



BEEF CATTLE TIME

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Small Grain Pastures, Excellent Feed for Backgrounding Calves

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Many cow-calf producers will soon be deciding whether their calves will be marketed or held over until next spring. Hanging on to the calves may result in higher prices and bigger calves, but making this marketing alternative profitable depends on having a good, economical source of feed during the winter. One of the best ways to do this is by grazing feeder calves on small-grain pasture. Not only is it an excellent pasture to graze calves, it also can be used as a supplement for lactating beef cows. A wheat-and-crimson clover pasture can provide very nutritious grazing for cows and calves during the winter.

Following are some factors to consider in developing economical and effective forage and cattle-grazing programs.

(1) Planting method. Both conventional and no-till methods of planting can be used. Both depend on the reduction of competition from existing vegetation. For successful no-till planting, this vegetation must be killed chemically with a herbicide. Seeds should be placed between $\frac{1}{4}$ and $\frac{1}{2}$ inch deep in the soil. No-till plantings have shown less winterkill and a firmer base for winter grazing than conventional planting.

(2) Planting dates. For fall grazing, seedings should be made early. Rye, which produces the earliest fall grazing, should be planted August 15 to October 15. Wheat should be planted September 1 to October 15. Adequate moisture is essential for stand establishment. Including ryegrass in the mixture will produce grazing later into the spring. The earlier seeding dates are recommended, because plantings made after October 1 usually produce little fall grazing.

(3) Seeding rates. If fall grazing is needed from wheat or rye, two bushels per acre should be used

with 10 pounds of crimson clover. If fall grazing is not needed, then seeding rates can be dropped back to $1\frac{1}{2}$ bushels per acre. Fifteen pounds per acre of ryegrass can be added in place of $\frac{1}{2}$ bushel of the small grain to provide grazing later into the spring. Check with your local Agricultural Extension Service office for recommended varieties.

(4) Fertilization. Be sure to take a soil test to determine if there is a need for lime, potash or phosphate. Information from a soil test will provide assurance that the establishment and production of the pasture will not be limited by low nutrient levels or that money is not wasted by excessive application of fertilizer. Small-grain pastures are highly responsive to nitrogen fertilizer. Apply 30-45 pounds of nitrogen per acre at planting, and then 30-45 pounds nitrogen per acre on March 1. If ryegrass is included in the mixture, add another 30 pounds of nitrogen per acre on May 1.

(5) Grazing management. Harvesting the forage by grazing generally results in a large amount of waste, due to trampling and rejection of forage around manure piles. The amount of waste can be decreased if animals are confined to a small area of the pasture, called a paddock, and then rotated to another area when all of the forage in the first paddock has been consumed. Grazing should begin when the forage is approximately 8-10 inches tall. The animals should be removed when plants are grazed down to about 3 inches. Electric fencing can be used to divide a large pasture into several paddocks, with paddock size adjusted so that three to seven days are required to graze it down. After the animals are rotated, the paddock should be clipped to remove any rejected areas that have become mature.

Small-grain and ryegrass pastures provide high-quality grazing during the fall, winter and spring to calves and cows. Whether planted to 100 acres or five acres, the high nutrient content of these forages can provide excellent performance from any group of cattle, but is especially effective for grazing young, light-weight feeder cattle.

Ten Suggestions for Improved Feeder Cattle Production and Marketing

*James B. Neel, Professor
Animal Science*

Production of feeder calves is the primary beef production system in Tennessee and the Southeast and the greatest source of agricultural income. However, a large number of producers are “leaving money on the table” by taking the path of producing what is the easiest, marketing when it is the most convenient and taking whatever price is offered for their feeder cattle.

Following are proven ways Tennessee cow-calf producers can add value to their feeder cattle if they are carried out from a “total management” standpoint. This means that the practices are part of the management package and **all** need to be done.

1. Develop a marketing plan with 10 to 12 other producers in the area (a feeder-cattle marketing alliance) that will result in the marketing of 50,000 lb. load lots of healthy, uniform feeder cattle. This cooperative effort needs to start 18-24 months before the proposed marketing date, and takes effort, cooperation and becoming a “team player.”

