

## A potential breakthrough in ensuring disease-free colostrum

In previous columns, I've preached the importance of not infecting the youngest members of your herd with pathogens that can cause contagious mastitis, Johne's disease, viral disease and salmonellosis.

An area of concern, obviously, is the type of colostrum given to newborn calves. If you want to break the disease cycle, you have to find a way to stop the transmission of disease from dam to calf via colostrum.

Hurdles to overcome  
Imagine if you could create a pathogen-free colostrum. That would plug a huge hole in on-farm biosecurity programs.

Several attempts have been made to develop commercial and innovative handcrafted colostrum pasteurizers with variable success. Batch sizes of colostrum are smaller than waste-

milk requirements, and adaptation to different volumes may cause poor pasteurizer performance. The high viscosity and high concentrations of components in colostrum



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can create caramelization or impair heating and cooling.

Several recent studies have found that when pasteurized and fed to newborn calves, the transfer of immunity from the colostrum was below normal. Globulin and other important immune components were inactivated or not absorbed as efficiently as they were from fresh colostrum.

Currently, the best procedure is to test dams for particular diseases, and if they show up positive, they are eliminated from the colostrum pool. But, given the typical preva-

lence of common pathogens, you might find yourself running short of supply if you eliminate too many animals.

For example, if 12 percent of the herd has *Staph. aureus* mastitis, 30 percent are positive for Johne's, and 50 percent test seropositive for Bovine Leukemia virus, few colostrum donors would remain. In addition, the cost of testing for various diseases can add up.

Fortunately, a simple solution to this problem may now be available.

A new option  
The first true colostrum replacer — not a colostrum supplement — is now on the market. It contains 125 grams of IgG — more than twice that of any colostrum supplement and enough to provide passive transfer in a single 2-quart dose. The cost is about \$20 per dose. Although at first glance that may seem a bit high, it is similar to the price of testing a dam for two or three major diseases to see if she can be a colostrum donor.

Published field trials show that the product is

absorbed as well as fresh colostrum. In addition, a recent study conducted by Sheila McGuirk at the University of Wisconsin found that calf health and survival was similar to that of calves fed good-quality colostrum. The product also contains the vitamins and other nutrients found in colostrum.

The high-energy level in colostrum is critical for generating warmth after brown fat reserves are used up in cold weather. With a product like this, colostrum administration labor is cut in half, and no thawing time or messy storage system is needed. This sounds like a simple breakthrough for long-term herd disease reduction.

Initial results with this product look promising. And, it can be used to fill a vital role in stopping the transfer of disease from dam to calf. As with any new product, talk to your veterinarian to determine if this new colostrum replacer would be a good addition to your herd biosecurity program.

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