a new framework of concepts and beliefs. The rebuilding of our culture is an obligation and the responsibility of all educated people. It is no small undertaking. It should be done under the guidance of men of wisdom and understanding. At least a few agronomists should be active participants."

Building New Technologies

Science and technology commanded worldwide attention in the 1950s. This was the decade the world entered the space age. The signs of technological progress were unmistakably apparent when the United States launched experimental rockets and the Soviet Union successfully deployed the Sputnik satellite. On American farms, technological changes were having a revolutionary impact. Farmers wanted to have labor-saving machinery and manufacturers obliged by developing bigger and better tractors and a variety of new farm implements. Tractors with air-conditioned cabs became available. Each year, tractor manufacturers came out with models providing more power at the drawbar plus improved power take-off features. Dairy farms continued to mechanize, new inventions reduced labor costs for poultry producers and livestock feeders, and sprinkler irrigation became popular.

Hoping to find an alternative to thinning beets by hand, Idaho sugar beet growers had been experimenting with strange contraptions made of parts of old-fashioned hay rakes and other old farm implements. They were encouraged when manufacturers placed on the market mechanized sugar beet thinners. Even more heartening to sugar beet growers was the news that scientists had developed a new type of beet that produced monogerm seed. With the new seed, there was less need for thinning beets.

Potato growers eager to achieve mechanization teamed up with resourceful blacksmiths and mechanics to produce combine harvesters that eliminated much labor in the digging and picking of potatoes. Growers also enlisted the help of local metalworkers to develop new systems for conveying potatoes into storage buildings. Before long, implement companies were manufacturing combine harvesters and conveyor-pilers.

The nation’s first hillside grain combines were created in northern Idaho. Farmers adapted ordinary combines and made them safer to operate on the sloping fields of the Palouse. In a few years, it was apparent that a market for hillside combines existed, and implement manufacturers began making them. Because Idaho farmers wanted to have agricultural technology progress, they engaged in experiments and improvisations that speeded the development of new farm machinery.

Use of agricultural chemicals continued to increase in the 1950s. Sales of fertilizers, herbicides, and insecticides climbed steadily. DDT was widely used, and new pesticides came on the market each year. Producers tried to increase profits by administering stilbestrol and antibiotics to their livestock.

Progress Noted on Idaho Farms

Virtually all farms in the state had electricity in 1950, said UI agricultural engineer William H. Knight, speaking on the occasion of the Idaho Farm Electrification Committee's 25th anniversary. He said 97.6 percent of the state's farms were receiving electricity, while the nationwide average for farm electrification was 78 percent. "A man working hard for eight hours can produce about one horsepower-hour of work," Knight said. "A quarter-horse electric motor can do the same amount of work for less than 5 cents. For 5 cents, a farmer can milk 20 cows, or separate 2,000 pounds of milk, or saw a cord of wood, or pump 1,000 gallons of water. That explains why farmers have so many electric motors."

Through mechanization, poultry producers would be able to cut labor costs, C. E. Lampman, head of the UI Poultry Department, predicted. A poultry house on campus had been equipped with automatic feeders and waterers, an automatic pit cleaner, thermostatically controlled fans for ventilation, and other labor-saving devices. To trap solar heat, the house had large thermopane windows facing south. "Chickens can produce more eggs if they do not have to convert much feed into energy to keep themselves warm," Lampman explained.

Charles F. Petersen, UI poultry husbandman, said caged housing for laying hens would not be profitable for most Idaho flock owners. A modern laying house that provided two or three square feet of floor space for each hen would be the best arrangement for the typical Idaho producer, Petersen said.

Agricultural Experiment Station, Parma, 1950s. Checking pedigrees of hybrid onion lines in test plots.

Historical Photograph Collection, UI Library,1-256-1.

Far-reaching Changes Occur

Acquisition of new technologies enabled Idaho farmers to become more productive. Increases in productivity led to fundamental changes in Gem State agriculture. Farms became larger and more specialized. These changes were observed at first hand by county agents of the UI Extension Ser vice.

"When I went to Boundary County in 1951, there were over 100 dairies," James L. Graves recalled in the 1980s. "I was there 11 years, and when I left there were eight dairies. The surviving dairies were fairly large. Some dairies used to milk only three or four cows. I think the smallest dairy when I left had about 30 cows — and the other dairy herds went up to 100 cows."

Dan Roberts, veteran Extension agent in Franklin County, looked back on trends that became apparent in the 1950s and continued through the succeeding decades: "We had 40,000 head of sheep when I came here in 1944. I don't think you could find 500 right now. We had poultry on 550 farms. Now, one poultryman at Franklin has more chickens under his own roof than they had on all those farms."

As farming became more specialized, requests for help were directed to the UI College of Agriculture by individual farmers and by commodity groups. Potato producers, for example, wanted the UI to expand and intensify its potato research programs — and the producers were willing to increase their support of these programs. College of Agriculture potato research gained new emphasis, and Extension potato specialists were appointed and given the assignment of transmitting to producers research results and other helpful information regarding potato production.

New Buildings for College of Agriculture

The College of Agriculture vacated Morrill Hall and moved into a new building in 1950. The new Agricultural Science Building was officially dedicated by Governor C. A. Robins on November 4 of that year. Members of the UI Agricultural Consulting Council who took part in the dedication included George Yost of Emmett, Council chairman and representative of the state's horticultural interests; Carl D. Irwin of Twin Falls, representing the Idaho Crop Improvement Association; Dave Little, Emmett, representing the Idaho Woolgrowers Association; Ray V. Swanson, Pocatello, the Idaho Farm Bureau Federation; George Hersley, Boise, the Idaho State Grange; Mrs. Ferrin G. Harland, Caldwell, representing women's interests; and Merritt Meachan, Culdesac, representing the Idaho Cattlemen's Association. Dean D. R. Theophilus called the new build-

ing "a symbol of state confidence in the ability of the agricultural division of the university to aid in the development of the state's greatest industry." The total cost of the building, including equipment, was about $1,200,000.

James Kraus Named Dean of College

James A. Kraus, a horticulturist who had initiated the university's potato research program at the Aberdeen Experiment Station in 1941, was associate director of the Idaho Agricultural Experiment Station from 1949-1955. Dean D. R. Theophilus was appointed president of the university in 1955. Kraus was appointed to the position of dean — and also to the directorships of the UI Agricultural Extension Service and the Idaho Agricultural Experiment Station. Under his leadership, the College of Agriculture hired more faculty members and changed teaching, research, and Extension programs in order to better address the agricultural problems of the post-World War II era.

Students of the UI College of Agriculture were being encouraged to examine career opportunities in business, government, and industry. Only about one-seventh of the nation's agricultural college graduates were needed in farming and ranching, educators estimated. Many non-farming jobs awaited UI graduates, Dean Kraus said. "For young people really interested in professional agriculture work, such as in research, Extension, home economics, and agricultural teaching, there has never before been the appealing array of opportunities present today," he said.

In its Extension and research programs, the College of Agriculture continued to provide problem-solving help to agricultural producers. During the 1950s, most producers were well-educated. They were knowledgeable concerning technology and many aspects of agricultural science. Cooperation between College of Agriculture faculty members and agricultural producers tended to be productive, leading to many collaborative problem-solving projects.

Potato Storage Problems Studied

Potato processors and producers helped the College of Agriculture embark on a number of projects aimed at improving the quality of Idaho-grown potatoes. At the Aberdeen Experiment Station, Walter C. Sparks studied the elements of good potato storage management — the control of temperature, humidity, and air circulation. By following his recommendations, potato growers were able to protect the quality of stored tubers with a minimum of loss from rot, shrinkage, and sprouting.

Sparks also completed a study that traced the movement of potatoes from the Idaho potato field to the out-of-state grocery store. He was concerned with the transportation and handling practices that caused deterioration in potato quality.

Prevention of potato bruising was a topic of continuing concern to UI researchers. They also investigated potato diseases and participated in breeding experiments aimed at the development of improved new potato varieties. During the 1950s, a complete certification program for Idaho seed potato production was developed. This was a great step forward because seed-borne diseases caused growers heavy losses.

UI researchers contributed to the phenomenal progress the Idaho potato industry had achieved since the mid-1920s. Ronald D. Ensign the associate director of the Idaho Agricultural Experiment Station in 1958 said: "Potato acreage has increased from approximately 45,000 acres to the present 205,000 acres. He added: This is a relatively short history of potato production in relation to other areas, but the rapid increase is not excelled elsewhere. About 33 percent of this increase has been experienced during the last 10 years."

Potato researchers would continue to facilitate progress in the industry, Ensign said. "A thriving potato industry demands a forward-looking research program. Otherwise, it would become static."

Highway Safety Education Program near Riggins/Whitebird grade, mid-1950.
Phil Shira

Use of Fertilizer Increases

Asked if they intended to buy commercial fertilizer, 53 percent of the Idaho farmers questioned in 1950 said they would not be buying any. In 1959 a survey showed that 74 percent of the Idaho farmers who were polled said they would be purchasing commercial fertilizer that year. The big increase in fertilizer use came about as dealers featured new kinds of materials and new methods of handling fertilizer. Bulk handling was becoming a common practice. Of total fertilizer sales in the state, anhydrous ammonia accounted for only 3 percent. Dry nitrogen and phosphate products were popular.

At the University of Idaho, soil samples from farmers were tested at the central soil testing laboratory. Thirty-six county agents also ran tests for farmers as a basis for fertilizer recommendations. Vance T. Smith, Extension soils specialist, developed for himself a soil testing kit that gave dependable results. When county agents expressed an interest in Smith's kit, he made up additional kits for them. Dan Roberts, Extension agent in Franklin County, tested more than 300 soil samples one year. "The testing was done mostly after regular working hours, as a service to local farmers," Roberts said.

On a dairy farm in Bonner County, a fertilizer program designed by the Pacific Northwest Plant Food Association increased forage yields and improved the farm's profitability. The association picked the Blaine Marks farm as the site for a demonstration showing the returns obtainable from a fertilizer program backed up by good farming practices. "During 1955, about $2.30 was realized for every dollar invested in fertilizer for the farm." said Walt McPherson, UI Extension agent.

Mechanization Comes to Orchards

New harvesting combines were in use in potato and sugar beet fields in the 1950s. Orchardists were mechanizing also. Tony Horn, Extension horticulturist, said much of the back-breaking work of fruit harvesting had been eliminated with the introduction of bulk containers. Apple orchards were the first to discontinue use of field crates. Bulk bins were also being used successfully for plums, peaches, and pears. In the new system, pickers emptied their picking bags directly into bulk containers mounted on trailers. When full, the containers were pulled to the packing shed and emptied. Fruit remained in good condition with less bruising.

Flies Show Resistance to DDT

Idaho's war on flies received a setback when new strains of DDT-resistant flies began to appear. Some of the strains had resistance to more than one kind of insecticidal spray, according to H. C. Manis, UI entomologist. "The day is gone when you could put on one spray and go away and forget it," Manis declared. He said control of flies could be achieved with good sanitation plus regular use of the best insecticide available.

Roland Portman, Extension entomologist, said wireworms were being controlled by chemical soil treatments. DDT, used in combination with other insecticides, would control wireworms, false wireworms, and other subsurface insects, he said. "We must face the fact that soil treatment with some insecticides has an adverse effect on certain crops," Portman warned.

UI entomologist William Barr was studying two long-time pests of Idaho legume crops—the alfalfa weevil and the clover seed weevil. A goal of the UI research program was to determine how new insecticides could be used to control the troublesome weevils.

Highway Safety Education Program public presentation, Line Street, UI campus mid-1950.

Phil Shira

Beetles and Wild Bees Assist Farmers

The semi-poisonous goatweed was being controlled by predatory insects that had been introduced into Idaho by University of Idaho agronomists. Clarence I. Seely said goatweed beetles had defoliated 90 percent of the goatweed plants on 24,000 acres of land. "In seven years, these little insects have spread from one colony on one acre in Idaho to 453,000 acres."

In southwestern Idaho, growers of seed crops were trying to protect the wild bees that pollinated their crops. Ralph S. Samson, Extension agent in Owyhee County, said alfalfa seed producers were cooperating in efforts to protect the nesting sites of alkali bees. At the Parma Agricultural Research Station, UI entomologist Norman D. Waters was studying the habits of the alkali bee and was advising farmers how to protect existing colonies. In some localities, fences were constructed around alkali bee nesting sites to keep livestock from trampling the colonies. Misuse of insecticides was another hazard seed producers were trying to guard against.

Insects Pose Problems in Orchards

Codling moth control in apple orchards became more difficult as some strains of the moth developed resistance to DDT. Another orchard problem concerned mites. Repeated use of DDT had reduced the population of insects that preyed on mites. Because the mites were resistant to DDT and were no longer checked by their natural enemies, they multiplied and became a major pest problem.

University of Idaho grand champion entries at the Pacific International Livestock Exposition, Portland, Oregon, 1947.

Photo-Art Commercial Studios, Portland, Oregon

Single row potato digger used at the Aberdeen Branch Experiment Station, 1956.
Historical Photograph Collection, UI Library, 6-17-57.

Researchers Seek Improvements in Wheat

UI agronomists found that early seeding of winter wheat resulted in a high incidence of "take-all" and foot rot. The diseases were less likely to develop in late-seeded wheat, reported K. H. Klages, head of the UI Agronomy Department. An 18-day difference in the seeding dates was the factor that accounted for the success or failure of wheat plots grown in the Moscow trials, Klages said.

Wheat breeders were attempting to incorporate new rust-resistant genes into spring wheats. At Moscow, UI agronomist Warren K. Pope had wheat-breeding experiments in progress. Harland Stevens, USDA scientist, was in charge of cereals breeding work at the Aberdeen Agricultural Experiment Station. A winter wheat breeding and testing program was established at the Aberdeen station in 1955. "Practically all of the spring cereals grown in the irrigated areas of southern Idaho either were developed by or introduced through the Aberdeen station," said Edward W. Owens, station superintendent. "The influence of the Aberdeen station has been particularly great in the spring wheats Federation, Lemhi, and Lemhi 53 which are widely grown in southern Idaho."

The United States Department of Agriculture and the University of Idaho cooperated in establishing a potato breeding program at the Aberdeen station in 1949. Research in the 1950s was focused on the development of an early, russet-type, scab-resistant potato. Researchers at the station also investigated potato diseases and fertilizer programs for potatoes. C. E. Dallimore, UI plant pathologist, said early dying in potatoes was caused by a soilborne organism. The disease could be controlled by regular rotation of potato crops, he said.

Experiment Station Milestones

Rueben F. Johnson, superintendent of the Caldwell Agricultural Experiment Station since 1932, died in 1958. The new superintendent was Jerome J. Dahmen, a UI graduate. After earning a doctorate at Oregon State University, Joe Dahmen had served as county agent at Grangeville and Lewiston and as state animal husbandry specialist. As superintendent at Caldwell, Dahmen was in charge of livestock research concerned with feeding and disease control. Floyd Frank, UI research veterinarian, directed veterinary research at the station. Dave Thacker worked on dairy research.

Hugh McKay, a Soil Conservation Service scientist who had participated in research projects at the Tetonia Agricultural Research Station for a number of years, was named superintendent of the station in 1950. He succeeded William A. Moss. For 32 years, Moss had supervised the university's high-altitude research work in southeastern Idaho — first at Felt and later at Tetonia.

Charles W. Hungerford and J. M. Raeder, 1952.
Historical Photograph Collection, UI Library, 1-210-28.

Advances at Tetonia and Parma

"The story of the Tetonia station is really the story of Bill Moss," said C. W. Hungerford, head of the UI Department of Plant Pathology and associate director of the Idaho Agricultural Experiment Station from 1927 to 1947. "From the very start, Bill was interested in tillage and farming practices that would stop the devastating wind erosion which in some years took a heavy toll of soil. Therefore it was natural for the Tetonia station to pioneer in soil conservation and soil-building methods for the dryland farms."

The Tetonia station did innovative research in grass-seed production, demonstrating the profitability of this new agricultural enterprise. Under Moss, the station also did pioneering work in stubble mulch tillage. Idaho's first rotary hoe was put into operation at the station.

To equip the station for the production of foundation seed for the entire state, the University of Idaho enlarged the Tetonia station in 1949. The UI purchased 485 acres of land, including 380 acres already under cultivation, and plans were made to produce high-quality seed for distribution to certified seed growers throughout the state. The Tetonia station, at an altitude of 6,200 feet, is ideally located for the production of seed crops — including potatoes, cereals, grasses, and clovers.

Hybrid onions that were being tested at the Parma Agricultural Experiment Station offered "promising possibilities in prolonging the storage and therefore the marketing season for Idaho growers," DeLance F. (Doc) Franklin, the station's superintendent, said. For a decade, Franklin had been actively engaged in the breeding program that developed hybrid onions. In 1953, the University of Idaho joined with the United States Department of Agriculture and Iowa State College in releasing 11 varieties of hybrid onions. Franklin said hybrid onions possess abundant hybrid vigor, as shown by their ability to produce vigorous stands despite adverse weather conditions in early spring.

The UI College of Agriculture increased its programs dealing with irrigation. The Department of Agricultural Engineering, headed by James W. Martin, developed teaching, research, and Extension programs dealing with irrigation. Martin, in a 1985 interview, recalled these developments: "Max Jensen was on campus, teaching and doing research. In 1956, Dorrell Larsen became our first Extension specialist devoting full time to the problems of irrigation and drainage. At Aberdeen, Gil Corey became the first researcher giving his full efforts to irrigation (and, especially, proper water application). Later, Galen McMaster became our researcher in agricultural engineering at Aberdeen."

New Faces at Agricultural Engineering

In l955, Robert C. Haynes began his UI career as agricultural engineer-educator, serving the Department of Agricultural Education and the Department of Agricultural Engineering. Also joining the Agricultural Engineering Department faculty in this decade were John E. Dixon (1954), Delbert W. Fitzsimmons (1955), Larry G. Williams (1956), and Walter L. Moden, Jr. (1957).

The UI Department of Dairy Husbandry became the Department of Dairy Science in 1959. D. L. Fourt, head of the department, said many technological innovations were gaining acceptance in the dairy industry. Artificial insemination was being used for about one-fourth of the nation's dairy herds. Bunker-type silos were becoming popular — and plastic covers for sealing such silos were a great success. The new "herringbone" milking parlor and other arrangements designed to reduce labor costs were receiving much attention. "Milk production per cow has increased about 20 percent in the last 10 years. This is due to better cows, more and better feed, improved management, and disease and pest control," Fourt said.

C. W. Hickman Head, Animal Science Department, with Southdown at Pacific International Livestock Exposition, Portland, Oregon.

Photo-Art Commercial Studios, Portland, Oregon.

George C. Anderson, Extension dairyman, said Idaho dairy producers had always sold milk for a price that was quoted in cents per pound butterfat. The pricing system was being changed. “Butter plants, cheese plants, and condenseries in eastern Idaho changed over to the hundred-pound-of-milk basis in the spring of 1956. They use a pricing system similar to that used by the market milk industry. In this system, prices for fat and non-fat solids are determined by the contribution each makes to the finished product,” Anderson said. The UI Extension specialist said Idaho had 7,785 fewer dairy farmers in 1955 than in 1939. Despite the decline of 22 percent in the number of dairymen, the state’s milk production had risen during this period, he said.

Dairy specialists at the University of Idaho were puzzled when milk from the UI’s prize-winning dairy herd could not be processed into satisfactory cheese. For some reason, good cheese did not result when fresh milk and cheese starters were combined in the cheese vats at the UI dairy manufacturing center. Henry C. Hansen, who had been teaching UI students the art of cheesemaking for the past 25 years, investigated the mystery. He linked the cheesemaking failure to minute amounts of penicillin in the milk. Several cows had been treated for mastitis. After further experiments were conducted, cheese production at the UI again went ahead smoothly. In 1950 the College of Agriculture advised dairy producers and processors what precautions should be taken to avoid penicillin problems in processing plants.

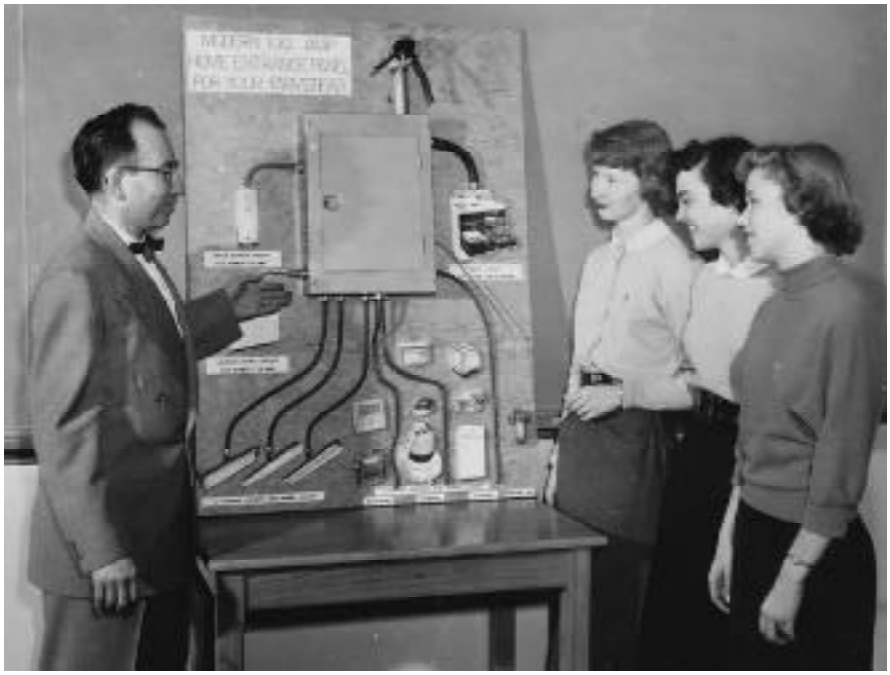
Bell Returns to the University

C. W. Hickman, head of the UI Department of Animal Husbandry since 1918, asked to be relieved of his administrative duties in 1951. His successor as department head was Carl F. Sierk, who had been coordinator of USDA beef cattle research in the western United States. Sierk resigned in 1956. The following year, T. Donald Bell returned to Idaho to head the department in which he had studied previously. He earned bachelor’s and master’s degrees at the UI in the 1930s. As a youth, he worked as a herder for the Laidlaw & Brockie Sheep Company at Muldoon, originators of the famous Panama sheep. Bell obtained several Panamas from Laidlaw & Brockie and established the first farm flock of Panamas on his family’s farm near Rupert. Bell was professor of animal science at Kansas State College when he accepted the UI post.

Idaho 4-H Enrollment Soars

In 1958, a total of 13,874 Idaho young people were enrolled in the 4-H program. This was a record-high enrollment, according to Dan E. Warren, state 4-H leader. “Community interest in the science of farming and in the welfare of youngsters of 4-H club age results in enrollments that increase year after year. The same interest produces local leaders competent and willing to work with boys and girls in club projects, be they clothing, gardening, livestock, home improvement or any of the dozens of other projects offered.”

Agricultural mechanization received strong emphasis in Idaho high school vocational agriculture programs in the 1950s. Between 1950 and 1956 more than half of the state’s high school districts built new vo-ag facilities with spacious farm shops.



Home Economics: William H. Knight, 1955.

Historical Photograph Collection, UI Library,1-221-47.

Schools Build New Vo-Ag Shops

In 1950 these vo-ag instructors were teaching in Idaho high schools: Aberdeen, Joe Hopper; Blackfoot, H. Ward Stroschein; Buhl, Wilbur Holderread; Burley, John Lawrence; Butte at Arco, Bryant Gomm; Carey, Robert Day; Declo, Clyde Wardle; Eden-Hazelton, Orrin Selman; Emmett, Grant Mauchley; Fielding at Paris, Eugene Hart; Filer, Glen Hart; Fruitland, Kenneth Hansen; Gooding, Willis Banks; Grace, Merrill Stucki; Heyburn, Keith Merrill, Jr.; Idaho Falls, Chase Pond; Jerome, Carter Luther; Kimberly, J. Wayne Cole; Kuna, Max P. Ransom; Lapwai, Bryan Bundy; Madison at Rexburg, Frank Jacobs; Malad, Horace Morrill, Jr.; Melba, Floyd W. Merrill; Meridian, Doran Peterson; Moreland-Thomas, Kay Hult; Moscow, Clinton C. Wiswall; Nampa, Fred Beckman; New Plymouth, Kirk Lund; North Fremont at Ashton, Seth Forsgren; North Gem at Bancroft, Kenneth Crump; Oakley, Vernon MacNeil; Parma, Calvin Crandall; Payette, Lee C. Olsen; Pocatello, Lynn Stevenson; Preston, Lincoln Orme; Raft River at Malta, Delno Moore; Richfield, Evan Memmott; Rigby, Ed Rowbury; Roberts, Winston Havens; Rupert, T.E. Maberly; St. Maries, Seth Tweedy; Salmon, Elmer T. Sorensen; Shelley, Jack Whiting; Shoshone, Walter Grisham; South Fremont at St. Anthony, Golden Linford; Sugar-Salem, Albert Burton; Teton at Driggs, Grant Cornelius; Troy, Claude Morrow; Twin Falls, Ralph Edwards; Ucon, Grant Field; Weiser, Calvin Crandall; Wendell, Roy Dee Irons; Westside at Dayton, J. A. Davies; and Wilder, Robert C. Haynes.

Enrollment in high school vo-ag programs increased in Idaho during the 1950s. In 1955-1956 there were 3,748 high school students enrolled. These students were studying in 67 vo-ag centers, under the direction of 73 vo-ag teachers.

Home Economics Gains New Home

Dedication of the new Home Economics Building was the highlight of the 50th anniversary of the University of Idaho home economics program in 1952. Margaret Ritchie, head of the Department of Home Economics, participated in the dedication ceremonies. So did Governor Len Jordan whose daughter [Mrs. C. F. Storey] was a UI home economics alumna. Marguerite Campbell, regent from New Meadows and a UI graduate, gave the dedicatory address. She said society would benefit greatly if more emphasis were placed on the “overall management of the home.”

Two Livestock Experts Retire

E. F. Rinehart, long-time Extension animal scientist, retired in 1955. His successor was Wade Wells. C. W. Hickman provided this tribute to Rinehart: "Riney has become a tradition in the livestock industry of Idaho. Not in years alone, but in influence. His practical approach to every problem and his sound judgment have earned for him the confidence of the entire industry." *Time Magazine* offered this thumbnail sketch:

> "The University of Idaho's Edward F. Rinehart, 70, (has been) expert animal husbandman of the university's Extension service and senior counselor to the state's sheepmen and cattlemen. . . . Since he first arrived in Idaho in 1912, 'Riney' has come to know as much about the grazing lands and livestock history of the state as any man alive, laid the groundwork for Idaho's bull-grading system, kept his scattered clientele well supplied with learned but simple reports. Traveling by car, train, and horse, he became a familiar figure in the barns and ranch houses of Idaho, and wherever he went, his rambling advice was awaited and welcomed with awe.
>
> 'You'd think,' said one cattleman, 'that he wasn't listening to you at all. And then after a while, Riney would say something else, then pick up his hat and say something else — and finally, all the time fixing to go, he would have told you all you wanted to know.'"

Bill Florence, another livestock expert, retired in 1956. He became beef cattle herdsman at the university in 1912. In that same year, he showed a steer at the first Pacific International Livestock Exposition in Portland. Year after year, he returned to the Pacific International, showing UI steers that captured a long string of championships. The showman phase of his career ended in 1951 when the university quit exhibiting steers. Florence's service with the UI was interrupted several times when he worked briefly for large livestock operations in the Northwest. For several years, he ran a beef cattle enterprise at Meridian that he owned in partnership with E. J. Iddings. He enjoyed his work as UI beef herdsman because it gave him many contacts with university students. Looking back at his long career, Florence said: "What gives me the most satisfaction is to see Ag boys graduate and become successes in their chosen field."