2. Develop a breeding program, similar to other members of the alliance, to produce feeder cattle that are uniform in genetic composition. Again, the target is 50,000 lb. loads of uniform feeder cattle. This program also should be in effect at least 18 months before marketing.

3. Select and use herd bulls to sire calves that will excel in production traits, gain, feed and efficiency as well as carcass traits, and that will meet the needs and be of value to the remaining sectors of the industry. These sires should be of the same genetic makeup as sires used by other producers in the feeder-cattle marketing alliance. This will help to develop genetic uniformity of the calf crop. See items No. 1 and 2.

4. Develop and maintain a short calving season. This calving season should coincide with that of the other producers in the marketing alliance. This will aid in developing and maintaining uniformity in age and weight of the feeder cattle. It will also add to uniformity as to the time frame when the health and management practices can be implemented. This adds value to the cattle if the buyers are informed as to when the practices were done and the brand(s) of health products used.

5. Develop and carry out a uniform health and management program for the calf crop that includes weaning, bunk breaking and feeding for a period of 45 days. All producers in the alliance should follow the same program, such as the same animal health and feeding program. Uniformity in health practices is essential.

6. Carry-out those simple, time-proven, economically important practices such as castrating, dehorning, implanting, deworming and controlling flies. All of

these add value to the feeder calves and all can be done more easily when a definite calving season is in place.

7. Become a Beef Quality Assurance (BQA)-certified producer. All producers of the alliance should be BQA-certified. Sale results demonstrate the positive effect of BQA certification on the price of feeder cattle when combined with the total package of marketing and production practices.

8. Guarantee all heifers open. This is so simple and easy to do. Also, guarantee that all “steers” are steers. Surgical castration assures “no bull” in both of these situations.

9. Provide source-verified information on health, previous management and genetics on the calf crop to buyers. Verify and stand behind it. The use of electronic identification would be an aid in verification.

10. Work with a professional, bonded marketing agency to aid in advertising, promoting and marketing as well as handling the sale, receiving and guaranteeing payment for the calves. A marketing agency can also help in weighing and loading out the cattle and resolving any weigh-up problems. This is important

The goal is to produce and market 50,000 lb. lots of uniform feeder cattle. Under Tennessee conditions, this will involve a cooperative effort of 10-12 producers that results in combining 250 cows. This would allow the putting together 200 feeder calves that weigh 500 lbs. each. It is assumed that one-half would be steers and the other half heifers. This would also provide opportunity to “shape” up the load from a weight and quality standpoint and put together a load of valuable feeder cattle.

The Creep Feeding and/or Weaning Decision

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What is the real value of added weight on a feeder animal worth?

The selling price? Wrong! Only when there is no discount for heavier calves is the added weight equal in value to the selling price. In most instances, except when feed costs are very high (remember 1996), heavier feeder calves or yearlings sell for less per pound than lighter cattle.

This results in the added weight being worth less than the selling price, because the initial weight gets discounted, as well as the added weight. The net effect is that the value of the added weight is worth something less than the selling price.

In early July, some areas of the state were quite dry. Some producers were even feeding hay, while others were considering marketing decisions. Creep feeding or possibly weaning are alternatives for adding weight to calves when grass is less available. Yes, both are some trouble and both involve some additional out-of-pocket

expense. However, if equipment and facilities are available, producers might carefully evaluate these alternatives with that of marketing lighter weight calves.

Regardless of what practice is being considered to make the calves heavier, it is important to accurately evaluate what the added weight is worth. It varies with the price level and the size of the discount of the heavier calf. For example, in the last week of June, M-1 steers weighing 400 to 450 averaged \$86.64, or \$368.22 per head with a mid-point weight of 425 pounds. Calves weighing 450 to 500 pounds averaged \$85.08, or \$404.13 for 475-pound calves, and those weighing 500 to 550 averaged \$82.38, or \$432.50 per head for 525-pound calves.

