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TECHNICAL INFORMATION FOR TODAY'S FEED PROFESSIONAL

Pasteurizers – Is It Time?

Increasing prices for milk replacers and the availability of pasteurizers in the replacement heifer market has increased the interest in pasteurizing waste milk and feeding this milk to calves. When a producer begins to look at pasteurizers, there are some key questions that should be answered before a purchase is made.

Is there enough waste milk to feed to calves and if so, how reliable is the supply?
Calves need to be fed every day and if the supply varies greatly from day to day or month to month or by season, managing the supply of waste milk to feed calves may be challenging. Studies have shown the typical dairy may not have adequate waste milk to feed to their calves every day. If waste milk supply is abundant, the reason for this should be fully evaluated by the dairy to see why an excess supply is available.

Who will oversee and manage the pasteurizer on the farm?
Pasteurizers may look pretty neat and simple but the reality is that "field evaluation" of pasteurizers has shown that many times waste milk is not pasteurized after going through the machine. One of the key reasons for on farm failure of pasteurized milk is that the operator is not properly trained to operate or clean and sanitize the machine.

Is there an adequate backup plan in case the pasteurizer is not working or the trained operator is not around to operate the machine?
Things seldom go as planned on a dairy farm. In fact, it seems that when it is the busiest and things are most stressful that something else goes wrong.

- What will be done if this crisis involves the pasteurizer?

Will the pasteurizer that is purchased be properly installed and have long term support and service from the supplier should there be a problem?
A pasteurizer is a machine and machines have maintenance requirements, operational protocols and breakdowns.

- Is there a chance this machine will be operated without anyone knowing if it is working correctly or if it is not working?
- Is there someone readily available who can come to the farm and fix it?
- Has the supplier fully analyzed the on-farm location to make sure adequate electrical, space and water needs are available to operate the pasteurizer successfully?
- Will the supplier be available to help answer questions on calf health and management issues once a pasteurizer is purchased?

How will the milk be handled physically in regards to storage, chilling and transport? Waste milk can be a problem to haul, store and feed. Waste milk either before or after pasteurizing should be chilled. If not, the bacteria counts will escalate rapidly and later pasteurization will only reduce the bacteria numbers; not create a "clean" product to feed.

Milk Products
The Milk Replacer Source™
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P.O. Box 150, Chilton, Wisconsin 53014, (920) 849-2348, Fax (920) 849-9014 www.milkproductsinc.com

If using antibiotic treated milk to pasteurize and feed, can one be sure they are not feeding any calves that will be sold to slaughter or that antibiotic resistance will not become an issue on the farm?
A seldom discussed topic is that of antibiotic residues in calves at slaughter. Depending on which antibiotics and their concentration in the milk, antibiotic residues could be a concern. The potential for developing resistance to antibiotics in calves and the farm is brought up here as simply a discussion point. Pasteurization does not affect antibiotic levels in milk.

Is it better to have a batch pasteurizer or an HTST machine? This depends on many factors but there has been more and more interest in batch pasteurizers especially if the dairy is interested in pasteurizing colostrum. A smaller batch pasteurizer unit that can change time and temperature settings should be considered if looking at pasteurizing colostrum.

What is the effect on the health of calves if they end up being fed unpasteurized milk?
A study conducted by the University of Wisconsin showed that 13% of samples submitted by dairy farms that thought they were feeding pasteurized milk were found to not be properly pasteurized.

- Is the dairy prepared to have calves at risk for Johne's Disesase, Salmonella, Mycoplasma and other diseases should the pasteurizer fail and the milk be fed anyway?
- Does the dairy have an adequate quality control program in place to analyze pre and post pasteurizer samples to see if milk is being properly pasteurized on a daily basis?

What effect does feeding pasteurized milk have on starter intake and weaning age? Waste milk has greater fat and energy content than most milk replacers. Because of this, calves do not seem to have the drive to eat dry starter feeds as early. This can then delay weaning if not managed properly. Delayed weaning can increase labor and housing costs.

Does waste milk vary greatly in solids and nutrient content on a daily basis?
By definition, waste milk is variable. It is essentially whatever milk the dairy produced that day that is not saleable, which could be rich transitional milk or mastitic milk or antibiotic withdrawal milk. The three types of milk noted can vary greatly in nutrient and solids content. The great advantage of using a milk replacer is its consistency from bag to bag and calf to calf. Feeding calves with milk having great variations in quality and content can be a problem, especially young calves.

The above questions are just the beginning to make sure the issue of pasteurizing waste milk for feeding to calves is fully evaluated before purchase. Work with your milk replacer supplier for additional thoughts on such a purchase.

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