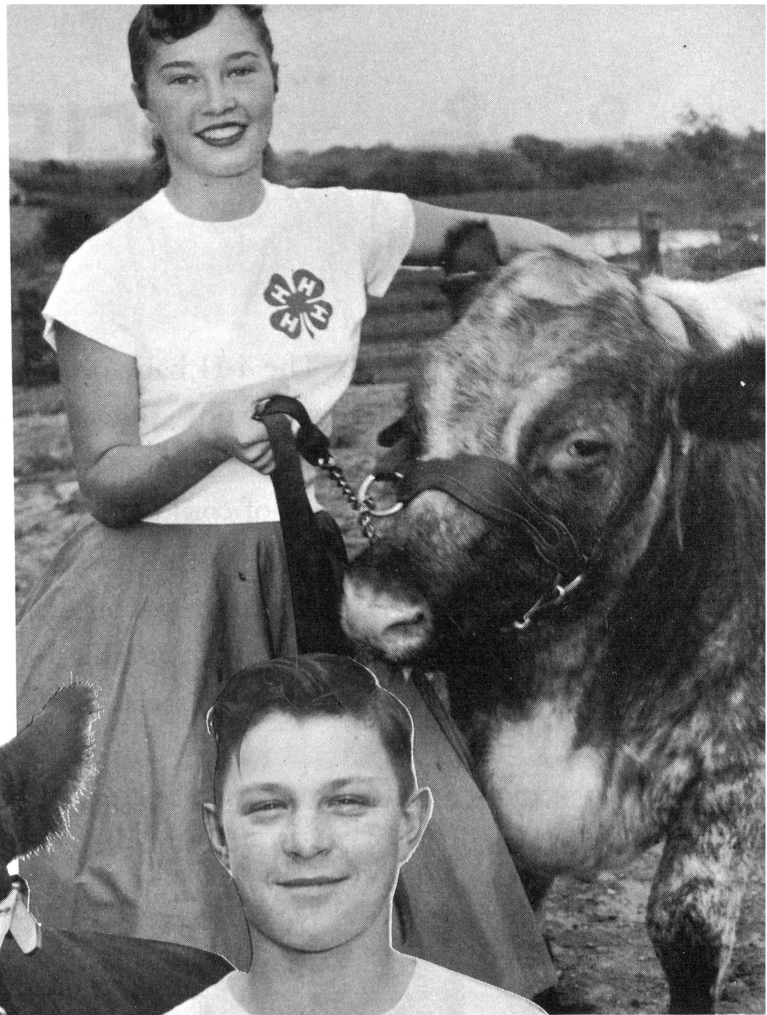


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157 by Beef Project
UNIVERSITY OF MISSOURI
AGRICULTURAL EXTENSION SERVICE

Missouri
University, Columbia
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4-H Circular



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BABY BEEF



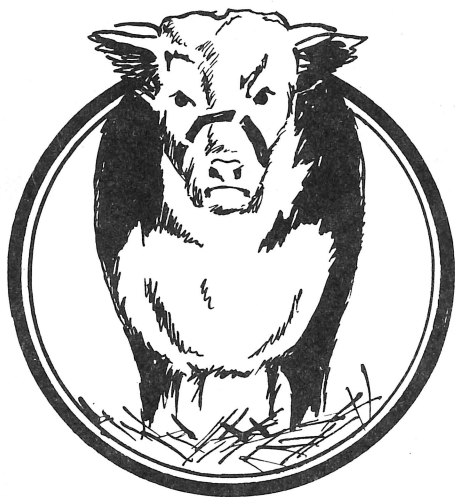
THE 4-H BABY

The 4-H baby beef project is designed to give experience in selecting, feeding, fitting, showing, and marketing beef cattle.