Changes Accelerate in the 1960s

For generations of thrifty, hard-working farmers, freedom from debt was a goal to be kept in mind at all times. In a perilous world, farmers placed a high value on security — and for them security meant money in the bank, owning a good farm free and clear, and being certain they would never again need to worry about mortgage payments or notes coming due. Undoubtedly, the traditional dream concerning a debt-free existence persisted in the 1960s. Farm families could try to attain this happy state of affairs, but the economic trends of the times were moving agriculture in an entirely different direction. For most agricultural producers of the 1960s, economic security as a practical matter had to be viewed in terms of managing enterprises for maximum profitability, having a satisfactory cash-flow situation, and maintaining a manageable debt-asset ratio.

Following World War II, farm debt grew in this country. To take advantage of new technologies, farmers purchased new machinery and acquired additional acreage. They increased the size of their operations at a time when the prices of land, machinery, and other inputs were accelerating. By necessity, farmers had to finance their farming operations with large amounts of credit — and their credit needs increased year after year.

Traditionally, land and labor were the major inputs in farming operations. Borrowed capital increased in importance after farmers became large-scale purchasers of tractor fuel, agricultural chemicals, specialized equipment, and other standbys of modern-day agriculture. From 1944 to the mid-1960s, there was a three-fold increase in the amount of farm assets a farmer needed to have in order to produce $1 of net farm income. Here are the figures for that period:

1944 – $4.73 in assets needed to produce $1 net income

1954 – $8.26

1963 – $14.13

1967 – $16.00

Like other business entrepreneurs, farmers must spend money in order to make money. Since World War II, farmers have had to make increasingly large investment outlays in order to maintain their net incomes. This can be

seen by computing cash expenditures as a percentage of cash farm income. These are the percentages for the 1944-1967 period:

1944 51 percent

1954 68 percent

1963 79 percent

1967 80 percent

Farmers Must Have Management Skills

Agricultural technology continued to advance in the 1960s. Whether measured on a per-acre or per-worker basis, agricultural productivity reached new highs. At the same time, the use of purchased capital per farm, per acre, or per farm worker also followed an upward trend. To participate fully in the modern, highly productive, capital-intensive agricultural system of the 1960s, farmers often had to assume large debt loads. Mastery of financial management techniques could become very important in these circumstances. In fact, to successfully manage a farm in the 1960s, a farmer needed a top-notch business executive's skills in cost accounting, decision-making, and all-around administration.

The UI College of Agriculture had among its clientele farmers who were extremely knowledgeable — even sophisticated. They asked searching questions and wanted answers that clearly spelled out bottom-line, dollars-and-cents implications. In the changing agricultural scene of the 1960s, the partnership between the state's farmers and the College of Agriculture entered a new phase. The personnel of the college were, to an increasing extent, serving as consultants and information resources to farmers who already possessed a great deal of specialized, technological information — and who were eager to gain more knowledge.

The Idaho Farm of the 1960s

Idaho farms in 1960 were more mechanized than ever before. Between 1954 and 1959, the number of tractors increased by 35 percent, field forage harvesters by 50 percent, and pick-up balers by 100 percent. One out of every three farms had combines and balers.

C. O. Youngstrom, associate director of the UI Agricultural Extension Service, said the 1959 census showed Idaho farms had an average value of $48,000. In 1949, the average value had been $31,600. It was $22,400 in 1939 and only $7,700 in 1920.

The average Idaho farm included 457 acres in 1959. This was one-fifth larger than in 1954 and two and one-half times the average acreage in 1920. The average farm in 1954 had 184 acres of cropland.

Charles G. Painter, UI Extension soils specialist, said Idaho farmers invested $11 million in fertilizers in 1959 and got an average return of $3 for every $1 invested. Returns would have been considerably higher if soil testing had been more generally used as the basis for fertilizer programs, Painter said.

Extension Agents Are Troubleshooters

While conducting educational programs around the state, UI Extension Service agents and specialists often were asked to deal with perplexing problems and difficult situations. At that point, the UI educators became troubleshooters. The problem that Extension agents of eastern Idaho were confronted with in 1967 was the malting barley trade's immediate need for more barley. Drought had reduced barley yields in many barley-producing regions, and malting barley brokers and shippers

UI entomologist William F. Barr inspects a tray of long-horned beetles.

Historical Photograph Collection, UI Library, 2-219-2

asked the University of Idaho to locate suitable lots of barley of acceptable malting quality.

Extension agents in Madison, Fremont, Teton, Jefferson, and Bonneville counties contacted farmers and located 500,000 bushels of malting barley that had been grown for other purposes. By selling their grain to malting barley brokers, the growers earned premiums of $8 to $15 per ton. Howard Roylance, Extension agronomist, worked with the agents to organize an information program concerning procedures farmers should follow to grow malting barley. Growers were invited to special barley schools. The next year, growers in the area produced two million bushels of malting barley.

Improving Idaho's Beef Cattle

Cattlemen were invited to participate in a beef cattle improvement program sponsored by the UI Extension Service. The program began in 1960 with one herd involved. By 1969, more than 200 herds from all areas of the state were enrolled. By keeping production records, cattlemen were able to identify the genetically superior animals within their herds. Computerized processing of records was available. Morris Hemstrom, Extension livestock specialist, said: "The beef cattle improvement program will have a marked impact on the economy of the beef industry. This program offers cattlemen the most practical method of increasing returns without increasing investment."

To help potato growers learn how different varieties of potatoes performed in their areas, a program of off-station testing was initiated by Richard Ohms, Extension potato specialist. In each of the major production areas of southern Idaho, new potato varieties were grown in demonstration plots on the farms of cooperating growers. The varieties tested under actual grower conditions in these demonstrations during the 1960s included Early Gem, Russet Burbank, Norgold, and Shoshoni.

Wheat growers in northern Idaho changed their seeding dates in order to control soil-borne diseases. Harry Fenwick, Extension plant pathologist, encouraged them to change after he completed an area-wide study which showed that cereal crops planted in early autumn had a high incidence of disease. Fenwick reported in 1969: "Approximately 90 percent of the wheat growers in northern Idaho are seeding three to five weeks later than they were in 1956 and 1957, with a subsequent reduction in the soil-borne diseases."

A statewide mastitis control program, beginning in 1962, improved the health of dairy cattle and reduced dairy producers' economic losses from unmarketable milk. George Cleveland, Extension dairyman, held training

workshops throughout the state for Extension agents, equipment dealers, processor fieldmen, and veterinarians. “A lot of people worked together on this project started by the Extension Service. The loss in milk has been reduced 82 percent by good mastitis management practices,” Cleveland said in 1969.

In southeastern Idaho, cattlemen cooperated in constructing nine dipping installations at convenient locations. Twenty thousand head of beef cattle were treated annually at the dipping vats. Ed Duren, Extension area livestock specialist, originated the project in order to provide convenient, economical control of livestock insect pests. “Relatively pest-free cattle develop long hair coats, maintain a good body condition, and utilize feed more efficiently,” Duren said.

Explaining Skills of Farm Management

To obtain pointers on the use of sound management practices, farmers could contact Virgil Kennedy, Extension farm management specialist. Kennedy regularly conducted training sessions for farmers and county agents. After learning how to analyze costs and returns of a farm enterprise, farmers and agents gained experience in predicting the economic consequences that would follow if changes were made in the ways resources were used.

UI’s solar poultry pen, 1966.

The banning of DDT as an agricultural chemical brought about a reappraisal of insect control strategies. Roland Portman, Extension entomologist, worked with county agents in testing various insecticides. C. H. Stranahan, Kootenai County agricultural agent, cooperated with Portman in comparing a number of chemicals used to control soil webworms in bluegrass fields.

To help forest trees get a better start in life, UI agricultural engineer Walter L. Moden, Jr., developed a new system of transplanting tree seedlings. He used tubes of soil. Seedlings grown from seed in a soil tube were more likely to survive the shock of transplanting than were bare root seedlings, Moden said.

Appraising Women's Special Needs

The time had come to meet the special educational needs of women in today's society, said Mrs. Howard Hechtner of Lapwai, president of the Idaho Home Demonstration Council. She told the Council's l963 annual meeting:

> "Today the most common pattern of a woman's life is that a girl completes her education, works for a few years (or marries immediately) and then devotes her time to raising her family. Then, sometime in her forties perhaps, she sees she has a second lifetime ahead of her. This has tremendous implications for the continuing education of women. We need more and better programs to enable women to resume their education at a time when they are no longer needed full time at home."

Hilda Frederick, Extension home management specialist, saw employment opportunities for women increasing in education, health care, and social services. "We will likely see greater use of sub-professional aides in these fields. In health care, the work force will expand greatly. Hospitals, clinics and health centers will use sub-professional aides to a far greater degree than they do today. With proper training, many young and middle-aged women might find work."

Home economics and 4-H programs of the UI Extension Service involved thousands of women and young people. Membership in 4-H exceeded the 20,000-mark in the 1960s. More than 4,000 volunteer leaders helped 4-H members with their projects. About 20,000 women were active in educational programs organized by UI Extension home economists.

Marion Hepworth, Extension state home demonstration leader from 1924 to 195l, played a leading role in organizing the Idaho Home Demonstration Council in 1950. Seventeen years later, the Council was thriving, with a total

membership of 13,000. The organization approved a change in name — to Idaho Extension Home Demonstration Council. At its l967 convention, the Council held five seminars — on family life, citizenship and civil defense, health, international relations, and safety. Mrs. J. E. Shepherd of Eagle served as president.

Tiny Insects Attack Skeleton Weed

To stop the spread of skeleton weed on Idaho rangeland, UI scientists imported thousands of tiny insects called skeleton weed midges. Most of the midges were released in canyons of the Payette River. "The steep terrain in the canyons makes chemical control of skeleton weed dangerous and expensive," said William Barr, UI professor of entomology. He said a rust disease that attacks skeleton weed would be released also and the two biological controls should work well in tandem.

UI plant pathologists L. L. Dean and L. LaFerriere helped the state's bean seed industry organize a strict control program to check infestations of halo blight. Laboratory techniques for quick, positive identification of the halo blight pathogen were developed by another UI plant pathologist, James W. Guthrie. The disease was detected in many bean fields in 1963, 1964, and 1965, causing seed producers great anxiety. By 1968, halo blight was under

Karl H. W. Klages

Historical Photograph Collection, UI Library, 3-1790a

control and Idaho's bean seed industry had reestablished its worldwide reputation for being an excellent source of disease-free bean seed. Fields that were found to be infected with halo blight were plowed under. Growers contributed to a fund used to partially recompense farmers for the destruction of infested bean crops. Extension agent Wilmer G. Priest helped growers organize their halo blight compensation fund.

UI Emphasizes Food Processing

Courses in food processing and food chemistry were included in a new food science curriculum offered by the UI College of Agriculture. Don A. Marshall, associate dean of the college, said the new curriculum would help students prepare for a variety of career opportunities in the food industry. The program, initiated in 1965, was directed by a five-man faculty committee under the chairmanship of John L. Barnhart, dairy scientist. Other members were bacteriologist Guy R. Anderson, animal scientist Leon E. Orme, poultry scientist Charles F. Petersen, and biochemist Paul Muneta.

When shopping for groceries, consumers should not have to choose between good nutrition and convenience, said Mary V. Zaehringer, head of the UI Department of Home Economics Research. She said that processing methods should be improved in order to preserve the nutrients in food products. Processors should fortify processed foods, replacing vitamins or other nutrients lost during processing, Zaehringer emphasized. She said processors perform a good service by adding ascorbic acid (vitamin C) to canned juices.

Construction of a $475,000 UI Dairy Science Center was completed in 1964. Located about a mile north of the campus, the center included modern facilities for the UI dairy operation plus classrooms and research laboratories. "We have done research work in many areas of dairying but we've always been limited by our facilities. We will be able to undertake many more phases of dairy research in the new center," said Richard H. Ross, head of the Department of Dairy Science.

A. Larry Branen, a junior in the College of Agriculture, was awarded a $500 scholarship by the Pacific Dairy and Poultry Association in 1966. Richard H. Ross, UI dairy scientist, said Branen competed for the award with top students in the western United States and western Canada. Branen's home was in Wilder. He later became dean of the College of Agriculture.

4-H Program Benefits Youth

Idaho 4-H girls were participating in a new type of clothing style review. Instead of modeling their garments before adult judges, the girls were joining other contestants in a self-evaluation exercise. Esther Nystrom, Extension clothing specialist, said the new approach made the dress review competition more educational. "People grow most when they have a maximum of self-evaluation."

Looking back on nine years of participation in 4-H, Thelma Anderson in 1962 said she had taken 16 projects and "my projects have really helped me grow up." The Jefferson County 4-H'er added:

> "The most gratifying experience I've had in 4-H was when my family was host to a Venezuelan exchange student, Luis Icarri. He stayed with us two weeks. One of the worst experiences I had while in 4-H was at 4-H camp when I was about 12 or 13. Some of the girls in my cabin had been fighting, and finally I asked them if they hadn't anything better to do. Well, I about started another American Revolution — and I was the British! They yelled at me until I left the cabin in a hurry. I was ready to leave camp and go home. I sat outside on the steps and cried and felt sorry for myself until Maurice Johnson, our county agent then, came by. He talked to me for a while and then asked me if running away was the 4-H way to solve a problem? Didn't it mean anything to me to be in 4-H? Then he said, 'Just remember, Thelma, 4-H doesn't force you to do anything. It just opens up doors to opportunities, and you have to decide if it's worthwhile to look behind those doors.' Well, I have stayed in 4-H nine years. Do you think 4-H has meant anything to me?"

Floyd W. Frank, University of Idaho research veterinarian, was appointed head of the Department of Veterinary Science in 1967. For the previous 12 years he had been veterinarian-in-charge at the Caldwell Veterinary Research Laboratory. He had conducted research on ovine vibriosis, tularemia of sheep, ovine viral abortion, and other animal health problems. He succeeded Lloyd H. Scrivner as department head.

In 1966 Grant Hall, Extension agent in Canyon County was appointed a district agent with headquarters in Boise. He succeeded James L. Graves, who had moved to Moscow to become supervisor of agents in northern Idaho. The UI Extension Service had two other district agents — Tom J. Chester in Pocatello and L. M. Williams in Boise.

Viewing Potato Research Needs

Idaho's potato research program should be strengthened, Dean James E. Kraus said in 1967. Additional personnel and resources were needed for the Extension educational program serving the potato industry, Kraus said. He presented this review of UI contributions to potato research:

"The first actual fund appropriated for potato research was made by the Idaho legislature in 1941. The amount was $20,000 for a two-year period. I was the first scientist to be employed to conduct that program and was the only one working on it for a period of about four years.

"The funds were increased over the years to include programs in potato production, potato diseases, nematode control, irrigation, fertilizers, potato breeding, establishment of a foundation seed program, potato storage, market and potato quality, economics of marketing, production and regional competition, insect control, and others.

"While many of these programs have been supported only in a modest way financially, they have been supported sufficiently to have paid off manifold. Over these 25 years, we have had excellent support financially and otherwise by the growers, by the Potato and Onion Commission, by the Potato Processors

Agricultural engineering students record snowfall measurements for erosion study.

Historical Photograph Collection, UI Library, I 903-9

Association, by the Growers and Shippers Association, and by the USDA."

Kraus listed these major research accomplishments:

- "We developed for the first time the basic concept of what causes the formation of knobs on Russet potato tubers and what causes malformed tubers."

- "With the assistance of the growers in Bingham and Power counties, we essentially solved the problem of stem nematodes which for a while threatened the whole industry."

- "Under the leadership of Dr. John McLean, for the first time methods were developed whereby actual crosses could be made between the Russet Burbank variety and other potato varieties. This is the foundation of our current breeding program at Aberdeen."

- "Research done by Walter Sparks at Aberdeen has revolutionized the concepts of temperature, air movement, and other factors as related to potato storage."

- "Basic work is being done by Dr. Guy Bishop on leaf roll in potato seed."

- "Our foundation seed program is looked upon with envy by other states and is the basis for our present seed quality in Idaho."

Pioneering research in many areas would be needed to provide answers to unsolved problems concerning potato breeding, pathology, insect pests, fertilizers, storage, and potato quality, Kraus said.

A new potato research facility at the Aberdeen Agricultural Experiment Station was completed in 1966. Named in honor of Joe Marshall, a potato grower who was widely known as "Idaho's Potato King," the building included laboratories, growth chambers, and controlled environment storage. The Joe Marshall Potato Research Center cost $375,000, with the State of Idaho providing $200,000. The remainder came from gifts by the potato industry. UI President Ernest Hartung and UI Board of Regents secretary Eldon W. Smith of Rexburg took part in the dedication ceremony.

Jay Garner, Extension agricultural agent in Fremont County, in 1967 had the opportunity to move to Blackfoot as Extension potato specialist for southeastern Idaho, "The other Extension agents in the area wanted me in there for that program," he said in the 1980s.

> "Also the industry had asked for that kind of help. The potato growers, the potato processors, shippers, the Potato Commission — they had told the university they wanted somebody in there whose specialty was potatoes. They wanted help right then. They didn't want to have to wait and get help secondhand. As the UI potato program developed, the industry people provided a lot of resources for us. The work in bruise prevention and soil temperature monitoring couldn't have succeeded without the industry people's help. They did a lot of that checking of temperature each morning at 7 a.m."

To demonstrate how costly weeds can be, Elmore County agricultural agent Herb Edwards and Extension agronomist Robert E. Higgins grew potatoes in weed-infested plots and carefully measured the yields. They found that field bindweed reduced not only the yield but also the quality of the potato crop, causing a loss of $82.50 per acre in fields that were severely infested. Russian knapweed caused a per-acre loss of $163.75, while Canada thistle would cost the grower $361.25 per acre in reduced yields.

Green peach aphids were spreading leaf roll virus in Caribou County potato fields, UI entomologist Guy W. Bishop determined. He went to the county to find out what could be done to clean up the virus problem that was threatening to put seed potato producers out of business. Because there were few apricot or peach trees in the county, Bishop could not understand why there were so many green peach aphids. Without the protection of host trees, the aphids should not be able to survive the cold winter. Bishop discovered the aphids were overwintering in nurseries — and they were present in large numbers on the bedding plants local people set out in the spring. With the cooperation of nurseries, Bishop was able to check the spread of aphids. The leaf roll virus itself was entering the area in infected potato tubers that local residents planted in their gardens. When home gardeners were given certified virus-free seed potatoes, a major source of the problem was eliminated.

Desert Gives Way to Potato Crops

Newly irrigated areas of southern Idaho were growing good crops of potatoes. In Lincoln County, former desert land became productive after deep wells were drilled. Ivan Hopkins, UI Extension agent, said 9,000 acres in the Senter Lake region of eastern Lincoln County were being irrigated by deep wells.

New land sometimes became badly infected with the soil organism that causes potato scab. In some regions, after a few years of potato production, the scab problem became so severe that potatoes were left in the ground unharvested. Ross Watson, UI plant pathologist, defined the problem in this

way: “Without water, desert soils are notoriously low in plant populations and have sparse microbe populations. These desert soils are relatively sterile.” Potato scab pathogens multiplied rapidly in new land because they were not checked by other soil organisms. Watson found that the build-up of potato scab pathogens and other harmful soil organisms could be prevented by good crop rotations and proper fertilizer management.

Competition for water resources would become intense in the future, with “have-not” states striving to obtain water from “have” states, predicted William E. Folz, head of the UI Department of Agricultural Economics. Speaking at the 1965 Western Interstate Water Conference, Folz said plans for development of water resources should be made on the basis of social values as well as economic considerations.

“The history of water resource programs reveals that they have as major objectives certain income redistribution goals, which at least at the time they were enacted reflect society’s desires with respect to them. The irrigation program was an extension of the homestead land policy to make farms available to American citizens.”

Horticulturist George W. Woodbury pictured in a greenhouse in 1961.

Historical Photograph Collection, UI Library, 1-210-31

Folz expressed the hope that "some organization of well informed and technically competent individuals can get together and evaluate project plans, ascertain that reasonably acceptable alternative plans have been given fair consideration, and compromise conflicting interests and competing goals and objectives."

Important Events in Home Economics

Gladys T. Bellinger became head of the Department of Home Economics in 1960. She had a leading role in the development of the curriculum for a new bachelor's degree program in child development. She helped to organize a nursery school in Lapwai and in the summer of 1966 served as consultant for the Head Start program in Lapwai. In 1967, Bellinger conducted a training program on campus for Head Start personnel from western Montana, northern Utah, and Idaho.

Mary Hall, a 1908 graduate of the University of Idaho, married Calvin B. Niccols, a successful hydraulics engineer. For many years, Mrs. Niccols contributed generously to the UI Alumni Fund. After her death in 1962, the university received an endowment of $433,034 from Mrs. Niccols' estate. She had specified that the interest from the Mary Hall Niccols Trust Fund was "to be used for scholarships for young women in home economics at the University of Idaho." Mrs. Niccols may have set up the scholarship fund as a means of repaying the generosity of others. During her student days at UI, she was the appreciative recipient of a $100 scholarship.

Potatoes remained in good condition after 18 months of storage in experiments conducted at Aberdeen by Walter C. Sparks, UI horticulturist. Sparks was testing the use of chemical sprout inhibitors. "The inhibitors should only be used as a supplement to good storage practices," Sparks said. Used in that way, the chemical treatments protected the quality of potatoes during prolonged storage.

UI agricultural scientists discovered that application of lime cured a mysterious "sickness" of alfalfa in northern Idaho. Declining yields had been noted in many fields. Although bacteria or other organisms had been suspected as the cause of the sickness, the researchers said the alfalfa was not infected. The research team included Roger W. Harder, soil scientist, G. R. Anderson, bacteriologist, and C. T. Brackney, superintendent of the Sandpoint Experiment Station.

Morrill Act and the Growth of Science

The Morrill Act, approved by Congress and signed by President Lincoln in 1862, created America's land-grant institutions of higher education. By encouraging the development of state universities with strong programs of studies related to agriculture and engineering, the Morrill Act speeded the development of science and technology in this country. In 1962, there was a nationwide observance of the Land-grant College Centennial. Roland Portman, UI Extension entomologist and chairman of the Centennial program committee in Idaho, said: "The value of land-grant research contributions exceeds many times the total amount expended on these colleges since they came into being."

"Slick spots" are areas of poor soil structure that look slick and shiny when they are wet. Water does not penetrate easily into these areas and crop production is low. After studying unproductive slick spot soil areas in southwestern Idaho, two UI soil scientists found a way of bringing the problem soils into full production. Maynard A. Fosberg and Glenn C. Lewis said deep plowing to a depth of 20 inches brought about chemical changes in the soil and increased water penetration. Approximately two million acres in Idaho were affected with slick spots, Lewis and Fosberg said. They conducted their research in the Black Canyon Irrigation Project.

Breeding Virus-resistant Vegetables

Table beets, Swiss chard, and tomatoes resistant to curly top virus disease were developed by UI plant pathologist W. R. Simpson. Working at the Parma Experiment Station, Simpson developed the new varieties and tested them under severe curly top conditions. Curly top disease affects beets and other susceptible plants throughout the West and it is found in most of southern Idaho.

Two new, early-maturing, virus-resistant Red Mexican bean varieties were released by the Idaho Experiment Station. A. M. Finley, head of the UI Department of Plant Pathology, said the UI-36 and UI-37 varieties had resistance to bean mosaic and curly top virus. L. L. Dean, UI plant pathologist, and Marshall LeBaron, superintendent of the Twin Falls Experiment Station, developed the bean varieties in cooperation with the USDA.

Rations containing no hay or other roughages were tested in steer-feeding trials conducted in the summer of 1960 at the Caldwell Experiment Station. Thomas B. Keith, UI animal nutritionist, formulated rations that contained concentrates produced in Idaho — chiefly barley, corn, and dried molasses

beet pulp. Steers were fattened successfully on the all-concentrate rations, said J. J. Dahmen, station superintendent. "We don't know how steers would do in winter without roughage. There is a heat increment in roughage."

The state's orchardists built cold storage and controlled atmosphere facilities in the early 1960s. "Idaho now has storage capacity for nearly a million boxes of apples," Extension horticulturist Tony Horn said in 1965. Semidwarf apple trees were becoming popular because they made spraying, pruning, and harvesting easier. "New sorting machines have been installed in Idaho. Much of the bruising of apples has been eliminated," Horn said.

Pea and Lentil Exports Increase

The Idaho Association of Pea and Lentil Producers was organized in 1962. Eugene Thompson of Moscow was president and Homer Futter, UI Extension agent in Latah County, was secretary. In 1965, as a result of efforts made by producers, Idaho and Washington each formed a Dry Pea and Lentil Commission. Exports of lentils were increasing. In the early 1960s, about 15 countries were buying United States lentils. By 1965, lentils were exported to 35 countries. Dry pea exports in the early 1960s averaged about 1.8 million bags per year. In the early 1950s, only 500,000 bags of dry peas were exported annually.

Alfalfa seed growers were receiving help from a pollinating bee new to Idaho — the alfalfa leafcutter bee. The bee had been known to be present in Idaho in 1955, but its importance as a pollinator of alfalfa was not recognized until the alfalfa leafcutter bee population increased rapidly in 1960 and 1961. University of Idaho entomologists studied the bee's habits and advised seed growers to place in or near their fields shelters for the nesting boxes. Caution should be used when applying insecticides in fields where the bees were working, entomologist Norman Waters said.

No "Best" Irrigation for Potatoes

Potatoes grow well with either sprinkler or furrow irrigation, reported Galen McMaster, UI research scientist stationed at Aberdeen. "It makes no difference to a potato plant how the moisture necessary for growth is applied to the root zone," McMaster said. "A saving of water usually can be realized by sprinkler irrigation over furrow because of the higher efficiency of sprinkler irrigation." In his research, McMaster found no significant difference in the incidences of early blight in sprinkler-irrigated and furrow-irrigated potato crops.

Idaho poultry producers were achieving greater labor efficiency through the use of automated equipment, reported Robert E. Black, Extension poultry

specialist. Poultry scientist Charlie Petersen said producers with small farm flocks could not expect to make much profit. “The trend is — and will continue to be — to larger flocks, whether we like it or not,” Petersen said. “Mass production in agriculture is following the example of other industries. This results in a lower margin of profit per unit (or bird); poultrymen with small flocks are not able to obtain a satisfactory income to justify their labor and investment.”

The cost of controlling weeds should be measured against the benefits the producer is likely to gain, UI agronomist C. I. Seely said. “There is not sufficient data to say just how much annual weed control is economically justified.” A number of cases suggest that kills of 90 percent to 95 percent are generally the most economic although there are cases where kills as low as 65 percent have given the greatest economic return.”

The development of selective herbicides had given a new direction to the age-old war on weeds, said UI weed scientist Lambert C. Erickson. “For many years, the emphasis was on prevention and eradication of weeds. However, the past 20 years can be considered the era of weed control.” Of Idaho’s 5 million acres under cultivation, nearly one-half were treated with

Horticulture students plant flowers in a 1961 class.

Historical Photograph Collection, UI Library, 1-210-22

herbicides annually, Erickson said. The cost of these treatments: about $5 million annually.

Tendoy wheat, a hard red winter wheat developed by UI cereal breeder W. K. Pope, was popular among Idaho growers. Yields up to 150 bushels per acre were reported. The first commercial crop was harvested in 1961. That was the year a short-strawed wheat named Gaines was released by Washington, Oregon, and Idaho agricultural experiment stations. A soft white winter wheat, Gaines thrived in 1963 when other soft white wheats were seriously infested by rust. Devere Tovey, Extension agent in Franklin County, said many growers harvested more than 100 bushels of Gaines per acre while fields of rust-susceptible Lemhi wheat gave poor yields. In 1963, Gaines accounted for 41 percent of the Idaho-Oregon-Washington wheat crop.

Garth Sasser and Jerry Nelson test milk in a dairy science laboratory in 1962.

Historical Photograph Collection, UI Library, 1-205-26

University Receives 100 Panama Lambs

The University of Idaho was presented in 1966 with 100 ewe lambs of the Panama breed — the last Panamas from the Laidlaw and Brockie sheep business in Idaho. Panama sheep are the result of crossing Rambouillet rams and Lincoln ewes. James Laidlaw died in 1950. His partner, Robert Brockie, died in 1963. Fred Laidlaw, son of the Panama breed's co-founder, maintained the Panama flock at Muldoon for more than a decade, but in 1960 he said he was turning his attention to other livestock interests.

