



# FEEDER CALF PRODUCTION

*in Kentucky*

By G. D. PENDERGRASS, A. R. PARSONS and  
W. P. GARRIGUS

**CIRCULAR 554**  
(FILING CODE 2-1)

UNIVERSITY OF KENTUCKY  
COLLEGE OF AGRICULTURE  
COOPERATIVE EXTENSION SERVICE

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PRODUCTION  
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UNIVERSITY OF KENTUCKY  
DEPARTMENT OF ANIMAL HUSBANDRY  
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# Feeder Calf Production

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Beef cattle production for many years has been an important business in Kentucky because nutritious pastures and the general topography make for a natural grazing area. Kentucky also has the advantage of mild winters and long grazing seasons which are necessary for economical beef production. Livestock producers have found that beef cattle production permits good land use, maintains soil fertility, and promotes a profitable and permanent type of agriculture.

The emphasis in beef cattle production in Kentucky is changing from the grazing and feeding of mature steers to a cow-calf method of production. This is due, to a large extent, to the competition from the Far West for feeders produced in the range states. Cornbelt cattle feeders have been turning to the South as a source of feeder cattle, and Kentucky, Tennessee, and Virginia provide the largest numbers of these calves. It is apparent that this area is going to become an increasingly more important source of feeder cattle because of its many production advantages. A growing demand for younger cattle of more quality and a desire to reduce the risk of short- and long-range market price changes have helped bring this trend about.

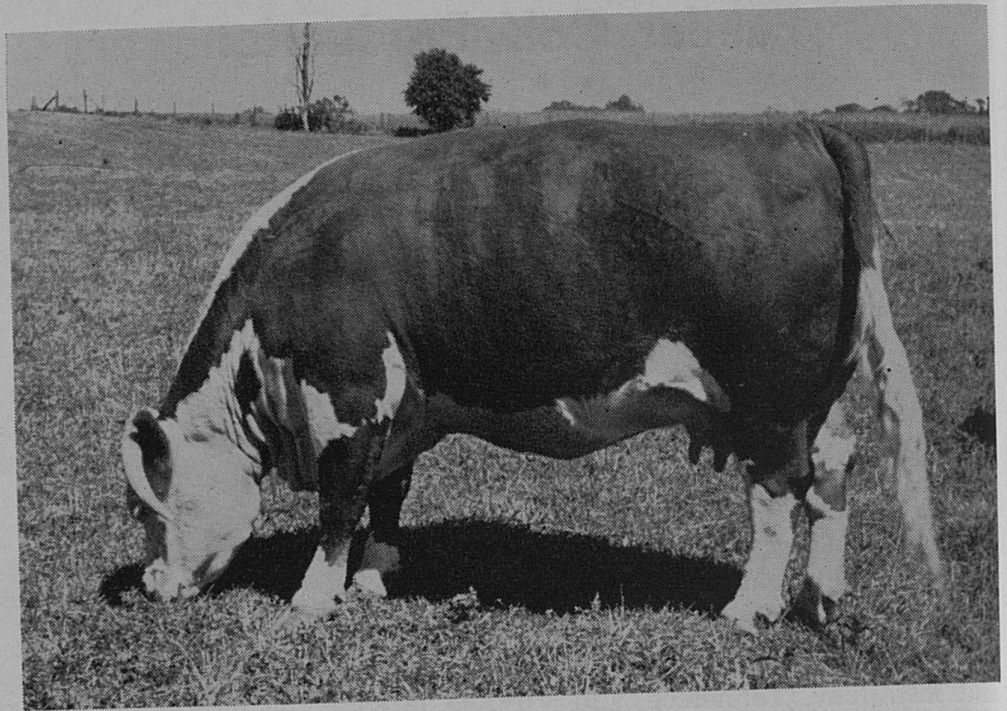
Farmers have found that the establishment of a beef cow herd is an efficient method of using available pastures in the production of feeder calves. Many Kentucky farmers are still doing only a fair job of producing quality feeders at a profit because of poor breeding, feeding, management, or marketing practices.

## SELECTING OF BREEDING HERD

### Selecting of Breeding Cows

Cows for producing high quality feeder calves should be of high grade to purebred breeding from one of the recognized beef breeds, and should give enough milk to raise a good calf. Cows of dairy breeding are not suitable for feeder calf production. Calves from such cows after weaning tend to revert and show dairy type.

Breeding cows should have natural fleshing, early maturity, and easy fattening quality to a marked degree, as well as being of true beef



**Fig. 1.—** A cow of beef type, wide and blocky in conformation, with thickness and smoothness of flesh.

form. Certain sexual characteristics and a vigorous constitution are also important. Brood cows should show general refinement and femininity throughout. The head should be wide and short, and the body conformation should show length, width, and depth, with the pelvic region and the pinbones wide apart. Milking quality should be emphasized by selecting cows with good udder and teat development. An adequate flow of milk gives the calf a good start and means a heavier calf at weaning time.

