



# The Calf Bawl

Jones Feed Mills Calf Update— Published by Lisa Zieleman— Mobile/ Text: 519-807-3870

## Probiotics in Calf Feeding Programs

Written by Lisa Reid and Kayla Aragona, Ph.D.

There is a lot of talk on feeding calves probiotics and what kind of probiotics to feed. Are there any added benefits? Will it reduce scours? Hopefully, this article can help you understand the idea behind feeding probiotics a little better.



The intestines of the calf are populated by many bacteria that help perform multiple functions and are a key component to the intestinal immune system. Keeping the intestinal homeostasis requires there to be an equal amount of absorption (nutrients) and secretion, and increases intestinal barrier capacity to potential invading pathogens in the digestive system. The large intestine contributes to many of these above functions and therefore it is very important to maintain good 'gut' health in calves. When a calf deals with stress, it opens the door for harmful pathogens to come in and may impair function of the good bacteria. Probiotics contain living, naturally occurring microorganisms, primarily bacteria or yeast. The notion of feeding a probiotic to calves is to try to supply microorganisms that can compete with pathogens before they can do harm or damage to the calf. There are many different probiotic products out on the market that include various types of **bacteria** and are relatively inexpensive (Quigley, 2003). There is a lot of research investigating the use of probiotics in the diet of young calves. With much of the research indicating no improvement in animal health, while others show positive results, it is possible that the results of feeding probiotics to calves may depend on the type of probiotic fed and the environmental conditions that the calves are living in. The type of bacteria (probiotic) selected to be fed to a calf may have an effect in how the calf responds. *Lactobacilli* and *Bifidobacterium* are normal to the intestines and have when fed improved responses compared to other bacteria like *Bacillus subtilis* (Quigley, 2003).

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## Got Calf Questions?

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## A-moozing Hints!

In many calf barn housing situations, new cases of pneumonia in young calves seem to spike during the fall and winter months. Typically, during these times, we like to close everything off to ensure calves stay warm and draft free. When we do this, it becomes more difficult to get adequate air circulation to each calf and the bacteria in the air have



more time to multiply. Having a constant high humidity in your barn can increase your severity of pneumonia and can become costly. When humidity levels rise above 70% the chances of pneumonia increase significantly as there is not enough fresh air coming in and/or going out. Having a humidity monitor is an easy and inexpensive tool to help monitor what the conditions are like in your calf barn. And helps you adjust your calf barn ventilation accordingly to help create a more suitable environment for the calves. For more questions, please contact Lisa Reid at 519-807-3870.

## 10 Tips When Using Calf Coats:

Make sure calves' coats are completely dry before putting on a calf coat.

1. Adjust straps to ensure coat fits comfortably and securely on the calf.
2. Check straps weekly as the calf grows to ensure no rubbing on the skin of the calf.
3. Change jacket if it becomes wet or soiled due to weather or scours.
4. When it is cold enough for you to put on a jacket that means it is cold enough for the calves to have a jacket on too.
5. Only keep jackets on for a maximum of 3 weeks, at the stage the calf needs to develop its own hair follicles. But keep in mind to pick a good day (weather wise) to take the jacket off.
6. When the weather is warm, keep a close eye on calves that they do not sweat underneath the jackets. If they do, remove the jacket.
7. When removing the jacket, the morning is the best time of day to do so.
8. Wash jackets with hot water and detergent and let dry completely between uses.
9. Ensure that there is still enough bedding for the calf to ensure nesting is achievable to help the calf stay warm and dry.



## Udderly Hilarious Jokes

**Q: Why won't the dog listen to the farmer's sheep jokes?**

**A:** Because he herd them all!

**Q: What do you call a pig that does karate?**

**A:** Pork chop!

**Q: What do you get when you cross a chicken and a cement mixer?**

**A:** A brick-layer!



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A study by Abe et al. (1995) noticed a decrease in scours and improved average daily gain when adding in a probiotic (containing *Lactobacillus acidophilus* and *Bifidobacterium pseudolongum*). But a different study by Harp et al. (1996) reported that feeding probiotics to calves challenged with *Cryptosporidium* had no effects on fecal scores or shedding of the oocyst in dairy calves. Morrill et al. (1995) also reported no effect of adding probiotics on health or growth of calves. Some researchers have suggested that probiotics may reduce the shedding of zoonotic pathogens such as *E. coli* (Ohya et al., 2000; Zhao et al).

In many situations, probiotics are misused on farm. Probiotics contain living bacteria, they must be handled appropriately in order to maintain viability (Quigley, 2003). When using probiotics, ensure proper storage and temperature levels, and be aware of the expiration date, as these factors can influence the viability of the probiotic. Finally, it is important to remember that probiotics are bacteria – adding probiotics to medicated milk replacers will defeat the purpose of including the probiotic in the first place (Quigley, 2003).



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