

Guidelines for Feeding New Feeder (Receiver) Cattle

Newly received feeder cattle require special attention to minimize sickness and maximize intake and performance. Stressed cattle have reduced intakes, increased nitrogen/protein and electrolyte losses, and increased bacteria/viral challenges. Not only is their environment new, but the diet is often much different than previous diets and the target diet is often a high grain diet compared to the high forage diet of the past. The following are suggested feed management practices for new feeder cattle.

Dry Matter Content of Diets

Keep the dry matter content over 50%, preferably around 70%. Diets drier than 70% are acceptable as long as they mix well and maintain their condition and texture in the feedbunk. Wet diets reduce intake. Lighter calves are affected more than are heavier calves by wet diets. Wet diets also have a greater depressive effect on intake during hot or cold weather compared to moderate temperatures. Wet diets heat in the feedbunk during warm weather, so multiple feedings per day may be needed to avoid heating of feeds.

Energy Feeds

Cattle perform better on a 50 to 70% concentrate receiving diet (Table 1) that is low in starch but high in energy. Minimize the amount of starch (from grains) in the diet by using distiller's grains, corn gluten feed, soyhulls, or other low starch commodities which result in less ruminal acidosis and higher ruminal pH's (Figure 1). Corn and other grains should make up no more than 30% of the concentrate in receiving diets and corn can be fed whole to reduce acidosis problems. Dry commodities generally promote greater dry matter intakes in receiving diets than do wet commodities, provided the total diet has good condition and texture. Distiller's grains and corn gluten feed are also highly palatable feeds.

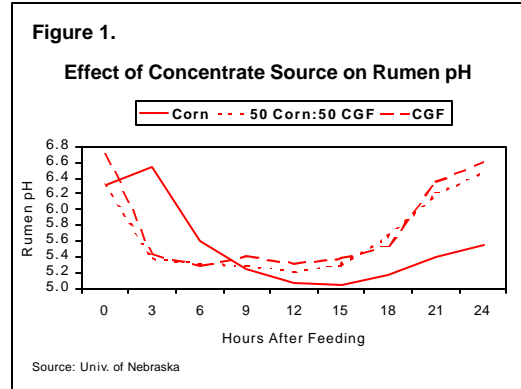
Table 1.

**Receiving Diets – Forage or Concentrate
(500 lb calves; 28 days)**

	Hay Only		75% Concentrate Diet		
	Millet	Alfalfa	Alone	w/Millet	w/Alfalfa
ADG, lb	1.21	1.67	2.72	2.81	2.51
DMI, lb/day	8.30	9.20	11.00	12.10	11.20
Feed/Gain	6.90	5.52	4.03	4.27	4.44

(Millet = 7% CP, Alfalfa = 17% CP, Conc. Diet = 15.6% CP)

Source: New Mexico State University



Forage/Roughage Sources

Palatable sources are as important as quality sources of forages. Sources that blend well and minimize sorting of mixed diets have advantages. Using free-choice dry hays the first 2 to 3 days followed by ground dry hay and/or silage in a mixed diet is a viable option. Coarse, low quality hay that is poorly consumed is not recommended. Leafy grass hays or legume hays that have small stems are premier options. Silage promotes the mixability of mixed diets. Corn silage enhances consumption; whereas, grass and legume silages do not.

Protein Levels and Sources

On a dry matter basis, 15% crude protein diets should be formulated for 700 lb calves and 17% crude protein diets for 500-lb calves. Because intake is depressed and nitrogen/protein excretion in the urine and manure is increased in newly received feeder cattle in the urine and manure is increased in newly received feeder cattle (Table 2), the protein content of receiving diets should be increased for the

Table 2.

Stress Increases N (Protein) Losses

	Healthy	Sick
N Intake, g	54.3	52.4
Fecal N, g	15.1	24.2
Urinary N, g	17.9	51.5
Retained N, g	21.2	- 3.3

Source: Texas A&M Univ.

first 14 to 28 days on-feed (Figure 2). Quality sources of by-pass protein are recommended and are cost-effective in small amounts in

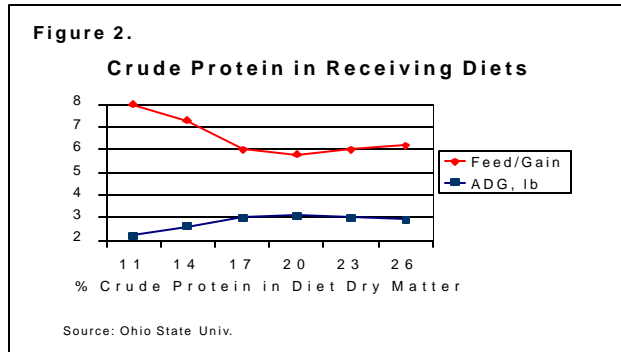


Table 3.
Adding By-pass Protein
(500 lb Calves; 28 days)

	<u>Gluten Feed</u>	<u>CGF + Bypass</u>
ADG, lb	2.00	2.27
DMI, lb/day	11.5	11.1
Feed/Gain	5.67	4.84

Source: Univ. of Nebraska

receiving diets (Table 3). A quarter to one-half ounce of urea should be supplemented, but higher levels are not recommended. Ruminally degraded sources of protein such as soybean meal, cottonseed meal, and corn gluten feed are needed to maximize ruminal microbial growth.

Minerals and Vitamins

The concentration of all minerals needs to be increased because of depressed intakes. Because some cattle entering the feedlot have depleted stores of several trace minerals, it is recommended that 15 to 25% of Zn, Cu, and Mn should come from organic sources. Potassium should be elevated to 1.2% of dry matter since it is a key electrolyte during periods of stress. Vitamin E should be supplied at 200 to 500 IU per head daily to improve the immune response. Thiamine should be elevated to reduce the chance of polio, which is an increased risk when cattle are acidotic.

Medication for Shipping Fever

Stressed cattle are more prone to respiratory infections such as pneumonia. Aureomycin® fed to provide 10 mg of chlortetracycline per pound of body weight and fed for the first five days after cattle are received is one of the most effective preventatives for shipping fever (Table 4).

Parasite Control and Prevention

Coccidiosis can be a problem in new feeder cattle. The ionophores, Bovatec® and Rumensin®, plus Deccox® and Amprolium® are all cleared as preventatives. If the problem is severe or a break occurs, Amprolium® is an effective treatment for coccidiosis. Feed-grade dewormers (Safeguard® and RumateI®) should be used after cattle are eating consistently (usually 2 to 3 weeks after the cattle have been received).

Microbial Additives

Current research demonstrates that yeast is a very effective microbial additive for elevating ruminal pH and reducing acidosis (Figure 3). The added gain (.1 lb/day) and improved feed efficiency (10%) more than pay for the cost of adding Diamond V "XP" Yeast Culture to the receiving rations (Source: Texas A&M Univ). Other microbial additives like *Lactobacillus acidophilus* and *Streptococcus faecium* reduce ruminal pH but to a lesser degree than yeast.

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