

# NUTRITIONAL STRATEGIES FOR RECEIVING AND FEEDING EARLY-WEANED CALVES

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- Provide clean water and grass-legume hay directly off the truck and allow cattle a rest period before processing them. Adding an electrolyte solution to the water calves drink immediately off the truck is a good way to restore needed sodium and potassium salts.
- Receiving diets should have .3 ppm Selenium and 1.0% Potassium on a dry matter basis, for the first two weeks, because of low feed intake. After that, Potassium should not be higher than .7% of the diet on a dry matter basis
- Provide 1.0 to 1.5 ft of bunk space per calf if possible.
- Urea can be added up to .5% of diet dry matter, but higher levels may depress feed intake.
- Ionophores should not be used (at the upper levels they are approved for) during the first 14 days due to reductions in feed intake, however, lower levels may be beneficial in high-grain diets.
- Research at The Ohio State University has shown that feed intake on stressed calves is severely reduced during the first week. Therefore, receiving diets for calves should be approximately 16- 18% crude protein, on a dry matter basis, for the first seven days. The protein concentration used should be increased to the upper levels of this range with highly stressed calves that have very low feed intakes. After the first two weeks, feed intake increases and the crude protein can be dropped to 14% of diet dry matter. After third week, the crude protein level can be reduced to 12.5% to 13%, since the cattle should be on full feed by then.
- After cattle have reached approximately 1.5% of body weight in feed intake (dry matter basis), increase the amount of feed offered every other day. Increases should be no more than 5% of intake. High-concentrate diets require that calves are brought on feed more slowly than high-forage diets. Bringing calves onto feed more slowly will help prevent acidosis and reduce nutritional stress.
- Soybean meal may be the protein source of choice due to cost and availability, but using a source of higher rumen bypass protein such as distillers grain in combination with soybean meal is good.
- Feeding hay during the receiving period reduces the energy density of the diet. Intake is the main problem during this feeding phase. Therefore, a 60% to 70% concentrate diet should be fed to ensure the calves have adequate energy intakes (Remember that corn silage is approximately 50% concentrate and 50% roughage on a dry matter basis).
- Microbial data from The Ohio State University indicates that cattle do not have a need for hay in order to increase their bacterial numbers after feed and water deprivation and transportation. In fact, a higher energy, protein dense diet provides the bacteria with more substrate to grow on.
- Receiving diets should be formulated to provide the animal with the actual amount of protein required (in grams) rather than a percentage of protein in the diet during the first two weeks. Therefore, the level of feed intake should determine the percent protein fed.

- Corn silage is fine, but it **MUST** be kept fresh. Clean out feed bunks daily and remember not to push feed to the back of the bunks where calves can't reach it. Keep feed about in the middle of the feed bunk.

### **Feed Bunk Management and Feed Intake Control**

"The most important operation in the feedlot"

Defined as the supervision and execution of determining and delivering, in an acceptable and consistent manner, the amount of feed that an animal can consume in a given period of time.

#### **OBJECTIVES:**

1. Maximize animal performance.
2. Minimize digestive disorders.
3. Keep animals consuming a consistent amount of feed.

Good bunk management increases feed efficiency and lowers cost of gain.

#### **Feed Bunk Scoring System**

Score	Bunk Description
0-	Bunk empty for more than 1 hour
0	Bunk empty for less than 1 hour
0+	A few fines or clumps of feed in the bunk
1	Less than 1 inch of feed in the bunk
2	Less than 2 inches of feed in the bunk
3	Less than 3 inches of feed in the bunk

Normally, feed is given on a weight per head basis and multiplied by the number of head in the pen.

#### **Guidelines:**

1. Follow the 10% rule. Never increase or decrease the amount of feed offered by more than 5-10%.
2. Always allow 1 day between increases or decreases in feed offered to allow animals an adjustment period.
3. If the score is 0-, **for two consecutive days**, increase the amount of feed by 5%.
4. Dry feeds may be fed once daily.
5. High moisture feeds may need to be fed twice daily to avoid spoiling in hot weather, and freezing in cold weather.

6. Animals not being fed enough will engorge when fed, and this leads to acidosis and the "yo-yo" effect of over-eating and under-eating. This dramatically decreases animal performance and animal health.
7. Prior to cold fronts, animals feed intake increases dramatically, and decreases after the front passes.
8. Feed should be fresh!
9. If animals rush the bunk when fed, they are probably being underfed.
10. If animals have no interest in coming to the bunk when they are fed, they are probably being overfed, or there is spoiled feed in their bunk.
11. Bunks containing spoiled feed or "fines" should be cleaned out.
12. If fines are constantly a problem, the particle size of the corn is probably too small. Consider adding molasses, silage or other wet feeds to the diet to decrease the sorting of mineral and vitamin supplements.
13. Clean waterers are necessary to maximize feed intake.
14. Many of these rules also apply to self-feeders.

### **For Farm Fresh Calves That Are Not Trucked:**

Consider fence line weaning of calves to get them accustomed to eating from a feed bunk, and to minimize the stress of weaning.

Start the calves on feed at 1.5% of their body weight, and formulated to be 16-18% crude protein.

Start calves on 2.0 to 3.0 pounds/head/day of hay, and then top dress the concentrate mix. As calves consume more concentrate, back off the amount of hay fed to 1.5 to 2.0 pounds per day.

If they do not eat the mix, weigh back the uneaten feed. If the uneaten feed looks pretty similar to the original mix (no sorting), it can be re-mixed with new concentrate mix so that there is little feed wasted, but be sure that you consider the pounds of uneaten feed that you are re-feeding, and don't give them that plus the normal amount of new feed, or they will be fed too much.

Don't increase intake by more than .5 pound of concentrate/head/day, even if the feed is cleaned up in a couple of hours. Also, don't feed more than 2-3 pounds of hay/head/day. This concentrate feed is what allows rapid gains (not hay), but the cattle must be adjusted to the diet slowly.

Keep a feed record book with the daily amounts of concentrate offered, hay offered, concentrate refused, and hay refused. This is the only way to actually know intake. If the amount of refused feed is guessed and not weighed, the you won't know how much the cattle are actually eating. Once the calves are on feed, I would expect little or no refused feed. In a properly managed feed bunk, the calves should clean up the feed in approximately 20-24 hours.