

## Parma Cocoon Testing Laboratory Questionnaire

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2. This sample was taken from \_\_\_\_\_ lbs.  
of loose cells

If the bees are your own punch-out,  
rather than purchased from a dealer,  
please answer the following questions:

3. What nesting materials were used for  
bees in this sample (loose cell only):

Poly Boards      Wood (Dority) Boards  
Wood Laminate   Poly Laminate  
Cardboard      Other: \_\_\_\_\_

4. Before going into the field nesting  
materials were:

- a. Mostly New or all new
- b. Dipped in \_\_\_\_\_% hypochlorite
- c. Fumigated (with \_\_\_\_\_)
- d. Treated with fungicide
- e. Re-drilled and baked
- f. Received no special treatment
- g. Other: \_\_\_\_\_

5. How many years were the nesting  
materials in the field before punch-out?  
\_\_\_\_\_

6. Were bee cells treated for chalkbrood  
before release, and if so, how?

7. How many total gallons of bees did you  
release last spring? \_\_\_\_\_gals.

### HOW THE COCOONS ARE TESTED

When a sample arrives, all information about the sample including the date of arrival is recorded. If the sample cannot be processed immediately, it is put into cold storage (7°C = 44° F) until it can be processed.

Samples are processed on a first-come first-served basis. When ready to process, the sample is divided into 5 sub-samples of 10 grams each, laid on contact paper, and x-rayed. X-rays are read and cells with ambiguous diagnosis are opened for confirmation. Results are recorded, tabulated, and graphed. A copy of the results is sent to you as indicated on the sample label.

Keep in mind that differences between our results and results from the Canadian Cocoon Testing Centre or any other testing facility may have a variety of causes, including difference in sampling procedures, humidity, or other storage and transportation conditions both in Canada and in the U.S.

Samples are accepted between October and April for emergence/sex ratio tests. The cells are first x-rayed for live count and a report is prepared as described above. Cells that appear live in the x-ray are removed, and placed in small plastic trays with individual wells for each cell. The trays are labeled with the grower's name and the date that the test begun. Trays are stored at 85-88° F until all live bees have emerged. The sex ratio of emerged bees is then determined and cells from which bees have not emerged are opened to determine at what stage the bees died. A report is sent as soon as the data is compiled. Depending on when the test is started, this could be 4 to 6 weeks.

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# Parma Cocoon Testing Laboratory

**Parma Research and  
Extension Center  
29603 U of I Ln  
Parma, ID 83660**

**[www.uidaho.edu/cals/parma](http://www.uidaho.edu/cals/parma)  
208 722-6701**

UNIVERSITY OF IDAHO  
PARMA COCOON TESTING  
LABORATORY

The Parma Cocoon Testing Laboratory provides statistically accurate estimates of the proportion of live cells, chalkbrood mortality, pollen ball mortality, parasites, etc. from leafcutting bee cell samples (live count test). We can also provide an estimate of percent successful emergence and sex ratio of bee samples. Producers and field representatives can use this information to monitor and improve their bee populations. X-ray equipment for the Laboratory was purchased jointly by the Idaho and Oregon Alfalfa Seed Commission, and the Nevada Alfalfa Seed Research and Promotion Board.

**How to Collect Samples:**

Each sample should contain at least 100 grams (3.5 oz. or about 2 cups) of loose cells. The accuracy of the sample depends on how representative the sample is of the entire population of bees. Take a handful of cells from two or three depths in each bucket, bag, or box of cells that will be included in the sample. Mix these cells well in a separate container, and measure out ~100 grams (about 2 cups) into plastic self-sealing plastic bag to send to the lab. Do not mix Canadian and local bee samples.

**How to Label Samples:**

Each sample (bag) must be clearly labeled with a name, address, phone number, and if you wish to have results faxed or emailed to you, a fax number or email address. Each sample also need to have a unique identifier that allows the sample to be associated with a specific bee source (i.e. field, bee lot, etc.). For convenience, you may complete and attach the label on the brochure to your sample.

**How to Send A Sample:**

Place loose cell samples in a container to prevent crushing during shipping (a clean margarine tub, coffee can, etc.). Ship your package via US mail, UPS, Federal Express, or deliver by hand to the address below. Try to avoid shipping surface mail if temperatures are expected to be especially hot or cold. Clearly mark the outside of the package "LIVE MATERIAL - AVOID EXTREME HEAT OR COLD".

Parma Cocoon Testing Laboratory  
Parma Research and Extension Center  
29603 U of I Lane  
Parma ID 83660

Please fill out the enclosed questionnaire and include it and a check or money order. Filling out the questionnaire enables us to use your results to provide information for long-term monitoring efforts.

**Prices and Payments:**

Samples from Idaho,  
Oregon, and Nevada: \$30

Samples from elsewhere: \$60

Sex Ratio / Emergence Test: \$25

Make checks payable to the University of Idaho or the Parma Cocoon Testing Laboratory.

**Results:**

Allow about one week for live counts from loose cell samples. Allow 6 weeks for the results of sex ratio tests.

**Questions:**

If you have questions call the Cocoon Laboratory at 208-291-6227.



Sample ID: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Please send me the test results by:

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_ US mail \_\_\_\_\_

**Parma Cocoon Testing Laboratory  
Questionnaire**

Please fill out this questionnaire and submit it with your samples, so that the information can be included in our database for comparison with other parts of the country and Canada.

1. The enclosed sample is from:

Canada                      Peace River  
   Alberta  
   Saskatchewan  
   Manitoba  
   Other \_\_\_\_\_

United States              Idaho  
   Oregon  
   Nevada  
   Washington  
   Montana  
   Other \_\_\_\_\_

