

# CALVING EASE

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## Wholesome Colostrum

What comes into your mind when the word “wholesome” is used? Perhaps “health enhancing” or “health preserving”? Maybe “life promoting” or “beneficial”? Certainly “clean” or “good.” These are all opposite of something that causes sickness and even death.

### Defining “wholesome” colostrum

“Good” colostrum is often defined solely in terms of its antibody concentration. That is, how many immunoglobulins are crammed into each swallow of colostrum? This is an important characteristic of this first milk from a calf’s dam.

However, we need to remember the absence of contaminants is important also. First, we want to screen out mastitic and bloody colostrum. Second, we want to avoid contaminating clean colostrum with bacteria. Third, in the interval between harvesting and feeding colostrum we want to suppress the growth of bacteria.

In sum, wholesome colostrum is (1) high in antibodies, (2) free from mastitic contamination, (3) not bloody, and (4) low in bacterial contaminants.

### Harvesting “wholesome” colostrum

By milking dams as soon as practical after calving we promote higher concentrations of antibodies. The shorter the calving to milking interval the less time there is for milk production after calving to dilute the antibodies.

By careful observation of the dam’s foremilk at her first milking we can identify problem colostrum. Foremilk showing mastitic clumps and strings must be discarded. Excessive blood in the colostrum makes it undesirable for feeding to newborn calves. Take time to observe foremilk carefully. Know what signs signal undesirable colostrum. Don’t feed this colostrum to newborn calves.

By carefully preparing the dam’s udder for milking we can reduce bacterial contamination of clean colostrum. Get rid of sand, sawdust, and paper or straw bedding. This is a first step toward

cleanliness. Predipping with an approved predip solution will kill surface bacteria. Predip helps wash off just plain dirt. Careful wiping is essential, also.

By carefully cleaning milking equipment we can reduce bacterial contamination of clean colostrum. The most frequently cited offenders are waste milk can lids and cans. The waste milk cans and lids often are “rinsed out” rather than receiving the same “rinse-wash-rinse” cycle of CIP systems. Can lids and cans used for collecting colostrum should be scrubbed clean. Can your equipment pass this test? 1. Take a fresh 8 oz. bottle of your favorite flavor milk and pour it into the clean colostrum collection can. 2. Put on the lid and shake well, 3. Pour it back out into the bottle and **drink it**. Are you ready to drink this milk? Your newborn calves take this test every time you feed colostrum!

### **Preserving “wholesome” colostrum**

Chill freshly milked colostrum to 40° if it cannot be fed immediately after harvesting. We know that in spite of our best sanitation most colostrum contains 20,000 or more bacteria per milliliter (ml). At 100° bacteria like *E. coli* double in numbers every twenty minutes. What happens in summer conditions to colostrum that sits around in the milk house for two hours after harvesting? It can easily increase in bacterial contamination to over 1,000,000 bacteria per ml. Cooling the colostrum as soon as it's harvested can drastically slow bacterial growth.

Commonly used methods to promote rapid cooling? Put colostrum in the refrigerator or freezer promptly. As soon as possible after milking is a good goal. One dairy keeps a supply of clean sanitized two-quart freezer containers near the milking parlor. Fresh colostrum is poured into them. The filled containers go directly into the freezer.

Divide the colostrum into as small quantities as practical prior to refrigeration. Four gallons of colostrum in eight two-quart nursing bottles will chill much more rapidly than the same amount in one five-gallon pail.

One dairy keeps their clean empty nursing bottles in the freezer. This dairy's practice serves two purposes. Cryptosporidia are killed. And, the cold bottles help to quickly reduce the temperature of the fresh warm colostrum.

### **CALF FEEDERS' TIP**

Use ice to rapidly chill colostrum. Add an ice-filled three-liter plastic soft drink bottle to three gallons of warm colostrum. The ice will chill the colostrum enough to nearly stop bacterial growth. Of course, the outside of the ice-filled bottle needs to be clean, also. Try a gallon sized resealable plastic freezer bag filled with cubed ice. It's a workable alternative if purchased ice is used. These bags are labor savers since they are single-use and require no scrubbing.

If you know of someone that doesn't currently receive **Calving Ease** but would like to, tell them to **WRITE** to **Calving Ease**, 11047 River Road, Pavilion, NY 14525 or to **CALL** either 716-591-2660 (Attica Vet Assoc. office) or 716-343-8128 (Offhaus Farms Office) or **FAX** (716-591-2898) or **e-mail** [steadley@servtech.com](mailto:steadley@servtech.com) . A limited number of back issues may be accessed on the Internet at [www.calfnotes.com](http://www.calfnotes.com) and clicking on the link, Calving Ease. PLEASE NOTE THE NEW WEB SITE ADDRESS FOR CALF NOTES.