Buy uniform cows of producing age and then select a bull that will mate well with them. Another method is to buy young, open heifers and grow a brood cow herd.

### **Selecting the Breeding Bull**

Selection of the bull is very important since the bull provides half of the inheritance for all of his calves. Choose a purebred beef-type bull that is larger than average, thick, and distinctly masculine in appearance; also one that shows evidence of being active and energetic. In selecting a beef-type bull, size, ruggedness, muscling, bone, masculinity, performance record of his ancestry, pedigree, freedom from disease, age, reputation of the seller, and the cost are items that must be considered. If possible, check the performance of several bulls with



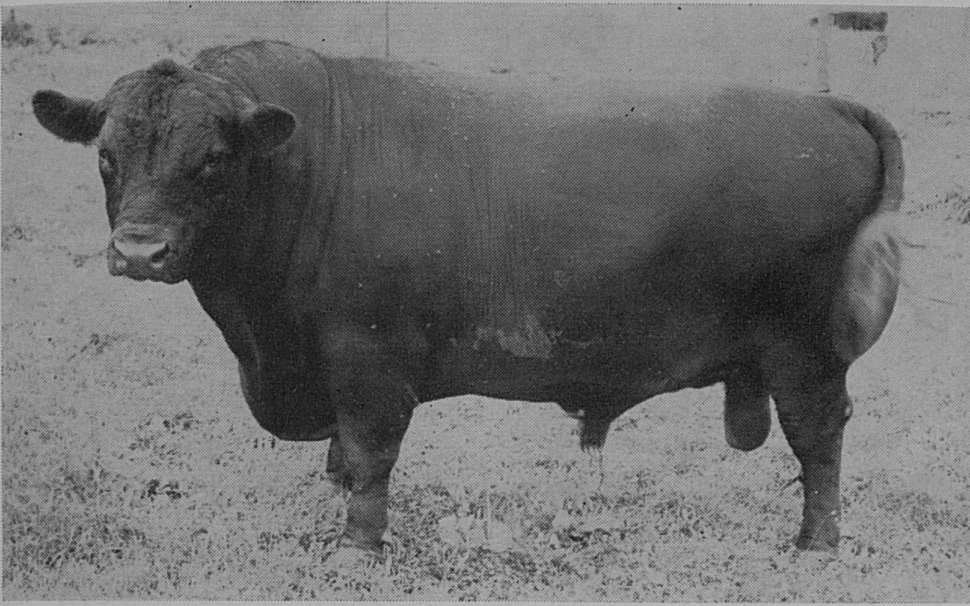


Fig. 2.— A good beef bull that is thick and which will sire calves of the right type.

regard to rate of gain and feed conversion, and only the superior performers considered.

### Selecting Heifer Replacements

Heifers to be retained in the herd should be carefully observed from the time of birth until they have reached breeding age. Only calves from the good milking and regular breeding beef-type cows should be kept. The calf should be large when born and should continue to develop rapidly until she is selected for breeding.

An animal for replacement must conform to the desired type that already is in the herd. Size, early maturity, strength of constitution, and vigor should not be overlooked.

## WINTER FEEDING PROGRAM

### Wintering Brood Cows

The beef cow is naturally a grass and roughage consumer; therefore, in winter she will utilize stover, cereal straw, silage, hay, and gleanings from stubblefields. Beef producers should harvest and store the better quality roughages for use after the poorer roughages have been used up. One of the largest wastages on the Kentucky farm is the large amount of stover and cereal straw now left in the field. These crop residues contain large quantities of feed nutrients and could be used most advantageously.



Fig. 3.— Replacement heifers should be growthy and of beef type.

Modern labor-saving methods and the new knowledge of balancing rations warrant reconsideration of these products for feeding beef animals. Such feeds are best suited for wintering the cow herd. Pregnant beef cows getting plenty of high quality roughages need no grain or supplement of any kind to perform their functions; thus, grain may be used for other income-producing purposes.

Weather and the condition of the breeding female are guides to fall and winter management of the brood cow herd. The winter feeding program ordinarily will begin around the middle of November; however, this could vary up until January 1. Keep cows out of the barn and utilize the roughage in cornfields and cutover meadows, feeding additional roughage as required. The brood cow herd should be in good flesh at the beginning of the wintering period. Plenty of good hay to provide protein, vitamins, and minerals is the chief concern. Grass silage and good legume mixed hay should provide the bulk of the wintering ration. The use of some corn stover and/or cereal straw is warranted in late fall and early winter when some grazing is still available and reserves of vitamins, protein, and minerals are still high. The average winter feed per cow will be approximately 1 ton of good legume hay and about  $\frac{3}{4}$  ton of cheap roughage such as straw, stover, or grass hay.