Looking for a practical way to raise orphan lambs, UI researcher Kenneth Fredericksen set up a pilot project at the United States Sheep Experiment Station at Dubois. He developed feeder machines that dispensed a feeding formula to lambs through nipples. "An artificial system of raising lambs has to be economical enough to show a profit, so the method of feeding milk has to require a minimum of labor. Also any milk feed, such as milk replacers, will be expensive, so it's important that weaning be accomplished as soon as possible," Fredericksen said.

A Billion-dollar Industry

Agriculture became Idaho's first billion-dollar industry in l973. Cash receipts from Idaho farms reached the $l billion mark that year, and receipts rose even higher in succeeding years. Idaho's crops moved to worldwide markets. Wheat left the state by barge, truck, and rail, and fully 75 percent of it was going to Pacific ports for shipment overseas.

Farms of the state contributed to the nation's high volume of agricultural exports. Agricultural commodities bolstered the U.S. foreign exchange situation by preventing a huge trade deficit. Manufactures represented red ink on the foreign exchange ledger with United States imports exceeding exports. By earning badly needed foreign exchange, agricultural exports strengthened the American economy in the l970s. In l978, United States agricultural exports had a total value of $27 billion.

Farmers of the 1970s had much knowledge concerning science and technology. Back of the nation's multibillion-dollar earnings from agriculture was a huge, complex, highly productive apparatus. Agricultural technology impressed everyone who saw it work. In Idaho, observers could see that the state's billion-dollar farming industry was a technological marvel. This was the age of computers, mechanization, and agricultural chemicals. In achieving a revolution in agricultural technology, Idaho farmers had received much assistance from UI College of Agriculture researchers and Extension workers. For farmers and researchers alike, the solution of important problems called for the scientific approach.

Machine "Tastes" Angel Food Cake

Consider a news report glimpsed on a television screen in the 1970s. In a national telecast, a reporter is telling about a University of Idaho professor who has a machine that "tastes" cake. The tenderness of angel food cake is important to Erwin Sauter, microbiologist and professor of animal science, because he is studying the factors that influence the quality of eggs. To test the quality of egg whites, he makes angel food cake and measures it's tenderness. Rating cakes was difficult to do until Sauter obtained a machine that could measure precisely the degree of resistance a cake offered to a cutting blade.

Hughes Rudd, anchor for the CBS morning newscast, says the report concerning Sauter called to mind the top news story of the day — President Nixon's difficulty in deciding whether he should resign. Rudd asks:

"Wouldn't it be great if the President had a machine that could measure the texture of public opinion as precisely as Professor Sauter's machine measures the texture of angel food cake?"

Computers Handle Data for Farmers

Complex machines were becoming involved in decision-making processes in the l970s. The need for high-speed computations and electronic storage of information was recognized not only in science, government, and industry, but also in agriculture. Computers were introduced to Idaho farmers by the University of Idaho Extension Service. To relieve farmers of some of the drudgery involved in record-keeping, Extension Service personnel helped initiate computer-run programs that served the needs of dairymen and beef producers.

Through the Dairy Herd Improvement Association, Idaho dairy farmers received computer-processed analyses of their milk production, herd health, and breeding management programs. For purebred beef producers, UI specialists developed computerized performance records. Soon they were providing similar help to commercial cattlemen. Jack Pierce, a rancher at Malta, asked the UI's assistance in organizing his records so he could easily tell which cows in his herd to keep and which to cull. In collaboration with UI animal scientists, Extension management specialist Anna Davis developed a versatile computer program that was useful to Pierce and other commercial cattlemen.

A variety of computer programs became available in the l970s. There were programs that could plan balanced, low-cost rations for livestock, special programs for swine and sheep producers, and programs that assessed farmers' strategies for marketing, tax planning, and allocation of capital and other resources. Farm people could receive computerized help on many questions — including home management problems, dieting, and health care issues. Near the end of this decade, the UI Cooperative Extension Service began to install computers in county Extension offices. By 1981, all county offices had Apple computers. In 1984 and l985, the Apples were replaced with IBM personal computers.

Computers analyzed information about crops, soils, and weather, and the result was "irrigation scheduling," a system for forecasting the irrigation needs of various crops. Marvin Jensen, director of the USDA Snake River Conservation Research Center at Kimberly, said scheduling of irrigation could be set precisely by (1) considering how much water a crop requires at a particular stage of its growth, (2) making an allowance for the moisture already in the soil, and (3) adding the amount of water the crop is expected to lose

due to transpiration. Dorrell Larsen, UI Extension irrigation specialist, showed growers how to measure soil moisture, determine crop needs, and anticipate transpiration losses. Next he showed them how to utilize this information in irrigation scheduling.

Scientists used computers to study erosion problems in the Pacific Northwest. Myron Molnau, UI agricultural engineer and climatologist, said researchers needed to have a precise way to measure how much soil was being lost through erosion. Using data from a number of erosion studies, Molnau constructed a computer program that could predict how much soil would be lost under various cropping patterns and different soil conditions. With this computer program, technicians could help farmers minimize erosion hazards.

UI scientists examined ways of using computerized information to construct "models" of agricultural cropping systems. Lucas Calpouzos, head of the Department of Plant and Soil Sciences, organized a computer modeling workshop in 1977.

New Approaches to Control Pests

Computers aided entomologists in their efforts to curb population explosions of harmful insects. Working in Parma at the UI Southwest Idaho Research and Extension Center, entomologist Donald R. Scott developed a computer program that predicted the optimum time for applying an insecticide to control the corn earworm. "For control to be effective, you need to know when there will be a big concentration of insects at the larval stage," Scott said. "A typical commercial insecticide treatment will kill 98 percent of the first-stage larva, but it will eliminate only about 65 percent of the adult insects." The key to earworm control was temperature. "It appears necessary for the control of earworms to begin when 1,100 heat units have accumulated by the time corn is silking."

In the l970s, scientists were generally conservative in making recommendations for chemical control of weeds, insects, disease organisms, and other pests that reduced crop yields. Chemical treatments were expensive and sometimes involved risks to the environment. Often, cost-effective control could be achieved by using a combination of chemical and non-chemical methods. Arthur R. Gittins, head of the UI Department of Entomology, said a promising approach to pest control was "integrated pest management" — the careful, coordinated use of various procedures in order to gain cost-effective protection of farm crops.

"STEEP" Promotes Soil Conservation

To reduce erosion in the Pacific Northwest, the University of Idaho, Washington State University, Oregon State University, and the USDA's Agricultural Research Service in 1976 organized a cooperative research project called STEEP (Solutions to Environmental and Economic Problems). The STEEP approach — cutting across state lines and academic disciplines — may become a model for solving complex problems elsewhere in the nation, said Edgar L. Michalson, UI agricultural economist. He was co-author of an article in *Science* describing the erosion research program. The magazine article said a primary goal of STEEP was to make sure that the adoption of soil conservation practices will be financially advantageous for farmers.

Regarding weed control, UI Extension weed specialist Robert Higgins said traditional weed control procedures tended to be random in nature, often relying on a one-tool approach. Programmed weed control, using a series of measures in a well-planned system, gave superior results, Higgins said. He credited Extension agricultural agents Frank Jacobs of Madison County and Aaron York of Butte County with initiating systematic programs to combat leafy spurge.

Pictured in 1938 with the prize-winning Holstein cow, Idaho Perfection Delight, are D. R. Theophilus, D. L. Fourt, and herdsman Charles E. Gabby.

Historical Photograph Collection, UI Library, 1-205-33

An Idaho program aimed at controlling the leaf roll virus in potato production areas received national attention. Supported by funds from the USDA and the Idaho Potato Commission, the program conducted tests in a 17,000-square mile area of eastern Idaho. The strategy for the program was based on leaf roll virus research conducted by UI entomologist Guy Bishop, Extension potato specialist Richard Ohms, and other UI scientists. They knew the virus disease was spread by the green peach aphid, an insect that spent the winter on peach and apricot trees. To control leaf roll virus, the scientists recommended eliminating the green peach aphid — and, to do that, they needed to deprive the insect pest of its winter shelter.

Working under the direction of UI Extension entomologist Larry Sandvol, survey crews plotted the location of peach and apricot trees in the test area. If the owners of the trees gave their permission, the trees were either destroyed or treated with insecticide. According to Arthur Gittins, head of the UI Department of Entomology, l00 percent of the owners who were contacted agreed to cooperate in the aphid control program. Also cooperating were plant nurseries and stores that sold bedding plants. Plants that might harbor green peach aphids were sprayed. With the green peach aphid under control, potato leaf roll virus ceased to be a problem in the test area.

Tissue testing was becoming an important management tool for potato producers. Analysis of tissue samples from living potato plants provided a precise measurement of a potato crop's fertilizer needs, reported two UI faculty members — soil scientist J. Preston Jones and Extension soils specialist Charles G. Painter. They said producers could use tissue testing as a means of monitoring a potato crop's needs for nutrients. If a tissue test revealed a lack of nitrogen, the grower could correct the deficiency while the crop was still forming tubers, before yield was adversely affected.

Researchers Face Challenging Agenda

Expansion of the world's food production capacity was needed in order to feed the growing global population, said Raymond J. Miller, director of the Idaho Agricultural Experiment Station. He joined the UI faculty in l973. Miller said agricultural researchers should address these problems:

> **"Crop losses due to pests and diseases.** Worldwide, these losses equal about one-third of the potential production. Just reducing those losses would add substantially to food production.
>
> **"Water use efficiency.** Agricultural crops use 50 percent of all water used, and water is the limiting factor in many areas.

We must learn what the water-induced, growth-limiting processes are and develop plants that grow better with less water.

"Photosynthesis efficiency. We must find plants that can fix more solar energy. Over the last 40 years, yields have increased as we have optimized growing conditions, but we have not increased the plants' energy-fixing capacity very much.

"Multiple cropping. How many acres in the world now raising one crop a year could raise two? This must be studied.

"Food quality. We usually think of agricultural production in quantitative terms. We must also be concerned with quality."

Extension Service Has New Name

Changes came to the Extension Service of the UI College of Agriculture. A change in name occurred in l970 when the UI Agricultural Extension Service became the UI Cooperative Extension Service. James L. Graves took over as leader of Extension, and the state office of the Extension Service was shifted from Boise to Moscow. Graves succeeded C. O. Youngstrom, associate director, who retired in November l969. Graves had been serving as Extension district superintendent for northern Idaho. As leader of Extension, Graves held the title of associate director for two years; he was then named director. A graduate of the UI College of Agriculture, Graves had been Extension agricultural agent in Nez Perce and Boundary counties. He earned a master's degree at the University of Wisconsin.

In l970, a district Extension office was opened in Twin Falls. Blaine Linford, Canyon County Extension agent, was appointed district superintendent. Extension specialists stationed at the Twin Falls office included Robert Higgins, agronomist; Richard Ohms, potato specialist; Fred A. Gilbert, area livestock specialist; Douglas W. Sutherland, entomologist; Wayne Thiessen, soils specialist, and Carolyn Barnes, area 4-H specialist.

At Boise, the former state Extension office was reorganized as a district office. Grant Hall was district superintendent. Cedric d'Easum, Extension editor, continued to be based in Boise. Other Extension specialists stationed at Boise were George Cleveland, dairyman; Anton S. Horn, horticulturist; Virgil D. Kennedy, farm management specialist; Mary Lee Wood, area 4-H leader; Dorrell C. Larsen, irrigationist; Howard B. Roylance, agronomist; Howard C. Tankersley, community development specialist; Wade C. Wells, animal husbandman; and Lucia Wilson, program leader, Expanded Nutrition Program.

Thomas J. Chester, Extension district superintendent for eastern Idaho, was in charge of the Pocatello district office. Charles S. Dunham, area 4-H specialist, also was based in Pocatello.

Robert E. Black, former Extension poultryman, served as district superintendent for northern Idaho. In 1970, the Extension staff at Moscow included J. W. Bailey, veterinarian; Janice Buckner, clothing specialist; Vernon H. Burlison, forester; J. O. Early, marketing specialist; Harry S. Fenwick, plant pathologist; Roger Harder, soils specialist; Dorothy Hole, assistant state 4-H leader; Morris L. Hemstrom, animal scientist; James L. Johnson, editor; Maurice Johnson, state 4-H leader; G. B. Meyer, poultryman; Glen Murray, agronomist; F. H. Parks, soils specialist; Roland W. Portman, entomologist; Robert L. Sargent, economist; Bill Shane, studies and training specialist; Willma Shryack, home furnishings specialist; Bill Stellmon, assistant editor; Roy Taylor, agricultural engineer; Charles M. Thomas, area 4-H specialist; and Esther H. Wilson, nutritionist.

Auttis Mullins Named College Dean

Auttis M. Mullins became dean of the College of Agriculture on July 1, l972, succeeding James E. Kraus. Mullins came to the UI as head of the Department of Animal Industries in 1970. Previously he had served at Lousiana State University as professor in charge of meats teaching and research.

More than 500 people attended a special retirement banquet honoring Dean Kraus. When he joined the UI faculty in 1941, Kraus was stationed at the Aberdeen Agricultural Experiment Station. He was in charge of the potato research program there. He became head of the UI Department of Horticulture in 1948 and in 1955 was appointed dean of the College of Agriculture and director of the Agricultural Experiment Station, the UI Extension Service, and the College of Agriculture resident instruction program. Kraus served on many national leadership groups, including the Committee of Nine (dealing with agricultural research), the United States Department of Agriculture's National Research and Advisory Committee on Potatoes, and the Board of Governors of the National Science Foundation's Agriculture Research Institute.

Buildings New Wing Honors E. J. Iddings

The E. J. Iddings Agricultural Science Laboratory was dedicated in 1974. Built as an extension to the Agricultural Science Building, the new unit provided about 46,000 additional square feet of floor space. Planning for the Iddings Laboratory began in the mid-1960s, and funds for construction were

appropriated by the state legislature in 1971. UI President Ernest W. Hartung presided at the 1974 dedication. Remarks were given by Governor Cecil B. Andrus, Dr. J. P. Munson, president of the Board of Regents, and Representative Emery E. Hedlund, chairman of the Building Fund Permanent Advisory Council. The principal address was presented by James E. Kraus, College of Agriculture dean emeritus. Carl Crabtree, chairman of the Agriculture Student Council, spoke on the students' behalf. Dean A. M. Mullins and Edward G. Iddings also spoke.

State of Emergency Declared

The University of Idaho Board of Regents in April 1973 declared a "state of emergency" for the College of Agriculture. The regents authorized Dean A.M. Mullins to deal with a serious financial emergency by making drastic cuts in the college's faculty and programs. Mullins said, "It all boils down to the fact that there is not enough money available to do everything people would like to have us do, or to continue some things we are now doing."

Dean Mullins said the 1973-1974 budget for the College was $874,652 less than the amount he had sought. "This dollar crunch necessitated a critical reevaluation of our priorities and a reallocation of projected funds," he said. Nine programs were terminated — programs dealing with foliar diseases, root diseases, viral diseases, general plant and soil nutrition, dairy product development, alfalfa insects, swine, poultry management and production, and dairy nutrition. Thirty-eight research projects were terminated, and the entire Department of Food Science was discontinued.

The college's belt-tightening exercise resulted in the termination of 11 positions — six in research and five in Extension. In addition, 10 faculty members with ll-month appointments received salary cuts when they were placed on nine-month appointment status. Gale Chambers, state editor of the *Idaho Farmer-Stockman*, said he found it "difficult to comprehend how such drastic cuts can be necessary when Idaho's gross agricultural receipts are booming, apparently approaching the billion-dollar mark."

Energy prices skyrocketed and fuel shortages developed in the 1970s as a result of the Middle East oil embargo. The UI Cooperative Extension Service developed educational programs aimed at making agricultural production more energy-efficient. Taking stock of the energy situation in the state, Extension agricultural engineer Roy Taylor said Idaho farmers used about as much energy from electrical power sources as from motor fuels. "A deep-well sprinkler irrigation system can consume as much as 20 times the energy required for all field operations in the production of a crop," he said.

By-products could be utilized as sources of energy, Taylor said. “An energy equivalent of over 100 gallons of gasoline per acre is contained in the straw residues from a typical wheat crop.”

Finnsheep Tested in Idaho

Finnsheep, prolific, early-maturing sheep from Finland, were being studied at the United States Sheep Experiment Station at Dubois. The researchers’ first task was to determine if the Finnsheep breed’s desirable trait of producing multiple births each pregnancy would be passed on to offspring that resulted from crossing the Finnsheep with other breeds. The United States Department of Agriculture imported a number of Finnsheep from the Agricultural Institute in Ireland in l968. Several of these animals were sent to the Dubois station in l969 and were used to produce crossbred lambs.

Encouraged by the high reproductive rate of the crossbreds, researchers at Dubois proceeded to develop a new breed of sheep derived from the Finnsheep, Rambouillet, Targhee, and Dorset breeds. The name given the new breed was Polypay — meaning “multiple paychecks.” A Polypay ewe had the potential for raising four lambs a year and also yielding a good wool crop. “Our goal is twin lambs twice a year with little or no hormone treatment. We think we are pretty close, with the development of the Polypay sheep,” said Clarence V. Hulet, director of the Dubois station.

A breed of large, shaggy-haired dogs that originated in Hungary was being evaluated at the Dubois station as a deterrent to coyote attacks on range sheep. Pups of the Komodor breed were being raised with baby lambs, and it was hoped that they would provide good protection from coyotes. Researchers at Dubois also aided in the development of anti-predator fencing, which gave an electric jolt to coyotes that touched it. Research also was being conducted on a birth-control pill for male coyotes, a mechanical feeding system for sheep, several disease prevention programs, and an economical method for rearing orphan lambs.

Traditional methods of evaluating beef cattle were replaced by new approaches that emphasized an animal’s ability to transmit desirable genetic traits to its offspring. Progeny testing is a reliable, scientific method for judging the worth of herd sires, said John C. Miller, UI Extension meat specialist. “In the past, most cattlemen selected animals on the basis of visual appeal. With the initiation of carcass classes and contests, the producer was given the opportunity to evaluate his animals for carcass merit. Fortunately, muscle development is a highly heritable trait. Bulls with superior progeny will improve the beef industry rapidly.”

Storage Research Benefits Potato Industry

Originated by Luther Burbank in the 1870s, the Russet Burbank potato was 100 years old. The variety continued to find favor among producers and consumers alike. At the UI Research and Extension Center at Aberdeen, a new russet variety closely resembling the Russet Burbank was developed by Joseph J. Pavek, USDA plant geneticist. The new Butte variety possessed resistance to several virus diseases. Grown with good irrigation and high soil fertility, Butte potatoes outyielded Russet Burbanks in extensive tests. "We will hear more about the Butte," said Art Walz, UI Extension potato specialist. "It has good yielding qualities, and it produces excellent french fries."

A 12-month market, long a dream of Idaho potato growers, became a reality in the early l970s, thanks to the potato storage technology developed by Walter Sparks, UI horticulturist. Processors and the fresh market both benefited from having good quality Idaho potatoes available at all times. From 1960 to 1970, employment in the potato processing industries increased tenfold. From 1950 to 1970, Idaho's potato production showed a threefold increase.

University of Idaho scientists found potato yields increased by about 43 sacks per acre when growers planted improved seed stocks of potatoes that were freed of "latent" or hidden viruses. "Sometimes a potato plant that looks healthy is actually sick. The trouble may be a latent virus. We have gained much knowledge of latent virus — how it spreads and what we might expect from cleaning up seed stocks or maintaining virus-free stocks. A virus-free program could provide commercial growers with seed of the highest potential," said Richard E. Ohms, Extension potato specialist.

Idaho's Dairy Industry Expands

Idaho's dairy industry was experiencing steady growth. In the early 1970s, more than 20 California dairymen relocated in the Twin Falls area, according to Don Youtz, UI Extension agricultural agent in Twin Falls County. Canyon County was the No. 2 dairy county in the nation. In milk production, Idaho ranked 20th among the 50 states. In cheese manufacturing, Idaho was in seventh place, and the state ranked eighth in non-fat dry milk manufacturing.Idaho's output of 24 million pounds of creamery butter gave the state No. 2 ranking among the 11 Western states. The Gem State's 160,000 milk cows generated about 11 percent of Idaho's total farm income.

Thanks to the generosity of Idaho dairymen, the University of Idaho in 1972 acquired 58 purebred Holstein heifers representing the best blood lines in

UI football player carves a large Idaho potato in 1940.

Historical Photograph Collection, UI Library, 2-115-495

the nation. Twenty-eight dairymen provided the heifers at prices far below actual market values. Richard H. Ross, professor of dairy science, said the animals would be used for both teaching and research. He said Extension personnel had encouraged dairymen to help build the UI herd. He gave special credit to agents LaMont Smith, Rupert; Dan Roberts, Preston; Cecil Alldaffer, Soda Springs; Jay Hansen, Idaho Falls; and dairy specialists Edward Fiez, Caldwell; and George Cleveland, Boise.

Veterinary Education Strengthened

The University of Idaho joined with Washington State University and Oregon State University in establishing a tri-state program to train more veterinarians. The Washington-Oregon-Idaho Regional Program in Veterinary Medicine (WOI) utilized facilities in Moscow, Pullman, Caldwell, and Oregon's Willamette Valley. Working together, the three universities could provide veterinary training at a much lower cost than they could individually, said Floyd Frank, head of the UI Department of Veterinary Science.

At the new Caine Veterinary Teaching Center near Caldwell, senior students in the WOI Regional Program received practical experience in the treatment of beef cattle, dairy goats, and sheep. The center received its first contingent of students in the fall of 1977. Stuart Lincoln, director of the center, said some students would reside at the clinic while others would be housed at the College of Idaho.

New Era in Transportation Begins

Idaho was linked to the Pacific, via the Snake River, in February 1975. Gates were closed on Lower Granite Dam, raising the pool level and providing slack water navigation to Lewiston, Idaho. Speaking at the dedication of the new transportation system, Senator Frank Church said the project had brought "an arm of the Pacific to the Intermountain Region, providing it for the first time ever a direct link to the seas of the world."

Wheat growers in the Inland Empire found they could save transportation charges by trucking their wheat to Lewiston and shipping it down the river. In the first two years of barge service to the ports of Lewiston, Clarkston, and Whitman County, more than 82.5 million bushels of wheat were shipped to world markets. UI agricultural economist James R. Jones in 1979 found that rail traffic had shifted toward a truck-barge system. To take advantage of barge rates, shippers were sending wheat to Portland instead of to Seattle, as they had done previously. After the trucking and rail industries were deregulated in 1980, railroad rates became more competitive. In l982, UI Extension economist Neil Meyer determined that 76 percent of the white wheat transported from Idaho to Portland was being shipped by rail.

Home economics students participate in a 1942 UI fashion show.

Historical Photograph Collection, UI Library, 1-221-27

Finding Ways to Safeguard Health of Calves

Investigating the "weak calf syndrome," UI researchers found that inadequate nutrition appeared to be associated with the high death losses of calves in some beef herds. Richard C. Bull, UI animal scientist, said calves from protein-restricted dams were weak and disease-susceptible. Blood levels of biochemical compounds were altered in these calves, reducing their ability to absorb immunoglobins from colostrum milk. Nutritional differences might account for the fact that many calves in one herd could be affected by weak calf syndrome while there would be no cases of the syndrome among calves in a nearby herd, Bull said.

In southeastern Idaho, near Pegram, UI animal scientists helped ranchers overcome health problems that had caused high death losses among newborn calves. During three years of intensive study, researchers worked with herds owned by four ranchers — Kay Rigby, Henry Rigby, Jack Cochran, and Dwight Cochran. Jack McCroskey, head of the UI Department of Animal Industries, and Ed Duren, Extension livestock specialist, advised ranchers to shorten their calving season and to schedule it one month earlier. This change led to reduction in calf deaths due to stress. Also of positive benefit were steps taken to improve the nutrition of cows and calves. The successful Pegram Project was supported financially by the Idaho Beef Council.

Herbigation Proves Successful

Careful use of fertilizer and irrigation could help control a serious potato disease, reported James A. Davis, UI research professor of plant pathology. Stationed at Aberdeen, Davis studied potato health problems in the laboratory and in growers' fields throughout southern Idaho. Verticillium wilt or "early dying" disease was checked with adequate levels of nitrogen fertilizer, Davis found. Also helpful, he said, was use of sprinkler irrigation.

Davis said the appearance in Idaho of the fungus which causes black dot disease in potatoes had prompted UI researchers to study that fungus and its interactions with other pathogens. He said his research indicated that the black dot fungus was a contributing factor in some cases of early dying disease.

Herbicides and fungicides can be effectively applied through sprinkler irrigation systems, reported Galen McMaster and Robert Callihan, researchers at the UI Research and Extension Center at Aberdeen. "Agricultural chemicals can be applied through irrigation systems as uniformly as water is applied to the field," McMaster said. The UI researchers conducted "herbigation" tests at the Aberdeen center and on cooperators' fields across

southern Idaho. For satisfactory results, sprinkler equipment should be well designed so the water is applied evenly over the field, McMaster and Callihan emphasized.

Improved pest management was the goal of the Idaho and Oregon Alfalfa Seed Management Project in 1976 and 1977. Conducted jointly by the University of Idaho and Oregon State University and financed by the USDA, the project helped alfalfa seed growers control insects more efficiently. A second goal of the project was to provide protection for the leafcutter and alkali bees that pollinate alfalfa. Insect populations in alfalfa fields were monitored weekly by trained scouts. Participating growers were given written reports describing the population status of beneficial and harmful insects in their fields. Craig Baird, UI Extension entomologist, directed the scouting and research in Idaho.

New Auction Service Uses Telephone

Sheep producers had a new marketing outlet — an auction-by-telephone system developed by Extension personnel and farm flock owners in Idaho and Oregon. The first of its kind in the Western states, the telephone auction was operated by Pacific Northwest Livestock Producers Marketing Cooperative. John C. Miller, Extension meats specialist, and John Henry, Extension agricultural agent in Canyon County, helped to organize the auction service. The first sale was held in May 1974. Stewart Cruickshank, manager of the co-op, was the auctioneer. During its first six months in operation, the marketing co-op moved more than 50,000 head of lambs to various markets.

Heavy Frost Hits Idaho Orchards

Many orchardists in southern Idaho were considering installing sprinklers as a means of frost protection. In 1972, fruit crop losses due to frost were widespread in the Pacific Northwest, according to Tony Horn, UI Extension horticulturist. Erling Johannesen, Extension agricultural agent in Gem County, said fruit crops in the Emmett area were damaged severely by late frost.

The characteristic shape of the Red Delicious apple — good length and five prominent points on the calyx — develops best in years when the weather is cool for a week or so after the apple petals drop, said Walter J. Kochan, UI horticultural researcher at Parma. The developing apple produces growth regulators which determine the size and shape of the apple, Kochan said. In his research, he found that Red Delicious apples became larger and better-

shaped after a growth regulator was sprayed on the apple blossoms. The growth regulator product Kochan used in his tests contained two gibberelins and one cytokinin.

Changes in Programs and Personnel

The information-dissemination capabilities of the University of Idaho College of Agriculture were being expanded in the area of electronic communications. Bill Stellmon, head of the Department of Agricultural Information, announced plans to acquire television equipment that would be used in servicing news media and in developing new information programs within the college. To develop a wide range of new services, television specialist Scott Fedale was appointed to the faculty in 1976.

Don A. Marshall, College of Agriculture associate dean and director of resident instruction, retired in 1976. He was succeeded by Richard C. Dobson. At the time of his appointment, Dobson was professor of entomology at Purdue University.

Idaho 4-H members and state 4-H Leader Dan E. Warren interview Senator Henry Dworshak in 1957.

Historical Photograph Collection, UI Library, 4-1-81C

UI experiment stations at Parma and Caldwell merged. The Southwest Idaho Research and Extension Center became the new administrative unit for College of Agriculture programs in southwestern Idaho. The Extension district office in Boise closed, and personnel transferred to Parma and Caldwell. Offices and research facilities were maintained at both Caldwell and Parma. In 1975, Judith A. Templeton became superintendent of the Southwest Idaho Research and Extension Center. In 1977, Harry Guenthner was named superintendent. Following Guenthner's appointment to the Extension Service directorship in 1981, Dan D. Hinman became superintendent of the Caldwell-Parma center.

