

# CALVING EASE

July 2009

Sam Leadley, Attica Veterinary Associates

## Avoid These Cleaning Errors

The basic steps in manual cleaning our calf feeding equipment are well known.

- Rinse away milk and other materials soiling the equipment.
- Wash thoroughly with a chlorinated detergent.
- Rinse with acid solution.
- Dry.

Applying these steps is not always as easy as it might seem. It is easy to make errors.

### **Error #1. Inadequate rinsing**

It is very tempting to skip the rinse step entirely when hand washing equipment. “Why bother. It will all come off in the wash.” This is not a good decision. The detergent will not work well in dirty wash water. We end up with too many milk and bacterial residues on our equipment that can cause calf scours.

Our goal should be to remove at least ninety-five percent of all the milk components by rinsing before we start to wash equipment.

Here is a simple test of adequate rinsing. Stop about one-half way through your wash-up job. Brush aside any foam on the top. Drop your brush into the sink. If you have done a good job of rinsing you should be able to look through the water and see the brush at the bottom of the sink. If you carried too much colostrum or milk on the equipment into the wash water all you will see is cloudy water – no brush to be seen.

### **Error #2. Using extra detergent to make up for inadequate rinsing**

Adding extra detergent to compensate for inadequate rinsing does not work. Once the wash water is loaded with milk solids you essentially end up churning dirty water rather than cleaning equipment.

High concentrations of sodium or potassium hydroxide (that’s the stuff in detergents) can be damaging to plastic equipment and human skin. And, the extra detergent adds more chemicals for environmental contamination.

### **Error #3. Wash water not hot enough**

You probably remember that wash water at the end of the wash cycle should be at least 120°F. The end of the wash cycle means when you “pull the plug,” hang up your brush and strip off your gloves.

Detergents have to break through milk films, lift the milk components from the surfaces and break them up into small enough particles to stay suspended in the wash water. This does not happen efficiently when the wash water falls below 120°F.

Here is a convenient tip from Pam Sojda at Offhaus Farms. Start with an inexpensive rapid-read thermometer – they have a probe about four or five inches long. Cut a one-inch square of Styrofoam from some packing you have received recently. Press the thermometer probe through the center of the square. Now you have a floating thermometer to monitor wash water temperature in your sink. No excuses now for having water that is not hot enough.

See [www.atticacows.com](http://www.atticacows.com) in the Calf Facts section, “Wash water hot enough?” for tips to have hot wash water even in cold weather conditions.

### **Error # 4. Water is too hard for detergent to work well**

While not too common a situation, I do find frustrated calf care folks trying to wash equipment in very, very hard water. They add large amounts of detergent and still cannot get bottles and buckets clean. As long as the farm does not have commercial water softening equipment the immediate solution may be to use a commercial conditioning powder. Calgon® brand softening powder is the most commonly used product. Folks that condition or soften the water one sinkful at a time have told me how much better their detergent works when they take time to adjust the water hardness level. In fact, some have said that they use enough less detergent to pay for the conditioner.

### **Error #5. Using way, way too much acid**

In hand washing we use our acid rinse primarily to get surface pH levels low enough to retard bacterial regrowth between uses. We also like to remove any traces of the detergent that might contain minerals. If we use parlor-grade acid, we probably only need to use one ounce per ten gallons of water to get the solution down into the 3.0 to 3.2 pH range. I often see amounts three and five times this much being used routinely for manual washing. This is a waste of money and is not environmentally sound.

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** 585-591-2660 (Attica Vet Assoc. office) or **FAX** (585-591-2898) or **e-mail** [calvingease@rochester.rr.com](mailto:calvingease@rochester.rr.com) with **Subscribe** as the subject. Back issues may be accessed on the Internet at [www.atticacows.com](http://www.atticacows.com), click on Resource menu, select Calf Management Newsletter.

Our thanks to Fort Dodge Animal Health for supporting this issue of Calving Ease.