As an aid in determining how much air-dried feed to give a cow each day, the following rule of thumb may be useful:

When feeding a pregnant cow in average flesh, divide the cow's weight by 100 and multiply the answer by two. For a thin cow, divide the cow's weight by 100 and multiply the answer by 2.25. An example follows:

$$\frac{1000}{100} = 10 \times 2 = 20 \text{ pounds of hay each day for a 1000-lb. cow.}$$

Protein requirements of beef cows on wintering rations may be summarized as follows:

(a) Brood cows before calving, 1 pound of protein per head per day or 4 pounds of legume hay.

(b) Brood cows after calving, 1.25 pounds of protein per head per day or 5 pounds of leafy legume hay.

Good legume hay will adequately meet most of the protein requirements of beef cattle. Remember, 4 pounds of good legume hay will replace 1 pound of protein concentrate (cottonseed, soybean and linseed meal) in wintering and growing rations.

Undersized heifers and thin older cows need a little grain just before calving and until good pasture is ready. Usually, 4 to 6 pounds of grain is adequate.

TABLE 1

**Suggested Wintering Rations for Pregnant Cows in Average Flesh**

|   |   |
|---|---|
| <b>Ration 1</b><br>Grass-legume silage<br>*Straw of low quality grass hay     | <b>Ration 3</b><br>Full feed grass hay<br>4-6 pounds of legume hay      |
| <b>Ration 2</b><br>Winter pasture or stalk fields<br>4-6 pounds of legume hay | <b>Ration 4</b><br>Full feed grass hay<br>One pound protein concentrate |

\* Straw can furnish approximately  $\frac{1}{2}$  of the dry matter in the rations for dry cows.

**Suggested Rations for Cows After Calving**

|  |   |
|--|---|
| <b>Ration 1</b><br>Corn silage<br>(Start feeding about 20 pounds and increase up to about 40 pounds) | <b>Ration 2</b><br>Full feed grass legume silage<br>*4-6 pounds grain |
|  | <b>Ration 3</b><br>Full feed legume hay<br>*4-6 pounds grain          |

\* Added to stimulate milk flow during winter months before cows and calves are turned to spring pasture.

**Suggested Wintering Rations for Replacement Heifers**

|   |   |
|---|---|
| <b>Ration 1</b><br>Full feed grass legume silage*<br>4 pounds grain | <b>Ration 2</b><br>Full feed legume hay<br>4 pounds grain |
|---|---|

\* It is advisable to feed about 4 pounds of dry hay or straw each day to aid in the efficient utilization of the silage.

### **Winter Management of Bulls**

The proper time to condition bulls for the next breeding season is during the winter months. A ration composed largely of homegrown grains that are growth-producing rather than fattening will be found best for bulls. For example: equal parts by measure of crushed oats and bran make a good basic ration to which corn may be added if only a marked improvement in flesh is desired. Animals that are in a rundown condition and lack thrift should have from 1 to 2 pounds of linseed oilmeal, soybean oilmeal, or other protein concentrate per day. Mature bulls already carrying sufficient flesh may be wintered largely on choice roughages such as a legume hay and silage. Breeding bulls should never be allowed to get overly fat since this tends to impair their breeding efficiency.

### **The Pasture Period**

Over most of the Kentucky area, pasture of some kind can be counted on to carry the breeding herd for 8 to 9 months of the year.

Most beef producers allow from 2 to 3 acres of permanent pasture for each cow and calf; however, this area can be greatly reduced even on rough land by disking in fertilizer and reseeding with improved grasses and legumes that are well adapted to local soil and climatic conditions. Consideration should be given to temporary pastures and also to rotational grazing. Establish pastures to give as nearly year-around grazing as possible and to reduce labor and other costs.

During periods of drouth give the cows additional feed to supplement that furnished by the pasture, sudangrass, grass silage, and the like are excellent to supplement inadequate pastures.