Edward W. Owens, superintendent of the UI Research and Extension Center at Aberdeen for 31 years, left that post in 1977 and assumed new research responsibilities at the UI Research and Extension Center at Parma. Galen McMaster, UI research professor of agricultural engineering, took over the superintendency at Aberdeen. A member of the UI faculty for 22 years, McMaster had served nine years as assistant superintendent at Aberdeen.

Hugh McKay retired in l977. He had served as superintendent of the UI Research and Extension Center at Tetonia since 1951. McKay supervised the production of foundation and breeder seed of cereals, potatoes, legumes, and grasses. He had been in charge of the state's foundation seed program since 1954. A graduate of the University of Idaho, McKay authored many research reports during his tenure at Tetonia. His successor at Tetonia was Glenn F. Carnahan of the Soil Conservation Service.

Research Lacks Adequate Funding

Inadequate funding of agricultural research was causing concernin the 1970s. Agricultural production in the United States was continuing to increase but the rate of increase was declining, according to the National Academy of Science. "There is urgent need for agricultural research to receive increasing emphasis and much greater financial support. The future well-being of mankind could well be at stake," the Academy said in a report. In Idaho, Dean A. M. Mullins said the UI College of Agriculture had serious funding problems. "As we envision agriculture in the future, we are simply not equipped to move ahead, Idaho produces some 50 commodities of significant importance, and the UI studies these commodities with 80 full-time scientists. That simply isn't enough."

The UI College of Agriculture again reduced programs and staff throughout the state in 1979. The economy moves were made necessary by budget limitations, college administrators said. Agricultural research in the Idaho Pan-

handle was disrupted when the UI Research and Extension Center at Sandpoint was closed on July 1, 1979. The UI had operated a research facility at Sandpoint for 66 years on land donated by a lumber company in l912. James A. Benson, superintendent of the Sandpoint center, had worked for the university since 1967. The Research and Extension Center was reopened in 1980.

At a Moscow conference, the benefits obtained from wheat breeding research in southern Idaho were discussed by Don Sunderman, USDA wheat breeder at the Aberdeen Research and Extension Center. “From 1960 to 1974, we increased the average yield in Idaho from about 54 bushels per acre to 68 bushels per acre. Moreover, we have improved the quality of winter wheat produced in southern Idaho from a grade that was discounted 25 cents per bushel 10 years ago to one that is used domestically and is desirable.”

Entomologist Roland W. Portman examines a tiger swallow tail butterfly in this 1955 photo.

Historical Photograph Collection, UI Library, 1-219-4

New Research Would Pay Big Dividends

Would present-day and future investments in agricultural research continue to provide the American people with the huge financial dividends that were gained in the past? Leading U.S. agricultural economists, biological scientists, and sociologists discussed this question in a symposium held in Moscow in 1978. Edited by A. A. Araji, University of Idaho agricultural economist, the proceedings of the symposium were published in 1980. At the meeting, Araji presented a report predicting worthwhile returns from public investments in agricultural research and Extension.

Araji said returns from ongoing potato research in the Western states were expected to be very high. He estimated that each dollar spent for potato research and Extension projects would provide $55 in benefits each year during a l7-year period. Projects in the West dealing with apples would return $14 annually for each dollar invested, and each dollar spent in sheep research and Extension would return more than $6 each year, Araji reported.

Agronomy Lab, Dr Klages, instructor.

Photo courtesy of University of Idaho historical photograph collection1-220-2.

Completing the First Century

In a remarkable partnership, American farmers and agricultural scientists have built in the United States the most highly productive agricultural system the world has ever known. The Morrill Act of 1862 encouraged the creation of state educational institutions committed to the advancement of American agriculture. Through their agricultural research programs, the University of Idaho College of Agriculture and other land-grant institutions have endeavored to solve the agricultural community's most pressing problems. Because there is a strong, two-way flow of communications linking the farmers and their state land-grant agricultural colleges, agricultural researchers have been able to select topics of inquiry that are of genuine concern to farmers. When problems are solved, the solutions are speedily communicated to farmers through the efficient Cooperative Extension System.

As agriculture has become more productive, fewer farm people have been involved in the production of food and fiber. American agriculture doubled its total output between 1910 and 1970 — and fewer workers and less acres were needed in 1970 than in 1910. The production of nearly one in every five United States crop acres was exported. Through the 1970s, United States agriculture continued to gain in efficiency and productivity. By 1980, production agriculture employed only about 4 percent of the nation's labor force. With a dwindling number of people directly involved in agricultural production, agriculture's political power has continued to decline. In governmental decisions regarding agricultural policy matters, farmers have only limited influence. Decision-making power is now in the hands of consumers of food and fiber, not in the producers' hands.

An innovative, progressive agricultural system would serve the interests of all sectors of American society. It is not clear, however, if the requirements for agriculture's progress are generally understood in non-agricultural circles. Certainly, the agricultural research enterprises that promote agricultural development are not being treated generously by Congress or state legislatures. In the early 1980s the Office of Technology Assessment reported that United States Department of Agriculture research programs were being slighted by Congress. In 1940, the USDA received for its research work 39 percent of the total funds Congress appropriated for research purposes. By 1978, the USDA's share of federal research funding had shrunk to 1.5 percent. While Congress has been reticent to fund agricultural research, state legislatures also have found it increasingly difficult to finance agricultural programs.

Agricultural Research Must Be Ongoing

Variations in environmental conditions become significant as they trigger changes in the interrelated life-forms that make up the web of nature. New races of micro-organisms may appear — and some of them may have the power to infect plants which have built-in resistance to older races of disease-causing organisms. Climatic conditions may be altered, leading to far-reaching changes in the agricultural production capabilities of various geographical regions. Before food production is disrupted by ongoing changes, alert researchers need to recognize developing problems and plan appropriate corrective action. Agricultural researchers always will be needed. Old research may not adequately address present-day problems. Agricultural researchers perform a valuable function as they monitor situations that exist today and plan for the world in which we will live tomorrow.

Forward-looking, inquisitive, and imaginative, agricultural researchers are likely to consider a number of possible alternative outcomes for any problem they confront. As persons who appreciate the explosive, world-transforming power of knowledge, they try to anticipate how the new scientific knowledge now being accumulated will alter agricultural technologies of the future. Recently, as exciting breakthroughs have been achieved in the study of molecular biology, researchers have been able to glimpse great possibilities for agriculture's future. Through genetic engineering, it should be possible to give crop plants increased productivity and improved nutritional content. Also in prospect are plants with built-in resistance to damaging factors such as disease, insects, competing plants, drought, salinity, pesticides, and herbicides. It is now possible to produce plants that are biologically engineered to produce their own insecticide.

The Biotechnology Revolution Has Begun

Monumental discoveries are going to be made in agricultural biotechnology during the next several decades. Research institutions throughout the world are building programs aimed at developing new varieties of plants and animals, new approaches to agricultural production, and new methods for processing farm products. The University of Idaho has established a new interdisciplinary research center called the Institute for Molecular and Genetic Engineering (IMAGE), and the institute's major objective is to make sure that the people of Idaho will share in the benefits to be derived from molecular biology and genetic engi-

neering. The costs of agricultural biotechnology research are high, but worthwhile returns will be achieved.

How much money can the state of Idaho afford to spend on agricultural research? The question, as framed here, is misleading. It suggests that agricultural research is to some extent necessary, but that it should be kept to a minimum. In the experience of the UI College of Agriculture, agricultural research is an investment that pays handsome dividends.

The development of microbial insecticides was one line of investigation University of Idaho scientists followed in the 1980s. Participating in the genetic engineering study were biochemist Lois Miller, bacteriologist Al Lingg, Idaho Agriculture Experiment Station director Lee Bulla, and other faculty members in Moscow and at research centers throughout the state. As an alternative to chemical insecticides, the research group was trying to use bacteria, viruses, and fungi as natural pest controls. Miller, Bulla, and Lingg were asked to write an article about microbial insecticides for a special issue of *Science* dealing with the progress of biotechnology. "The potential for using fungi as an insecticide is tremendous. There are fungi that will affect any insect pest," Lingg said in the magazine article.

Donald Crawford, UI microbiologist, led a research project aimed at developing a new source of plastic materials from waste products of the pulp and paper industry. The research team was seeking practical methods for making use of lignin, one of the major chemical compounds in wood. Of great interest to the researchers were various soil bacteria which are capable of breaking the complex chemical lignin into smaller molecules.

Ron Crawford, a University of Minnesota scientist, was named head of the UI Department of Bacteriology and Biochemistry in 1987. He and his twin brother, Donald, cooperated in research seeking efficient ways for using micro-organisms to clean up toxic wastes. In addition to his duties as department head, Ron Crawford had the responsibility of directing IMAGE, Idaho's genetic engineering research institute.

Biological engineering offers new approaches for the development of improved crop varieties, said UI biochemist Duane LeTourneau. Innovative cell and tissue culture techniques could be used to develop plants with built-in resistance to insects and disease. Use of these complicated techniques is practical, because chemical treatments for disease and insect control have become increasingly expensive, LeTourneau said.

Scientists Explore New Avenues of Research

Many new avenues of research being explored by scientists at the University of Idaho College of Agriculture in the 1980s:

• Seeking a way to identify nitrogen deficiencies in irrigated winter wheat, UI agronomist Brad Brown found that a tissue test worked well. The tissue test is based on the early-season tendency of the wheat plant to accumulate nitrogen in the lower portions of the stem. The nitrogen accumulates in the form of nitrate, and the amounts accumulated are proportional to the soil nitrogen that is available to the plant. If nitrogen deficiencies are revealed early in the season, they can be corrected with additional fertilizer before grain yields are seriously reduced, Brown said.

• An insect-resistant variety of dry pea is likely to be developed, said UI entomologist Larry O'Keeffe. Some breeding lines of peas tolerate pea weevil attacks fairly well, he said. "It will be less expensive for the grower to plant weevil-resistant seed than to spray for the weevil later." Working with him on the project were agronomists Glen Murray and Dick Auld.

Ag College leaders of the 1990s — Al Lingg, Gary Lee, and Larry Branen.

Roy E. Taylor Photo Collection

• "More alcohol can be produced from sugar beets per acre than from any other leading temperate zone crop," said John Gallian, UI Extension sugar beet specialist. Fodder beets might prove to be even better than sugar beets as a source of ethanol fuel. Gallian said curlytop-susceptible fodder beets had been crossed with curlytop-resistant sugar beets in order to obtain moderately resistant beets for testing under Idaho conditions.

• E. Michael Smith, an entomologist, pioneered in research aimed at introducing into wheat plants a strong degree of resistance to attacks by the Russian wheat aphid. Use of chemical insecticides will decline if genetic researchers are able to equip plants with improved natural defenses against destructive insects, Smith said.

Diseases Threaten Idaho Orchards

Idaho's fruit tree acreage expanded to 12,152 acres in 1980, UI plant pathologist A. W. Helton reported. He said orchard acreage had increased 10 percent since 1978. The state's fruit growers earned $25 million annually, with apple sales accounting for two-thirds of total sales. In a survey of orchards in the Gem State, Helton noted infestations of a dozen potentially serious diseases. X-disease appeared to be making a comeback, he said. The disease affects peaches, cherries, and other stone fruits. The target of statewide campaigns from 1948 through 1951, the disease was thought to have been nearly eliminated at that time.

Research dealing with Christmas trees, ornamental nursery crops, and fresh market berries and vegetables was in progress at the UI Research and Extension Center at Sandpoint. "Because forage and small grains are vital to the region's agriculture, the center also conducts studies to aid the production of those commodities," said Harry A. Menser, superintendent of the center from 1980 to 1987. Increased production of nursery stock and fresh vegetables and berries would add to the economic strength of northern Idaho, Menser said. Dan Barney, a horticulturist, became superintendent of the Sandpoint center in 1989.

By growing horticultural crops, a family in Bonner County could make a good living on 40 acres, said Raynold Davis, Extension agricultural agent. Davis said yields of 7 to 10 tons of strawberries per acre are possible on irrigated tracts in the county.

Laboratories for Plant and Pest Studies

A nematode laboratory was opened in Parma by the UI College of Agriculture. The nematologist in charge was Saad Hafez. By sending soil and root samples to the laboratory, growers could find out whether or not they had a nematode problem. Hafez tested a number of alfalfa varieties, identifying plants that possessed resistance to root-knot nematodes and stem nematodes. From resistant plants, he planned to develop new strains of alfalfa that would perform well in nematode-infested soil.

Vegetable oil was evaluated as a fuel in diesel engines by Charles Peterson, UI agricultural engineer. He said vegetable oil might not replace diesel oil, but homegrown fuel could keep diesel tractors in operation in the event of an emergency that would interrupt deliveries of diesel oil. Dick Auld, UI agronomist and plant breeder, developed two new varieties of rapeseed — Cascade, a variety that produces seed yielding edible oil for cooking and food processing uses, and Bridger, a variety grown for industrial purposes.

The College of Agriculture's new greenhouse facilities were dedicated in 1997.

Auld said research aimed at the development of improved rapeseed varieties was "placing Idaho in the center of the fast-developing rapeseed industry."

Auld was involved in testing sunflower and safflower as oilseed crops. He said farmers in dryland areas would like to grow a dwarf sunflower, just the right size to be harvested directly with a combine.

Idaho's alfalfa seed growers should protect alfalfa leafcutting bees from chalkbrood disease by using better management techniques, said UI entomologist Leslie Kish. Alfalfa leafcutting bees, important pollinators of alfalfa seed crops, suffered heavy losses when the chalkbrood disease first became a problem in the mid-1970s. "Chalkbrood is, and always will be, a threat to the growers," Kish said.

Two improved varieties of Idaho fescue grass were developed by Ron Ensign, UI agronomist. The new varieties — Joseph and Nezpurs — produced seed more prolifically than the native species that covered much rangeland when settlers arrived in the Intermountain West. "When the native vegetation was disturbed or subjected to overgrazing, it lost its foothold. The fescue failed to reestablish itself because most plants of this species are poor seed producers," Ensign said.

UI plant pathologists Robert Forster and Norman Schaad said a survey of wheat samples from Idaho elevators indicated a high percentage of seed grain in the state is contaminated with the black chaff bacterium. To help grain growers and seedsmen determine whether their wheat or barley seed was contaminated, the UI seed pathology laboratory provided a test for black chaff. The seedborne disease caused yield losses as high as 40 percent in affected fields.

Potato Researchers Score Gains

Lemhi, a new potato variety developed at the UI Research and Extension Center in Aberdeen, was released in 1980. The originators of the new variety were Joseph J. Pavek, USDA potato breeder, and Dennis L. Corsini, USDA plant pathologist. Lemhi got good marks in several trials, out-yielding the old Russet Burbank. Lemhi had one defect — susceptibility to bruising. In an attempt to correct this problem, researchers developed a procedure to cause mutations in the Lemhi potato by bombarding it with intense radiation. Mutated plants would be tested for resistance to bruising.

Bruises in potatoes were speedily located in a testing procedure introduced by Gary Beaver, Extension potato specialist at the Southwest Idaho Re-

search and Extension Center. With the test, potato growers could determine in a few minutes if potatoes were being bruised by harvesting or handling equipment. After peeling sample potatoes, Beaver placed them in a solution of tetrazolium chloride. Bruised spots became apparent as pink areas. UI experts estimated that bruises cost the Idaho potato industry $31 million in losses annually.

Research Improves Animal Growth and Health

Many animal health problems in the Pacific Northwest are linked to inadequate dietary intake of selenium, said Loren Koller and Peter South, members of the UI veterinary science faculty. Testing blood levels of selenium in cattle in all parts of Idaho, Koller and South learned that selenium deficiencies were widespread. Forage grown in the Northwest tends to be low in selenium because many soils in the region are selenium-deficient, they said. In their research, the UI scientists studied ways of supplementing livestock rations with the element.

To study growth processes in meat animals, a UI researcher observed animal tissue cells that were propagated in the laboratory. Richard Roeder, animal scientist and physiologist, said research with tissue cultures was preferable to experiments with live animals. “It’s no longer sufficient for researchers to determine that a compound will stimulate growth. The government regulatory agencies want us to explain why a substance will induce a certain reaction. By studying muscle tissue directly, we’ll be better able to evaluate the growth factors that affect protein synthesis and degradation.”

A pocket-sized booklet for recording data on beef herd performance was distributed to several thousand Idaho cattle producers. Standardized record-keeping would help the beef industry “get statewide, area-wide and county-wide pictures of what is happening in beef performance in Idaho,” said JD Mankin, UI Extension livestock specialist. The booklet was developed as part of the Idaho Total Beef Program, a cooperative project of the UI and the beef industry. Robert Loucks, Extension agricultural agent in Lemhi County, said producers would benefit from having all basic information about their herds in one easy-to-use record. “The biggest advantage of this book is that all the records will be in one place,” Loucks said.

A new technological revolution is coming to agriculture, and farmers need to become informed about biotechnology and computer-based information systems, said Tony Prato, UI agricultural economist. “Some analysts believe agricultural technology will grow faster in the next 15 years than in the pre-

ceding 50 years." In order to use modern information technologies, farmers will have to receive specialized training and be prepared to make substantial investments in electronic equipment, Prato said.

Renovation of the UI Dairy Center was completed in 1987. The center, which was constructed in 1965, was equipped with a new automated milking parlor. Linked to an IBM computer, the milking system was set up to record electronically the weight of milk from individual cows as well as the milking time and the rate of flow. The system automatically took samples of milk from cows being used in research. "The system is as automated as you can get," said Ross Christian, head of the UI Department of Animal Science.

Improved hay harvesting methods enable alfalfa growers to produce well-cured, nutritious hay, said Robert Romanko, UI Extension crop management specialist. "Drying accelerators and mower-conditioners can reduce drying time by 30 to 50 percent. Development of effective hay preservatives has enabled softer hay to be baled sooner, with reduced leaf loss and a resultant high yield and better quality."

With government agencies tightening their restrictions on the use of antibiotics in food animals, veterinary scientists saw the need for developing alternative methods for controlling animal diseases. "I think genetic resistance is going to become much more important in the future as this antibiotic problem grows," said Marie Bulgin, veterinary scientist with the Caine Veterinary Teaching Center at Caldwell. In collaboration with Charles Parker, research leader at the United States Sheep Experiment Station at Dubois, Bulgin developed a group of footrot-resistant ewes. The offspring of these ewes also possessed resistance to footrot.

Faculty Members Develop New 4-H Projects

"Today's 4-H program in Idaho includes 22,251 youth and 4,009 adult volunteers," stated 4-H leader Maurice E. Johnson said in 1982.

"The volunteers in 4-H are the 'backbone' of the organization. Mrs. Minnie Batt of Lewisville completed 45 years as a 4-H leader in 1981. Mrs. Virginia Russell of Idaho Falls has been a 4-H leader for 48 years. I asked Mrs. Batt why she had stayed with the 4-H program. Her reply was, 'The kids really appreciate what you do for them, and that's all the reward you need for working in 4-H.' She also said she learned as much from the projects as the members."

4-H youth programs remain a mainstay in the college.

The original goals established by 4-H early in the century continued to be important in the last decades of the century, Johnson said. “4-H is still concerned with youth and their development. 4-H goals are to assist youth in acquiring knowledge, developing life skills, and forming attitudes which will enable them to become self-directing, productive and contributing members of society.

“A second primary goal is to assist youth in developing leadership skills and in forming positive citizen attitudes and to help youth explore career possibilities. 4-H is a vital link in the transfer of knowledge from the university and the College of Agriculture to the youth and adults of Idaho.”

The 4-H foods and nutrition project enjoyed top popularity in Idaho, involving more than 7,000 young people, Johnson said. Six other major projects were clothing, community development, horses, shop, beef, and swine. Each of these projects has l,000 or more 4-H participants. New projects dealing with technologies of the computer age were becoming popular, the state 4-H leader said.

“As we look to the future, we have to take into consideration a rapidly changing Idaho — more urbanization, a greater concentration of population in certain areas, a more complex society than we know today.”

In the early 1980s, new 4-H projects were developed with the aid of UI faculty members in various fields. Vernon Burlison, former Extension forester and member of the National 4-H Forestry Development Committee, developed materials for a new forestry project. Money management was the topic of another new project. The material was prepared by Betty Turner, Extension family management specialist, and Lois Pace, Extension 4-H/youth specialist.

Guide Dogs for the Blind, Inc., received assistance from Idaho 4-H members. Puppies were trained and socialized by 4-H members. Puppies were four to six weeks old when received and were raised in members' homes for 12 to 15 months.

To develop citizenship skills in youth, 4-H sponsored groups for the study of local, state, and national government. Several groups visited Boise and Washington, D.C., seeking first-hand knowledge of public affairs. Volunteer leaders of 4-H groups organized the state's first State Leaders' Forum in 1982. They agreed to hold a forum each year in order to promote development of volunteer leadership.

Volunteer leaders of 4-H must take major responsibility for the continued viability of the youth organization, said Corinne Rowe, UI coordinator of 4-H programs. "4-H cannot exist by itself." With fewer Extension personnel available for 4-H assignments, volunteer leaders would have to improve their ability to plan programs, work with members, and organize community-wide support for 4-H, she said.

School Named for Margaret Ritchie

In 1987, the University of Idaho School of Home Economics was renamed the Margaret Ritchie School of Home Economics. Ritchie served on the UI faculty for 27 years. She came to the Moscow campus as head of the Department of Home Economics in 1938 and was largely responsible for planning the Home Economics Building, which was completed in 1952. After retiring in 1965, she was invited to join the faculty of California State Polytechnic College at Pomona, where she established a Department of Food and Nutrition. She died January 7, 1986.

Until 1982, Extension programs in home economics were conducted by the College of Agriculture while the work of the School of Home Economics was under the direction of the College of Letters and Science. The School of Home Economics and the College of Agriculture cooperated in many activities, and Ruth Spidahl, who served as state Extension home economics leader from 1971 to 1981, held an appointment as affiliate professor of home economics.

Extension programs, like the Expanded Food and Nutrition Program, show low-income families how to serve well balanced meals while saving costs.

In l982, the School of Home Economics became an integral part of the College of Agriculture. In the new organization plan, all programs dealing with home economics research, instruction, and Extension work were under the purview of the director of the School of Home Economics. Doris K. Williams served as director of the School of Home Economics from 1983 to 1986. Peggy J. Pletcher became director in l986. For a time, she continued to hold her former position as the College of Agriculture's district director in northern Idaho.

Sheep and swine programs on the campuses of Washington State University and the University of Idaho were combined in 1985. WSU agreed to operate a swine center serving the needs of both universities, and the UI said its sheep unit could be used freely by WSU faculty and students. Ross Christian, head of the UI Department of Animal Science, said the new "partnership" would be a money-saving innovation.

UI researchers detected a special protein in the blood of pregnant cows, sheep, and goats. Because the protein was present at an early stage of pregnancy, UI animal scientist R. Garth Sasser and research associate Carla Ruder decided the protein could be the basis of a reliable test to determine early pregnancy in livestock. They developed an easy-to-use test kit that enabled producers to know the pregnancy status of their animals.

Investigating Soil and Water Issues

Northern Idaho loses about 3.7 million tons of soil to erosion each year, estimated Roger W. Harder, UI agronomist and soil scientist. “No other area in the country has erosion problems as serious as those in the Palouse,” Harder said. A positive step to combat erosion was taken in 1976 when Pacific Northwest land-grant universities joined with the USDA in organizing a cooperative research effort, he said. Researchers will develop soil-saving practices that are economically advantageous for farmers to use, Harder predicted.

As farm machinery gets bigger and heavier, the problem of soil compaction increases, said Robert McDole, Extension soils specialist. “Compaction affects soils of all types — even soils that are sandy. In fact, soil compaction has to rank as one of the major problems facing the agriculture industry today.”

Soil acidity problems are increasing in Idaho, said Robert Mahler, UI soil scientist. Gradual acidification of farmland in most parts of the state outside the Snake River Plain apparently had several causes. “Ammonium fertilizers contribute to acidification and crop removal of basic nutrients is another factor,” Mahler explained. He said farmers should test soil for acidity in order to determine if applications of lime need to be made. Plant breeders working to improve dry beans released few varieties before the mid-1960s, said John Kolar, UI research agronomist at Kimberly. “The major influx of new dry bean varieties occurred after the mid 1970s, especially in the last five years,” Kolar said in 1985. Checking off a list of 106 varieties of dry beans, Kolar found that 30 varieties had been released prior to 1967. Between 1968 and 1978, 25 new varieties were released. There were 56 new varieties released from 1979 to 1984.

Surveying 60 irrigation systems in southern and southeastern Idaho, UI researchers saw possibilities for substantial savings in the use of energy. Improved pump maintenance and better irrigation system design could reduce energy consumption by 13 percent, according to John Busch, head of the UI Department of Agricultural Engineering. If an irrigator could cut back on one irrigation per year, an additional 10 percent could be saved in energy costs, he said. Despite repeated rises in energy costs, the irrigation systems surveyed had serious inefficiencies. “Some 41 percent of the electric pumps tested were running at less than 50 percent efficiency.” Busch said.

Personnel Changes at College

James L. Graves, director of the UI Cooperative Extension Service and associate dean of the College of Agriculture, retired in 1981. He had served on the UI faculty for 31 years. He accepted an appointment in a cereals improvement program in Egypt. Succeeding Graves in the College of Agriculture administration was Harry Guenthner. A member of the UI faculty since 1976, Guenthner initially served as Extension crop management specialist. In 1977, he was appointed superintendent of the Southwest Idaho Research and Extension Center at Caldwell and Parma. In 1988, Guenthner became the College of Agriculture's district director in south-central Idaho, with headquarters in Twin Falls. A new director of Extension, LeRoy D. Luft, was appointed in 1989. In Idaho, as elsewhere in the United States, the Cooperative Extension Service received a new name — Cooperative Extension System.

Gary A. Lee, UI weed scientist, was appointed head of the Department of Plant and Soil Science in 1980, succeeding Lucas Calpouzos, who resigned to accept the position of dean of the School of Agriculture and Home Economics at California State University, Chico. In 1986, Lee was named to a new position — associate dean and director of the Idaho Agricultural Experiment Station. During Lee's time as department head, the Department of Plant and Soil Science merged with the Department of Entomology — becoming the Department of Plant, Soil and Entomological Sciences. Lee's successor as head of the department was Larry O'Keeffe, an entomologist.

Students and faculty practice state-of-the-art science in the college's microbiology laboratory.

Richard C. Dobson, College of Agriculture director of resident instruction and associate dean, accepted an appointment as a program leader in a cereals improvement project in Egypt. A. Larry Branen succeeded Dobson at the College of Agriculture in 1982. A food scientist, Branen was head of the Department of Food Science and Technology at the University of Nebraska. He served on the Washington State University faculty from 1974 to 1981.

Cutbacks Made in UI Programs

Severe cuts in UI College of Agriculture programs were announced in 1982 by Dean Raymond J. Miller. He said cutbacks in the 1982-83 budget were necessitating the realignment of Extension programs in order to eliminate 10 staff positions. Miller said 79 UI agricultural research and Extension positions had been eliminated since 1979. "Agriculture programs are being reduced and the state of Idaho will be the long-time loser. You can't turn these programs on and off and still maintain the knowledge resources that are needed to solve agricultural problems."

Lois Pace, a tenured Extension specialist who lost her job in the 1982 staff reduction, challenged the UI administrative action in the courts. Her suit was upheld by the Idaho Supreme Court. The court ruled that the dismissal of tenured personnel was not justified since it would have been possible for the UI to take less drastic steps to deal with its budgetary problems.

Enhanced Weather and Irrigation Information

An automatic weather station was installed in 1986 at the UI Southwest Idaho Research and Extension Center at Parma. Operating on solar power, the station collects weather data at 15-minute intervals and transmits it to a computer via satellite. Dale Everson, UI agricultural statistician, said the weather station would be useful in pest management projects, in irrigation scheduling and in computer modeling of crop growth. "This will help us get a better estimate of what's happening on an hourly — rather than a daily — basis," Everson said.