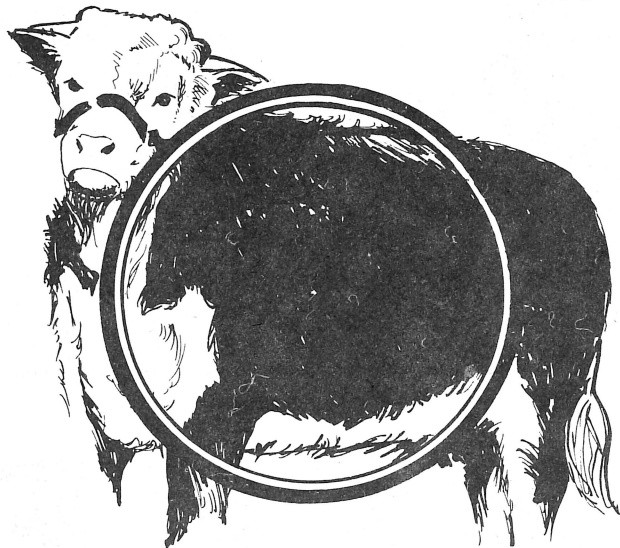
If you wish to choose baby beef as your project, you will need about 75 bushels of corn or its equivalent per steer, $\frac{1}{2}$ ton of good legume hay, and 500 pounds of a 40% protein supplement or its equivalent.

A feeding period of 10 to 12 months with a highly concentrated ration is necessary to produce a choice to prime carcass, which is desired in this project. Calves may be fed in a small grass lot but should not be "turned

LOOK FOR DEEP FULL CHEST



LOOK FOR WELL SPRUNG RIBS



SELECTING

Select your calves on the basis of conformation, type, quality, and breeding. Avoid the wild and nervous-appearing calf.

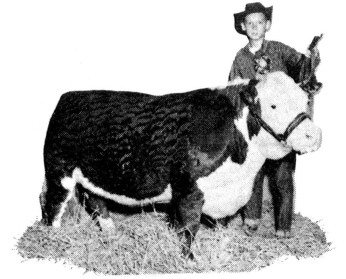
Producers of purebred and high quality grade cattle are good sources of calves in most communities.

4-H members enrolled in the cow and calf project may use calves from project cows for baby beef work.

If good calves are not available in your home community, a practical way to locate them is for a group of club members to pool their orders and place them in the hands of a



BEEF PROJECT



out” to pasture alone.

You should have a place on the farm where you can stall, feed, and care for project animals separately from the other feeding operations on the farm.

Most club shows and sales in Missouri are held during late summer and early fall. Therefore, club members find it to their advantage to buy 400- to 450-lb. calves during September, October, and November in order to have their calves in the desired condition by show and sale time the following year.

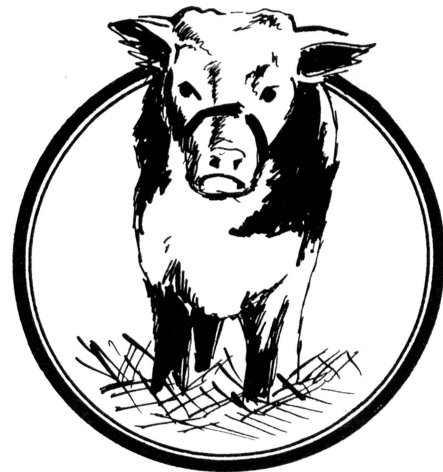
THE CALF

county club committee. This committee, with the county agent assisting, can investigate various sources and purchase the number needed.