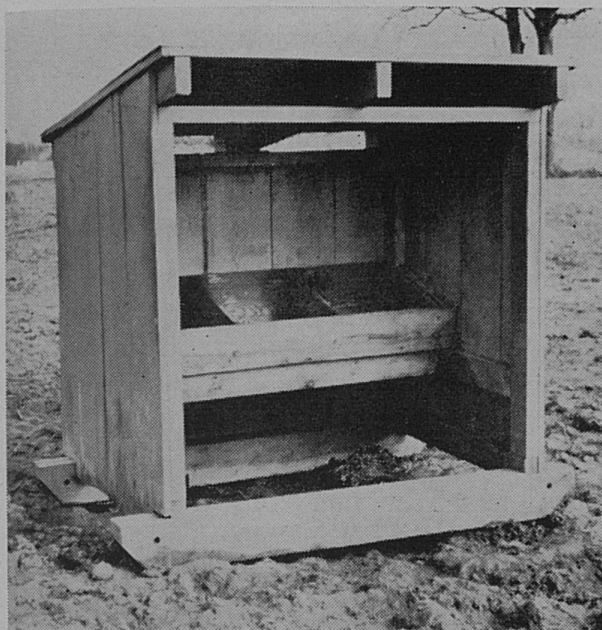
### **Shade and Water**

Many Kentucky pastures are entirely without shade. Fifteen to 20 square feet of shade should be allowed for each cow and calf. Water tanks should be kept filled with fresh, clean water, and the tanks should be emptied and thoroughly scrubbed at least once a month during warm weather to prevent the growth of algae. Ponds are disease spreaders, especially when the cows are allowed to wade in and drink from them. Fence off your pond and pipe the water to troughs as a means of reducing contamination and spreading of disease. Remember also that covered tanks provide cooler water than tanks left open to the sun.

### **Minerals**

Salt is the most critical of all the minerals, and should be fed to cattle at all times. The average animal will consume approximately a tenth of a pound of salt per day or about 3 pounds per month. It also





**Fig. 4.— A practical salt and mineral feeder.**

is advisable to keep bonemeal and ground limestone before the cattle at all times.

A plan for a mineral feeder can be obtained from the Department of Agricultural Engineering, University of Kentucky, Lexington. The number of this plan is Kentucky-11-77214.

### **Fly and Lice Control**

Flies are a problem in the breeding herd and there are a number of methods that can be used for their control; one is by using a spray containing insecticides such as DDT, methoxychlor, lindane, or chlordane. A more practical method for the control of flies would be a back rubber as shown in Extension Miscellaneous Publication 84, "Control of Horn Flies and Lice on Beef Cattle." This device requires less labor than any other method of controlling flies and also is effective for controlling lice during the winter and early spring.

## **MANAGEMENT OF THE CALF CROP**

### **Calving Time**

Be on hand at calving time. This is when the year's planning, expenses, and profits are all at stake. A lost calf means the cow produces no income that year. When a cow nears calving time, the udder becomes enlarged, there is a relaxation of the pelvic ligament which causes a sinking about the hips, the pinbones are farther apart, and the vulva becomes enlarged. Occasionally, a cow will drop a calf early and will not show the ordinary symptoms of approaching parturition.

If weather and facilities permit, cows and heifers due to calve should be separated from the regular herd and placed in grass maternity lots. In cold weather, dry well-bedded shelter should be provided.

Most cows need little or no assistance with calving. Leave the cow alone unless it is apparent that help is needed. If a cow has not calved within 4 or 5 hours after the onset of labor, it is advisable that an examination be made. Normally, the calf's front legs will appear first with its head resting on these legs. If the presentation is normal and the cow has difficulty in calving, assistance may be given by pulling the calf gently out and down. This should be done only while the cow is straining. If the presentation is abnormal, it is best to get the assistance of an experienced herdsman or veterinarian.

After calving, remove any mucous that may obstruct the normal breathing of the calf. A weak, apparently lifeless calf at birth can often be revived by sharply slapping its chest or blowing into its mouth or nostrils after the adhering mucous membranes have been removed. A vigorous rubdown with an old burlap sack will help a chilled calf. Weak calves should be assisted in nursing during the first day following birth. If the calf nurses and has a bowel movement soon after birth, it probably will be all right.

The navel cord of all calves, and especially those born in barns, sheds, or permanent barnlots, should be treated with tincture of iodine or metaphen. During the screw worm or fly season, either Smear 62 or EQ 335 should be applied. After calving, the cow needs no special attention except to see that she has expelled the afterbirth and if this has not been accomplished within 36 to 48 hours it should be removed either by an experienced person or a veterinarian. A high percentage of retained afterbirths may be a sign of brucellosis or Bang's disease.

Many calves that are dropped late in the spring after the cows are on good pasture, or from cows with marked dairy tendencies, are unable to consume all the milk produced by their dams. Milking out swollen quarters and careful observation from day to day for the first week or two will help save udders from spoiling.

### **Castration**

Castrate bull calves when they are 30 to 60 days of age. Delay to an older age makes the task more difficult, the risk greater, and a staggy appearance of the animal is more than likely to develop.

There are several methods of castrating. The knife method is positive and safe if you observe careful cleanliness. Some cattlemen prefer to cut off the lower third of the scrotum and remove the testicles. Others prefer to slit the scrotum up and down on the sides next to the





**Fig. 5.**— The knife method of castrating bull calves.



**Fig. 6.**— The Barnes method of dehorning may be use on horns up to 3 inches in length.

legs. Make sure the cuts are low enough to insure thorough drainage. Use a good disinfectant to clean the knife, hands, and scrotum before beginning each operation. Provide clean quarters for the calves or leave them out on pasture, if possible.

The elastrator or rubberband is a device which some people think is easier to use. The band is stretched by an instrument and slipped over the scrotum above the testicles. The band will contract and stop circulation, apparently with a minimum of pain. The lower part of the scrotum will dry up and drop off within 4 or 5 weeks.

