

CALVING EASE

August 2000

Sam Leadley (Attica Veterinary Associates) & Pam Sojda (Offhaus Farms)

AIM FOR FEWER PATHOGENS AT CALVING

Young calf survival is a balance between pathogen exposure and immunity based on maternal antibodies received from colostrum. One of the most important times to reduce pathogen exposure for young calves is at birth.

Calving Site

The majority of calvings in confinement managed dairy herds are either in individual calving pens or in larger-group type housing. In both sites reducing contact with bacteria and parasites depends heavily on keeping them clean. While unlimited space on a clean, dry grassy pasture might be favored to confinement calving, this setting is not available on many farms.

Individual calving pens are contaminated at each delivery with four to five gallons of amniotic and allantoic fluids mixed with feces from the dam. These fluids are rich in proteins, sugars, urea and fats. Bacteria from the adult cow's feces grow very well in this fluid environment.

This is why the current recommendation for individual calving pens is to remove the contaminated bedding after each delivery. Fresh bedding on the concrete floor can provide an effective physical barrier between the newborn calf and pathogens. But, enough clean and dry bedding must be added to create this barrier. This means that we should be able to kneel in the pen after bedding and not find our knees soiled or damp.

Group pens are much more difficult to keep clean and dry. Adult cow traffic insures lots of urine and feces. People handling cows not only spread feces around but may also track into the pen additional contaminants on dirty boots.

Straw, sawdust or paper packs that are allowed to build up to any significant depth are a huge reservoir for bacteria. The packs are constantly fed with nutrient-rich birth fluids and repeatedly inoculated with virulent bacteria.

At periods of the year during heavy calving these pens are often overstocked. This makes the task of keeping them clean nearly impossible. An especially dangerous time is in the Spring when frozen packs thaw and release large amounts of lethal bacteria in the soggy bedding. The ideal bedding situation, like the individual pen, is to be clean and dry enough so that a person can kneel on the pack without having soiled or damp knees.

Newborn Management

The cleanest environment pre-calving is not perfect insurance against newborn contamination. The birth process itself generates unclean conditions. It is desirable to have a nearby spot on clean bedding where the dam may lick off her calf. Remember, two routes of entry for bacteria and parasites are the calf's navel and mouth.

The primary contaminant is adult cow feces. Our objective is always to minimize contact between the feces and the calf's mouth and navel. That's why navel dipping is needed. Dipping the navel with a 7 percent iodine tincture solution (smells like rubbing alcohol, won't wash off) kills bacteria. The iodine and alcohol mixture rapidly dries the navel and helps close it against pathogens.

Even a small amount of adult cow feces (less than a teaspoonful) in calf's mouth can heavily contaminate her gut. Calves swallowing bacteria prior to colostrum feeding almost always get sick and often die. That's why we want to have colostrum swallowed first rather than anything containing manure.

Once a calf stands and is able to begin searching for food she is at risk from another source of feces - her mother. Mom's haircoat is usually dirty. When the newborn explores all over the dam searching for a teat she nibbles on fecal-contaminated hair. Even when she finds a teat it may not be clean.

What can you do to reduce exposure? One method is hand feeding the calf. Get the calf into a cleaner place where she can't nibble manure off of the dam's hair or eat dirty bedding. Hand feed her the colostrum just milked from her dam or stored colostrum. A second method is assisted nursing. At least clean up the dam's teats. Then take time to get the calf in the right place to find them.

Calf Raiser's Tip

Pam has a small cabinet fastened to the wall in the calving area at Offhaus Farms. One of the items stored in this cabinet is navel dip. That means it is easy to reach when a calf is born. The newborn's navel can be dipped and the navel dip container returned to the cabinet. Sam has noticed a number of other farms doing the same thing with cabinets, shelves and even a bucket ring holding a 10-quart pail up high out of the way of inquisitive cows. Some folks also keep a tagging tool and metal ID tags along with the navel dip. As soon as the calf is identified as a female she receives a metal ID tag as well as having her navel dipped. Pam also keeps in her cabinet a paint stick with which to mark calves when they have been fed their first meal of colostrum. Noblehurst Farms keeps on a nail in the calving area loops of yellow plastic chain, each with an old cow tag attached, so the chains can be put on calves after their first colostrum feeding.

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** sleadley@servtech.com. A limited number of back issues may be accessed on the Internet at www.americanprotein.com/calf/calfnote/APCcalfnote.htm and clicking on the link, Calving Ease.