

COLLECTING BULK TANK MILK SAMPLES

Background:

Bulk tank cultures are often used in milk quality programs to monitor the types of mastitis causing pathogens present in a herd.

- Determine mastitis pathogens present. Properly obtained bulk tank cultures are useful for determining specific contagious mastitis pathogens in a herd.
- Identify common bacteria. Bulk tank cultures also are useful for identifying the most common bacteria present in bulk tank milk.
- Bulk tank cultures ARE NOT an accurate way of estimating the number of infected cows in a herd.

Procedure

- The first step in collecting a bulk tank milk sample is to turn on the agitator for at least 10 minutes. Agitation ensures that the milk sample will represent all the milk in the tank.
- Collect all samples from the top of the bulk tank. Bulk tank milk samples should never be obtained from the tank outlet. This area is impossible to sanitize. Samples obtained from the outlet at the bottom of the tank give inaccurate results. Always collect bulk tank milk samples from the top of the bulk tank.
- There are two ways to obtain a milk sample from the bulk tank.
 1. One way to obtain a milk sample is by using a dipper. The dipper must be clean and sanitized before taking the sample.
 2. Samples can also be obtained by using a sterile pipette and syringe.
- It is important to remember that interpretation of results from a SINGLE bulk tank sample can often provide inconclusive results. Results from bulk tank milk samples must be combined with somatic cell counts, results of individual cow cultures and clinical mastitis records to be properly interpreted.
- Bulk tank milk samples should be immediately refrigerated until submitted to the laboratory. Freeze samples if more than 24 hours will pass before submitting samples to the laboratory.

Improving Accuracy of Bulk Tank Cultures:

- Accuracy of bulk tank milk testing can be improved by obtaining bulk milk samples on 3 to 5 consecutive days.
- The samples can be frozen each day and submitted to the laboratory together. After thawing, the laboratory can combine the samples and culture them as one sample. Results obtained in this way are more likely to give useful results.