Another method uses an instrument that pinches the cord and leaves the testicles in the scrotum where they are absorbed. The clamping (Burdizzo) method is not satisfactory in the hands of an amateur. Too many times the cords are not completely severed and a "slip" occurs which results in staggy calves. Staggy feeder calves are discounted by feeder calf buyers and sell for less when fattened as steers.

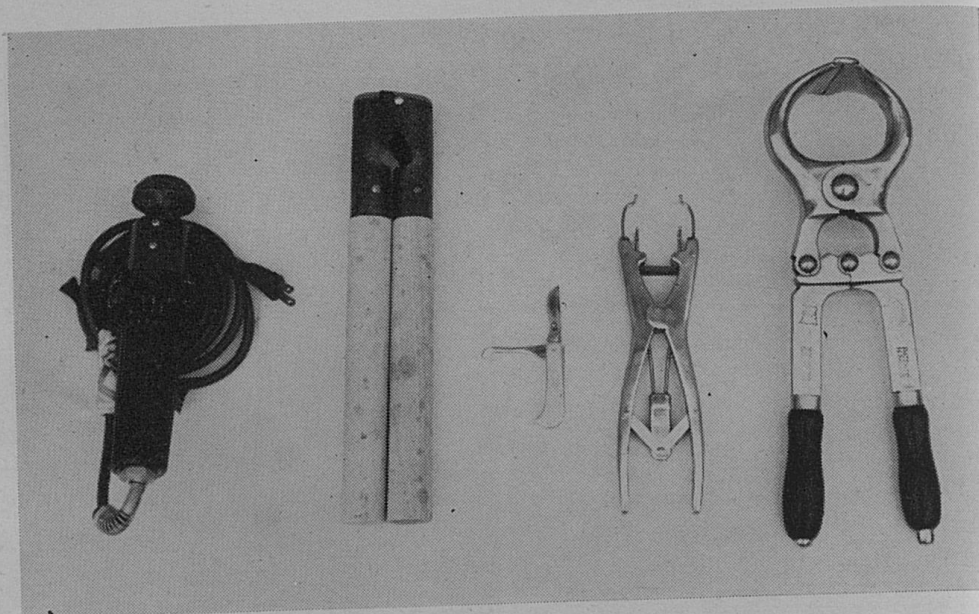


Fig. 7.— Equipment used in dehorning and castrating beef animals. (Left to right) Electric dehorner, Barnes dehorner, knife, Elastrator, Burdizzo clamp.

### Dehorning of Calves

Cattle feeders pay about 50 cents per hundredweight more for dehorned cattle than for similar cattle with horns at 6 or more months of age. Loss of time and feed and the risk involved in dehorning older cattle make this difference to buyers of feeder cattle. Horns may be removed at any season of the year with proper precaution at fly time and treating the wound with Smear 62 or EQ 335. For best results with feeder calves remove the horns at an early age. At that time, the blood vessels are small and the calves will lose less blood. Horns up to approximately 3 months of age are nothing more than appendages and have not become attached to the skull. Choose a method of dehorning and learn the technique by using it. None of the common methods are difficult to use or require expensive equipment.

Dehorning calves with caustic stick is done when calves are under 10 days of age. Clip the hair around the horn buttons and scrape the buttons until they start to bleed. Put a ring of vaseline or lard around the area to be treated. Then slightly moisten the caustic stick and rub it over the horn button. A scab will form and in no time the horn will drop off. Be careful and do not moisten this caustic stick with your mouth. Wrap the caustic stick well with cloth or paper to keep from burning your hands. Prevent the caustic liquid from running down the calf's face and jaw as it will burn the skin. Keep the



treated calves from the dam for several hours and out of the rain for one day.

Dehorning calves with an elastrator involves the use of a special rubberband that slips over the horn and catches from  $\frac{1}{4}$  to  $\frac{1}{3}$  inch of skin. The horn will come off in approximately 4 weeks. Use the elastrator as soon as the horns are large enough to hold the band and before the horn becomes attached to the skull.

The tube dehorner is another method for dehorning calves. The tube is a round sharp-ended instrument which is placed over the horn and pressed down until it cuts through the skin. A twist of the wrist and off comes the immature horn. Use an astringent to prevent bleeding and put pine tar, Smear 62, or EQ 335 over the wound to repel flies. Tubes come in four sizes. Use the dehorner tube on calves from 1 to 3 months of age.

The electric dehorning iron is sometimes used instead of other equipment for dehorning young calves where electricity is available. After the tubular iron has been heated to the proper temperature it is fitted over the horn button and held firmly against the head until the horn matrix has been destroyed. Considerable care must be exercised to make the burn deep enough to destroy the horn tissue, but not so deep as to produce a bad sore. The operation is much more painful and requires more time than other methods.

