

4 - H Beef Calf Club Manual

Circular 427



This Hereford steer, fed by an Oklahoma 4-H Club boy, was the 1945 champion over all breeds at the American Royal Livestock Show at Kansas City. He is a purebred Hereford from one of the state's outstanding herds. Note the good size of this steer. His slaughter weight was 1235 pounds, and he was considerably less than two years old. The breeding in this steer gave him the confirmation and balance that is desirable in good feeder steers. It also gave him the ability to convert his feed into valuable meat, and he set a new all-time record for high dressing percent—dressing 71.28 percent of his live weight.

Extension Service, Oklahoma A. and M. College

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4-H BEEF CALF CLUB MANUAL

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Beef calf projects are offered to 4-H Club boys and girls in Oklahoma because beef cattle production is not only practical throughout all of the counties of the state but is one of the leading industries of Oklahoma.

The beef calf project gives the boy or girl carrying on the work an opportunity to learn whether or not they like working with beef cattle. It gives an opportunity to learn the difference in results that may be obtained by starting with the right kind of an individual animal or an inferior kind and the amount of time and feed it takes to properly develop an animal into a prime beef. It is the object of the project not only to give the club member these experiences but to make money and to broaden the club member's acquaintance in the livestock world by bringing him in contact with other boys and girls similarly engaged and eventually with the adult breeders of the best herds in the state and nation.

The projects must be carried on in accordance with certain general rules, for each beef calf project is competitive. For the sake of fairness among all of the boys and girls engaged in the project, the game must be played by a definite set of rules. They are as follows:

RULES

Boys and girls between the ages of 10 and 21 are eligible to membership in the 4-H Beef Calf Club. Boys and girls under ten years of age are not eligible to exhibit outside of their own county show. Their eligibility for county shows will be determined by the rules of their county show.

The club member must enroll with the County Agent.

Calves are to be weighed at the beginning and closing of the feeding period.

Every baby beef club member will be expected to keep a record of his or her work, including cost of calf, feed, marketing, winnings and price received, and make a report to the County Agent at the close of the project.

Boys and girls enrolled in calf club projects are expected to do their own feeding and showing of their ani-

mals. Calves are generally classified as Junior or Senior calves. Where a specific date is used to determine the age classification, calves born between January 1 and May 1 of a calendar year are generally called Juniors; calves born between September 1 and December 31 of a calendar year are generally called Seniors. Some shows classify calves by weight. Accurate information should be available on the age of every club calf in order that it may be properly classified whether age or weight is the determining basis for its classification.

In the fat steer classes, club boys and girls must own their calves for a period of at least 120 days prior to the showing of the calf.

PHASES OR KINDS OF BEEF CALF CLUB WORK

There are three phases or kinds of beef calf club work. The first and one most commonly carried on by club members is called the feeding and exhibition phase. In this type of club work a boy or girl enrolling in the project obtains the County Agent's help in selecting the one or more steer calves to be fed. Only steer calves are used in this project. These should be calves of superior type and quality of the breed preferred by the club member, and usually they will be under two months of age.

Major state livestock shows in Oklahoma are held in the month of March. Boys and girls starting a calf project after the first of the year and expecting to exhibit in the March show of the following year should obtain a calf born as soon after January 1 as possible, or as soon after September 1 as possible, in order to get the greatest possible amount of time to properly develop and finish their calf for the show where they intend to exhibit.

Too much care cannot be given to the selection of the right type of calf. Calves, either purebred or crossbred, of any of the recognized beef breeds may be fed and exhibited. There is a standard of type and a preferred conformation of individual quality in each of the breeds that should be sought out and represented as completely as possible in the calf selected and started on feed by the club member. The best feed and care can only make a good animal from one that is not of superior type. An

animal embodying good breeding as well as the right type in beef conformation has so much greater opportunity to develop into an outstanding individual; one that will be profitable and have a better opportunity to stand at the head of his class. Club members cannot afford to spend their time and money with inferior types of animals. More will be said about the type to start with later.

There are certain things that enter into the development of top ranking exhibition animals that should be recognized before the club member starts the project. It is the common practice in Oklahoma to not only give these calves the best of a well balanced variety of feeds but to supply them with a large amount of milk. This necessitates the use of one or more nurse cows during the period of development of the calf. Therefore, the club member starting on a beef project of this kind should recognize the investment involved which itemizes as follows: The cost of the calf; feed for the calf which will usually amount to about as much as the cost of the calf over the period of time required to develop it; the cost of a nurse cow or the use of a nurse cow which must be fed; the time involved in producing the calf.

Club members must recognize that for best results they must feed the calf at a regular time each morning and evening, and some of the more successful feeders feed three times a day. Then there is time which must be given to training, grooming, and showing the calf.