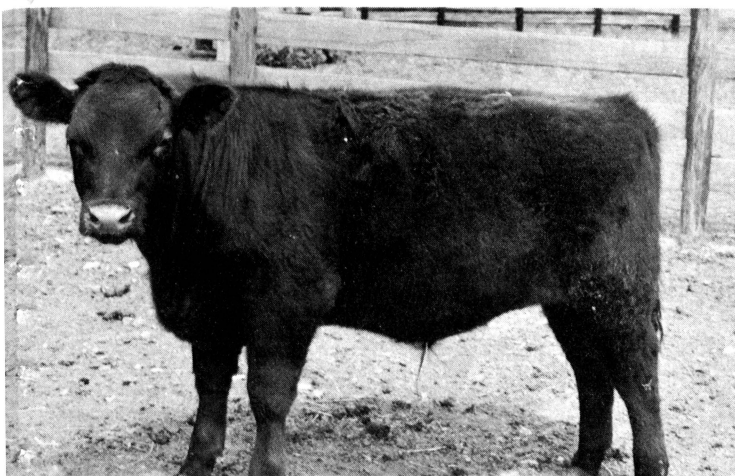
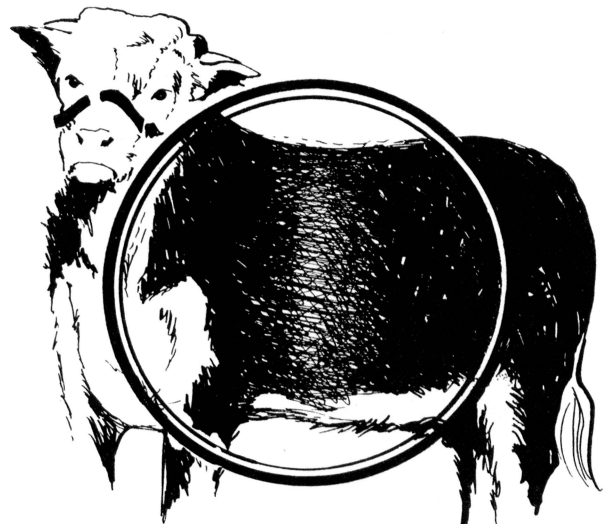
The co-operative feeder cattle sales may be a source of project calves.

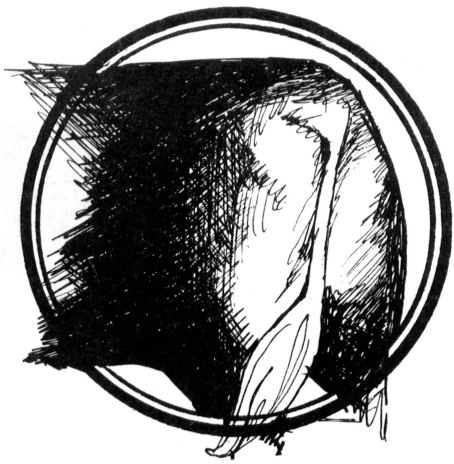
The price paid for a project calf should be near that of the feeder calves farmers buy to put in their commercial feed lots. Finished project calves, other than a few prize winners, must sell on the basis of the open market price, based on each calf's individual merits.

AVOID NARROW, "CLOSE LEGGED"