The Barnes dehorner is one of the most suitable and positive methods for dehorning calves and short yearlings. This dehorner is pressed down over the immature horn and pressure is applied to spread handles. The horn is lifted out by the roots and the blood vessels are crushed so that a limited loss of blood normally occurs. Usually, blood flow diminishes rapidly owing to the formation of a heavy blood clot and the constriction of the blood capillaries. If a heavy flow of blood persists to a point where the animal becomes weak and faint, the severed artery should be tied off with a piece of cotton or silk thread, or its ends should be seized with an artery forcep and the artery broken off deep in the skull by traction.

The shock sustained by animals from dehorning is often given considerable consideration by agricultural writers. Ordinarily, the pain experienced is momentary and the loss of blood sustained by the cattle is not great. Excessive bleeding may occur if the cattle have been on sweet clover pasture or have been recently fed a considerable quantity of sweet clover hay. If the cattle should be suddenly exposed to a very cold, driving rain immediately after dehorning, the effect of the operation is quite serious and under such conditions many losses may occur. Also, if cattle are dehorned during fly time some of

the wounds may become infested with maggots. This condition is very grave and treatment, even though difficult, should be administered immediately. Again Smear EQ 335 should be applied to the affected area. For these reasons, dehorning is best done early in the spring when neither flies nor cold weather is likely to cause complications.

### Vaccination

All heifers should be vaccinated against brucellosis between the ages of 4 and 8 months. To produce permanent immunity all calves should be vaccinated for blackleg when they are 6 months of age. However, if infection from blackleg seems likely, vaccinate the calves soon after birth. If this is done, they should be vaccinated again after they are 6 months old for permanent immunity.

### Creep Feeding

Creep feeding is the feeding of concentrate feeds to calves during the period they are nursing their dams. A normal rule to follow for creep feeding is if calves are to be sold at weaning time or soon thereafter as slaughter calves it may be advisable to start creep feeding when they are a few weeks old. It is not recommended to creep



Fig. 8.— Creep feeding, used to supplement the cow's milk, may increase the weight and improve the condition of the calf.



feed calves that are to be carried on pasture for at least 4 months or more after weaning. It is usually profitable to creep feed commercial calves that are to be marketed at weaning time when summer pastures are short or when they are to be full-fed after weaning. When good pasture is plentiful and feed relatively high in price, the added gain in weight and the economic advantage of creep feeding is reduced proportionately. Calves that are to be sold in a graded feeder calf sale can be profitably fed a few weeks before marketing because these calves will exhibit more bloom in addition to weighing more and, therefore, bring a higher price to the producer.

### Location of the Creep

For best results the creep should be properly located. An ideal location is under a grove of shade trees near the watering place. This also is an ideal place for the salt and mineral feeder. The calves will usually follow their dams several times each day to such a location. If there is shade they are likely to spend the middle of the day around the creep and thus be encouraged to eat more often. Creep feeding is accomplished by placing a self-feeder containing the concentrate feed in a small enclosure or pen constructed with openings through which the calves only may enter.

Plans for a creep feeder can be obtained from the University of Kentucky Department of Agricultural Engineering (Kentucky-Plan 772-32).

### Starting Calves on Creep

Separate a small number of the calves from their dams and put them in the creep lot. Place some troughs containing feed along the fence toward the cows. The calves will soon learn to eat the feed. Another method is to put the feed in the creep and some of the calves will usually find the feed and start eating; others will follow soon.

Another method often followed is the feeding of the cows and calves together for a few days until the calves learn to eat. This meth-

TABLE 2

#### Suggested Creep Rations

##### Ration 1

A mixture composed of ground shelled corn, ground oats and wheat bran. (Only for calves learning to eat.)

##### Ration 2

|                     |            |
|---------------------|------------|
| Shelled corn        | 650 pounds |
| *Whole oats         | 200 pounds |
| Protein concentrate | 150 pounds |

##### Ration 3

7-8 parts shelled corn  
1 part protein supplement

• Any small grain may be used here, also molasses may be added to make the ration more palatable.

od will raise the feed cost, and it will be difficult to keep the cows out of the creep since they know the feed is there. In the event that difficulty is experienced in teaching calves to eat, put an older calf in the lot where the inexperienced calves are and this calf will soon lead the other calves into the creep and teach them to eat.

### Weaning the Calves

Calves should be weaned when they are from 7 to 9 months of age. When weaning calves, they should be held in a pen or a small corral to prevent them from running too much. The cows should be taken far enough away so that they are out of hearing and sight of the calves. Cows with excessive amounts of milk should be stripped once or twice in order to keep their udders from being full. Calves that have not learned to eat grain may be taught to do so at weaning time.

Cows that have not bred back and will not produce a calf next year should not be kept in the herd. Weaning time is an excellent time to cull cows that are not going to be in production during the next calving season.