The second phase of beef cattle work is that of developing breeding stock for shows and sales. In this phase of club work, a good procedure is for the boy or girl to buy a registered cow of their preferred breed of beef cattle. They then grow and develop her produce for the shows and sales in which it is practical to participate.

Sometimes instead of buying their breeding stock, boys and girls find it advisable to enter into a partnership with some adult breeder and obtain stock in this manner for development, fitting, showing and sale. If this method is followed, such partnership animals must become the full property of the club member at least 30 days before the show or sale if it is shown or sold in classes with club mem-

bers' animals. Animals not so owned that have been fitted and are shown or sold by club members must be shown in open class competition and sold in sales of adult breeders stock.

A third phase and one that offers a type of livestock development work which many club members' parents and others interested in the training and development of young people in livestock production highly approve is known as The Farm-To-Market Project. In this type of club work the ideal project is one where several boys and girls in the county under the direction of the County Agent select animals of the same age and of uniform beef type and quality from commercial herds or on a commercial basis, feed them such rations as are recommended by the Experiment Station of the Oklahoma A. and M. College, producing their animals on a strictly market basis. It is the plan of this project that all of the animals being fed by all of the club members in the county enrolled in the project will be finished for market at the same time, and they will be marketed by the group enrolled and under the supervision of the County Agent on one of the regular livestock markets of the country.

The principal purpose of this program is to familiarize young livestock producers with the feed involved in producing commercial grades of beef cattle for market and the time required to develop animals of any given age into a standard market class. The plan provides for the club members to accompany their animals to market where they can watch them classified, by the commercial men on the market, into their standard grades. They will see them sold to the buyers; that is, packers, feeders, or stocker buyers depending on the classes into which the shipment is graded, follow them across the scales, learn how livestock is weighed up, and settlement is made at a central market. It is also a part of the plan that the group of club members will follow the animals that are purchased by the packers through the slaughter houses and into the cooling rooms where they will have an opportunity to observe the difference in grades of different animals due to a difference in type and finish.

When a club member has decided which phase of beef

calf work he wishes to carry on, he should consult with his County Agent and they together will decide when, where, and how to get the calf or calves he is starting. Calves should be started on feed as early in their lives as possible. Where a considerable number of club members in the county are interested in the feeding and exhibiting phase of beef calf production, the County Agent will work out a means of selecting calves either by a committee and allotting them to the club members by drawing numbers or he will make individual selections whichever is most feasible. In any case, club members should have the approval of their County Agents on animals before they start them on feed. The breed of the choice of the club member is the breed that he should use.

The general conformation or outline of the choice beef calf is the same for all breeds. He should be blocky, low set, thick and deep in his body without dwarfishness. The head should be short, there should be a good width between the eyes, and the eyes should be prominent and alert. The neck should be short. Weight and a high dressing percent are obtained through proper balance of the make up of the calf and an inherited ability to take on flesh. This is why it is advisable to select very well bred calves. If possible, try to select calves from cows and bulls whose type you can study and have some assurance they are of the right kind.

FINANCING AND INSURING THE PROJECT

The best method of financing a beef calf project is to have the money on hand to pay for the calf when the project is started; however, frequently this is not possible. If reliable boys and girls want to feed calves and do not have the money to buy them, the County Agent can usually tell them where and how the financing of the project can best be handled. The local bank is one of the most satisfactory places. There are other regular lending agencies available to club members. Some of these are production credit associations and cooperative livestock lending associations with which the County Agent will be familiar. Credit of this type is preferable from a business standpoint to borrowing from relatives or friends. The investment in a club calf is great enough to justify insurance. This can be purchased through local insurance agencies in any town,



This group of 4-H Club boys and girls with their County Agent, leaders, and interested parents and sponsors, is a group who were at the Oklahoma City market the ones they are studying in this picture we will have project. When such groups market steers like the ones they are studying in this picture, we will have made outstanding progress in developing practical livestock production among the young livestock producers of Oklahoma. The steers in this picture were produced on an Oklahoma ranch, fed on standard grain rations from the time they were weaned for a period of 180 days. They topped the market in Oklahoma City in 1945.

and it covers loss from any cause and increases in value with the age and development of the calf. Insurance in management is important also; this is provided through making sure the calf is vaccinated against such ordinary diseases as blackleg and shipping fever. Regular, thorough, and observant care of the animal is also one of the best of insurances.