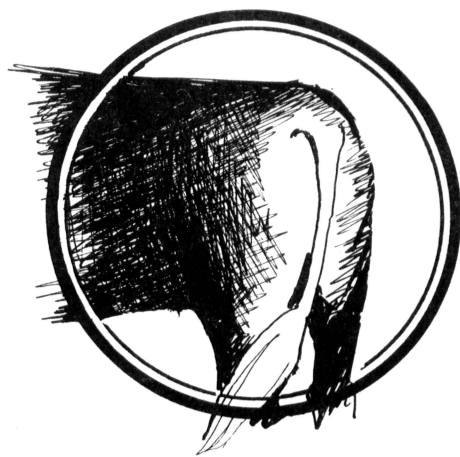


LACKING SPRING OF RIBS

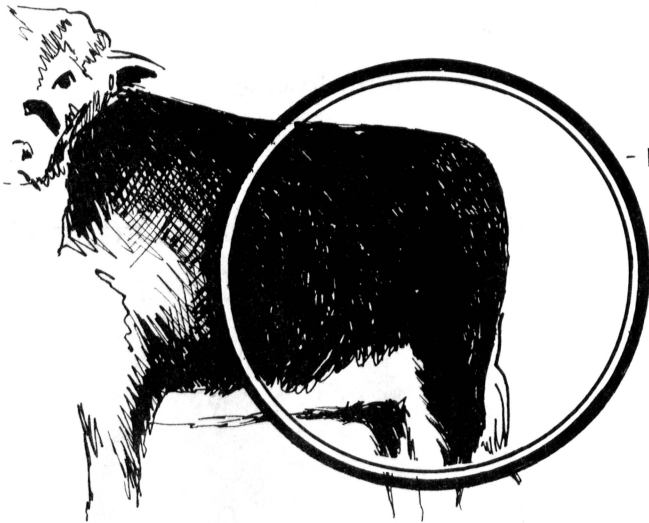




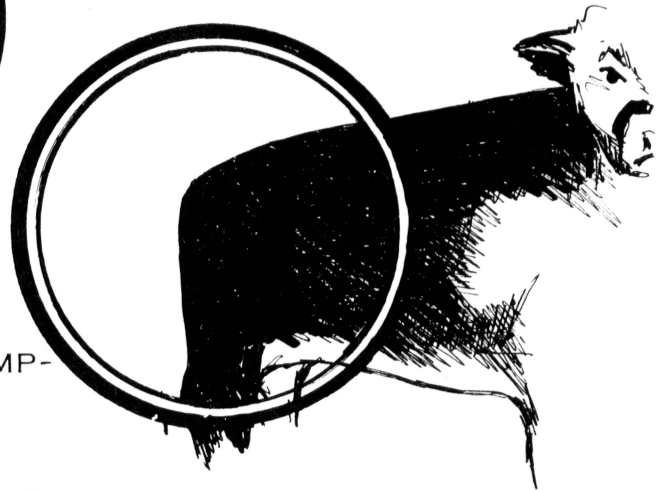
GOOD HINDQUARTER



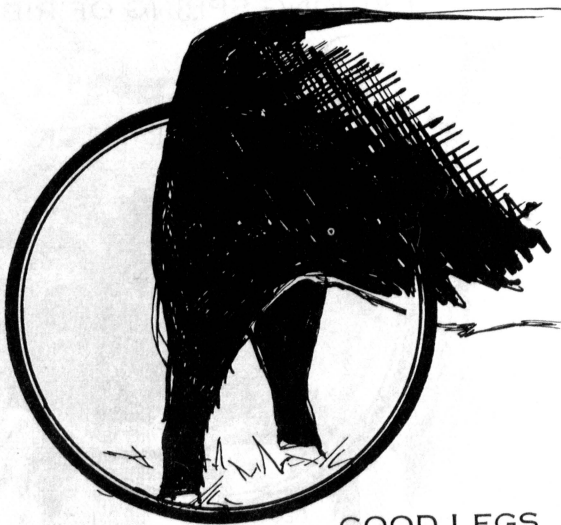
THINLY FLESHED QUARTER



LONG STRAIGHT RUMP



SHORT DROOPING RUMP-



GOOD LEGS



SICKLE HOCKED

OVERALL APPEARANCE

View calves from a distance first—side, rear and front. A good animal appears blocky and straight in outline. It should look beefy (thick fleshed), thick, deep bodied, wide and compact.

FOREQUARTERS

The rib cage, shoulders, neck, chest and head are not as important as the hindquarters to meat packers. But they are important to you as a feeder because they house the vital organs that produce meat and gains. Look for plenty of depth and width in the *chest floor* and *ribs*. (See pictures at bottom of first two pages.)

The *neck* should be short and blend smoothly into the shoulders. Avoid calves with heavy dewlaps. *Shoulders* should be smooth and evenly covered with flesh. Avoid calves with shoulders that are heavy and coarse or open over the top with the blades standing out from the body.

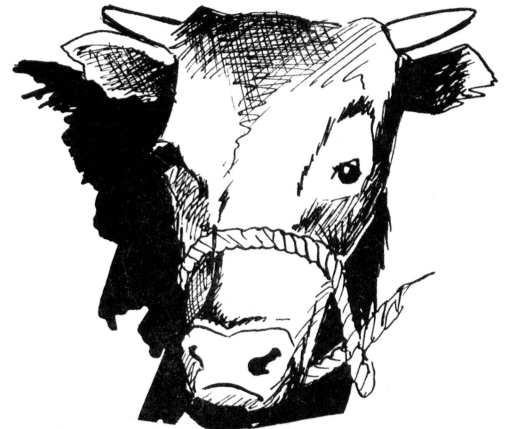
Heads are unimportant in feeder steers except as indicators of type and performance. A long, narrow head is usually found on a tall, long-legged, rangy animal. An ideal head has about as much width between the eyes as length from the eyes down to the muzzle or up to the poll. The face should be finely chiseled below the eyes and should flare out to a broad muzzle.