## GOVERNMENT GRADES OF FEEDER STEERS

"Fancy" is the term used for the best grade of feeder steer. Fancy steers are blocky, compact, low-set, deep and wide, with straight level topline and nearly level underline, and they are muscular and smooth. When fattened, such steers should make the Prime grade. Show steers develop from Fancy feeders.

Choice feeder steers are not quite so blocky or compact as the Fancy steers, and may be a trifle leggier, shallower-bodied, longer in head or neck, or lacking a little in some other detail of outline. When fat, these steers are similar but not quite equal to Prime steers.

Good feeder steers are taller, usually shallower, and often not quite so straight in topline or so muscular as Choice feeders. Any serious fault, such as a drooping rump, low back, or rough hips may put an otherwise Choice steer into the Good grade. Similar faults characterize the same steer when fat and are usual in Good fat steers.

Medium feeder steers are usually narrower and shallower than good feeders, uneven in top and bottom lines, often prominent in the hips, rather long-legged and light-muscled, or perhaps of an unusual color. When fat, they have these same general characteristics which put them in the Standard slaughter grade. They are suitable for a short feeding period.

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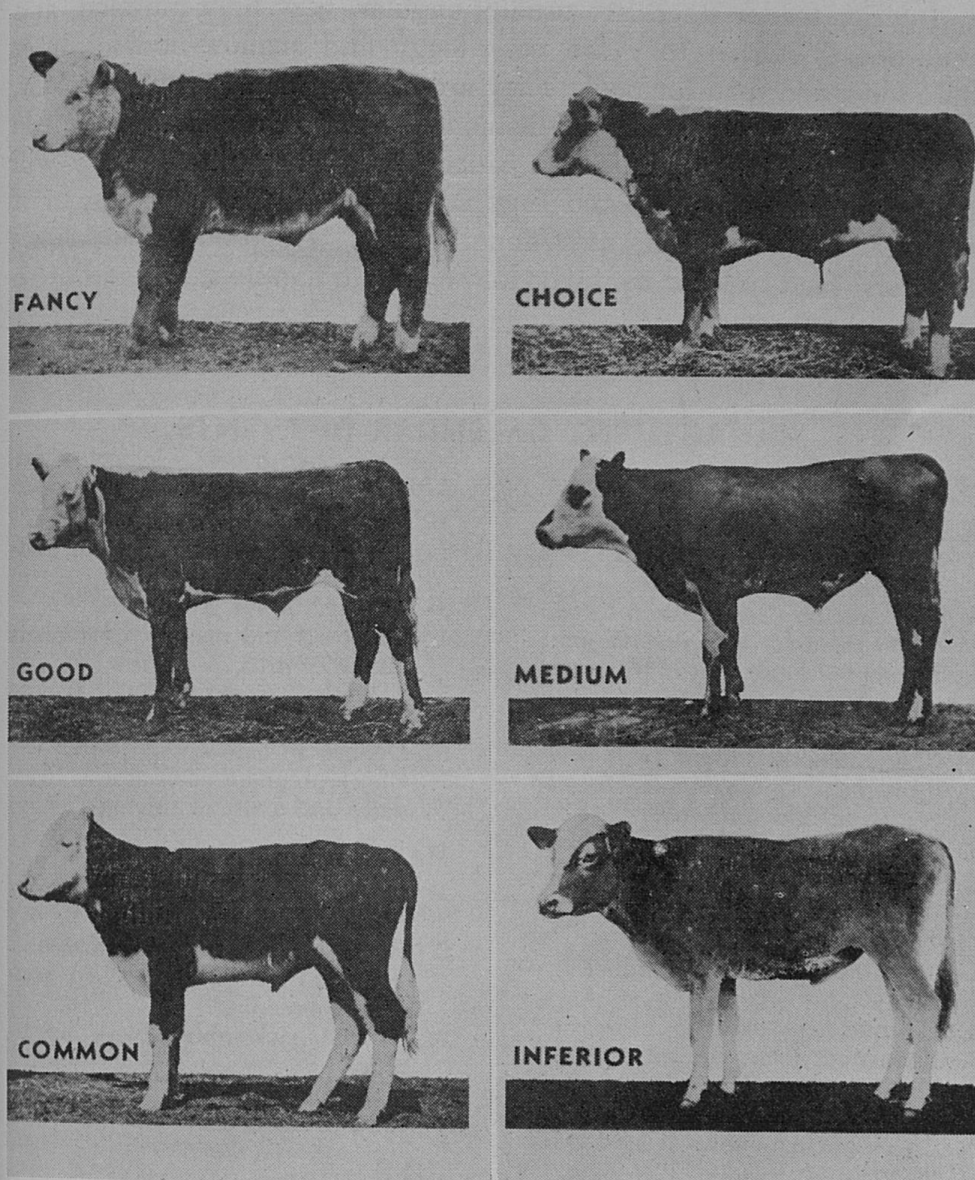


Fig. 9.— Feeder steers classified according to U. S. grades. (Photo: U. S. Dept. of Agr., Agricultural Marketing Service, Livestock Division.)

