



BUL 922

# BQA – Components of Superior Cattle Handling Facilities

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## Key Points

### Superior cattle handling facilities can:

- enhance safety for handlers,
- reduce stress for both cattle and handlers,
- reduce morbidity and mortality,
- improve beef quality,
- improve consumer perceptions and confidence, and
- reduce producer costs while increasing income.



## Introduction

WELL-DESIGNED and effectively operated cattle handling facilities help to ensure high-quality beef; decrease cattle injury, illness, and death; and improve consumer perceptions of the beef cattle industry. Today's consumer is adamant that cattle producers demonstrate a high level of concern for the well-being of their livestock. Safe and effective cattle handling facilities are one way to accomplish this.

For most cattle producers, handling facilities are an integral component of the routine management of their cattle. Because handling facilities are so essential, a great amount of consideration should be given to the design, construction, and operation of these facilities. Superior facilities provide the means for processing animals (e.g., palpation, animal identification, administering vaccines and antibiotics, deworming), while ensuring the safety of cattle and handlers, and minimizing stress.

## Old versus new

Most ranchers do not have the luxury of tearing down their old cattle handling facilities and building new ones, but replacement of facilities is seldom necessary. Though an existing set of corrals may not be ideal, it can be made more effective by adopting and applying better cattle handling techniques or by using the existing facility differently (e.g., changing animal flow, making the entry the exit where possible). By making a few minor facility adjustments, an old set of corrals can work adequately. Certainly, using an old set of corrals is likely to be more cost effective than building a new facility.

## Planning and design

Principles of planning and design can be applied to either building a new cattle handling facility or modification of an existing facility. In either case, always plan with the cattle's natural behaviors in mind. Cattle will move best through

a facility with a simple design that allows them to naturally flow through the system in a smooth, calm manner. Simple designs often better enable handlers to work cattle than complex, expensive ones.

Things to consider in the planning and design of a facility include: location, functions performed, labor, and materials.

An ideal location will have adequate drainage, wind protection, nearby utilities, and accessibility to roads that can be used in all weather. The location of the facility should fit within the general layout of the ranch to simplify the management and movement of cattle.

Facilities should be planned and designed to accommodate each of the functions performed, including, but not limited to: calving, branding, weaning, processing, weighing, and shipping. The tasks performed may also dictate whether cattle watering capabilities need to be available in the handling facility.

Labor can be minimized when a handling facility has been properly designed, thereby reducing costs.

The best materials to use will vary from operation to operation depending on specific needs, costs, and availability. Utilizing high-quality materials is essential in constructing corrals and structures for safety and longevity; many have learned that trying to build cheaply proves to be expensive in the long run.

## **Pens**

A basic set of corrals should include at least one large gathering pen and several smaller pens for holding and sorting cattle (Figure 1). Required pen space will vary across classes of cattle, but a general rule of thumb is to allow at least 35–45 square feet for each cow-calf pair. Regardless of the operation's size, the most important consideration is to avoid overcrowding pens.

To facilitate bringing cattle into the large gathering pen, the entrance to the pen should be at least 14 feet wide. The gathering pen should be designed to allow cattle to smoothly flow into the smaller holding

pens. Since cattle instinctively seek to go back out the same way they came in, this can be accomplished by constructing the entrance to the alleyway of the holding pens near the entrance to the gathering pen.

The holding and sorting pens are connected through a system of alleyways. These pens can be used to sort, or “sift,” different classes of cattle. It is a good idea to have gates on both sides of each pen so cattle can easily enter a pen from either direction of the alley.