Irrigation in the Intermountain West expanded from 20 million acres in 1940 to 50 million acres in 1980, UI agricultural economist Roger B. Long reported. "Irrigation is generally thought to be associated with crop agriculture. The surprising fact is that more water and irrigated land can be associated with livestock than with crop agriculture. The Western livestock industry is heavily dependent upon irrigated hay and feed grain," Long said.

Better use of irrigation water throughout the entire country of Pakistan was the ultimate objective of a research project involving the UI College of Agriculture, Washington State University, Development Alternatives, Inc., the

government of Pakistan, and the United States Agency for International Development. The five-year project began in l985. Engineers and other specialists went to Pakistan to help Pakistani scientists and institutions improve their research capabilities. Training programs for Pakistanis also were conducted in the United States. "Basically, it's an institution-building project, to increase the Pakistanis' capability to plan and carry out irrigation research projects," said Delbert Fitzsimmons, Moscow-based program director. He left the position of head of the UI Department of Agricultural Engineering in order to work on the international project. Another former head of the Agricultural Engineering Department, Gil Corey, was based in Pakistan as chief of party.

Changes in College's Leadership

Dean Raymond J. Miller left Idaho in 1986, having accepted an administrative position at the University of Maryland. A. Larry Branen, associate dean and director of resident instruction, succeeded Miller as dean of the College of Agriculture. Branen was the first UI graduate to attain the top leadership position in the college. John C. Miller, UI animal scientist, was named acting director of resident instruction. In 1987, Al J. Lingg was appointed associate dean and director of resident instruction. A bacteriologist, Lingg had served on the UI faculty since 1969.

Improved communication will improve the effectiveness of the UI College of Agriculture, Branen declared soon after he was appointed dean of the College. In a memo to faculty members in 1986, Branen outlined his plans for building cooperation and good human relations. Here is a key paragraph in Dean Branen's statement:

> "I believe strongly that the key to our success will be in strong communication, both within and outside of the College of Agriculture. We must not forget that our major responsibility is to serve the people of the state. We cannot adequately serve these people unless we are willing to listen and subsequently develop quality programs that can adequately meet their needs. I also believe that we cannot meet these needs effectively if we cannot communicate internally. We must learn to cooperate with each other and to be open, honest, and direct in all that we do. It is through effective teamwork that we can provide the leadership to all of agriculture and home economics in the state of Idaho."

Distance Education delivers education statewide and beyond.

Communication Strengthens UI Programs

Modes of communication have changed in the past century. In order to provide rural people of the state with up-to-date, helpful information, the UI College of Agriculture has used many information delivery systems. Early in the century, farm families traveled to town in horse-drawn sleighs or carriages in order to be instructed at a Farmers' Institute or Movable School. Farm people who are seeking information today may click on a computer, play a video cassette, or consult a file of bulletins and other printed materials.

The UI uses new information delivery systems but has not abandoned tried-and-tested old systems. Farm people still attend educational field-days at the UI experiment stations (now known as Research and Extension Centers). At meetings of commodity associations and other farm organizations, they hear reports from UI faculty who are engaged in problem-solving research projects. At Extension offices throughout the state, farm people seek the advice of friendly, well-informed agricultural agents and home economists. Face-to-face communication has been a distinguishing feature of the UI College of Agriculture approach to education and information-dissemination.

In the ranks of College of Agriculture educators, the personal touch always has been important. Educators cannot have much influence unless they are genuinely interested in people, said Esther Wilson, Extension nutritionist,

in a 1972 interview with graduate student Rick Waitley. She said Extension agents and other College of Agriculture faculty members need to possess good teaching skills. “For anyone to be an effective Extension agent, he or she must have a desire to be a teacher.”

When retired faculty members look back over their careers, the prominent landmarks are people — the students they taught, the farm families they assisted, the UI colleagues who worked with them. In a retrospective view that extended back half a century, Al Mylroie recently called to mind the landmarks in his Extension career — the farm people and the UI colleagues with whom he had shared good experiences. He recalled three deans of the College of Agriculture — E. J. Iddings, D. R. Theophilus, and Jim Kraus. Also Carol Youngstrom, associate director of Extension; state county agent leader J. W. Barber; Extension district agents Al Duke, W. L. (Fat) Stephens, and Tom Chester; Roland Portman, entomologist; E. F. Rinehart, long-time livestock specialist; and fellow-agents Merle Samson, Cecil Alldaffer, Sterling Schow, Herman Hilfiker, and others.

Joining the Extension Service in 1950, Fred Kohl worked with new settlers in the Black Canyon Project for six months and then became the agricultural agent in Lincoln County. He held the position of assistant director of

Extension’s role has changed. Here an Extension nutrition advisor helps a client with her monthly food budget.

the UI Extension Service when he retired in 1984. In an interview in 1985, Kohl talked about some of the same people Mylroie mentioned. In addition, he recalled John Moss and Ivy Hanson, his co-workers in the Bonneville County Extension Office, and also several Extension specialists who helped him in his early career — swine specialist Wade Wells, dairy specialist G. C. Anderson, farm management specialist Virgil Kennedy, agronomists Gene Whitman and Howard Roylance, and conservationist Ray Peterson. "Extension is mostly human relations," Kohl said in that interview. He went on to explain that it is not enough for Extension System workers to possess a great fund of knowledge. In addition to being competent in regard to subject matter, an educator "must have skills in human relations," Kohl said.

Administrators of the College of Agriculture have endeavored to create an atmosphere in which faculty members will feel encouraged to build both their knowledge and their human relations skills, Kohl emphasized. He said a helpful change has been to bring Extension, research, and resident instruction into close cooperation. "Extension and research are working much closer together. Instead of having Extension stand somewhat apart, we now have a total Ag College emphasis." Serious difficulties face Idaho agriculture today, and College of Agriculture faculty members must work together to study problems and to communicate with the public regarding possible solutions, Kohl said.

The challenges presently confronting Idaho agriculture are more complex than the problems that farmers faced a century ago. Knowledge resources have expanded greatly through the years, however, and through the UI College of Agriculture the agricultural industry of the state now has available a great array of facts and problem-solving expertise. The partnership that links the College of Agriculture and the agricultural industry has been built on goodwill and cooperation. Forged in a century of rapid-paced change, the partnership should serve Idaho well as the second century begins for the Gem State and its land-grant university — the University of Idaho.

— Appendix —

ADA Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
H. W. Hochbaum	07-10-13	10-30-14	State Staff
F. L. Williams	11-15-15	07-31-18	State Staff, Gem
W. B. Tucker	08-01-18	02-15-21	
H. T. Niece	05-16-18	01-16-22	
H. A. Mathiesen	02-16-21	10-10-21	
R. H. Davidson	04-21-31	02-18-33	Canyon, Lemhi
Herman G. Hilfiker	05-13-41	11-30-69	Bingham, Bannock
Mark B. Calnon	12-01-45	03-01-74	
Doran A. Peterson	07-01-59	09-30-82	
D. Wayne Sharp	08-01-70	04-01-84	Power, Bannock, Caribou
Norman Walker	05-20-74	01-23-83	Jefferson, Adams
John Renk	10-01-82	02-17-84	Canyon, Owyhee
Leon Church	01-05-83	03-29-85	Minidoka, Owyhee
Susan M. Bell	08-06-84		
Norman L. Walker	05-20-85	12-30-82	See above

ADA Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Alpha Holt	07-01-18	01-15-21	
Dorothy Stephens	05-01-46	06-30-55	Administration
Lucia Wilson	07-01-55	07-31-67	Administration
Janis Switzer	02-01-55	06-10-65	Bannock
Theda Moser	10-09-61	05-31-62	
Mary Ann Clarke	06-19-61	06-24-64	
Wanda Nix	09-01-67	10-21-68	Jerome
Betty Stalker	09-30-65	03-01-74	Payette
Peggy Pletcher	11-18-68	02-29-80	Administration
Sheila Ryan	03-18-74	09-09-77	Caribou
Diane Taft	09-15-77	09-30-78	Butte, Specialist
Frankie Marler	10-01-78	10-04-85	Canyon
Joyce Roundy	07-01-80	06-30-83	EFNEP
Marilyn Shinn	06-16-80		
Barbara B. Abo	07-14-86		Minidoka

ADAMS Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
T. J. Klinger	12-05-18	06-14-19	Blaine
T. C. Carpenter	06-04-46	01-14-51	
Lee W. Hamilton	02-10-52	08-04-68	Fort Hall, Bannock
Stephen L. Peebles	09-12-60	06-11-61	Fremont, Clark
Chad Gibson	11-01-68	01-04-83	Owhyee
Norman L. Walker	01-24-83	05-19-85	Jefferson, Ada
Gordon Keetch	11-04-85		

ADAMS Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Vicky Green	06-12-67	05-25-68	
Donna Joan Taylor	06-18-68	02-28-69	

BANNOCK Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Clinton Galloway	05-16-18	08-31-18	
J. W. Sessions	05-20-18	04-09-19	
R. J. Smith	04-15-18	09-30-18	Oneida
Hazel V. Bullock	10-01-18	11-22-19	
E. B. Duncan	03-17-19	07-21-21	
A. I. Tippetts	12-01-19	06-09-20	
J. W. Thometz	04-30-20	04-15-28	Nez Perce
C. C. Gray	08-29-21	01-15-23	
D. B. Leonard	02-25-23	02-14-25	State Staff
L. B. Taylor	02-15-25	10-13-26	Latah, Washington
D. B. Fales	10-04-26	03-21-29	
R. S. Bristol	04-16-28	04-14-30	
H. R. Stucky	04-29-29	03-21-32	Power
C. W. Daigh	04-15-30	05-01-35	Minidoka, Twin Falls
C. R. Tulley	04-01-32	03-01-34	Bonneville
Irwin W. Slater	03-05-34	01-11-36	Fremont, Bingham
A. E. Duke	05-01-35	01-15-40	Bear Lake, State Staff
Herman G. Hilfiker	01-20-36	12-01-37	Ada, Bingham
Rex Hyrum Lee	12-15-37	11-03-38	
Walter Ernest Schoenfeld	11-04-38	08-15-40	
W. D. Boyle	01-22-40	05-31-45	Teton
Claude G. Johnson	09-01-40	08-31-42	Bingham
Drue W. Dunn	09-01-42	04-30-43	Power, Jefferson
John Dan Roberts	05-15-43	08-30-44	Franklin
Sterling W. Schow	10-01-44	12-31-45	Power
E. B. Baxter	12-01-45	10-05-46	Bear Lake, Lemhi
Q. C. Murdock	01-01-46	09-30-48	Fremont
Drue W. Dunn	03-01-47	05-15-48	See above
Albert Mylroie	06-01-48	02-28-68	Kootenai, Twin Falls, District Spec.
Mack Kennington	10-04-48	09-15-54	
Merle Samson	10-15-54	06-30-70	Latah, Bonner, Canyon
Gary Ericsson	07-22-68	04-30-70	
Charles Renberg	09-01-70	09-15-74	Bingham
James Hawkins	06-01-70	10-13-73	Custer
Kelly H. Yaeger	02-18-74	08-31-74	
George Gardner	07-01-74		Jefferson, Fort Hall, Oneida
Robert Stoddard	03-01-75	08-09-76	
Lee Hamilton	11-01-76	02-28-79	Adams, Fort Hall
Thomas W. Ritter	07-01-79	05-02-82	Bear Lake
George Hamilton	10-01-82	02-12-84	Fort Hall, Clark, Jefferson
D. Wayne Sharp	04-02-84	10-19-92	Power, Ada, Caribou

BANNOCK Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Marie Pazandak	02-02-20	07-31-21	
Clara E. Cowgill	07-09-21	07-31-25	
Florence H. Stone	12-01-25	07-31-27	
Arla B. McKinnon	09-05-27	04-30-28	
Julia Pond	06-04-28	03-05-32	
Alice Rigby	07-13-42	06-30-45	State Spec.
Lenore M. Choules	11-01-45	09-15-51	
Janis Switzer	10-08-51	11-30-53	Ada
Alice H. Dunn	02-15-54	06-15-56	
Phyllis A. Goodey	06-01-56	02-28-61	Payette
Joan Henderson	07-17-61	05-10-68	
Ruth Dyer	07-01-68	09-30-82	
Becky Dahl	10-01-82		Clearwater

BEAR LAKE Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
D. L. Sargent	04-05-18	09-30-20	
Flora Richardson	04-01-19	11-16-19	Jerome, State Staff
F. R. Barber	01-01-20	10-31-20	
Chase Kearl	01-01-21	02-28-31	Franklin
A. E. Duke	03-01-31	04-30-35	Bannock, State Staff
P. R. Gladhart	05-01-35	09-24-38	
E. Boyd Baxter	10-01-38	04-10-41	Lemhi, Bannock
DeVere Tovey	04-10-41	02-27-43	Franklin, Dist. Spec.
Vance T. Smith	04-01-43	08-15-44	Teton, Bingham, Minidoka State Spec., Staff
W. E. Kunz	09-01-45	10-14-47	Minidoka
Duane A. Hansen	10-15-47	07-31-53	Bonneville
Robert Kerns	08-16-53	05-10-58	Twin Falls
Hyrum Johnson	11-01-58	11-08-75	Franklin
Charles Morgan	05-16-76	06-30-78	Bonneville
Walter Them	08-01-78	03-21-82	Franklin
Thomas W. Ritter	05-03-82	06-30-89	Bannock
Joel H. Packham	01-22-90		

BEAR LAKE Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Myrtle Davidson	03-01-21	12-01-22	Fremont, District
Norma Barnes	06-01-25	02-28-26	Dist. Demo., Pocatello
Shirley Myers	07-01-53	10-31-54	
Barbara Kitchens	11-15-55	05-25-57	
Marlene S. Bunderson	07-01-57	09-30-67	See below
Nada Jean Dalke Young	06-10-67	09-30-68	
Diana Pace Christensen	05-01-69	08-31-70	
Marlene S. Bunderson	10-19-70		
Sharlene Woffinden	02-25-91		

BENEWAH Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
F. I. Rockwell	02-21-18	12-31-20	
C. C. McCormick	02-07-27	12-31-29	
G. T. McAlexander	05-01-30	02-19-36	Admininstration, Latah
Reuben Bauer	02-20-36	05-18-40	Idaho, Latah
George W. Johnson	06-01-40	08-22-42	Clearwater
John E. Ellerson	09-19-42	09-10-44	
Charles E. Brown	05-01-45	10-15-46	
R. L. Kambitsch	10-15-46	09-30-55	Nez Perce
Leonard Brooks	09-15-55	04-25-59	Latah, Bonner
Harry Judd	04-27-59	06-30-73	Bonner
Robert J. Gross	08-15-73	09-01-76	Washington
Jack Herring	01-01-77	06-16-78	
Cynthia Mottern	06-01-78	06-30-87	
Floyd C. Gephart	09-01-87	12-31-93	Idaho, Lewis

BENEWAH Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Joyce J. Wheeler	06-01-56	03-31-57	
Cecelia Montoya	02-01-58	10-22-59	Boundary
Iva A. Burnstad	10-08-59	01-31-61	

BINGHAM Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
M. O. Monroe	12-01-17	04-30-20	
Grover E. Lewis	06-10-18	08-31-18	
W. E. Davidson	07-16-18	09-30-18	
E. W. Stephens	02-01-20	08-31-21	
I. E. Largent	05-25-20	02-08-21	Jerome
Chloe Stockard	04-01-20	01-19-21	
Walter F. Thomas	09-01-21	03-21-25	Bonner
M. L. Tillery	04-20-25	04-03-38	
I. W. “Lew” Slater	05-16-41	08-31-42	Bannock, Fremont
Herman G. Hilfiker	04-01-38	05-12-41	Bannock, Ada
Claude G. Johnson	09-01-42	03-31-46	Bannock
F. R. Broadhead	01-01-46	05-31-46	Fremont
Milton B. Weston	04-01-46	06-30-74	Lincoln
H. Max Hansen	06-01-46	03-31-47	
R. Aaron York	04-01-47	05-31-50	Butte
Edward Koester	06-01-50	11-30-52	Gooding
Frank Morrison	12-01-52	04-30-54	Valley, Washington
Charles Renberg	05-01-54	08-31-70	Bannock; see below
James Bryan	07-01-60	11-15-66	
Carl Van Slyke	10-05-70	08-31-74	Kootenai
Vance Smith	09-15-74	04-11-80	Teton, Minidoka, Lake, State Spec. and Staff
Charles Renberg	09-16-74	09-05-78	
Keith A. Bramwell	06-01-79		
Brian F. Finnigan	02-18-80		
Edward V. Musselman	06-25-84	04-01-90	
William H. Bohl	10-10-90		

BINGHAM Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Lillian J. Wolford	08-01-47	06-20-50	State Specialist
Laura Lee German Ware	08-01-50	10-31-51	
Marilyn Williams	06-10-52	05-14-53	Clearwater
Marilyn Petersen	10-12-53	08-28-54	
Wilma L. Johnson	10-01-54	01-31-56	
Nondus Bithell	01-15-55	06-18-71	
Mary Cannon	07-01-59	08-31-67	
Jerrie Lee Evans	09-01-67	06-17-68	
Susan Conley	09-16-68	05-23-69	
Mary Nordlund	09-01-71	02-28-78	Fremont
Fay Aanerud	07-01-78	09-30-82	Franklin
Debora Wardle Gilbert	07-01-78	06-30-80	EFNEP
Sandra L. Eyman	03-02-81	08-08-86	
Mary Lou Ruby	04-06-87		Gooding

BLAINE Agricultural Agents

Name	Dates of Employment		Other Counties
	Start	Finish	Where Employed
J. H. Finley	09-01-17	06-12-19	Idaho
T. J. Klinger	06-15-19	03-23-35	Adams
J. E. Wheeler	01-01-50	03-16-57	Canyon
James Eakin	04-16-57	04-15-60	Cassia, see below
Norman Warren	06-13-60	10-31-64	
James Eakin	01-01-65	07-13-76	
Alan Harrington	09-01-75	04-07-76	
Donald Edgerton	01-01-77	12-19-77	
Rodney McCoy	08-14-78	01-19-90	
Jo Ann Robbins	04-22-91		

BONNER Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
R. A. McCulley	02-18-18	07-31-18	
E. L. Ludwick	10-23-18	01-31-21	
P. T. Fortner	02-16-21	02-28-23	Payette
W. F. Thomas	03-23-23	09-06-42	Bingham
F. E. Betts	10-21-42	03-09-46	
Merle Samson	09-01-46	04-09-49	Bannock, Canyon
Leonard Brooks	04-10-49	03-31-52	Latah, Benewah
Walt McPherson	04-01-52	05-25-69	Twin Falls, Latah, Lewis
Harry L. Judd	06-15-55	04-26-59	Benewah
Donald Ingle	05-11-59	09-30-61	Boundary
Raynold D. Davis	11-13-61	12-29-89	
Wayne Thiessen	09-10-62	01-31-63	State Specialist
Kevin Laughlin	06-20-90		

BONNER Home Economist

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Margaret Boren	07-15-47	08-20-51	
Patricia Dixon Hawkins	09-17-51	03-31-54	
Catherine Carter	06-17-54	09-14-57	
Charlotte M. Darling	08-01-58	07-23-60	
Iva A. Burnstad	02-01-61	02-28-70	Benewah
Kathleen A. Farrell	02-01-70	08-31-71	Jerome
Joanne M. Miller	09-01-71	08-31-74	
Susan McNall	09-09-74	01-10-92	

BONNEVILLE Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
I. E. Brossard	10-01-17	09-16-19	Twin Falls
E. C. Rigby	09-22-19	05-15-21	
J. O. Ellsworth	06-01-21	04-30-23	Gooding, State Staff
T. H. Morrell	02-15-27	04-30-31	Canyon, Power
W. E. Rawlings	05-01-31	03-04-33	Idaho
C. R. Tulley	03-01-34	08-06-38	Bannock
John R. Robertson	08-08-38	08-28-43	Fremont, Power
Thomas J. Chester	10-01-43	08-15-46	Administration, Caribou
H. J. Hall	02-18-46	08-31-46	
Clyde M. Waddell	08-16-46	10-25-52	Teton
D. A. Hansen	09-01-46	10-14-47	Bear Lake
Rex O. Ottley	10-15-47	06-30-49	Jerome
Jay H. Felt	07-01-49	08-31-50	
Russell Hillman	09-25-50	04-30-52	Lemhi, Fremont
L. H. Williams	06-09-52	09-30-54	
Robert Higgins	12-01-52	04-15-55	Specialist, Gooding
Ralph John Moss	11-01-54	03-31-63	Fremont
Fred E. Kohl	05-01-55	08-31-65	Canyon, Lincoln, Administration, State Staff
John Henry	04-01-63	06-30-65	Canyon, Fremont
Ralph John Moss	06-01-65	01-31-83	See above
John Paulsen	09-01-65	05-06-67	Camas
Jay Hanson	06-10-68	10-14-74	Teton
Charles Morgan	06-01-75	05-15-76	Bear Lake
Russell Swensen	04-25-77	09-18-83	Jefferson
Charles Dunham	07-01-83	12-29-89	Fort Hall, Lemhi, Specialist
Gregory S. Van Doren	10-03-83	08-08-89	
Sarah R. Skaar	05-04-90	09-02-91	
Roger Ashley	06-18-90	01-01-97	
Andrew Toelle	02-03-92	12-05-94	
Anne Rumsey	06-05-95		

BONNEVILLE Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Lela Bullock	10-01-17	06-13-19	
Verna Johannesen	06-16-19	12-30-24	District Specialist
Melba C. Olsen	08-25-37	09-01-38	
Leatha C. Poncia	11-01-45	07-21-47	District Specialist
Ivy L. Smith Hansen	07-21-47	11-30-64	Oneida
Marjorie Giebler Odekirk	10-29-73	06-30-76	
Mary Ann Lawroski	02-01-65		

BOUNDARY Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Enock Tarpen	04-01-19	12-17-19	
A. E. Oman	02-16-20	08-31-20	Canyon
R. N. Irving	07-11-21	08-27-21	Kootenai
R. E. Alexander	08-15-21	03-15-27	Elmore
E. N. Storms	07-08-29	02-18-33	
George J. Funke	08-21-39	03-15-43	Kootenai
G. Elbert McProud	04-22-43	07-31-45	Latah, Administration Clearwater
James A. Keyes	08-01-45	05-15-47	
Darrell C. Kerby	06-01-47	02-15-48	Latah
Fred R. Snyder	02-16-48	09-01-50	Lewis
Grant Hall	09-11-50	09-30-51	Canyon, Administration
James L. Graves	10-15-51	07-15-62	Nez Perce, Administration
Donald L. Ingle	10-01-61	09-14-65	Bonner
Ben W. Studer	09-15-65	01-04-80	Idaho
David Short	06-28-71	05-13-77	
Nelson M. Warner	05-09-77	12-31-77	
David Wattenbarger	03-01-80		

BOUNDARY Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Hattie Abbott	06-01-47	05-31-50	
V. Marie Norton	07-01-50	12-31-50	
Althea Hammargren	09-01-51	02-28-53	
Marjorie Ann Hattan	02-01-54	12-10-55	
Eunice Ann Meakin	06-01-56	11-30-58	Kootenai
Gloria H. Johnson	10-27-58	02-28-61	
Cecelia Montoya	03-01-61	08-31-61	Benewah
Donna L. Hinderer	06-01-62	04-30-63	
Ruth Ann Tolman	07-01-63	06-30-68	
Joan Baune	09-23-68	03-31-71	Lewis, Lapwai
Ruby S. Hansen	04-01-71	10-08-71	
Beverly J. Schlegel	10-11-71	11-30-73	
Jeannette Levig	12-01-73	08-14-74	
Kathy Schnuerle	09-09-74	04-09-81	
Linda K. Paeth Fox	10-19-81	03-04-90	
Carol Benesh	10-15-91		

BUTTE Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Orson P. Callister, Jr.	04-01-46	05-31-50	
Aaron A. York	06-01-50	09-15-80	Bingham
Roderick N. Lish	02-09-81	03-31-85	
Charles Cheyney	08-19-85		

BUTTE/CUSTER Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Judith Elaine Rickards	07-01-68	07-24-70	
Rosalee Wornek	02-01-71	07-31-73	
Louise Twitchell	10-08-73	09-29-75	
Diane L. Taft	12-15-75	09-14-77	Ada, Specialist

CAMAS Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
P. Michael Jesness	05-01-18	12-21-24	Elmore
John Paulsen	03-21-55	06-10-64	Bonneville
Raymond Alzola	06-15-64	10-31-67	Valley
Robert Loucks	04-01-68	03-31-70	Lemhi, Jerome
William F. Hazen	05-01-70	05-31-75	Twin Falls
Jeffrey L. Davidson	09-01-75	11-17-77	
Donna Basey	01-09-78	02-11-81	
Vickie Parker-Clark	10-01-83	10-02-87	Kootenai
Jeffrey R. Rast	07-11-88		

CANYON Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
H. A. Ireland	03-01-13	03-01-15	
W. T. McCall	03-13-15	03-31-17	State Staff
R. H. Musser	04-01-17	11-09-18	State Staff, Administration
Ivy M. Wilson	01-01-18	10-31-18	
Paul Robinson	04-01-18	04-23-18	
R. H. Davidson	05-17-18	07-31-18	Lemhi, Ada
A. E. Oman	10-01-18	02-15-20	Boundary
G. W. Dewey	01-01-19	03-15-21	
Edna Black	04-01-19	10-31-21	
T. H. Morrell	06-08-20	09-07-20	Power, Bonneville
A. I. O'Reilly	05-16-23	11-30-23	Twin Falls
Evangeline Jennings	09-17-23	06-30-24	
J. C. Laney	03-03-24	07-31-24	
Buford Kuhns	03-16-38	12-31-43	Minidoka, Gem, State Spec.
J. A. English	03-01-41	05-05-42	
J. P. Smith	05-20-42	03-31-44	Kootenai
Ray O. Peterson	02-07-44	06-30-46	Gem, Jerome, State Spec.
Clarence D. Bechtolt	05-16-44	12-30-65	
B. L. Brooks	06-01-46	11-30-46	Nez Perce, Clearwater
Jay T. Pierson	07-16-46	12-31-48	Washington
J. V. Briggs	12-01-46	02-15-47	Owyhee
G. E. Chapman	02-16-47	08-07-48	
Stan L. Smith	11-01-48	07-16-52	
Blair M. Geisler	02-21-49	06-06-51	
James E. Wheeler	06-01-49	12-31-49	
Fred E. Kohl	04-01-50	10-15-50	Lincoln, Bonneville, State Spec., Administration
Grant B. Hall	07-17-52	04-30-66	Boundary, Administration
Ralph Hart	01-21-57	03-15-68	
Thomas F. Trail	09-15-59	06-03-60	
E. Robert Thornton	05-21-62	12-31-66	
Jesse Wilson	07-15-71	10-31-73	Jerome, Owyhee, Power
Max Gardner	05-09-66	06-30-71	Payette, Jefferson
Blaine Linford	10-01-65	06-14-70	Fremont, Administration
Hugh Homan	04-01-65	02-28-74	State Staff
Merle Samson	07-01-70	08-31-79	Latah, Bonner, Bannock
John A. Henry	10-15-69	01-29-93	Bonneville, Fremont
Darrell Bolz	01-01-74		Washington
John Renk	05-10-76	07-31-81	Ada, Owyhee
David Ewing	01-07-80	07-31-81	Oneida
Kathleen Cheldelin	01-04-82		

CANYON Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
G. Louise Riddle	09-01-18	02-28-21	
Florence Stewart	11-01-45	09-30-55	State Staff
Isabelle Robertson	01-21-57	06-30-59	
Wilma Thomas	04-08-57	12-31-57	Gooding
Delphine Trupp Walker	01-01-58	12-31-66	
Virginia Reynoldson	07-01-59	05-10-66	
Emily Rainey	06-01-66	03-31-68	
Elizabeth Rettig	01-09-67	06-30-68	Latah, Owyhee
Lenora Fields	03-01-69	05-10-74	
Beverly Montgomery	08-01-69		
Daylene Petersen	04-15-74	06-30-78	Payette
Frankie Marler	06-01-78	09-30-78	Ada