HINDQUARTERS

View the rump from side and rear. It should be wide, long, straight across the top and carry down deep and full in the twist. Short rumps, drooping rumps, and high tail heads are all objectionable. Also check the loin, the area just in front of the hip bones. This is the area of highest priced meat. It should be thick and long, carry deep and full in the flank and blend smoothly into rump and body.



GOOD HEAD



HEAD TOO LONG



GOOD NECK



LONG NECK



EARLY MANAGEMENT

Trucking Calf Home. Use care in trucking your calf home. Load the calf quietly and avoid getting him excited. Use a rope halter that fits good and tie the calf in the truck. By proper handling, the calf may be partially halter-broken on the way home. If the weather is cool, cover the front third of the top and sides of the stock rack of the truck with canvas to prevent exposure of the calf.

Shipping Fever. Care in trucking the calf home and in handling after arrival will help in avoiding shipping fever. When you get the calf home, supply him with plenty of clean water and good hay. Put him in a shed with an outside lot and avoid exciting him. *Do not* confine him in a tight, dark, poorly ventilated stall. If he

becomes listless after a few days, doesn't eat, and seems to be feverish, call your veterinarian.

Castrate Bull Calves Early. If the calf selected is a bull calf, it should be castrated immediately. A delay in getting this done will cause a greater setback and will increase the chance of a coarse, staggy appearance. It is recommended that the job be done with a knife.

Dehorn Calf. Club calves should be dehorned at the youngest possible age. It may be done at the same time as castration. You can use caustic before the calf is 10 days old. Dehorning tubes will do an excellent job on up to 6 weeks of age. The Barnes type calf dehorner is recommended for weanling calves. A good job of dehorning will add a great deal to the general appearance of your calf. A poor job will



result in stub horns and poorly shaped heads.

Vaccinate for Blackleg and Malignant Edema. All project calves should be vaccinated against blackleg and malignant edema at the beginning of the project.

Break Calf to Lead Early. The best time to break a calf to lead is at the beginning of the feeding period. Tie him securely in a stall for the first few days and carry feed and water to him. If he is particularly nervous, tying another animal in the same stall will help. A calf likes to be brushed and regular brushings will also help to quiet the calf. After he has become used to being handled, he should be led to water. Care should be taken to keep him from getting loose or becoming excited. If that happens, the calf may always be difficult to lead or show.

FEEDING

Protein. Soybean meal, cottonseed meal, and linseed meal are good sources of protein. Linseed meal adds lustre and condition to a calf's hair coat. For that reason it makes a good protein to use during the last one-third of the feeding period.

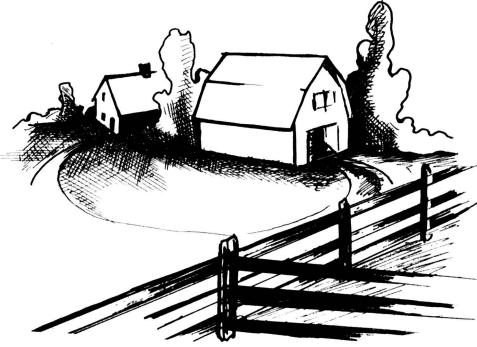
Amounts to feed (40% protein):

Start — ¼ lb. per day

Full feed—1 lb. for approximately each 400 lbs. body weight.

Corn. Corn can be fed as corn and cob meal or as shelled corn. Corn and cob meal is especially desirable in starting the calf on feed. Shelled corn or coarsely ground or crimped shelled corn fits in best during the latter half of the feeding period.





Barley should be crushed, crimped, or coarsely ground. It is especially good in the last part of the feeding period to add variety to the ration. It also tends to produce firm fleshing. Some corn needs to be fed with the barley to prevent digestive troubles.

Oats are good to use in the starting ration and small amounts (1% of ration) may be fed during the entire feeding period. Too many oats will produce a calf lacking in finish.

Milo needs to be crushed or coarsely ground. It can be used to replace $\frac{1}{2}$ to $\frac{3}{4}$ of the corn.