## **Alleyways**

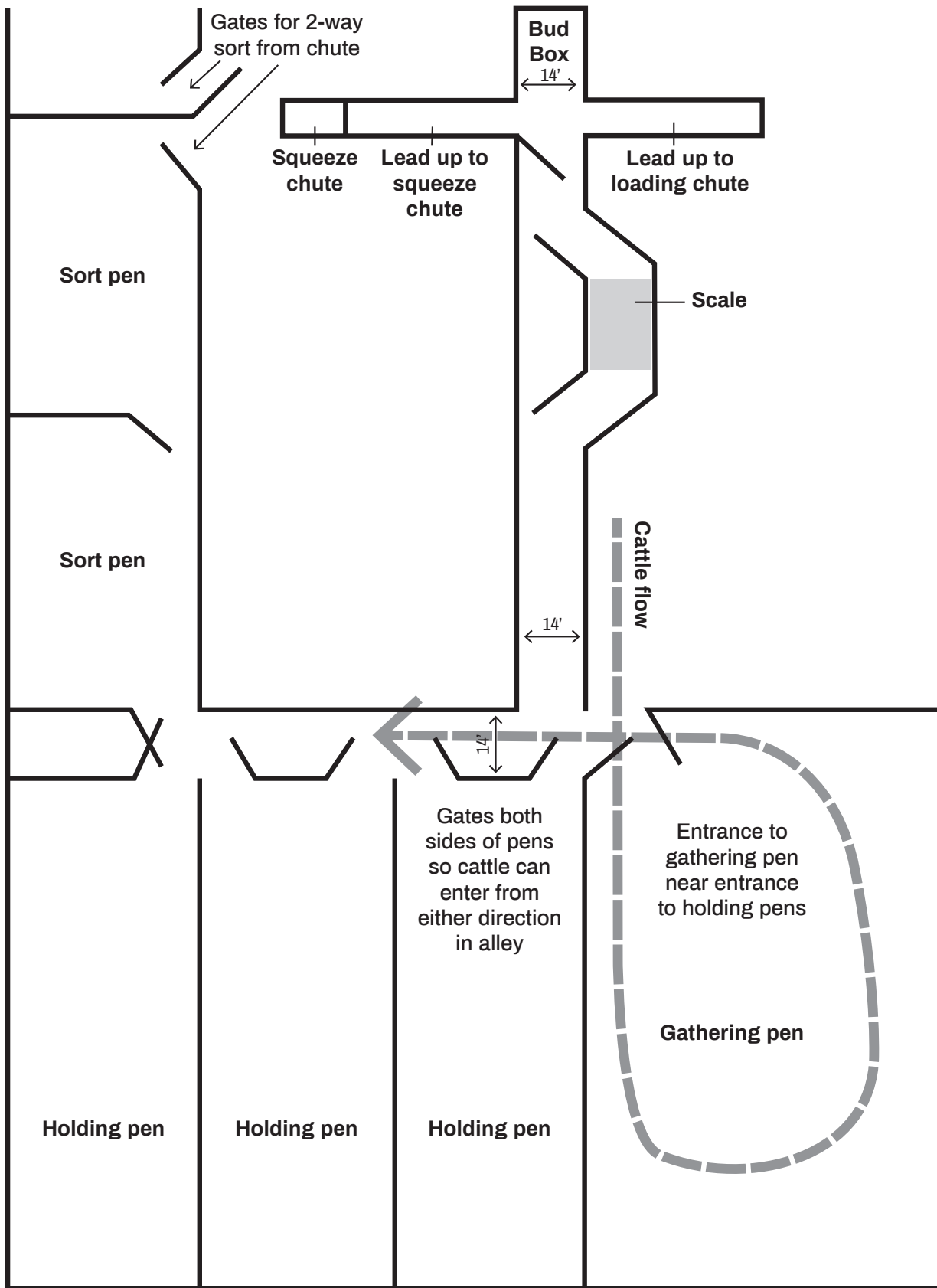
Alleyways are not needed in every system, but are often a key ingredient for an effective corral setup. The most common mistake when building alleyways is making them too narrow. Narrow alleys add more pressure and, thus, more stress on the cattle. If cattle will be handled by stockmen on horseback, the ideal alley width is at least 14–16 feet wide. An alley that is 12–14 feet wide may work better when working cattle on foot. Extra caution in handling should be taken when working cattle in an alley that is 12 feet wide or narrower.

Alleyways should be used as passageways for moving cattle from one point to another. Avoid storing and sorting cattle in alleys, especially if they are narrow. Overcrowding cattle in the alley can cause undue stress.

## **Division area: Sift pen**

The division area, or sift pen, is where either the tub, the V-shaped funnel, or the “Bud Box” is used to arrange a small group of cattle into single file, to go through the lead-up to the squeeze chute. Though each system works differently, the same cattle handling principles should be used.

First, never crowd cattle by overfilling the sift pen. Only bring the number of cattle that will fit in the lead-up to the squeeze chute. Second, cattle should only pass through the sift pen, they should not be stored there. Third, when possible, work the cattle from the front, passing by the handler and into the lead-up. Following these three principles reduces the cattle's tendency to become agitated before entering the lead-up.



**Figure 1.** Schematic of a basic design for an effective cattle handling facility. Note variety of pens and multiple gates to pens for efficient cattle movement.

Cattle will enter more easily and stand and wait quietly when there are only one or two appropriately placed backstops (i.e., one backstop no less than two cow lengths up from the entrance to the lead-up, and one backstop no more than two cow lengths before the squeeze chute). Cattle are more likely to stand and wait quietly if the chute is sturdy and allows them a wide, solid stance. Adjustable sides and emergency exit gates are also necessities.

## Processing area

The processing area should be comprised of a good, safely functioning squeeze chute; excellent lighting; protection from the elements; and a clean, safe work space for personnel. Firm, slip-resistant footing should be available in front of the chute to keep cattle from slipping and falling when exiting.

## Loadout

A loadout will usually have both a loading chute or dock and an area for stock trailers to load and unload cattle. The loading chute ramp should be 12 feet long, have traction cleats with eight-inch spacing, and be 48 inches high. The appropriate loading chute width is 26–30 inches.

The trailer loadout should be easily accessible, either by backing the trailer or by having a pull-through system.

## Conclusion

Cattle handling facilities are an essential component of any cattle operation. Regardless of the size or complexity of the facility, following basic planning, design, and construction protocols, along with applying proper cattle handling principles, will help to minimize stress and injury to both cattle and personnel. Reducing stress, illness, injury, and death to cattle, due to inferior handling facilities, is an excellent way to improve consumer confidence in the production of high-quality beef.

## Further reading

- Texas A&M University. “Beef Cattle Publications: Facilities and Equipment” from Agriculture & Life Sciences. Accessed December 29<sup>th</sup>, 2017. <https://animalscience.tamu.edu/livestock-species/beef/publications/#facilities>.
- The Ohio State University Extension. 2002. *Cattle Handling and Working Facilities*. Extension Bulletin 906. <https://agmr.osu.edu/sites/agmr/files/imce/pdfs/Beef/CattleFacilities.pdf>.
- Grandin, Temple. “Livestock Handling Systems, Cattle Corrals, Stockyards, and Races.” Accessed December 29<sup>th</sup>, 2017. <http://www.grandin.com/design/design.html>.

The Idaho Beef Quality Assurance Program is a partnership between University of Idaho Extension and Idaho Beef Council.

### The BQA Mission

To maximize consumer confidence and acceptance of beef by focusing the producer’s attention to daily production practices that influence the safety, wholesomeness and quality of beef and beef products.

### BQA Certification

Certification requirements can be achieved by participating in a training session and completing the BQA quiz and personal contract. Certification is valid for three years. Learn more about BQA certification in Idaho, here: <http://extension.uidaho.edu/bqa/certification/>.

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