CARIBOU Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Harry S. Wilson	05-01-22	04-30-25	District Spec.
I. M. C. Anderson	05-01-27	06-30-32	
Fred A. Finch	09-01-32	04-30-34	
L. A. Sutherland	06-01-34	07-21-34	
George W. Cleveland	08-01-34	02-28-39	Cassia, Madison. State Spec.
Thomas J. Chester	03-01-39	09-30-43	State Staff, Bonneville, Administration
Wesley H. Jenkins	10-01-43	11-04-44	Idaho
E. W. Rieman, Jr.	12-01-44	05-15-46	
H. J. Hall	09-01-46	11-15-46	
M. L. Anderson	11-16-48	11-30-49	
Wallace A. Peterson	04-01-50	11-12-55	
R. Cecil Alldaffer	12-01-55	01-31-83	
Edward P. Duren	09-17-62	06-30-75	State Specialist, Clark
Randy Mecham	06-28-71	09-30-78	Bear Lake
D. Wayne Sharp	01-26-83	04-01-84	Power, Ada, Bannock
Sarah R. Henson	07-05-84	05-03-90	Bonneville
Stephen Harrison	10-01--90		

CARIBOU Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Janette Parrish Tarbet	06-01-52	08-31-55	
Karleen Loveland Gunnell	06-18-57	10-09-64	
Kathryn Weaver	06-15-65	01-11-67	
Mae Williams	06-19-67	08-15-69	Power
Kim Johnson	08-11-69	11-30-69	
Norma Jean Gifford	03-23-70	09-30-71	
Ann Schiller	10-25-71	06-30-72	
Sheila Ryan	08-14-72	03-17-74	Ada
Brenda Womack	03-18-74	09-10-79	
Diane Malleck	01-14-80		
Darlene Moss	06-03-91		

CASSIA Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
E. E. Chester	03-25-18	12-31-20	
J. W. Barber	03-22-20	05-23-27	State Spec., State Staff
W. W. Palmer	05-23-27	03-31-43	
George W. Cleveland	04-15-43	12-31-45	Caribou, Madison, State Spec.
Glenn Bodily	02-21-46	06-16-68	Owyhee
James Eakin	05-01-56	04-15-57	Blaine
Sherman Nesbitt	04-16-57	10-31-58	
Ivan Hopkins	01-13-59	09-15-64	Lincoln, Minidoka
Virgil Cross	05-01-60	06-30-67	Teton, Jerome, State Spec.
Rulon Chandler	11-01-64	02-28-65	
Eugene Rinebold	04-12-65	04-30-68	Potato Spec.
J. Wayne Cole	04-01-69	06-30-77	Teton, Franklin
Harold Payne	01-01-76	04-01-76	
David Brown	09-15-76	12-02-77	
William York	06-01-78	01-12-79	
Robert Clark	09-15-78	04-30-79	
Richard Garrard	07-01-79		

CASSIA Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Thelma Lee	07-21-47	09-20-47	
Miriam V. Hansen	06-01-48	08-31-49	
Arlis L. Ferlic	09-01-49	10-31-51	
Marjorie Gillespie	01-01-52	02-15-63	
Marjorie Hathhorn	06-20-63	07-23-65	
Anjean Coltrin Scholer	08-01-65	10-21-68	Minidoka
Carolyn Barnes	06-16-69	05-31-71	State Staff
Joan K. Parr	07-12-71		

CLARK Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
C. R. Richards	12-11-20	10-15-22	
P. M. Lewis	10-20-22	02-28-23	
Arden J. Harris	09-16-46	05-31-47	Jefferson
R. D. Engberson	06-01-47	05-31-48	Jefferson
Carl Neiwirth	06-07-48	06-14-53	Elmore
J. Arthur Ries	06-15-53	10-15-55	
Randall Johnson	12-01-55	04-20-57	
Alfred Knutsen	06-01-57	04-30-60	
Edward Duren	07-01-60	09-16-62	Caribou, State Spec.
Stephen Peebles	09-17-62	10-30-69	Fremont, Adams
George Hamilton	11-01-69	09-30-82	Fort Hall, Bannock, Jefferson
Stephen Peebles	09-13-82	06-30-87	See above
Daniel E. Lucas	09-07-87	11-08-93	

CLARK Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Norma L. Simpson	07-01-63	05-31-66	Joint Clark/Teton
Vicki Lynn Edgar	09-01-66	08-16-67	Joint Clark/Teton
Janice Stimpson	09-01-90		Joint Clark/Freemont

CLEARWATER Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
George W. Johnson	03-16-36	05-31-40	Benewah
Elbert McProud	06-01-40	04-21-43	Boundary, Latah, State Staff
Clyde Stranahan	06-16-43	07-16-44	Kootenai
C. Ross Trout	10-08-45	02-15-47	
Bruce Brooks	02-16-47	05-31-49	Nez Perce, Canyon
Arlen Bruce	06-01-49	01-31-59	Idaho
Norman Fitzsimmons	02-01-59	02-21-86	Nez Perce
Keith A. Ralston	11-01-67	05-31-68	
Christopher C. Schnepf	02-16-88	06-10-91	Kootenai
William Schlosser	01-06-92	06-30-95	

CLEARWATER Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Marilyn Williams	05-15-53	06-15-54	
Mary Sterner	07-16-56	11-30-58	Lewis
Rosella McQuillan	09-15-54	12-31-55	Joint with Lewis
Millicent Thompson	12-01-58	06-20-60	
Lois Seubert Arnzen	06-21-60	09-13-66	
Donna Leach	09-15-66	07-15-68	
Debra Patterson	10-14-68	06-30-69	
Elizabeth Campbell	07-01-69	07-16-72	
Becky Dahl	01-17-72	09-30-82	Bannock
Mary J. Craig	10-01-82	11-01-87	Latah, 4-H Office

CUSTER Agricultural Agents

Name	Dates of Employment		Other Counties
	Start	Finish	Where Employed
C. E. Jones	04-01-18	12-31-18	
Jay G. Garner	06-04-46	05-20-51	Fremont, State Spec.
M. P. Orme	07-09-51	10-15-52	
Lynn T. Stevenson	04-01-53	06-30-62	
Phillip Edwards	09-01-62	09-15-67	Owyhee
Fred Edmiston	10-01-67	09-16-73	Washington, Fort Hall
James Hawkins	10-15-73		Bannock

ELMORE Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
R. E. Alexander	05-01-18	08-15-21	Boundary
John L. Simpson	05-22-20	06-21-20	
P. M. Jesness	06-01-25	05-31-52	Camas
Delno Moore	06-01-52	04-15-53	
Carl E. Neiwirth	06-14-53	03-15-54	Clark
Herb M. Edwards	04-01-54	09-30-77	Valley
Mark B. Calnon	02-17-78	12-31-83	Ada
Mir-M. Seyedbagheri	06-11-84		

ELMORE Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Mary Lou Graves Ruby	06-20-60	01-31-67	Lincoln, Gooding
Judith A. Graybeal	06-05-67	09-30-67	
Marilyn E. Jordon	10-23-67	01-14-74	Latah, Lapwai
Ruth E. Van Slyke	06-17-74	09-05-82	Nez Perce

FORT HALL Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Lynn W. Bigelow	02-01-56	09-22-56	
Glenn Kunkel	04-01-56	06-30-73	
Alton Dean Anderson	01-02-57	12-31-58	
Charles S. Dunham	02-16-59	12-01-68	Lemhi, State Staff, Bonneville
George Gardner	08-01-65	04-17-67	Jefferson, Oneida, Bannock
Fred Edmiston	05-01-67	10-01-67	Custer, Washington
George Hamilton	01-08-68	11-01-69	Clark, Bannock, Jefferson
Lee W. Hamilton, Jr.	08-05-68	10-31-76	Adams, Bannock
Kent Dee Hall	06-13-77	10-15-80	
Delbert Farmer	01-01-81	12-09-83	
D. Wayne Sharp	10-20-92		Power, Ada, Caribou, Bannock

FORT HALL Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Wilma L. Johnson	10-01-54	07-15-56	
Colette W. Farrar	08-01-56	06-30-67	
Moselle W. Anderson	07-01-67	06-09-77	
Melanie Wahn	09-01-77	04-15-81	

FRANKLIN Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Lucius Clark	01-01-18	08-31-18	
J. A. Morrison	07-01-18	11-30-18	Madison
John Johnson	04-16-18	08-31-20	
G. L. Morrison	04-15-19	03-20-20	Fremont, State Staff
M. A. Powell	04-15-20	02-15-29	
Ezra Taft Benson	03-04-29	10-15-30	State Staff
Chase Kearl	03-09-31	01-30-42	Bear Lake
William Richard Craner	02-06-42	07-31-44	
J. Dan Roberts	10-01-44	08-15-75	Bannock
Hyrum Johnson	07-01-55	10-31-58	Bear Lake
DeVere Tovey	05-25-59	06-30-78	Bear Lake, District Spec.
Robert C. Thompson	07-06-76	07-16-82	
J. Wayne Cole	07-01-77	11-30-90	Teton, Cassia
Walter J. Them	07-15-77	07-31-78	Bear Lake
Stuart C. Parkinson	04-15-91		

FRANKLIN Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Lucretia Maugnan	02-03-47	02-28-69	
Betty Miller Gibson	08-01-69	09-06-74	
Judy Starkey	03-01-75	08-17-76	
Fay Aanerud	02-01-77	06-30-78	
Marie Thompson	10-01-78	06-01-84	
Sharlene Woffinden	09-04-84	02-24-91	

FREMONT Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
G. L. Morrison	04-15-16	07-31-18	Franklin, State Staff
J. E. White	10-13-17	09-15-23	
Myrtle Davidson	02-15-19	03-01-21	
John R. Robertson	05-01-30	02-28-35	Power, Bonneville
Irvin W. Slater	01-13-36	05-15-41	Bannock, Bingham
Joe W. Heward	05-16-41	05-15-46	
Floyd R. Broadhead	06-01-46	09-15-48	Bingham
Quinton Murdock	10-01-48	03-31-51	Bannock
Jay G. Garner	05-21-51	06-30-67	Custer, State Spec.
Blaine Linford	03-01-61	09-30-65	Canyon, Administration
R. John Moss	04-01-63	05-31-65	Bonneville
John Henry	07-01-65	10-15-69	Bonneville, Canyon
Stephen Wagner	02-01-66	12-31-68	
Russell Hillman	08-14-67	01-16-81	Lemhi, Bonneville
Stephen Peebles	11-01-69	09-12-82	Clark, Adams
Rauhn Panting	09-01-78	05-31-79	Oneida
James C. Whitmore	06-29-81	01-28-83	Tetonia R&E
Richard Pocock	08-01-83	02-15-84	
Timothy Herrman	06-11-84	05-29-86	
Stephen L. Peebles	07-01-87		See above

FREMONT Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Gloria Taylor	08-01-48	08-05-51	Gooding
Bernadine Tudder	08-06-51	09-20-52	Nez Perce
Joan Stimmel Klein	07-01-53	06-30-55	
Cara Zirker Newman	10-27-52	05-31-53	Jefferson, Madison
Mary Nordlund	06-20-55	08-31-71	Bingham
Janice Stimpson	09-01-71	01-01-90	

GEM Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
A. L. Berry	01-04-18	07-31-21	
F. L. Williams	09-15-21	07-31-31	Ada, State Staff
W. R. Spencer	07-01-30	07-31-35	
B. E. Kuhns	08-01-35	09-01-37	Minidoka, Canyon, Spec.
R. O. Peterson	09-01-37	01-10-42	Jerome, Canyon, Spec.
Gilbert Matsen	01-12-42	05-15-44	Payette
Erling J. Johannesen	06-01-45	01-16-81	
Wilbur F. Cook	10-01-81		Gooding

GEM Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Anna Brooks Knox	07-01-53	08-31-62	
Villa R. Rexford	10-01-62	04-01-96	

GOODING Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
J. O. Ellsworth	07-13-17	06-30-19	State Staff, Bonneville
Ivah L. Holt	06-01-18	09-07-22	
A. N. Smith	06-01-19	11-15-21	
O. E. McConnell	11-01-21	04-30-35	
Chet L. Mink	05-20-35	03-31-41	
E. J. Palmer	04-15-41	04-15-43	Power
H. J. Shipman	05-07-43	02-09-46	
Robert E. Higgins	04-10-46	11-31-52	Bonneville, State Spec.
Marion Anderson	03-01-48	11-15-48	Caribou
Edward Koester	12-01-52	01-31-83	Bingham
D. L. Thacker	09-01-54	05-01-57	State Spec.
Gerald E. Diehl	05-01-57	01-31-59	
Denton Joe Hall	02-05-59	07-09-64	
Dale A. Walton	03-01-65	10-06-67	
Edwin R. Brown	01-15-68	04-30-68	
Graham Hooper	09-01-68	01-07-71	
Lester Boian	01-01-79	10-31-79	
Wilbur F. Cook	05-01-80	09-30-81	Gem
Gene Gibson	03-15-82		

GOODING Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Jean Feldhusen	06-01-49	05-31-51	
Gloria N. Taylor	08-06-51	08-20-52	Fremont
Helen Lamprecht	08-21-52	08-26-53	
Wilma Talley Thomas	11-01-53	04-07-57	Canyon
Margaret Loomis	11-01-57	07-31-59	
Virginia Mink	03-01-62	01-18-64	
June Hoalst Fitzgerald	06-20-60	11-28-61	
Ruth J. Shane	11-01-64	09-30-67	Latah
Sandra Lou Kasel	02-05-68	08-15-69	
Dorothy G. Hammond	09-01-69	09-18-74	
Arlene Shaw	10-14-74	12-31-76	
Mary Lou Ruby	06-06-77	04-03-87	Elmore, Lincoln, Bingham
Carolyn Burns	05-28-91	06-30-92	Lincoln

IDAHO Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
J. H. Finley	06-15-19	12-17-19	Blaine
R. M. Pavey	04-15-20	12-15-22	
Carl M. Grayson	02-10-22	06-30-23	
W. E. Rawlings	03-10-34	10-21-40	Bonneville
W. W. Wells	10-22-40	02-15-41	
Reuben Bauer	02-17-41	11-30-44	Benewah, Latah
W. H. Jenkins	12-01-44	04-07-49	Caribou
Gordon Dailey	05-27-46	02-14-48	Lewis, Latah
Arlen N. Bruce	12-16-48	05-31-49	Clearwater
J. J. Dahmen	04-08-49	09-25-50	Nez Perce, State Spec.
George Cook	10-16-50	03-21-66	Lincoln
Homer I. Futter	08-01-54	09-30-56	Kootenai, Latah, Lemhi
I. Dale Teare	07-01-56	09-30-57	
Gerald Manderville	10-01-57	05-31-60	
Ben Studer	06-01-60	09-14-65	Boundary
Edward Mink	06-13-66	06-30-83	Owyhee
Floyd Gephart	02-01-66	06-30-73	Lewis
Carl Crabtree	05-15-74	02-29-84	
Fredrick M. Lundin	02-01-82	12-14-84	
Ronald Richard	06-01-85	01-09-87	
James A. Church	08-01-87		

IDAHO Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Elsa Matson Agnew	06-01-49	05-15-52	
Marion Bunting	06-10-52	09-30-53	
Pat Jordon Laughlin	10-05-53	09-30-54	
Mary Gallagher	11-01-54	10-22-58	
Gail Woodward	10-01-59	09-25-61	
Rosa Smith	10-01-61	09-30-82	Payette
Mary K. Schmidt	07-25-83		

JEFFERSON Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
LeRoy Tanner	05-01-18	03-08-19	
Melvin Luke	04-15-19	09-04-22	
D. E. Smith	04-16-27	03-21-32	Jerome
Lew M. Williams, Jr.	03-08-34	02-28-46	State Staff
Drue W. Dunn	01-01-46	02-28-47	Bannock, Power
Arden J. Harris	09-16-46	04-17-51	Clark
R. D. Engberson	06-01-47	05-31-48	Clark
Rex I. Gooch	05-28-51	02-29-80	Teton
Maurice E. Johnson	02-01-58	09-30-60	State Staff, Administration
George Gardner	01-16-61	06-30-61	Fort Hall, Bannock, Oneida
Max Gardner	06-16-61	05-08-66	Canyon, Payette
A. George O'Leary	08-12-63	07-08-66	
Mark L. Gardner	05-23-66	03-17-67	
Haven Hendricks	05-15-67	09-15-68	
Norman L. Walker	01-15-69	05-19-74	Ada, Adams
Gale W. Harding	09-23-74	06-30-81	Madison
Russell N. Swensen	09-19-83	10-31-83	Bonneville
George Hamilton	02-13-84		Fort Hall, Clark, Bannock

JEFFERSON Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
M. L. Hogan	06-10-18	08-31-18	
Cara Zirker Newman	02-15-48	01-15-51	Fremont, Madison
Margaret Faust Reis	06-16-51	09-30-55	
Carol M. McCandless	09-02-55	11-30-90	
Ann Just	09-09-91	11-05-93	

JEROME Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
H. C. Avery	04-01-19	03-15-21	
Flora Richardson	11-16-19	10-31-21	Bear Lake, State Staff
I. E. Largent	03-14-21	11-19-21	Bingham
W. E. Meyer	12-15-21	01-31-23	
Thomas E. Speedy	03-14-27	01-31-33	
D. E. Smith	02-26-34	04-15-37	Jefferson
Eugene W. Whitman	04-12-37	12-31-41	Teton
Ray O. Peterson	01-12-42	02-06-44	Gem, Canyon, State Spec.
Chester E. Arndt	02-07-44	12-31-46	
Virgil Cross	02-01-46	04-30-60	Teton, Cassia
Rex Ottley	08-01-47	10-14-47	Bonneville
Wilmer G. Priest	05-20-60	12-17-74	Minidoka, Twin Falls
Robert Loucks	02-06-67	03-30-68	Lemhi, Camas
Jesse Wilson	09-23-74	09-12-82	Owyhee, Canyon, Power
Robert M. Ohlensehlen	08-07-78	06-30-91	Twin Falls
David Barton	01-06-92		

JEROME Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Edna Weigen	07-21-47	01-16-57	
Agnes A. Hurst	07-01-57	06-15-62	Twin Falls
Wanda Boyer Nix	07-05-62	08-31-67	Ada
Kathleen A. Farrell	09-01-67	01-31-70	Bonner
Sharon E. Allred	02-16-70	06-30-79	
Fay Aanerud	10-01-82	04-29-83	Bingham, Franklin
Barbara Morales	08-22-83		

KOOTENAI Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
H. H. Beier	03-15-17	04-30-20	
J. H. Rearden	06-15-20	01-05-22	State Staff
R. Neal Irving	01-06-22	04-03-38	Boundary
M. L. Tillery	04-04-38	08-27-40	
Albert Mylroie	09-23-40	03-31-44	Bannock, Twin Falls, District Spec.
Jack Smith	04-01-44	04-30-46	Twin Falls
Clyde Stranahan	05-01-46	06-30-74	Clearwater
Joe W. Snyder	04-01-46	04-15-47	
George J. Funke	01-01-49	08-21-56	Boundary
Harold B. Johnston	10-16-56	06-30-67	
Joseph L. Dobson	09-01-67	06-30-73	
Paul Sunderland	07-01-73	11-28-86	
Carl G. Van Slyke	09-01-74	06-01-84	Bingham
James B. Wilson	11-05-84		
Vickie J. Parker-Clark	10-05-87		Camas
Forestry			
Charles Bigelow	07-20-48	06-30-49	
Robert Walkley	08-15-49	03-31-51	
E. Lonnie Williams	12-01-51	09-24-54	
Frank Schoeffler	09-25-54	03-31-57	
Russell Slade	10-16-57	06-15-68	
Donald White	09-01-68	12-31-90	
Christopher Schnepf	06-10-91		Clearwater

KOOTENAI Home Economist

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Beulah Johnson Edwards	06-01-48	02-29-56	
Ruth Hampton	02-23-56	07-11-58	
Eunice Meakin	12-01-58	09-30-67	Boundary
Janet Sprute	09-03-63	06-14-64	Lapwai
Loretta Ann Hess	10-01-67	09-05-73	
Katherine Wallenhaupt	08-20-73		

LATAH Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
O. S. Fletcher	09-01-18	01-31-25	
L. B. Taylor	10-14-26	11-15-30	Bannock, Washington
L. V. Benjamin	01-01-34	01-16-36	
G. T. McAlexander	02-20-36	11-30-44	District Supervisor, Benewah
Reuben Bauer	12-01-44	06-30-45	Benewah, Idaho
G. Elbert McProud	08-01-45	09-30-56	State Spec, Clearwater, Boundary
Fred Snyder	06-18-45	09-30-45	Boundary, Lewis
Merle R. Samson	03-11-46	05-26-46	Bonner, Bannock, Canyon
George Stanger	06-01-46		(no record on file)
Darrell Kirby	01-01-47	05-31-47	Boundary
Leonard D. Brooks	06-01-47	04-09-49	Bonner, Benewah
William Mason	06-01-49	06-30-51	
Walt McPherson	08-20-51	03-31-52	Bonner, Twin Falls, Lewis
Marvin Jaegels	06-01-52	04-20-55	
James Hurst	06-10-55	04-15-56	
John L. Moore	04-16-56	05-10-58	
Homer Futter	10-01-56	02-07-74	Idaho, Kootenai, Lemhi
Leonard Burns	10-20-58	07-31-69	
Gordon Dailey	10-01-69	12-30-80	Idaho, Lewis
David Bodine	04-01-74	06-30-76	
Penelope Morgan Smith	08-01-76	06-30-79	
Mary J. Craig	08-20-79	09-30-82	Clearwater
Duane Erickson	10-19-81	10-17-86	
Timothy W. Miller	01-18-88	12-03-92	

LATAH Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Hattie Abbott	07-01-30	09-15-44	
Esther Nystrom	04-01-46	01-14-49	State Spec.
Virginia Woods	01-15-49	12-31-49	
Betty Jo Baker	08-01-50	06-30-51	
Helen Hunter	09-15-51	11-30-54	
Elizabeth Rettig	02-10-55	04-06-57	Canyon, Owyhee
Ruth Shane	04-08-57	09-30-64	Gooding
Nancy Palmer	10-01-64	09-06-68	Owyhee
Joanne Martin Anderson	09-09-68	03-06-78	
Marilyn Jordan	01-15-74	06-30-74	Elmore, Lapwai
Judith Nest	07-24-78		

LATAH Forestry Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Charles Bigelow	07-20-48	06-30-49	
Robert Walkley	08-15-49	03-31-51	
E. Lonnie Williams	12-01-51	09-24-54	
Frank Schoeffler	09-25-54	03-31-57	
Russell Slade	10-16-57	05-15-68	
Donald White	09-01-68*		

*Position deleted in Latah 12-31-71, but continued in Benewah, Kootenai, and Bonner counties.

LEMHI Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
G. A. Nelson	02-01-18	10-15-18	
R. H. Davidson	04-15-19	09-27-19	Ada, Canyon
L. E. Tillotson	11-01-19	02-11-23	Power
E. B. Baxter	04-10-41	11-01-42	Bear Lake, Bannock
Homer I. Futter	02-01-49	07-31-50	Kootenai, Idaho, Latah
R. M. Henderlider	08-01-50	03-31-52	
Russell J. Hillman	05-01-52	08-13-67	Fremont, Bonneville
Charles Dunham	12-01-67	02-28-70	Bingham, Bonneville, Fort Hall, State Staff
Robert Loucks	04-01-70		Jerome, Camas
Jack Goddard	08-16-76	05-31-77	

LEMHI, CUSTER, BUTTE Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Ruby J. Smith	06-15-65	10-16-67	

LEWIS Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
T. F. McConnell	03-15-14	06-01-15	
A. E. Wade	04-01-15	05-08-20	
Maude E. Near	04-01-19	02-29-20	
C. H. Behnke	05-03-20	09-30-21	
C. W. Raney	02-28-34	08-06-45	
Fred R. Snyder	05-27-46	02-14-47	Boundary
Gordon H. Dailey	02-16-48	09-13-50	See below
Keith A. Ralston	10-16-50	09-19-51	Clearwater
Gordon H. Dailey	09-20-51	09-30-69	Idaho, Latah
Walt McPherson	10-15-69	09-14-71	Latah, Bonner, Twin Falls
Brent G. Ovard	11-15-71	05-01-74	
Floyd Gephart	11-01-73	08-31-87	Idaho, Benewah
Benjamin Barstow	02-22-88	08-13-93	

LEWIS Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Rosella McQuillan	09-15-54	12-31-55	Joint with Clearwater
Mary Joann Sterner	12-01-58	06-30-65	Clearwater
Joan Baune	08-23-65	09-30-67	Boundary, Lapwai
Karen Faye Larson	08-01-68	08-31-70	
Colette Peterson	09-21-70	10-08-71	
Susan C. Jirele	10-01-71	05-31-74	

LINCOLN Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
H. G. Avery	04-25-17	03-31-19	Jerome
George E. Maroney	04-01-19	06-30-21	Twin Falls
C. R. Briggs	06-24-21	11-15-21	
Truman C. Anderson	07-01-27	09-21-35	
Harry Gault	09-23-35	03-22-44	
Milton Weston	05-16-44	03-31-46	Bingham
George E. Cook, Jr.	04-01-46	10-15-50	Idaho
Fred Kohl	10-16-50	04-30-55	Canyon, Bonneville, State Staff, Administration
J. Howard Manning	04-20-55	06-27-64	
Ivan Hopkins	09-16-64	01-12-86	Cassia, Minidoka
Stacey D. Camp	01-12-87	04-01-91	
William F. Hazen	06-01-91		Camas, Twin Falls

LINCOLN, BLAINE, CAMAS Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Mary Lou Ruby	02-01-67	01-31-69	Elmore, Gooding
Sylvia L. Fowles	05-01-69	08-31-70	
Jeanene Annest	11-23-70	07-31-73	
Charlene M. Critchell	08-20-73	10-10-77	
Virginia Warner	04-01-78	07-17-81	
T. Kathleen Spessard	10-01-80	06-30-85	
Gretchen S. Sutton	03-25-85	04-24-87	
Marilyn S. Shipley	04-18-88		

MADISON Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
D. P. Murray	07-01-17	03-14-22	District Supervisor
D. H. Manwaring	04-01-18	02-15-19	
Abigail Neikirk	04-01-19	09-12-20	
Ethel Olsen	10-08-20	03-31-21	
J. A. Morrison	04-16-22	01-04-23	Franklin
Del Bert Bolingbroke	03-01-26	02-28-39	Twin Falls, State Spec.
George W. Cleveland	03-01-39	04-14-43	Caribou, Cassia, State Spec.
Harold K. Ball	04-15-43	04-06-45	Power
Nile N. Taylor	06-16-45	10-31-53	
Frank Jacobs	02-08-54	04-30-81	
Gale W. Harding	07-01-81		Jefferson

MADISON Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Cara Newman	07-12-54	06-30-56	Jefferson, Fremont
R. Joyce Carnahan	07-01-57	11-14-58	Oneida
Phoebe Williams	03-25-59	10-21-66	
Cara Z. Newman	10-01-67	08-31-70	See above
Edith Sue Weighall	06-01-71	10-22-74	
Kathryn Scott	10-15-74	05-31-76	
Cara Z. Newman	06-01-76	03-14-83	See above, Teton
Mary L. Wolf	05-21-84		

MINIDOKA Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
R. R. Lancaster	05-07-17	03-31-19	
G. Burnett	05-03-19	12-31-21	
J. T. Montgomery	01-01-26	04-30-27	
B. E. Kuhns	04-16-27	07-31-35	Gem, Canyon, State Spec.
C. W. Daigh	08-31-35	10-14-47	Bannock, Twin Falls
W. E. Kunz	10-15-47	10-19-48	Bear Lake
W. G. (Bill) Priest	11-01-48	05-19-60	Jerome, Twin Falls
Vance Smith	07-01-53	03-31-69	Teton, Bingham, Bear Lake, State Staff, State Spec.
LaMont Smith	07-25-55	06-01-58	State Staff, Power
Stephen Poe	06-04-75	10-14-76	
Leon Church	07-01-72	11-30-74	Owyhee, Ada
Neil Olson	06-10-71	06-30-72	Valley
Edward Gage	02-05-75	06-15-76	
Henry McNeel	11-15-76	11-15-77	
James Stewart	07-01-78	05-16-79	
LaMont Smith	06-01-60	08-31-74	See above
Kerry Locke	07-01-80	07-15-85	
Ivan Hopkins	01-13-86		Cassia, Lincoln

