

ASK THE AG TEAM, for the week of September 12, 2004

Starting calves on feed –by Amie Schleicher, Livestock Specialist, University of Missouri Extension, Atchison County

Taking a calf off grass and away from it's mother, then starting it on full feed, can be challenging. I've got some suggestions on how to make this a smoother process.

1. **Water.** Can the calves reach it? If you have automatic waterers, are the calves used to them? If the calves have only been exposed to ponds, streams, etc., let the waterers run over for a few days when the calves are first put in the lot. The sound of running water might be familiar to the calf and attract it to water. One suggestion is to locate waterers along fencelines because new calves will pace along the fence when they first arrive, and this will make it easier for them to find fresh water. The cleaner the water, the higher the water intake, the better the gains.

2. **Bunk space.** Each calf needs at least 24 inches of head space at the bunk and the hay feeder to start out with. Like we talked about with the waterer situation, are the bunks too tall for the calves? Providing plenty of bunk space will also help timid, younger, or smaller calves get their fair share.

3. **Long-stemmed hay** is essential for adequate intake (calves are familiar with forage) and normal rumen motility (long forage particles stimulate rumination and rumen contractions). Provide it free-choice (ad libitum). The less the hay is processed, the less dusty it is.

4. **Feeds should complement the forage.** The concentrate portion of the diet should complement the forage. Choose ingredients that are low in starch, high in fiber, and moderate in protein. Avoid high-moisture feeds like lush pasture, silages, and ensiled grains. The odor and taste of these feeds might limit intake. You may adapt cattle to high-moisture feeds by letting them select these feeds while still being fed long-stemmed hay and concentrate feeds.

5. **High nutrient density.** Remember, stressed calves aren't eating as much and have challenged immune systems, so the feed they get needs to carry a lot more nutrients in a smaller package. Shoot for 14% crude protein (CP), net energy for maintenance (NE_m) of 0.75 Mcal/lb, net energy for gain (NE_g) of 0.44 Mcal/lb, and 82-90% dry matter (DM).

6. **Processing grain and hay.** Excessive processing is not necessary. Proper grain processing can improve feed conversions, but improper processing can result in digestive upset (founder, acidosis), reduced performance, and increased cost of gain. There's also the dust factor.

7. **Minerals.** Supplement the diet with moderate concentrations of minerals.

8. **Creep feeding helps with bunk-breaking.** Calves that were creep-fed will probably get used to bunk-feeding faster than calves that weren't creep-fed. Usually it takes less than 7-10 days for calves to get accustomed to eating out of bunks, although this can vary.

9. **Time to adjust.** Give calves time to adjust to high-concentrate rations. We have to think in terms of the rumen—it's full of bacteria, and there are certain bacteria that digest forage, and other bacteria that digest grain. By putting cattle on concentrate feeds, we're changing the bacterial population. We want the changes to be gradual—in fact, the microbes need up to 14 days to adapt to a new diet—and we want to be consistent. That way, we'll prevent digestive upset and poor performance. When too much concentrate feed is fed, starch-digesting bacteria produce more acid than the rumen can handle, and problems like acidosis can occur which cause cattle to go off-feed.

10. **Step-up rations.** Acclimating cattle to a high-concentrate diet can be done using step-up rations. You could start with a 60% concentrate/40% roughage diet fed for 7 days. Watch the cattle's intake behavior—is intake erratic, or are they steadily cleaning up their feed? Erratic intake can be indicative of digestive upset. Don't move the cattle onto the next step until intakes even out. Each week, the concentrate portion can be increased by 10%, and the roughage decreased by 10%, as long as the cattle have steady intakes.

11. **Manure consistency.** The consistency of the manure can help you gauge how the cattle are doing. Loose stools or manure with white caps may indicate acidosis. Ideally, stools should be slightly loose, and it is normal to see some grain pass through.