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### **Headline: Nutritional Management of Weaned Calves**

WARSAW, Mo. – Weaning time for spring born beef calves is rapidly approaching. Current markets for grain and cattle may make it profitable to retain calves after weaning. The following information is taken from a paper written by Dr. Dan Loy, Extension Beef Specialist at Iowa State University. He suggests a few considerations to ease the transition of calves from grass and milk to alternative feed stuffs.

Feed selection is the first issue discussed. The rumen microbial population must adapt to new feedstuffs and this takes 1-2 weeks. Start with feeds the calves are accustomed to. If calves were creep fed, feeds used in the creep should be part of their grain mix for at least a few days after weaning. Long stem hay for the first 3-7 days after weaning is the normal recommendation. Calves usually prefer a dry grain mix first, but will quickly adapt to high moisture feeds, including corn silage over a 1-2 week period. The important thing is to allow time for the calves to develop an appetite for new feeds, and the rumen bacteria to adapt to the new feeds, while meeting the nutritional requirements of the calf.

Feed intake is another major consideration and is greatly influenced by the amount of stress the calves have undergone. Highly stressed, sick calves may only consume less than 1% of body weight for the first week after arrival. Less stressed, home raised calves may consume 1.5 to 2.5% of body weight in dry matter the first week on feed. Palatability of the starting ration is critically important in getting weaned calves started on feed.

Monitoring and managing feedbunks is essential in getting all calves started on feed. Calves should have 18 to 24 inches of bunk space per head and there needs to be adequate bunk space for all calves to come up and eat at the same time. After initially providing long stem hay and introducing grains into the diet, calves should be consuming 2.5 to 3.0% of body weight by 3-4 weeks on feed. Calves can then be stepped up on grain if that is the system.

Meeting the nutrient requirements of calves must also be considered. Complete starting rations or total mixed rations (TMR's) should be formulated to provide enough

energy for sufficient growth, but enough forage to aid in the transition from forage to grain. This is normally 50-60% concentrate. Protein content should be about 13%, and a natural protein source or a supplement that includes a high bypass source with urea is preferred. Additional minerals including calcium, phosphorus and potassium may be required depending on the feedstuffs. Vitamins A, D and E should be part of the supplement. Trace minerals including zinc, copper and selenium may be needed in higher levels than requirements to help fight disease, especially in stressed calves.

Producers who choose to background their weaned calves have three decisions to make when developing a starting program. They must determine expected intake of the calves, determine the eventual ration, and determine beginning concentrate levels. Once the desired rate of gain is determined, appropriate, cost-effective rations can be developed. In general, rations designed for higher rates of gain result in cheaper feed cost per pound of gain compared to slower gain diets.

If you have questions or need assistance with developing starting and growing rations, contact me by e-mail at [schmitze@missouri.edu](mailto:schmitze@missouri.edu) or at the Extension Center in Warsaw at (660) 438-5012.

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