Hay. Legume hays are high in protein and minerals. Feed all that the calf will eat for the first two weeks. As grain is increased the calf will eat less hay until only 2 to 4 lbs. per day will be sufficient when on a full feed of grain.

Silage. Some corn silage can be fed as a part of the roughage for the first 90 days of the feeding period. If too much silage is fed, the calf will lack finish.

Molasses. Small amounts of molasses may serve as an appetizer. Molasses can best be fed to club calves in the form of a molasses feed. Only a small amount is needed (1 to 2 lbs. per day). Molasses feeds should not be considered as substitutes for protein supplement.

Stilbestrol is not generally recommended for 4-H club calves. Side effects of raised tailheads and flattened loins might detract more from the appearance and value of the calf than the increase in gain and feed efficiency would be worth.

Minerals. Keep loose salt and steamed bonemeal in separate boxes available at all times.

Nurse cow. The use of a nurse cow adds more to the expense of fattening the calf than can be justified in most cases. Furthermore, a nurse cow cannot be used after April 1 of the year that the calves are shown.

Regular feeding will help to keep the calf on feed. Calves should be fed twice a day at the start. During the last half of the feeding period, feed should be kept before them at all times. However, uneaten feed should not be allowed to accumulate in the troughs.

Clean troughs regularly to prevent the calf from getting any spoiled or moldy feed. Do not make sudden changes in the ration; any change from one feed to another or increase in the ration should be made gradually.

SUGGESTED STARTING RATION
(First 30 to 60 days)

	<u>Parts by Wt.</u>
Corn and cob meal -	8
Oats -	2
Linseed, cottonseed or soybean meal -	1

Note: This ration is bulky--a good ration for starting calves on
Gradually switch from the starting ration to one of the following--

SUGGESTED FINISHING RATIONS

Corn	I	-	8
Linseed, cottonseed, or soybean meal	-	-	1
Oats	-	-	1

Corn	II	-	6
Barley	-	-	2
Linseed, cottonseed, or soybean meal	-	-	1

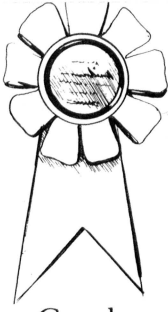
Corn	III	-	5
Barley	-	-	5
Linseed, cottonseed, or soybean meal	-	-	1

Milo can be substituted for 1/2 to 3/4
of the corn in the above rations

Amounts to feed

Grain: Feed 1/2 lb. per 100 lbs. live weight for the first two
weeks and gradually increase to a full feed, which will be 2 to
2 1/2 lbs. per 100 lbs. live weight.

Hay: Give all they will eat for the first two weeks, and as grain
is gradually increased, the amount of hay consumed will decrease.
When they have reached a full feed of grain they should be limited
to 2 to 4 lbs. of hay per day.



CARE AND MANAGEMENT



Good care and management are necessary in addition to good feeding, if rapid and economical gains are to be made.

Stall. The stall should be roomy, well ventilated, and have a dry floor and a low, wide manger. Keep the stall clean and well bedded. Clean manure out daily and add new bedding as needed. Greatest gains are made when the calf is lying down, comfortable and contented.

The feed boxes and manger should be kept clean, and uneaten feed should not be allowed to accumulate.

Exercise. The calf needs some exercise during the entire feeding period. During summer months it should be kept in the stall during the day and given access to a lot at night.

It is a good practice, especially in the last part of the feeding period, to lead the calf each day. This assures that he will get sufficient exercise and helps train him for the show. Practice standing the calf as though he were being shown, using a show stick to get him to stand correctly. Use the show halter so that the calf will become used to it.

Brushing. A thorough brushing every day will improve the condition of the calf's skin and hair, remove chaff,

dandruff and loose hair, and eliminate the need for washing during the spring and early summer. Use a stiff cattle brush for this job. Rough currycombs have a tendency to cut and toughen the hide. Daily brushings also help get the calf accustomed to being handled.

Internal Parasites cause slow gains, poor feed use, and digestive upsets. Drench your calf with 2 to 3 oz. of liquid phenothiazine at the start of the feeding period.

Control lice and flies. Treat your calf for lice in the fall whether you buy him or use a home-raised calf.

