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Processing and Starting New Cattle on Feed

Michigan Beef Production

Michigan State University Extension Service

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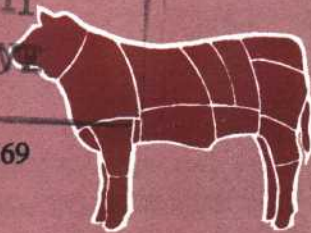
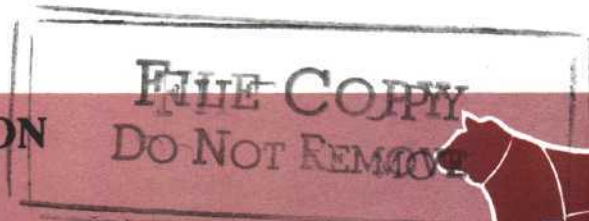
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Processing and Starting New Cattle on Feed

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Introduction

This fact sheet outlines a herd health and nutrition program for newly purchased cattle coming into the feedlot for the first time.

It is important to note that opinion varies on how feeder cattle should be processed.

Procedures that work well in one area or on one farm may not be the best for another. Consult your local veterinarian when planning a processing program.

This outline represents a maximum program that may be larger in scope than is needed by many cattle feeders in the Midwest. However, it is a program known to work.

For information on health programs for calves prior to sale, consult Fact Sheets 3050, 3200 and 3210.

Procedures on Arrival

HEALTH PRACTICES

1. When possible, receive cattle during daylight hours. Inspect cattle upon arrival for sickness and injury.
2. Have enough receiving pens to avoid mixing loads of cattle. Mixing new cattle with old dramatically increases the incidence of respiratory disease.
3. Process within 24 hours after arrival. Every 24-hour delay in processing increases sickness rate by 1%.
4. Handle quietly in groups small enough to avoid having cattle in the treatment area over 45 minutes.
5. Identify with readable ear tags to help detect sick cattle.
6. Even if cattle were processed at their point of origin, the following vaccinations are recommended:
 - a. IBR/PI₃ modified live vaccine.
 - b. To acquire quick protection from IBR/PI₃, consider an intranasal vaccination in addition to the intramuscular.
 - c. BVD killed vaccine.
 - d. Haemophilus somnus bacterin.
 - e. Clostridial bacterin.
 - f. BRSV modified live vaccine.
 - g. Pasteurella haemolytica toxoid (e.g., Presponse).
7. Grub and lice control (depending upon the time of year and previous history).
8. Deworm (depending upon origin—consult your veterinarian about the best products to use).
9. Implant with growth stimulant.
10. Do not shut calves in poorly ventilated buildings. Calves have fewer respiratory

problems if left outside with a dry bed underneath them.

11. Check cattle two or three times daily for sickness. Pull out, treat and isolate cattle that are ill. Early detection and treatment is critical in order to minimize death loss.
12. Know how to detect sick cattle:
 - a. Failure to come to feedbunk; standing alone.
 - b. Slow gait, knuckling over on fetlocks.
 - c. Drooping ears.
 - d. Extended head.
 - e. Dry, red nose.
 - f. Heavy nasal discharge.
 - g. Increased respiratory rate; heavy breathing.
13. Plan of action for treating sick calves (M.S.U. Beef Cattle Research Center):
 - a. Record rectal temperature; treat and isolate those with temperature of 104° or higher.
 - b. Switch antibiotics if improvement is not seen in 48 hours.
 - c. Treat for a minimum of 3 days and a maximum of 9 days.
 - d. Give a vitamin B₁₂ injection to cattle not eating well for more than 7 days
14. If sickness rate is high, mass medication of all calves may be of benefit. In an Oklahoma study, treatment with LA-200 and long-acting sulfa decreased morbidity

from 33% to 14% and reduced death loss cost from \$22 to \$15 per head.

OTHER HEALTH/CONSIDERATIONS

1. Whenever possible, unless the drug label specifies the intramuscular route, give injections underneath the skin (subcutaneously) to avoid muscle lesions. This is especially true for clostridial bacterins and certain antibiotics. An ideal location for subcutaneous injections is the neck region.
2. Records: A successful receiving program should incorporate an accurate record system. The system should include at least a pen treatment record. This record should ideally include the in-weight and specific products used in the receiving schedule. This same pen treatment can then be used to identify individual calves pulled for treatment, drugs used, and the response obtained. As safety and quality assurance become more important, so will accurate records.

STARTING ON FEED

1. Start cattle on top quality grass or mixed grass-legume hay.
2. Feed the receiving diet on second day by sprinkling it on top of hay. Gradually decrease hay and increase the

receiving diet until the desired level is reached.