MINIDOKA Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Nina Huyck	01-01-19	06-30-24	
Blaire Daniels	05-17-20	08-21-20	
Josephine M. Mason	07-01-53	05-31-62	
Katherine Barnes	06-11-62	04-05-63	
Ann Marie Baum Rytting	07-01-63	08-31-65	
Renee Alder	08-23-65	08-31-68	
Ann Jean Scholer	10-21-68	06-30-72	Cassia
Charlene J. Mandeville	07-17-72	07-17-73	
Linda R. Hankins	08-20-73	03-31-74	
Marsha Kidder Creason	05-01-74	01-07-76	
Barbara B. Abo	02-09-76	07-13-86	Ada
Diane Schmerbauch	08-06-91		

NEZ PERCE Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
M. E. Near	01-01-18	04-01-19	
W. W. Skuse	06-15-19	12-31-23	
Joe W. Thometz	04-22-29	09-30-55	Bannock
R. Loren Kambitsch	03-01-46	10-15-46	Benewah
Bruce L. Brooks	12-01-46	02-15-47	Clearwater, Canyon
Jerome J. Dahmen	05-16-47	04-07-49	Idaho, State Spec.
James L. Graves	06-01-49	10-15-51	Boundary, State Staff, Administration
Jerome J. Dahmen	01-01-52	05-15-55	See above
Norman Fitzsimmons	06-10-55	01-31-59	Clearwater
R. Loren Kambitsch	10-01-55	08-31-79	See above
Charles M. Thomas	02-05-59	07-31-68	State Staff
Jerome J. (Jay) Ney	12-01-68		
Larry J. Smith	11-01-80		

NEZ PERCE Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
C. Lucile Gray	06-01-46	05-31-48	See below
Gale L. Weber	06-01-49	05-06-50	
Margaret Weber Nelson	06-21-50	12-31-51	
Helen L. Bowling	01-01-52	06-30-54	
Bernadine Tudder	08-16-54	08-09-57	Fremont
C. Lucile Gray	06-16-58	02-16-82	See above
Ruth E. Van Slyke	09-06-82		Elmore

NEZ PERCE RESERVATION Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Janet Sprute	10-01-64	03-08-71	Kootenai
Joan Baune	04-01-71	05-31-74	Boundary, Lewis
Marilyn Jordan	07-01-74	03-27-77	Elmore
Phyllis E. Taylor	09-01-77	06-30-81	

ONEIDA Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
George Busby	11-12-17	07-31-18	
Ray J. Smith	10-01-18	01-31-33	Bannock
Dan E. Warren	01-01-34	03-31-37	Payette, State Staff
J. W. Welster	04-01-37	09-30-39	
Virgil Siple	11-01-39	03-15-42	Payette
Milton C. Grover	03-16-42	12-30-66	
George F. Gardner	04-17-67	06-30-74	Jefferson, Fort Hall, Bannock
Don Hess	06-28-71	09-10-76	
Lyn C. Merrick	03-10-75	06-30-76	Twin Falls
David Ewing	05-23-77	01-25-78	Canyon
Rauhn Panting	06-01-79		

ONEIDA Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Joyce Carnahan	09-20-60	03-31-62	Madison
Dwen R. Anderson Jones	07-02-62	08-16-63	
Ivy Hansen	12-01-64	06-30-70	Bonneville
Elizabeth Sweeten	07-27-70	01-22-73	
Jean Poffenroth	07-23-73	07-15-75	
Maurine Corbridge	09-01-75	09-05-80	
Jean Showell	10-13-80		

OWYHEE Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
J. Victor Briggs	02-16-47	12-31-55	Canyon
R. C. Samson	12-16-55	03-31-60	State Spec.
Ed Mink	05-27-57	06-12-66	Idaho
Philip Edwards	06-08-60	08-31-62	Custer
Jesse Wilson	11-01-62	07-14-71	Canyon, Jerome, Power
William Allred	08-15-66	12-31-67	
Glenn Bodily	06-17-68	02-28-78	Cassia
Leon Church	12-01-74	01-04-83	Minidoka, Ada
J. D. Mankin	07-15-71	08-31-74	State Spec.
Gary Lawrance	06-19-78	06-15-80	
John Renk	08-01-81	09-30-82	Canyon, Ada
Chad Gibson	01-05-83		Adams

OWYHEE Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Elizabeth Rettig	10-14-57	10-20-58	Canyon, Latah
Virginia Nesbitt	12-01-58	09-15-60	
Nancy Palmer	07-01-61	09-30-64	Latah
Mary Lee Wood	11-01-64	06-20-69	State Spec., State Staff
Beverly A. Healy	09-01-69		

PAYETTE Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
W. R. Palmer	01-20-18	11-30-19	
C. A. Allison (4-H)	04-22-18	08-31-18	
Ina Scrivner	11-01-19	03-31-50	
P. T. Fortner	12-01-19	02-16-21	Bonner
R. L. Spangler	04-25-21	12-31-32	
Dan E. Warren	04-01-37	02-28-42	Oneida, State Staff
V. A. Siple	03-16-42	06-30-44	Oneida
Gilbert Matsen	01-01-45	06-30-71	Gem
Wallace Peterson	02-06-50	03-31-50	
Hattie Abbott	06-01-50	08-15-51	
Max Gardner	07-01-71		Jefferson, Canyon

PAYETTE Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Geroldine Chindgren	07-01-53	02-28-54	
Phyllis A. Goodey	05-15-54	05-31-56	Bannock
Helen S. Graham	06-16-56	05-15-58	
Beatrice Stalker	07-10-59	09-29-65	Ada
Margaret Jorgensen	08-16-65	02-15-68	
Susan Wiley Nesbitt	07-01-68	07-13-71	
Daylene Petersen	07-01-71	09-30-73	
Robyn Kay Klicker	10-29-73	05-31-74	
Susan Inouye	05-20-74	05-18-82	Washington
Rosa L. Smith	10-01-82		Idaho

POWER Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
W. Kjosness	10-01-15	01-01-18	Administration
Bruce Lampson	08-16-18	08-31-20	
Thomas H. Morrell	09-07-20	01-08-23	Canyon, Bonneville
L. E. Tillotson	02-12-23	09-30-31	Lemhi
H. R. Stucky	03-31-32	01-31-35	Bannock
J. R. Robertson	03-01-35	08-07-38	Fremont, Bonneville
E. J. Palmer	08-08-38	04-14-41	Gooding
Harold K. Ball	04-16-41	04-14-43	Madison
D. W. Dunn	05-01-43	12-31-45	Bannock, Jefferson
Sterling Schow	01-01-46	01-31-83	Bannock
LaMont Smith	06-01-58	05-31-60	Minidoka, State Spec.
Howard C. Tankersley	07-18-60	02-28-63	State Spec.
D. Wayne Sharp	01-11-63	07-31-70	Ada, Bannock, Caribou
Francis J. Esser	08-01-70	03-31-72	
Duane Gallinger	07-01-72	06-01-73	Valley
DeVon Knutson	10-22-73	12-07-74	
Lee Frank Hamilton	01-01-75	09-30-76	
Stanley R. Gortsema	12-27-76		
Jesse Wilson	09-13-82	02-15-84	Owyhee, Canyon, Jerome

POWER Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Rose Mary Gilpin	06-14-55	09-29-56	
Nancy J. Lingle	03-04-57	12-31-57	
Mae C. Williams	06-01-60	08-10-61	Caribou
Frieda L. Dunlap	08-21-61	04-18-63	
Jean I. Mayo	05-15-63	05-15-64	
Ruth G. Dyer	01-01-64	06-30-68	Bannock
Bette M. Hovey	06-17-68		

TETON Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
D. L. Fourt	07-05-22	11-15-23	
C. R. Richards	04-01-24	03-15-25	
A. K. Larson	05-01-25	02-15-27	
G. L. Loveless	03-28-27	01-31-28	
Eugene W. Whitman	03-05-34	04-11-37	Jerome
W. Dean Boyle	04-12-37	01-22-40	Bannock
Virgil S. Cross	01-25-40	01-31-46	Jerome, Cassia
C. M. Waddell	02-01-46	08-15-46	Bonneville
Rex I. Gooch	08-16-46	05-27-51	Jefferson
Blair M. Geisler	06-07-51	07-31-55	
Ronald B. Foster	08-16-55	04-06-57	
J. Wayne Cole	05-20-57	03-31-69	Cassia, Franklin
Vance T. Smith	04-01-69	02-29-80	Bingham, Minidoka, Bear Lake, State Staff, State Spec.
D. Jay Hanson	10-15-74		

TETON Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Norma L. Simpson	07-01-63	05-31-66	Joint Clark/Teton
Vicki Lynn Edgar	09-01-66	08-16-67	Joint Teton/Clark
Mary L.Wolf	05-21-81		Joint Teton/Madison

TWIN FALLS Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
W. N. Birch	11-01-15	Spring 17	
D. L. McLean	07-01-17	02-15-19	
G. E. Denman	05-16-18	09-15-18	
G. E. Maroney	08-16-18	03-31-19	Lincoln
D. H. Bohrer	02-15-19	11-07-19	
A. I. O'Reilly	05-20-19	02-28-23	Canyon
L. W. Coleman	11-01-19	03-31-20	
H. E. Powers	06-01-20	10-15-21	
R. E. Brossard	11-01-21	03-15-30	Bonneville
J. S. Feldhusen	03-03-22	07-25-22	
H. S. Hale	03-17-30	02-28-39	
D. T. Bolingbroke	03-01-39	02-29-44	Madison, State Spec.
Albert Mylroie	04-01-44	01-19-46	Kootenai, Bannock, District Spec.
R. H. Brown	01-16-46	02-28-46	
Jay G. Garner	03-01-46	06-04-46	Spec.
John P. Smith	05-01-46	08-31-47	Kootenai
Wilmer G. (Bill) Priest	06-05-46	10-31-48	Minidoka, Jerome
C. W. Daigh	10-15-47	09-30-61	Bannock, Minidoka
F. H. Vandeburg, Jr.	11-01-48	11-30-50	
Robert D. Kerns	12-01-50	08-15-53	Bear Lake
Don F. Youtz	08-17-53	12-31-76	
Olan Genn	12-01-61	08-27-70	
Walt McPherson	05-26-69	10-14-69	Latah, Bonner, Lewis
Richard Fuehrer	12-01-70	06-30-73	
Lyn Merrick	06-01-73	03-09-75	Oneida
William Hazen	06-01-75	05-31-91	Camas, Lincoln
Dale R. Beck	06-21-77	04-11-86	
Robert V. Vodraska	08-17-87		
Robert M. Ohlensehlen	07-01-91		District 4-H

TWIN FALLS District 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Earl Stansell	01-01-38	01-01-39	State Staff
DeVere Tovey	12-01-39	11-30-40	Franklin, Bear Lake
Albert Mylroie	01-01-42	01-01-44	Kootenai, Bannock, Twin Falls
Wilmer G. Priest	12-01-45	11-30-46	Twin Falls, Minidoka, Jerome

TWIN FALLS Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Gertrude Denecke	12-01-17	08-31-18	
Caroline R. Brown	08-16-18	06-13-19	
Edna H. Ladwig	06-01-19	01-31-21	
Sara Spence	06-16-49	08-31-49	
Janemarie Smith	06-15-57	09-14-57	
Agnes A. Hurst	07-16-62	05-11-66	Jerome
Alice M. Reed	08-22-66	09-30-71	
Patricia M. Kleinkopf	10-01-71	01-29-75	
Celia M. Black	03-10-75	12-30-77	
Rebecca S. Ratliff	03-01-78	10-23-79	
Sharon Allred	07-14-76	07-15-79	Jerome, EFNEP
Marsha A. Howell-Hawkins	03-11-85	03-02-92	

VALLEY Agricultural Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
J. J. Andrews	05-22-20	12-31-21	
R. M. Pavey	01-23-22	12-15-22	
Herb M. Edwards	09-08-47	03-30-54	Elmore
Frank D. Morrison	05-01-54	09-15-57	Bingham, Washington
Duane Gallinger	11-23-70	06-30-72	Power
Don Greenwell	10-01-57	11-06-70	
Ray Alzola	08-26-63	06-15-64	Camas
Neil Olson	07-01-72	04-03-79	Minidoka
Alice Dunlap	11-18-74	09-30-78	

VALLEY Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Pansy Scheline Jensen	07-10-59	09-15-75	
Alberta Hybertson Smith	11-03-75	05-31-78	
Cheryl Smith Hay	07-03-78	05-23-80	
Linda I. Webb	07-07-80		

WASHINGTON Agricultural and 4-H Agents

Name	Dates of Employment Start	Finish	Other Counties Where Employed
G. D. Noel	04-05-18	05-15-21	
Harriet E. Cushman	02-01-20	09-30-20	
Dorothy Spurling	11-05-20	09-06-21	
H. B. Soulen	06-01-21	10-01-21	
L. B. Taylor	09-01-35	12-21-38	Bannock, Latah
J. T. Pierson	02-01-39	07-15-46	Canyon
Frank Hackler	07-16-46	06-30-71	
Leonard Dean Hale	05-01-57	02-29-60	
Frank D. Morrison	05-01-60	05-24-63	Bingham, Valley
Ladd A. Mitchell	07-22-63	06-30-67	
Robert Gross	09-25-68	08-14-73	Benewah
Darrell Bolz	07-15-71	12-31-73	Canyon
Fred Edmiston	09-17-72		Custer, Fort Hall
Ken Heneise	03-11-74	06-30-75	
R. Wayne Simmons	07-01-75	11-24-76	
Dan Warfield	01-17-77	08-31-84	
Harold Boggs, Jr.	03-11-85	01-30-87	

WASHINGTON Home Economists

Name	Dates of Employment Start	Finish	Other Counties Where Employed
Elaine Carson Hake	01-01-47	07-10-47	
Roberta Davis	07-15-47	11-15-51	
Rowena Gardner Case	06-01-52	12-31-56	
Carolyn Wagner Craig	07-01-61	06-30-67	
Jane Derr Betts	08-01-67	06-30-81	
Susan K. Inouye	11-30-87		Payette

DEAN, College of Agriculture

Name	Dates of Employment Start	Finish
Edwin Ebenezer Elliott	1908	1909
William Levi Carlyle	1910	1914
Edward John Iddings	1915	1946
C. W. Hickman (Acting)	1946	1946
Donald R. Theophilus	1946	1955
James E. Kraus	1955	1972
Auttis M. Mullins	1972	1979
Raymond J. Miller	1979	1986
A. Larry Branen	1986	1993
David R. Lineback	1993	

RESEARCH Administrators

Directors		Assistants	
Robert Milliken	1892-1893	H. P. Davis Assistant Director	1919-1921
Charles P. Fox	1893-1898	Charles W. Hungerford Vice Director	1927-1947
Franklin B. Gault President and Director	1898-1899	Glen C. Holm Vice Director	1947-1949
Joseph P. Blanton President and Director	1899-1901	James E. Kraus Associate Dean	1949-1955
James A. MacLean President and Director	1901-1902	Ronald D. Ensign Associate Director	1955-1972
Hiram T. French Director and Agriculturalist	1902-1910	Floyd Frank Acting Director	1971-1972
William Carlyle Director, Dean Acting President	1910-1914	Steve E. Zobrisky Acting Associate Director	1972-1973
J. S. Jones Director and Chemist	1914-1918	Raymond J. Miller Associate Director	1973-1973
Edward J. Iddings Dean and Director	1918-1946	Ed Owens Assistant Director	1974-1977
Donald Theophilus Dean and Director	1946-1955	C. Seymour Card Assistant Director	1975-1979
Donald A Marshall Acting Dean	1954-1955	Gary A. Lee Assistant Director	1979-1980
James E. Kraus Dean and Director	1955-1972	Steve Davis Assistant Director	1979-1983
Auttis M. Mullins Dean and Director	1972-1973	Marshall LeBaron Asstistant to Dean and Directors	1981-1982
Raymond J. Miller Acting Dean and Director Dean and Director	1973-1981	Ken Frederiksen Assistant to the Director	1983-1984
Lee Bulla Director	1981-1984	Maurice E. Johnson Asstistant to Dean and Directors	1982-1988
Maurice V. Wiese Acting Director	1984-1986	Maurice V. Wiese Asstistant Director, Acting Director	1983-1987
Gary A. Lee Director	1986-1994	Richard C. Heimsch Assistant Director	1986-

COOPERATIVE EXTENSION Administrators

Directors		Associates	
W. H. Olin	1914-1915	R. H. Musser	1920-1921
Orlo Dora Center	1915-1917	H. L. Spence	1941-1943
L. W. Fluharty	1917-1923	Carol O. Youngstom Assistant Director and Associate Dean	1944-1969
Edward John Iddings Dean and Director	1923-1946	James L. Graves Associate Director and Associate Dean	1969-1972
Donald R. Theophilus Dean and Director	1946-1955	Fred E. Kohl Asstistant to Director, Acting Director Assistant Director	1974-1983
James E. Kraus Dean and Director	1955-1972	Marshall LeBaron Asstistant to Dean and Directors	1981-1982
Auttis M. Mullins Dean and Director	1972-1973	Maurice E. Johnson Asstistant to Dean and Directors	1982-1988
James L. Graves Director and Associate Dean	1973-1981	Joseph Guenthner Assistant Director	1983-1988
Harold R. Guenthner Director and Associate Dean	1981-1988	Donald A. Harter Asstistant to Dean and Directors	1987-1988
R. W. Schermerhorn Acting Director	1988-1989	Corinne M. Lyle Associate Director	1990-
LeRoy D. Luft Director and Associate Dean	1989-		

RESIDENT INSTRUCTION Directors

Don A. Marshall	
Acting Assistant Dean	1953-1954
Acting Dean	1954-1955
Assistant Dean	1955-1956
Associate Dean	1956-1972
Associate Dean and Director	1972-1976
Richard C. Dobson	
Director	1976-1981
Ross Christian	
Acting Director	1981-1982
A. Larry Branen	
Director	1982-1986
Acting Dean	1986
John C. Miller	
Acting Director	1986-1987
Al J. Lingg	
Director	1987-

Periods of Service - Home Demonstration Agents

Name	Dates of Employment Start	Finish
Ada County		
Dorothy N. Stephens	05-01-46	06-30-55
Lucia Wilson	07-01-55	
Janis Switzer (Asst HDA)	02-01-55	
Theda Moser	10-09-61	05-31-62
Mary Ann Clarke	06-19-61	06-24-64
Wanda Nix	09-01-67	10-21-68
Betty Stalker	09-30-65	03-01-74
Peggy Pletcher	11-18-68	02-29-80
Sheila Ryan	03-18-74	09-09-77
Diane Taft	09-15-77	09-30-78
Frankie Marler	10-01-78	10-04-85
Joyce Roundy	07-01-80	06-30-83
Marilyn Shinn	06-16-80	
Barbara B. Abo	07-14-80	
Adams County		
Vicky Green	06-12-67	05-25-68
Donna Joan Taylor	06-18-68	02-28-69
Bannock County		
Marie Pazandak	02-02-20	07-31-21
Clare E. Cowgill	07-09-21	08-30-22
Mildred L. Anthes	04-01-23	11-30-25
Florence H. Stone	12-01-25	07-31-27
Arla B. McKinnon	09-05-27	04-30-28
Julia Pond	06-04-28	03-05-32
Lenore M. Choules	11-01-45	09-15-51
Janis Switzer	10-08-51	10-31-53
Alice H. Dunn	02-15-54	06-15-56
Phyllis Goodey	06-15-56	02-01-60
Jean Jenkins	09-12-60	06-11-61
Joan Monson Henderson	07-17-61	05-10-68
Ruth Dyer	07-01-68	09-30-82
Becky Dahl	10-01-82	
Bear Lake County		
Myrtle Davidson	03-01-21	12-15-24
Norma Barnes	06-01-25	02-28-26
Shirley T. Myers	07-01-53	11-01-54
Barbara Kitchens	11-15-55	05-25-57
Marlene Stegelmeier Bunderson	07-01-56	09-30-67
Nada Jean Dalke Young	06-10-67	09-30-68
Diana Pace Christensen	05-01-69	08-31-70
Marlene S. Bunderson	10-19-70	
Benewah County		
Joyce J. Wheeler	06-01-56	03-30-57
Cecelia Montoya	02-01-58	10- 01-59
Iva Burnstad	10-08-59	02-01-61

Bingham County		
Lillian Johannesen	08-01-47	06-20-50
Lauralee German (Ware)	08-01-50	10-31-51
Marilyn Williams (Crutcher)	06-10-52	05-11-53
Merilyn Petersen	10-12-53	08-28-54
Wilma L. Johnson	10-01-54	01-31-56
Nondus Hoge Bithell	01-15-55	06-18-71
Wilma Johnson (Asst HDA)	10-01-54	07-15-56
Mary Cannon	07-01-59	08-31-67
Jerrie Lee Evans	09-01-67	06-17-68
Susan Conley	09-16-68	05-23-69
Mary Nordlund	09-01-71	02-28-78
Fay Aanerud	07-01-78	09-30-82
Sandra L. Eyman	03-02-81	08-08-86
Mary Lou Ruby	04-06-87	
Blaine County		
Allie M. Smith	11-08-20	01-31-21
Bonner County		
Mary Lucille Lee Ralph	01-01-20	07-01-21
Margaret M. Boren	07-15-47	10-20-51
Patricia Dixon Hawkins	09-17-51	04-01-54
Catherine Carter	06-17-54	09-17-57
Charlotte Darling	08-01-58	07-31-60
Iva Burnstad	02-01-60	02-28-70
Kathleen A. Farrell	02-01-70	08-31-71
Joanne M. Miller	09-01-71	08-31-74
Susan McNall	09-09-74	
Bonneville County		
Lela Bullock	10-01-17	06-13-19
Louise G. Riddle	07-01-18	08-31-18
Verna Johannesen (Hitchcock)	06-16-19	12-31-23
Leatha Christensen (Poncia)	11-01-45	11-14-47
Ivy Smith Hansen	07-21-47	11-30-64
Marjorie Giebler Odekirk	10-29-73	06-30-76
Mary Ann Lawroski	02-01-65	
Boundary County		
Hattie Abbott	06-01-47	06-30-50
Viola Marie Norton	07-01-50	12-31-50
Althea Hammargren	09-01-51	02-28-53
Marjorie Hattan	02-01-54	12-10-55
Eunice Meakin	06-01-56	12-01-58
Gloria Johnson	12-01-58	02-28-61
Cecelia Montoya	03-01-61	08-30-61
Donna Hinderer	06-01-62	05-01-63
Ruth Ann Tolman	07-01-63	06-30-68
Joan Baune	09-23-68	03-31-71
Ruby S. Hansen	04-01-71	10-08-71
Beverly J. Schlegel	10-11-71	11-30-73
Jeannette Levig	12-01-73	08-14-74
Kathy Schnuerle	09-09-74	04-09-81
Linda K. Paeth Fox	10-19-81	03-04-90

Butte/Custer Counties		
Judith Elaine Rickards	07-01-68	07-24-70
Rosalee Wornek	02-01-71	07-31-73
Louise Twitchell	10-08-73	09-29-75
Diane L. Taft	12-15-75	09-14-77
Canyon County		
Louise G. Riddle	09-01-18	02-28-21
Florence Stewart	11-01-45	09-30-55
Isabel T. Robertson	01-20-57	06-30-59
Wilma T. Thomas	04-08-57	12-31-57
Delphine Walker	01-02-58	12-31-66
Virginia Russell Reynoldson	07-01-59	05-10-66
Emily Rainey	06-01-66	03-31-68
Elizabeth Rettig	01-09-67	06-30-68
Lenora Fields	03-01-69	05-10-74
Beverly Montgomery	08-01-69	
Daylene Petersen	04-15-74	06-30-78
Frankie Marler	06-01-78	09-30-78
Caribou County		
Janette Parrish Tarbet	06-01-52	08-31-55
Karleen Loveland Gunnell	06-18-57	10-09-64
Kathryn Weaver	06-15-65	01-11-67
Mae Williams	06-19-67	08-15-69
Kim Johnson	08-11-69	11-30-69
Norma Jean Gifford	03-23-70	09-30-71
Ann Schiller	10-25-71	06-30-72
Sheila Ryan	08-14-72	03-17-74
Brenda Womack	03-18-74	09-10-79
Diane Malleck	01-14-80	
Cassia County		
Thelma Lee	07-21-47	09-19-47
Miriam V. Hansen (McNair)	06-01-48	08-31-49
Arlis Schultz Ferlic	09-01-49	10-31-51
Marjorie Gillespie	01-01-52	02-15-63
Margaret Hathhorn	06-20-63	07-23-65
Anjean Scholer	08-01-65	10-21-68
Carolyn Barnes	06-16-69	05-31-71
Joan K. Parr	07-12-71	
Clearwater and Lewis Counties		
Marilyn Williams	05-12-53	06-15-54
Rosella McQuillan	09-15-54	12-31-55
Mary Sterner	07-16-56	12-01-58
Clearwater County		
Millicent Thompson	12-01-58	06-20-60
Lois Seubert Arnzen	06-21-60	
Donna Leach	09-15-66	07-15-68
Debra Patterson	10-14-68	06-30-69
Elizabeth Campbell	07-01-69	07-16-72
Becky Dahl	01-17-72	09-30-82
Mary J. Craig	10-01-82	11-01-87

Elmore County		
Mary Lou Graves Ruby	06-20-60	01-31-67
Judith A. Graybeal	06-05-67	09-30-67
Marilyn E. Jordon	10-23-67	01-14-74
Ruth E. Van Slyke	06-17-74	09-05-82
Fort Hall Agency		
Wilma L. Johnson	10-01-54	07-15-56
Colette Farrar	08-01-56	06-30-67
Moselle W. Anderson	07-01-67	06-09-77
Melanie Wahn	09-01-77	04-15-81
Franklin County		
Lucretia Maughan	02-03-47	02-28-69
Betty Miller Gibson	08-01-69	09-06-74
Judy Starkey	03-01-75	08-17-76
Fay Aanerud	02-01-77	06-30-78
Marie Thompson	10-01-78	06-01-84
Sharlene Woffinden	09-04-84	
Fremont County		
Gloria Taylor	08-01-48	08-06-51
Bernadine Tudder	08-06-51	09-20-52
Joan Stimmel Klein	07-01-53	06-30-55
Cara Zirker	10-27-52	05-31-53
Mary Nordlund	07-01-55	08-31-71
Janice Stimpson	09-01-71	
Gem County		
Anne Brooks Knox	07-01-53	08-31-62
Villa Ruby Rexford	10-01-62	04-01-96
Gooding County		
Jean Feldhusen (Jesser)	06-01-49	05-31-51
Gloria Taylor	08-06-51	08-20-52
Helen Lamprecht	08-21-52	09-26-53
Wilma Talley (Thomas)	11-01-53	04-08-57
Margaret Loomis	11-01-57	07-31-59
June Hoalst	06-20-60	11-28-61
Virginia Balthrop Mink	02-12-62	01-18-64
Ruth J. Shane	11-01-64	09-30-67
Sandra Lou Kasel	02-05-68	08-15-69
Dorothy G. Hammond	09-01-69	09-18-74
Arlene Shaw	10-14-74	12-31-76
Mary Lou Ruby	06-06-77	04-03-87
Idaho County		
Elsa Matsen Agnew	06-01-49	05-15-52
Marian E. Bunting	06-10-52	09-30-53
Patricia J. Laughlin	10-05-53	09-30-54
Mary Gallagher	11-01-54	10-22-58
Gail Woodward	10-01-59	09-25-61
Rosa Smith	10-01-61	09-30-82
Mary K. Schmidt	07-25-83	