Spray the calf with any one of these mixtures:

- (1) *0.5% chlordane*—mix 2 tablespoons of 60-65% chlordane emulsifiable concentrate in 1 gallon of water.
- (2) *0.5% toxaphene*—mix 2 tablespoons of 60-65% toxaphene emulsifiable concentrate in 1 gallon of water.
- (3) *0.03% gamma B.H.C.*—mix 1 teaspoon of 25% lindane emulsifiable concentrate in 1 gallon of water.

Repeat the treatment in 14 to 21 days.

Control horn flies with backrubbers or sprays. A backrubber is the easiest method where several calves are being fed. See your county agent for details as to construction and mixtures to use on the backrubber.

If sprays are used, they need to be applied every two to three weeks. One quart to $\frac{1}{2}$ gallon of the spray applied along the backs of calves will give good control.

Use one of the following mixtures:

- (1) 0.5% toxaphene
- (2) 0.5% D.D.T.

Warbles. See your county agent for the latest recommendations for the control of grubs.

Scours. Scours are usually caused by irregular feeding or overfeeding, or by dirty buckets and troughs. Excessive feeding of laxative feeds also may cause scours.

When scours occur, reduce the grain ration and legume hay for a few feeds. Clean up the stall, mangers, and troughs, if needed, and keep them clean thereafter. If scouring persists, consult your veterinarian.

Foot Rot. If the stall is kept clean, dry, and well-bedded, and the calf is given plenty of exercise, you will have very little difficulty with the feet. If the calf's feet become sore and develop foot rot, consult your veterinarian.

Bloat may be caused by several things. Some calves will bloat on alfalfa or clover hay. Grain that is ground too fine can cause it. Sudden changes in feed also can cause bloat. Some cattle are much more susceptible to bloat than others. Replacing a part of the alfalfa or clover hay with some timothy or other grass hay will sometimes help. Avoid sudden changes in feed.

"Chronic bloaters," those that continue to bloat in spite of good management and feeding practices, should be disposed of rather than run the risk of loss.

Occasional mild bloat can often be relieved by drenching with a pint of mineral oil or raw linseed oil. Sometimes it will help to fasten a bit made of a short piece of a broom handle in the calf's mouth.

In acute cases a veterinarian should be called.

Warts detract from the looks of your calf and in severe cases detract from its value. Sometimes warts can be removed by rubbing them each day with an iodine ointment or coating with castor oil or sweet oil. Vaccines are available and may help in severe cases.

Care of Feet. The feet should be trimmed as needed to keep the toes short and the calf standing straight.

In trimming a hoof, remove the

excess toe and bottom growth with a pair of hoof nippers. Keep the blunt side of the nippers on the outside wall of the hoof.

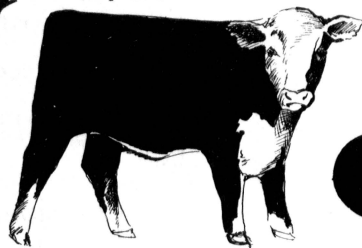
Take off only a small amount at a time to keep from getting into the

quick, which causes bleeding and lameness.

After removing the hoof wall, level the bottom of the hoof with a hoof-knife. Use a hoof rasp to shape the foot.



training the



CALF

The purebred cattle associations are the best source of instructions on how to groom different breeds of calves for the show. Your County Agent can give you the address for your breed.

In training your calf to lead and stand properly, be patient but firm and persistent. First teach the calf to stand tied. Lead the calf a few minutes each day to get him used to it. Lead with the halter in your right hand, grasped about 18 inches from the chain. Walk on the calf's left. Do not walk backwards.

When the calf is stopped, its head should be up and feet squarely placed

under its body. Shift the lead to your left hand and with a long show stick in your right hand place the calf's feet correctly. Keep his back level. Study the calf to learn to pose it the way it looks best. When you have the choice, place his forefeet on slightly higher ground than his rear feet.

An old saying among showmen is "Keep one eye on the judge and one on the animal" all the time you are in the ring. If the judge asks you to move your calf, back him out of the line rather than lead forward. This keeps him in range of the judge's vision.

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

J. W. Burch, Director, Agricultural Extension Service
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