Common feeder steers are still more scrawny with various serious faults of general appearance and conformation. They are often the color of dairy cattle; some have a crooked topline, long face, long crooked legs, and a rather bare, bony frame. Common and Inferior steers have to be fed longer than the better grades to reach the same weight, and consequently require more feed for each pound of gain. It may be impossible to get such a steer very fat, and it does not pay to try it. The Common feeder sells finally as a Standard or Utility slaughter steer.

Inferior feeder steers are usually angular, very light-muscled, and small-boned. Often they are very leggy and shallow-bodied, built more for speed than for beef. They are often of dairy type and color, sometimes resembling the old-fashioned, unimproved western cattle or the scrub cattle of the South called "yellow-hammers." They will seldom put on much fat, and they finally sell as Cutter steers, or if very inferior and thin, as Canner steers. Deep-bodied "yellow-hammers" feed well for men who know how to handle them, and often give good returns.

### MANAGEMENT CALENDAR OF EVENTS

#### JANUARY

1. Plan matings for coming season.
2. Select heifer replacements.
3. Castrate early male calves.
4. Get bulls on proper ration to condition them for breeding season.
5. Remember louse control program.
6. Dehorn calves during mild weather.
7. Check mineral supply every week throughout the year—salt, steamed bonemeal and limestone.
8. Check pregnant cows at least twice daily and assist in calving.

#### FEBRUARY

1. Start breeding for December calves.
2. Castrate male calves.
3. Remember louse control program.
4. Dehorn all calves during mild weather.
5. Check pregnant cows at least twice daily.
6. Vaccinate young calves for black-leg and malignant edema.

#### MARCH

1. Start breeding for January calves.
2. Start creep-feeding calves.
3. Castrate male calves.
4. Take cattle off pastures that are to be used through the grazing season.
5. Treat cattle for grubs.
6. Dehorn all calves.
7. Check pregnant cows at least twice daily and assist in calving.

#### APRIL

1. Castrate male calves.
2. Turn cattle to grass after the middle of April.
3. Treat cattle for grubs.
4. Construct and install back rubbers for fly control.
5. Take the last of the winter manure out of the barns.
6. Dehorn all calves.
7. Check pregnant cows at least twice daily and assist in calving.

#### MAY

1. Do final castration and dehorning of all calves.
2. Remove heifer calves 4-18 months old from all bulls to avoid accidental breeding.
3. Charge back-rubbers with insecticide.
4. Vaccinate young calves for black-leg and malignant edema.

#### JUNE

1. Time for first grading of heifer calves to determine which are to be sold or added to the herd as replacements.
2. Annual T.B. and Bangs test for the whole herd.
3. Take bulls from herd and sell if unsatisfactory.
4. Recharge back-rubbers with insecticide.
5. Sell shy and non-breeding females—replace them with young steers.
6. Rotate and clip pasture.



## MANAGEMENT CALENDAR OF EVENTS—Continued

### JULY

1. Buy any hay or bedding that will be needed during the coming winter.
2. Bangs vaccinate heifer calves at 4 to 8 months of age.
3. Recharge back-rubbers with insecticide.
4. First selection of heifers and steers to be sold in feeder calf sales.
5. Rotate pastures.

### AUGUST

1. Spray and disinfect all cattle barns.
2. Take cattle off pastures that are to be used for late fall and winter grazing.
3. Select entries for feeder calf sales.
4. Recharge back-rubbers with insecticide.
5. Rotate and clip pastures.

### SEPTEMBER

1. Before weaning calves that are going to be fed, get them on grain.
2. Final preparation for feeder calf sales.
3. Recharge back-rubbers with insecticide.
4. Purchase replacement heifers, test and vaccinate.

### OCTOBER

1. Get calves weaned from cows due to calve in December and January.
2. Cull your cows that are poor producers.
3. Turn cattle into stubble fields.
4. Treat cattle for internal parasites.
5. Purchase large, typy, purebred beef bull for use in March.

### NOVEMBER

1. Move back-rubber into barn to be used for louse control.
2. Plan and arrange winter quarters for the herd.
3. Start feeding cows to prevent weight loss.
4. Check mineral supply in barns.

### DECEMBER

1. Remember louse control.
2. Check housing and arrange for winter quarters for the calf crop.
3. Check cows that are expected to calve and assist in calving.

Lexington, Kentucky  
Issued April 1958

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Cooperative Extension Work in Agriculture and Home Economics: College of Agriculture and Home Economics, University of Kentucky, and the United States Department of Agriculture, cooperating. Frank J. Welch, Director. Issued in furtherance of the Acts of May 8 and June 30, 1914.

4-58-5M