3. Research suggests that the concentrate level of the receiving diet should be a minimum of 30% and a maximum of 75%.
4. Make feeding times consistent to avoid digestive upset.
5. To maximize intake, keep bunks clean of manure, stale feed, silage trash, etc.
6. At least 50% of the supplemental protein should be preformed protein until calves are 600 lb or more. After 600 lb, NPN can be used as the sole supplement source.
7. According to a 27-trial research summary, feeding AS-700 for 3-4 weeks tends to improve weight gain and reduces morbidity. Feeding chlortetracycline or oxytetracycline at the rate of 2 grams/head/day for 3 to 5 days is less expensive and has been shown to give comparable results.
8. If coccidiosis is apt to be a problem, add a coccidiostat to the diet (Deccox, Corid, Rumensin, Bovatec, etc.).

Procedures 2 to 4 Weeks After Arrival

HEALTH PRACTICES

1. Finish these practices not accomplished on arrival:
 - a. Castrating.
 - b. Dehorning.

- c. Grub and lice control.
- 2. **Booster shots:**
 - a. IBR/PI₃ modified live vaccine.
 - b. BVD killed vaccine.
 - c. Haemophilus somnus bacterin.
 - d. Clostridial bacterin.
 - e. BRSV modified live vaccine.
 - f. Pasteurella haemolytica toxin.

FEEDING PRACTICES

1. By now the cattle should be eating 2.2 to 2.75% of body weight daily in dry matter (e.g., 500 lb. calf = 11.0 to 13.75 lb. dry matter per day).
2. Remove medicated feeds from ration.

FEEDBUNK MANAGEMENT TIPS

1. Don't allow feed to pile up from feeding to feeding. If this goes on for very long, dry matter (DM) intake and performance decline because the feed mass becomes stale and/or spoiled. Leftover feed that becomes moldy creates a reservoir for microorganisms and thereby increases the rate of fresh feed deterioration.
2. If, for some reason, feed builds up and becomes stale, don't force cattle to eat it. It's less costly to clean the stale feed out and discard it; feed it to growing cattle that are not on full-feed or to

mature cattle on a maintenance program, such as beef cows in early or mid pregnancy. However, if mold is visible, do not offer it to pregnant females.

3. For maximum DM intake, have fresh, palatable feed in front of the cattle 24 hours a day. Generally, performance is not affected if the feedbunk is slick for up to 1 hour a day. If it goes much longer than 1 hour on a high-energy diet, there is risk of overeating, acidosis and irregular eating patterns.
4. If fine or heavy ingredients such as soybean meal or minerals are added to a complete mixed ration, make sure they don't settle to the bottom of the bunk where they may not be eaten. This happens when such supplements are mixed with coarse ingredients like whole shelled corn or chopped dry hay. To ensure a uniform diet, moisture should be added to the mix in the form of silage, wet brewers grains, molasses, water, etc. Furthermore, when mixing, add heavy materials last, such as minerals, to avoid overmixing and settling to the bottom.
5. Avoid wide swings in moisture content and ingredient make-up. Extreme variation in diet composition reduces performance and may result in digestive upset.
6. Clean out any foreign matter that is apt to reduce intake or

increase spoilage. This includes manure, snow, ice, water, and coarse materials such as large cobs, stalks, stems, etc.

7. **Self-feeders.** Those who successfully use self-feeders probably spend as much time checking feeders as those who use conventional bunks. Factors that are even more critical for self-feeders are: (1) moisture content (not over 14%); (2) uniform physical texture to avoid separation of fines; and (3) regular removal of stale and caked feed. These problems are minimized if the ration is composed of dry, whole shelled corn and a pelleted supplement, a diet commonly used in Holstein steer feeding programs.
8. Know how much daily DM that full-fed cattle should consume. This is often expressed as a percent of body weight. This percentage declines as cattle become older and heavier. Table 1 is a guide to maximum daily DM intake. Intake varies according to body condition, age when started on feed, climate, palatability, and moisture content of the diet.
9. Check waterers each day to ensure they are functioning properly. Cattle crowding around a waterer may indicate a problem. If this situation arises, check for stray voltage, dirt and manure in waterer, frozen water, etc.

Table 1. Expected Maximum Daily Dry Matter Intake*

Body wt.	Cattle started on feed as calves		Cattle started on feed as yearlings	
	lb/day	% of body wt.	lb/day	% of body wt.
300	9.0	3.0	---	---
400	10.9	2.7	---	---
500	12.9	2.6	14.2	2.8
600	14.8	2.5	16.3	2.7
700	16.9	2.4	18.3	2.6
800	18.3	2.3	20.2	2.5
900	20.0	2.2	22.0	2.4
1000	21.4	2.1	23.8	2.4
1100	22.3	2.0	24.9	2.3
1200	22.9	1.9	25.8	2.1
1300	---	---	26.1	2.0

*Adapted from Fox and Black (1981).



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