By taking the difference in total value and dividing by the added weight, you can find the value per pound or hundredweight of the added weight. In this case, the first 50 pounds is worth \$71.82 per hundred and the addition of 100 pounds to the 425-pound calf is worth \$64.28. If this weight can be added at a cost per hundred of less than \$64.28, then you might conclude that it would pay to add the additional weight. For a look at other years or the most recent prices, check the UT Ag Economics Website at www.economics.ag.utk.edu and go to the marketing section, or you may contact your county Agricultural Extension Service agent.

In evaluating creep feeding, you need to compare the prospective **value** of this added weight with the **cost** of the added weight. Table 1 contains a guide to feed cost per pound of gain at varying costs of feed and feed efficiencies. Feed efficiency will vary with individual conditions, such as the cow's milking ability and pasture conditions. Under average conditions during the spring and summer, 10 to 12 pounds of creep feed are required to produce an additional pound of gain above that of calves not creep fed. As can be seen in Table 1, feed costs per pound of gain range from 45 to 96 cents at these feed efficiencies, with feed costs ranging from 4.5 to 8 cents per pound.

Some slight improvement in grade is possible with creep feeding, but if it is solely fat or flesh, the price may be discounted, especially in the spring. Some other additional costs may be incurred for equipment and labor, whether creep feeding or weaning.

The weaning decision is a major one in that greater expense will be incurred for feed, and animals need to be properly prepared and managed to avoid sickness and loss of weight. Weaning might be part of a marketing program, but do not expect any added value if marketing calves as singles or small groups. Calves need to gain 80 to 100 pounds in 45 to 60 days to offset feed and health costs. It generally takes five to seven pounds of feed to produce a pound of gain on weaned calves. University of Tennessee demonstrations have shown that much of the gain in a post-weaning period occurs during the last 15 days of a 45-day weaning period. It helps the adjustment process if calves can learn to eat feed before weaning.

Following weaning, calves then go on feed much quicker and eventually work up to up 2 percent of their

body weight per day. Calves should not be fed longer than 60 days at this rate to avoid founder or other digestive problems. In addition, a longer feeding program would probably result in fleshy calves that would be discounted in the market.

So remember, do not assume that added weight on calves from creep feeding, weaning or some other management practice is simply worth the current selling price. Take a look at market prices and determine for yourself what it is worth. Then compare it to the cost of gain to make your decision.

Table 1
Feed Costs Per Pound of Grain at Various Feed Costs and Feed Per Pound of Gain

Feed Price Per Pound	Feed Required Per Pound of Gain						
	6	7	8	9	10	11	12
	Cost Per Pound of Gain (Cents)						
4.5	27.0	31.5	36.0	40.5	45.0	49.5	54.0
5.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0
5.5	33.0	38.5	44.0	49.5	55.0	60.5	66.0
6.0	36.0	42.0	48.0	54.0	60.0	66.0	72.0
6.5	39.0	45.5	52.0	58.5	65.0	71.5	78.0
7.0	42.0	49.0	56.0	63.0	70.0	77.0	84.0
7.5	45.0	52.2	60.0	67.5	75.0	82.5	90.0

Monitoring Mineral Consumption of Beef Cow-calf Herd

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It is important for producers to monitor mineral supplement consumption by the beef herd, especially if mineral-related problems are suspected. Adequate consumption may also aid in preventing problems.

Problems related to mineral consumption may include sudden death of nursing cows (possibly related to magnesium deficiency, grass tetany) or slow breeders (possibly related to copper deficiency, possibly complicated by sulfur, molybdenum or excess iron).

Commercial mineral mixtures typically have suggested consumption rates printed on the label. If consumption is not within the desired range, problems may occur.

The attached mineral consumption record form could be useful for monitoring consumption of mineral supplements. If consumption is more or less than desired, it may be necessary to discuss the problem with your Extension agent or your feed dealer.

Consumption is particularly critical if the supplement is medicated. Medications should typically be delivered at specific levels. Significant variation from recommended consumption may have negative performance effects.

