## **Avoid Making Bacteria Soup for Calves**

Put the brakes on bacteria growth in colostrum if we are not going to feed it immediately.

Take advantage of an inexpensive procedure to arrest the rapid growth of bacteria in colostrum – lower the temperature. For colostrum that we do not intend to feed within 30 minutes after it is collected, our goal should be to lower the temperature from cow body temperature (about 102°) to 60° within 30 minutes after it comes out of the cow. Remember, our goal is to chill colostrum to 60° in the 30 minutes before bacteria begin to grow. <u>Bacteria will double every 20 minutes in colostrum at cow body temperature</u>. Rapid chilling is the name of the game.

## **Ice-Bath Method:**

Sounds simple. Get large container for bath, water, ice, and containers of colostrum. There are a few tips that will help make this successful:

- 1. Always use water -placing colostrum containers in a tub with just ice/snow is less effective than ice water.
- 2. Maintain some ice/snow in the water all the time that will hold the solution just above freezing for effective chilling.
- 3. Some folks report freezing big "hockey pucks" of ice using containers they make by cutting off the bottom two inches of gallon jugs.
- 4. Use smaller containers for colostrum (for example 2 quarts) to speed up chilling (compared to one large five-gallon plastic bucket filled with colostrum).
- 5. If available, metal containers transmit heat more rapidly than plastic ones and therefore cool faster.

## **Ice-Bottles Method**

Use the ratio of one part ice to four parts of colostrum. For example, submerge one quart of ice in a very clean plastic bottle directly into four quarts of colostrum. Fill clean plastic bottles (for example, empty bottles from chocolate milk or soft drinks) ¾ full of water and freeze. Immediately after collecting colostrum, estimate volume and add the appropriate number of ice bottles.

A few tips to make this work well:

- 1. It is easier to keep the outside of bottles clean if they are not used too many times. When cleaning these bottles remember to unscrew the caps to clean away colostrum that sticks underneath.
- 2. Always remove any plastic wrappers on the outside of the bottles
- 3. Fill bottles only ¾ full of water more water will expand and burst bottles in the freezer.
- 4. If you have a large colostrum collection bucket, consider placing 2 or 3 quarts of ice in the bucket before collecting the colostrum that way you don't have to remember to add ice later.

## Reminder

2018 Year End Summaries will be included with January 2019 invoices. These are helpful for tax purposes. Please call the office with any questions at 585-591-2660.