Jefferson County		
M. L.Hogan	06-10-18	08-31-18
Cara K. Zirker (Newman)	02-15-48	01-15-51
Margaret Faust (Reis)	06-16-51	10-01-55
Carol Nielson (McCandless)	09-02-55	
Jerome County		
Edna Weigen	07-21-47	01-10-57
Agnes Hurst	07-01-57	07-05-62
Wanda Boyer (Nix)	07-05-62	08-31-67
Kathleen A. Farrell	09-01-67	01-31-70
Sharon E. Allred	02-16-70	06-30-79
Fay Aanerud	10-01-82	04-29-83
Barbara Morales	08-22-83	
Kootenai County		
Beulah Johnson (Edwards)	06-01-48	02-29-56
Ruth A. Hampton	02-23-56	07-11-58
Eunice Meakin	12-01-58	
Janet Springer Sprute	09-03-63	06-15-64
Loretta Ann Hess	10-01-67	09-05-73
Katherine Wallenhaupt	08-20-73	
Lapwai Reservation		
Janet Sprute	10-01-64	03-08-71
Joan Baune	04-01-71	05-31-74
Marilyn Jordan	07-01-74	03-27-77
Phyllis E. Taylor	09-01-77	06-30-81
Latah County		
Esther Nystrom	04-01-46	07-01-48
Virginia Dempsey (Woods)	01-15-49	12-31-49
Betty Jo Baker	08-01-50	06-30-51
Helen K. Hunter	09-15-51	12-01-54
Elizabeth Rettig	02-10-55	04-06-57
Ruth Shane	04-08-57	09-30-64
Nancy Palmer	10-01-64	09-06-68
Joanne M. Anderson	09-09-68	03-06-78
Marilyn Jordan	01-15-74	06-30-74
Judith Nest	07-24-78	
Lewis County		
Mary Sterner	12-01-58	06-30-65
Joan Baune	08-23-65	09-30-67
Karen Faye Larson	08-01-68	08-31-70
Colette Peterson	09-21-70	10-08-71
Susan C. Jirele	10-01-71	05-31-74
Madison County		
Cara Z. Newman	07-12-54	06-30-55
Joyce Tanner	07-01-57	11-15-58
Phoebe Williams	03-23-59	10-31-66
Cara Z. Newman	10-01-67	08-31-70
Edith Sue Weighall	06-01-71	10-22-74
Kathryn Scott	10-15-74	05-31-76
Cara Z. Newman	06-01-76	03-14-83
Mary Lee Wolf	05-21-84	

Minidoka County		
Nina Huyck	01-01-19	06-30-24
Blaire Daniels	05-17-20	08-21-20
Sarah Spencer	01-09-49	10-31-51
Josephine Mason	07-01-53	05-31-62
Katherine Barnes	06-11-62	04-05-63
Ann Marie Rytting	07-01-63	08-31-65
Renee Alder	08-23-65	08-31-68
Ann Jean Scholer	10-21-68	06-30-72
Charlene J. Mandeville	07-17-72	07-17-73
Linda R. Hankins	08-20-73	03-31-74
Marsha Kidder Creason	05-01-74	01-07-76
Barbara B. Abo	02-09-76	07-13-86
Nez Perce County		
Lucile Eyrich Gray	06-01-46	05-31-48
Gale Louise Weber (Kambitsch)	06-01-49	05-06-50
Margaret Weber Nelson	06-21-50	12-31-51
Helen Bowling (Thiessen)	01-01-52	06-01-54
Bernadean Tudder	08-16-54	07-09-57
Lucile Eyrich Gray	06-16-58	02-16-82
Ruth E. Van Slyke	09-06-82	
Oneida County		
Joyce Tanner Carnahan	09-20-60	03-31-62
Dwen Anderson Jones	07-02-62	08-16-63
Ivy Hansen	12-01-64	06-30-70
Elizabeth Seeten	07-27-70	01-22-73
Jean Poffenroth	07-23-73	07-15-75
Maurine Corbridge	09-01-75	09-05-80
Jean Showell	10-13-80	
Owyhee County		
Elizabeth Rettig	10-15-57	10-20-58
Virginia Nesbitt	12-01-58	09-15-60
Nancy Palmer	07-01-61	09-30-64
Mary Lee Wood	11-01-64	06-20-69
Beverly H. Healy	09-01-69	
Payette County		
Hattie Abbott	07-01-50	01-09-52
Geri Chindgren	07-01-53	03-03-54
Phyllis Goodey	05-15-54	06-15-56
Helen Graham	06-15-56	05-15-58
Betty Stalker	07-10-59	09-29-65
Margaret Jorgensen	08-16-65	02-15-68
Susan Wiley Nesbitt	07-01-68	07-13-71
Daylene Petersen	07-01-71	09-30-73
Robyn Kay Klicker	10-29-73	05-31-74
Susan Inouye	05-20-74	05-18-82
Rosa L. Smith	10-01-82	

Power County		
Rose Mary Gilpin	06-14-55	09-30-56
Nancy Lingle	02-01-57	12-31-57
Mae Williams	06-01-60	08-10-61
Freida Dunlap	08-21-61	04-18-62
Jean Mayo	05-15-63	05-15-64
Ruth G. Dyer	01-01-64	06-30-68
Bette M. Hovey	06-17-68	
Teton/Clark Counties		
Norma Simpson	06-24-63	05-31-66
Vicki Lynn Edgar	09-01-66	08-16-67
Twin Falls County		
Gertrude Denecke	12- -17	08-31-18
Caroline Brown	08-16-18	06-13-19
Edna M. Ladwig	06-01-19	01-31-21
Florence M. Schultz	07-01-49	06-15-62
Agnes Hurst	07-05-62	05-11-66
Alice M. Reed	08-22-66	09-30-71
Patricia M. Kleinkopf	10-01-71	01-29-75
Celia M. Black	03-10-75	12-30-77
Rebecca S. Ratliff	03-01-78	10-23-79
Sharon Allred	07-14-76	07-15-79
Marsha A. Howell	03-11-85	
Valley County		
Pansy Scheline Jensen	07-10-59	09-15-75
Alberta Hybertson Smith	11-03-75	05-31-78
Cheryl Smith Hay	07-03-78	05-23-80
Linda I. Webb	07-07-80	
Washington County		
Maude Elaine Carson (Hake)	01-01-47	07-10-47
Roberta Davis	07-15-47	11-15-51
Rowena Gardner Case	06-01-52	12-31-56
Carolyn Wagner Craig	07-01-61	06-30-67
Jane Derr Betts	08-01-67	06-30-81
Susan K. Inouye	11-30-87	

HOME DEMONSTRATION LEADERS,

Home Economics Directors

	Dates of Employment		Idaho Counties
Name	**Start**	**Finish**	**Where Employed**
Amy Kelly	01-01-17	11-15-23	
Ada B. Erwin	12-01-17	08-16-22	
Marion Hepworth	01-01-24	01-15-52	State Spec.
Leatha Christensen	11-15-47	11-30-51	Caribou, Bingham
Mildred Haberly	01-01-53	12-30-66	State Spec.
Dorothy Stephens	07-01-55	10-31-69	
Lucia Wilson	09-15-50	09-30-72	
Ruth Spidahl	02-01-71	12-04-81	
Doris Williams	07-01-83	11-16-86	
Peggy Pletcher	12-15-86	03-15-92	Ada, District Director
Suzanne Loker	08-02-93		

4-H CLUB LEADERS, ASSISTANTS, PROGRAM LEADERS

Name	Dates of Employment Start	Finish	Idaho Counties Where Employed
Z. Fay Fowler	01-01-17	03-31-21	
J. J. Rae	05-16-18	08-31-18	
F. W. Simmonds	05-16-18	08-31-18	
Ina Scrivner	06-01-18	08-31-21	
Hanna Spence	06-01-18	05-22-19	
Irene Gould	06-10-18	08-31-18	
Flora Richardson	06-10-18	03-31-19	Bear Lake, Jerome
Isabel Stephens	07-01-18	08-31-18	
W. T. McCall	07-01-18	04-30-21	Canyon
E. B. Duncan	07-21-21	05-31-23	Bannock
J. H. Rearden	06-06-22	12-31-39	Kootenai
J. W. Barber	01-01-40	08-31-45	State Spec., Cassia
Dan E. Warren	03-01-42	07-31-68	Oneida, Cassia, Payette
Martha O. Soniville	06-10-46	06-20-50	
Lillian J. Wolford	06-21-50	10- -60	Bingham
J. Howard Shepherd	06-01-54	03-15-57	
Donald R. Mitchell	10-16-57	08-20-61	
Maurice E. Johnson	10-01-60	08-29-82	Jefferson
Gloria Johnson	03-01-61	02-15-63	Boundary
Dorothy S. Hole	03-01-63	02-28-79	
Constance Meyer	08-06-67	11-30-68	
William Shane	02-01-69		State Staff
Charles M. Thomas	07-01-71	01-31-91	Nez Perce
Charles Dunham	03-01-70	06-30-83	Lemhi, Fort Hall, Bonneville
Carolyn Barnes	06-01-71	08-29-73	Cassia
Mary Lee Wood	06-01-71		Owyhee, State Spec.
Phyllis Hardy	02-01-74	09-13-74	
Corinne Rowe	05-21-73	07-31-85	State Spec.
Allan Andrew	04-01-75	03-20-80	
Joseph Kurth	06-02-86	09-14-87	
Arlinda K. Nauman	06-01-88		

DISTRICT AGENTS\SUPERVISORS

Name	Dates of Employment Start	Finish	Idaho Counties Where Employed
D. P. Murray	03-15-22	01-05-25	
H. A. Stone	03-25-22	09-15-24	
D. B. Leonard	11-19-22	02-14-25	Bannock
W. R. Bolen	03-15-24	04-15-27	
R. E. Everly	09-01-24	01-15-26	
George L. Morrison	03-23-25	06-30-27	Fremont, Franklin
Harry Wilson	05-01-25	09-16-27	
W. L. Stephens	01-08-26	06-26-44	
J. Warren Barber	05-23-27	07-31-38	State Spec., Cassia
W. D. Kinder	01-01-28	03-15-27	
Dan E. Warren	03-01-29	06-30-33	Oneida, Payette, Cassia, State Spec.
G. C. Anderson	04-01-30	10-01-41	State Spec.
Earl R. Stansell	02-26-34	04-30-39	District Spec.
P. R. Gladhart	01-01-34	04-01-35	
H. S. Gault	05-13-35	09-22-35	
J. Weldon Webster	05-18-36	05-18-37	
Selmer W. Basso	06-15-37	01-01-38	
A. E. Duke	01-15-40	09-01-45	Bear Lake, Bannock
Vance T. Smith	04-28-41	03-31-43	Bingham, Teton, Minidoka, Bear Lake, State Spec.
Chester E. Arndt	11-16-43	02-06-44	Jerome
G. T. McAlexander	12-01-44	09-30-65	Benewah, Latah
Lew M. Williams	01-01-46	06-30-67	Jefferson
Thomas J. Chester	08-16-46	06-30-79	Caribou, Bonneville
James L. Graves	07-16-62	10-31-69	Nez Perce, Boundary, Administration
Fred Kohl	02-19-68	10-30-72	Lincoln, Bonneville, Administration
Grant Hall	05-01-66	01-16-81	Canyon, Boundary
Blaine Linford	06-15-70	06-30-85	Fremont, Canyon
Robert Black	06-01-70	01-31-80	State Spec.
Harold R. Guenthner	03-01-81	08-31-82	State Spec. Administration
G. Raymond Prigge	07-01-79		
Peggy J. Pletcher	03-01-80	06-30-89	Ada, Home Economics, Director
Dan D. Hinman	09-01-81	06-30-87	State Spec.
J D Mankin (Acting)	07-01-87	06-30-88	Owyhee, State Specialist
Dan D. Hinman	07-01-88	03-31-92	See above
Harold R. Guenthner	10-31-88		See above
Larry D. Robertson	07-15-86	09-18-88	State Spec.
Joe Guenthner (Acting)	07-01-89	06-30-90	State Spec.
Robert D. Carver	01-07-91		
Peggy J. Pletcher	04-01-92		See above

PERIODS OF SERVICE — EXTENSION SPECIALISTS

Name	Dates of Employment Start	Finish
EXTENSION ECONOMIST		
E. T. Benson	10-15-30	03-31-39
C. O. Youngstrom	07-01-37	07-01-47
Robert W. Wilcox	09-15-47	07-31-66
R. Wayne Robinson	08-08-57	08-31-67
Quentin Banks	09-06-66	04-30-70
Gordon Bischoff	02-01-61	09-28-62
Robert L. Sargent	05-01-69	12-31-80
Joseph F. Guenthner	08-11-80	10-31-83
John O. Early	03-29-71	02-12-82
R. W. Schermerhorn	08-15-72	12-31-77
Neil L. Meyer	09-01-73	
R. W. Schermerhorn	08-01-78	08-18-89
C. Wilson Gray	08-13-80	
Neil R. Rimbey	09-01-76	
Paul Patterson	05-01-84	
Joseph F. Guenthner	07-01-88	
ASSISTANT EXTENSION ECONOMIST		
C. O. Youngstrom	06-15-29	08-30-35
G. T. Hudson	12-13-30	11-16-34
Karl V. Hobson	02-10-35	06-30-45
C. Arthur Gustafson	01-01-40	06-30-42
Virgil D. Kennedy	11-05-45	07-01-49
ASSOCIATE EXTENSION ECONOMIST		
C. O. Youngstrom	09-01-35	08-30-36
FARM MANAGEMENT SPECIALIST		
C. C. Taylor	02-01-20	03-31-21
Virgil D. Kennedy	07-01-49	06-30-79
G. Raymond Prigge	07-14-75	06-30-79
EXTENSION POTATO MARKETING SPECIALIST		
Larry V. Summers	06-20-60	02-28-62
Cecil E. Kent	11-15-64	06-14-65
EMERGENCY FARM LABOR		
D. L. Fourt	05-05-43	01-31-46
Royale K. Pierson	06-29-47	09-30-47
Ray O. Peterson	11-01-47	12-31-47
Paul E. Wood	01-01-48	01-31-48
ASSISTANT EMERGENCY FARM LABOR		
R. K. Pierson	05-16-43	09-30-47
Paul E. Wood	02-01-47	12-31-47
D. T. Bolingbroke	01-01-46	05-01-46

EXTENSION AGRICULTURAL ENGINEER

Owen K. Brown	07-01-47	08-15-53
Eugene Craig	06-15-54	03-17-55
Everett Davis	12-01-55	11-16-59
Eric B. Wilson	07-01-61	07-15-64
John Dixon	01-01-72	08-15-73
Roy Taylor	07-01-68	00-00-92

RANGE UTILIZATION SPECIALIST

Kenneth D. Sanders	08-01-80	

EXTENSION AGRONOMIST/CROP MANAGEMENT SPECIALIST

R. J. Leth	01-01-18	02-28-19
B. F. Sheehan	06-01-19	08-15-21
C. B. Ahlson	02-01-22	02-28-29
R. S. Bristol	04-15-30	08-31-31
H. L. Spence, Jr.	02-01-32	12-31-43
B. E. Kuhns	01-01-44	12-31-44
D. T. Bolingbroke	05-01-46	08-15-46
Eugene W. Whitman	03-15-47	12-31-54
Roger W. Harder	09-15-47	06-30-63
Howard B. Roylance	11-01-50	06-30-75
Harold L. Guenthner	01-05-76	10-31-77
Douglas K. Ryerson	07-01-78	06-30-81
Marshall LeBaron	07-01-47	06-30-80
Glen A. Murray	04-01-68	06-30-69
R. Robert Romanko	09-01-82	
Bradford D. Brown	10-01-83	
Kenneth D. Kephart	08-12-84	09-22-89
Larry Robertson	09-19-88	

ASSISTANT EXTENSION AGRONOMIST

Paul A. Wenger	06-01-19	10-06-19
C. B. Ahlson	08-01-19	01-31-22
R. L. Spangler	02-01-22	05-31-25
R. S. Bristol	06-08-25	09-20-26
Lou Raeder	10-06-26	06-30-29
Kenneth Platt	06-01-29	02-23-36
H. L. Spence	07-01-29	01-31-32
George W. Boyd	10-01-53	09-07-54
Robert Higgins	04-15-55	02-28-79

EXTENSION ANIMAL HUSBANDMAN/SCIENTIST

E. F. Rinehart	07-01-18	06-30-55
Wade Wells	05-16-55	06-30-73
Jerome J. Dahmen	05-16-55	06-30-85
Morris L. Hemstrom	11-01-59	06-30-81
Auttis M. Mullins	08-01-70	06-30-72
Jack McCroskey	01-01-73	07-31-80
J D Mankin	09-01-74	06-30-88
Dan D. Hinman	07-01-78	08-31-81
Edward P. Duren	07-01-75	

ASSISTANT ANIMAL HUSBANDMAN

F. A. Plastino	06-28-20	07-01-21

SWINE SPECIALIST

William Kerr	06-01-18	04-30-21
Wade G. Wells	07-01-45	05-15-55
Nathan T. Moreng	10-01-80	03-24-89
Mark Boggess	01-29-90	

SHEEP SPECIALIST

R. B. Millin	02-23-20	01-15-21

EXTENSION FOOD TECHNOLOGIST

John Montoure	03-01-81	

CLOTHING SPECIALIST

Glorgia Belle Elwell	11-14-18	09-15-19
Esther Wold	09-01-19	06-10-20
Wilhelmina Jacobsen	04-01-20	07-31-24
Grace Zudreele (Acting)	09-15-22	06-05-23
Edith Rhyme	10-01-24	09-30-25
Marjorie Eastman	09-01-26	05-01-36
Vivian Minyard	05-01-36	10-31-39
Frances L. Gallatin	08-15-40	03-31-46
Alice Rigby	07-01-45	08-20-48
Esther Nystrom	01-15-49	01-31-69
Mary Lee Wood	07-21-69	05-31-71
Janice Buckner	07-01-71	06-30-76
Nellie Patson	09-27-76	06-30-79
Sonja F. Rue	07-01-79	07-07-80
Ernestine Porter	10-01-80	

ASSISTANT CLOTHING SPECIALIST

Anna Prang	09-09-20	07-15-21

EXTENSION CONSERVATIONIST

Arnold Poulsen	01-01-40	02-15-43
Ray O. Peterson	01-01-48	08-21-50
Liter E. Spence	10-16-50	02-19-59
Ralph Samson	04-01-60	03-31-68

EXTENSION DAIRYMAN

F. R. Cammack	01-01-18	08-31-23
D. L. Fourt	11-16-23	06-30-35
Ivan H. Loughary	08-01-35	09-30-41
G. C. Anderson	10-01-41	12-31-60
George Cleveland	06-15-61	06-30-74
Richard H. Ross	07-01-74	12-31-78
R. James Parker	11-01-78	08-11-81
Edward A. Fiez	06-01-70	
Dean E. Falk	09-01-74	
Richard Norell	08-01-82	

ASSISTANT EXTENSION DAIRYMAN

H. A. Mathieson	03-11-20	06-30-29

EXTENSION ENTOMOLOGIST

D. B. Whelan	04-10-22	09-20-23
F. E. Whitehead	05-01-24	08-31-27
W. E. Shull	01-01-39	06-30-46
Roland W. Portman	07-26-49	02-12-74
Arthur J. Walz	04-01-48	06-01-56
Lawrence E. O'Keeffe	09-13-65	11-30-87
Douglas Sutherland	08-01-69	09-30-71
Hugh W. Homan	03-01-74	06-30-95
Craig R. Baird	06-01-74	
Robert L. Stoltz	07-14-75	
Larry E. Sandvol	07-01-75	

ASSOCIATE EXTENSION ENTOMOLOGIST

W. E. Shull	11-01-35	12-31-38
H. C. Manis	02-01-46	04-29-48

ASSISTANT EXTENSION ENTOMOLOGIST

Victor Jones	05-22-20	08-31-21
W. E. Shull	09-01-32	03-31-34
H. C. Manis	04-01-40	03-31-42

EXTENSION FORESTER

A. M. Sowder	05-16-27	12-01-29
Otto Krueger	09-01-30	02-28-31
Stanley C. Clark	03-01-31	01-01-36
Royale K. Pierson	02-15-36	05-16-43
Vernon F. Ravenscroft	07-01-47	05-31-51
Vernon Burlison	07-01-51	06-30-78
Donald P. Hanley	09-01-78	08-31-83
Ronald L. Mahoney	12-19-83	

AREA FORESTER—NORTHERN IDAHO

Russell S. Slade	10-16-57	06-15-68
Donald R. White	09-01-68	12-31-90

ASSISTANT EXTENSION FORESTER

Gilbert B. Doll	02-01-40	06-26-42
Vernon F. Ravenscroft	09-01-42	06-30-47
Vernon Burlison	07-01-46	06-30-51

HOME FURNISHINGS SPECIALIST

Willma Shryack Coleman	10-15-55	12-31-74
Shirley H. Nilsson	01-01-77	04-19-85

HOME MANAGEMENT SPECIALIST

Hilda Frederick	09-01-53	10-31-66
Betty Jean Turner	02-01-75	04-01-88
Linda Paeth Fox	03-05-90	

EXTENSION HOUSING SPECIALIST

M. Voedean Simpson	09-22-75	12-31-76

EXTENSION HORTICULTURIST

E. R. Bennett	09- -16	09-30-45
Anton S. Horn	03-01-46	06-30-78
Harry A. Menser	09-22-80	06-30-87
Wm Michael Colt	05-21-79	
Danny L. Barney	04-25-88	

EXTENSION IRRIGATIONIST

Dorrell C. Larsen	04-01-56	11-30-90

EXTENSION FARM SAFETY SPECIALIST

Wayne F. Fisher	07-01-75	03-31-77
Thomas J. Karsky	10-03-77	

EXTENSION NUTRITION SPECIALIST

Eleanor Wells	09-01-20	10-13-20
Mildred Haberly	07-01-43	12-31-52
Mary Jane Paterson Hess	07-01-53	05-31-57
Alice Herry	02-01-62	08-31-62
Barbara J. Branthoover	06-01-57	08-22-61
Esther Wilson	03-15-63	06-30-79
Marilyn A. Swanson	08-01-79	06-30-96

EFNEP SPECIALIST

Lois W. Pace	10-20-72	06-30-81
Debora L. Gilbert	07-01-78	12-12-86
Helaine Moore	07-01-83	06-09-89
Vickie B. Graf	07-11-83	11-30-85
JoLynn Dunham	02-23-87	07-29-88
Audrey Liddil	12-12-88	

EXTENSION POTATO SPECIALIST

E. W. Whitman	01-01-42	03-14-45
J. R. Robertson	01-01-46	03-31-47
Robert D. Pelkey	09-15-47	04-30-52
Jim Gregory	07-01-52	10-31-56
Virgil Cross	07-01-67	12-30-67
Richard E. Ohms	08-01-57	09-30-83
R. Gary Beaver	03-01-82	04-14-89
John C. Ojala	02-15-82	
Michael K. Thornton	03-05-90	

AREA POTATO SPECIALIST

Arthur J. Walz	08-01-67	01-16-81
Jay G. Garner	07-01-67	02-29-80
Clarence E. Dallimore	09-17-73	09-16-83
Gary D. Kleinschmidt	09-01-72	04-26-90

EXTENSION PLANT PATHOLOGY

Harry S. Fenwick	05-01-56	08-31-87
Clarence E. Dallimore	07-01-55	09-16-73
A. M. Finley	07-01-65	08-31-81
William R. Simpson	03-01-81	06-30-86
Robert L. Forster	12-15-75	
Krishna Mohan	11-23-87	

EXTENSION WEED SPECIALIST

Orrie K. Baysinger	01-18-77	06-30-81
Steven A. Dewey	07-01-81	04-30-85
Daniel W. Kidder	05-01-86	12-09-88
Robert H. Callihan	09-11-88	10-30-96
Don W. Morishita	02-12-90	

EXTENSION POULTRY SPECIALIST

Pren Moore	09-01-19	06-30-49
Reid W. Merrill	07-01-49	09-30-53
Robert Black	02-01-54	05-31-70
Gordon B. Meyer	09-14-70	11-12-73
Charlie F. Petersen	07-01-74	07-31-80

ASSISTANT POULTRY SPECIALIST

Harriett Cushman	09-30-20	12-31-20
Reid W. Merrill	07-01-47	06-30-49

EXTENSION MEATS SPECIALIST

John C. Miller	07-13-70	

EXTENSION EDITOR

Alan Dailey	09-10-25	06-30-28
J. Robert Walker	06-10-36	08-30-44
Archie Harney	06-01-45	12-19-62
James S. Holderness	08-01-63	07-31-66
Cedric G. d'Easum	09-01-66	06-30-72
James L. Johnson	10-01-66	07-30-71
M. William Stellmon	07-01-72	07-01-81
Clifton E. Anderson	07-01-81	

ASSISTANT EXTENSION EDITOR

Neil F. Blair	08-01-44	01-03-49
Cedric G. d'Easum	07-01-49	08-31-66
James L. Johnson	03-15-62	01-31-64
Clifton E. Anderson	12-04-72	06-30-81
Theodore E. Hoffman	06-01-72	07-15-75
James C. Lutzke	10-31-75	09-23-77
John R. Crosiar	09-16-77	10-05-79
Kurt L. Rogers	11-28-77	06-30-86
Marlene A. Fritz	06-16-80	

STAFF EDITOR

O. A. Fitzgerald	07-01-54	07-20-61

EXTENSION SOILS SPECIALIST

E. B. Hitchcock	07-01-18	07-30-20
H. W. E. Larson	03-01-35	05-31-45
Vance T. Smith	10-01-45	07-01-53
Charles G. Painter	01-18-54	12-31-79
Roger W. Harder	07-01-72	06-30-82
Wayne L. Thiessen	07-01-67	06-01-73
Robert E. McDole	11-01-77	10-31-90
Steven E. Petrie	07-13-81	03-22-85
Raymond G. Gavlak	11-19-85	12-23-88
Terry A. Tindall	12-01-89	

EXTENSION PESTICIDE COORDINATOR

C. David McNeal	11-01-78	09-13-81
Edward Bechinski	03-08-82	07-31-86
Gene P. Carpenter	07-01-82	
Edward Bechinski	06-12-89	

EXTENSION SEED SPECIALIST

Dale O. Wilson, Jr.	09-08-86	

STATE SEED ANALYST

Paul A. Wenger	11-01-17	12-31-18
Jessie C. Ayres	06-01-19	07-01-41
Elmer Chaffee	03-01-42	04-30-43
Russell Fowles	05-15-43	12-31-46
Eleanor L. Ball	07-01-50	06-30-56
H. W. Swartley	07-01-60	06-30-71

ASSISTANT SEED ANALYST

Claire Hobson	09-01-18	01-16-22
Elmer Chaffee	10-01-33	02-28-41
Daisy Mittelstaedt	01-01-42	12-30-42
Eleanor L. Ball	09-01-44	06-30-50
Glenn E. Talbot	07-23-51	08-04-51
Raymond A. Long	09-01-61	01-13-71

DEPUTY SEED INSPECTOR

H. S. Gault	06-01-30	05-12-35
Bird N. Hawlye	06-01-30	10-15-31
L. A. Jones	05-15-30	07-01-37

HOME HEALTH DEMONSTRATOR

Annabelle Bennett	11-01-17	10-03-20

CHEESE SPECIALIST

W. F. Herholz	12-01-17	11-22-18

EMERGENCY AGRICULTURIST

D. E. Warren	07-01-33	10-31-33

4-H CLUB SPECIALIST

D. E. Warren	03-01-42	08-31-45

EXTENSION STUDIES AND TRAINING SPECIALIST (Staff Development)

Marion Hepworth	10-01-50	01-15-52
J. W. Barber	10-01-50	11-25-55
G. E. McProud	10-01-56	07-31-70
William H. Shane	12-01-70	06-30-81

RURAL CIVIL DEFENSE

Howard C. Tankersley	03-01-63	06-30-68

EXTENSION VETERINARIAN

Richard F. Hall	06-05-67	12-31-81
James W. Bailey	09-01-70	08-31-72
Peter J. South	04-01-81	06-30-90

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—About the Author —

Clifton E. Anderson
is a former communications specialist in the University of Idaho College of Agriculture