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The Calf Bawl

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

November 2018

Does Hay/ Straw (fibre) Develop the Rumen?

A common perception that we hear time and time again is that hay or straw helps develop the rumen. That “scratch” factor is needed to start rumen stimulation. This concept of “scratch” to develop the rumen is a myth, hay/straw does not develop the rumen. The rumen starts developing primarily by chemical reactions caused by VFA (volatile fatty acids) in the rumen. Hay and/or straw does however promote the growth of the muscular layer of the rumen and maintains the health of the epithelium. The epithelium is the absorptive tissue layer inside the rumen which is in contact with the rumen contents. This tissue contains many small finger-like projections called papillae. These papillae provide the adsorptive surface in the rumen. Volatile fatty acids are the main energy source for ruminants, providing approximately 70% of the total energy requirements, and are a key ingredient for growth and development of a young calf. However, there is little to no absorption or metabolism of VFA in neonatal calves. Therefore, the rumen must develop this ability prior to weaning; the best way of doing this is through offering the calf starter before hay or straw. Starter with a high level of starch (i.e. corn) is best for rumen development. In some cases, the rumen papillae can grow too much in response to high levels of VFA’s. When this happens the papillae can clump together and reduce the surface area available for absorption. Also, some ‘scratch’ factor is needed to keep the papillae from forming layers of keratin, which can also inhibit VFA adsorption. Therefore, it is recommended to feed calf starter before weaning, so rumen development can be initiated and papillae can grow before feeding forage. A good recommendation is to offer calves a grass hay a week after weaning, but it should be limited to ensure calves will continue to consume enough calf starter for proper rumen development.(0.5 lb of

Got Calf Questions?




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Women’s Calf Research Trip a Success!

In October, Lisa Zieleman and Trish Dunn of Jones Feed Mills had the opportunity to take a group of eager ladies to Ohio & Indiana for 2 days on a mission to learn all things calves! The group visited the *Provimi Calf Research Farm*, and were given an informal classroom session on calf nutrition at the Provimi office headquarters. The next day, they had the opportunity to visit MCAA Dairy near Rochester, IN. This 1500 cow dairy let the group see first hand the Provimi way of feeding and managing their calf, heifer and milk/dry cow operation.

If you are interested in traveling to Ohio to see the Provimi Calf Research Farm, contact Lisa Zieleman at 519-807-3870 for more information!



A-moozing Hints

A easy way to help keep track of what your calf is up to, is by using different coloured tape that you can put on your calf hutch or pen. You can use different colours to represent different situations for each calf. For example, recording birth date, age, dam, sire, amount of milk fed, recording sickness or abnormalities. This may can be helpful when different people feed calves routinely. See example below:



- Red Tape = Colostrum
- Yellow Tape = Birth date
- Blue Tape = 3L twice a day
- Green Tape = Calf is being weaned
- Black Tape = Sick Calf, feed last etc.



Udderly Hilarious Jokes

What did the farmer call the cow that had no milk?

An udder failure!

What do you call a cow you can't see?

Cow-moo-flauged!

What do cows get when they are sick?

Hay Fever!



Brrrrr Winter is Coming!



It's that time of year again.... Winter! Be sure your calves stay warm and healthy during the cold season with a calf coat!

*** November 1 - January 31 ***

Purchase 5 calf coats from Jones Feed

Continued... Another key factor as to why we do not want to feed calves hay/straw at an early age is because the rumen cannot digest the hay/straw properly. When a calf is born, the rumen walls are smooth, as the papillae still need to develop and grow. As was talked earlier, the rumen develops by chemical means and VFA's in the rumen. If we begin to feed hay/straw early in life, the rumen hasn't had a chance to develop and the hay/straw can start forming a mat (layering) on top of each other. This often gives a hay belly-like appearance to some calves; something we want to avoid. The bacteria in the rumen can't break down this forage mat and there are no papillae to take up the nutrients from the feed. Therefore, we want to make sure the calf eats a proper calf starter with a high level of starch. High starch will trigger the rumen to begin developing. Week 6 to 7 is a good time to begin to feed calves high-quality (grassy) hay, to make sure the VFA's don't cause the papillae to clump together and/or start forming layers. Lastly, an important point to consider when feeding calves straw/ hay early on, is the particle size. Forages, like hay and straw, are much bulkier and take up more space in the rumen, making the calf feel fuller, causing them to consume less calf starter. The rumen will not be fully functioning in pre-weaned calves, and the rumen microbes aren't able to break forage down. The hay/straw will start building up and cause hay bellies and the rumen will not be developed enough at weaning. An under-developed rumen at weaning will reduce growth and may even cause health issues. In conclusion, there are benefits to feeding calves hay/ straw, but it has to be fed at the right age. We need to give the rumen a chance to develop and form. Don't feed your calves a high-quality hay at an early age because the rumen can't break it down and utilize the nutrients from the feed. Keep in mind hay will have more nutrients than straw, and straw has no calories. This will not encourage growth and development, unlike hay. Place the correct feeds in front of calves at the right



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