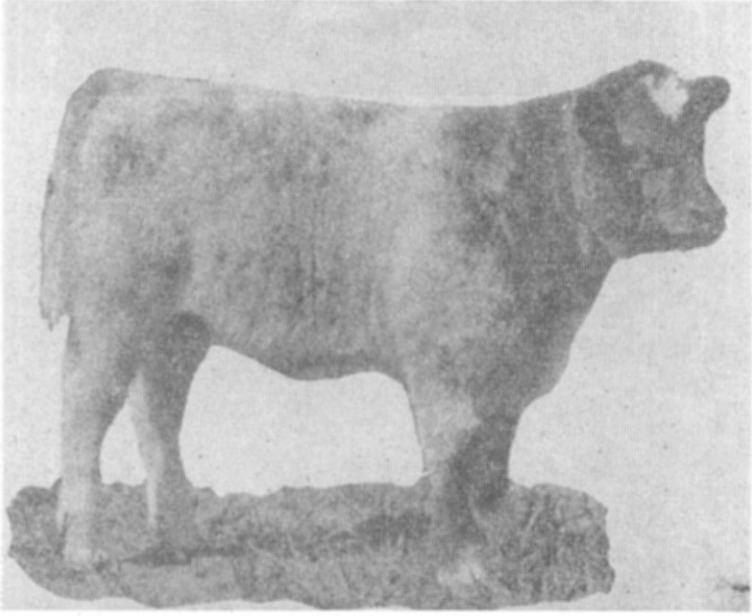
STARTING THE CALF ON FEED

Let us assume that we have obtained a calf of good quality and breeding that is about four weeks old. We have brought him home, and his starting weight on our project is 120 pounds. We should have a good, tight, well ventilated stall ready for the calf. It should be a stall that will be easily cleaned and one that is naturally dry. The floor should be bedded with a good covering of bright straw. The feed container should be placed on the floor, and the stall must be tight enough to exclude poultry. A quiet nurse cow that gives a large amount of milk of average or slightly below average fat content should be available. It will be necessary in most cases to let the calf get quite hungry before he will take to his foster mother. Generally speaking, the older the calf the longer he will go hungry before he will accept the nurse cow. Calves are usually started on grain most easily by offering clean, whole, bright oats as their first feed. Sometimes, if they are accepting a nurse cow or being reared on their own mothers, they will take to grain feeding quicker if allowed to eat with the cow at first. As soon as they have learned to eat grain, they should be separated from their mother or nurse cow except at the times they are allowed to nurse. This nursing and feeding period should be the same hours every day. After being started on a grain feed, the calf should be fed one of the rations indicated later in this manual. The calf should be fed all of the proper ration it will consume at each feeding. Care should be taken never to feed stale feed or to leave feed in the box from one feeding to the next. This is one of the most frequent causes of calves going off feed, losing their appetite, and consequently not consuming enough feed to make the most rapid gains. Some hay should be fed; either al-

falfa or good bright prairie hay is suitable. Most young feeders will have less trouble if they feed prairie hay. The amount of hay must be limited in order to force the calf to eat as much grain as it should eat to make the most rapid gains.

A study of the rations suggested in this manual will show that they are designed to produce fat, or what the livestock men and packers call finish, as well as some growth. For that reason, as the feeding progresses, the amount of fattening feed such as corn, barley, or grain sorghums in the ration is increased in proportion to the growth giving feeds such as oats and bran and legume hays. We must watch the ration throughout the feeding period, making certain that it contains sufficient minerals and vitamin content for proper growth and development of the animal. Salt should be provided in a convenient place for the calf to obtain it at all times. A good grade of clean granulated salt is preferable to either block salt or rock salt. A mineral mixture composed of equal parts of salt, steamed bone meal, and ground limestone should also be available to the calf at all times. Usually it is better to let the calf judge his own amount of salt and mineral rather than mixing it in his feed. However, we should recognize each calf as an individual in his appetite and needs, and we should cater to his individual appetite when we have determined what his likes and dislikes are, so long as the things he likes best bring about the result we are after in getting him properly developed and finished.

When we are starting with a calf with more age that has not yet been accustomed to eating grain, we must bring him on to the grain ration slowly. In our desire to get him gaining as quickly as possible, we often increase the ration so rapidly that it results in throwing the calf off feed, causing him to get sick and really slowing down his gain. If a calf does go off feed, he can usually be straightened out in a short time by reducing the amount of feed to 1-3 or 1-2 that which he has been consuming. After his appetite has returned and he is back in normal condition, we can gradually bring him back up to the same amount of feed he was eating.



This Shorthorn calf is a fine example of the desired type in this breed. The broad, short face with the alert eye, the short neck, the straight back and the great depth of body set on the straight legs all go to give him qualities indicative of being a good feeder.

Picture—Courtesy, American Shorthorn Breeders' Association

TRAINING, CARE, AND MANAGEMENT

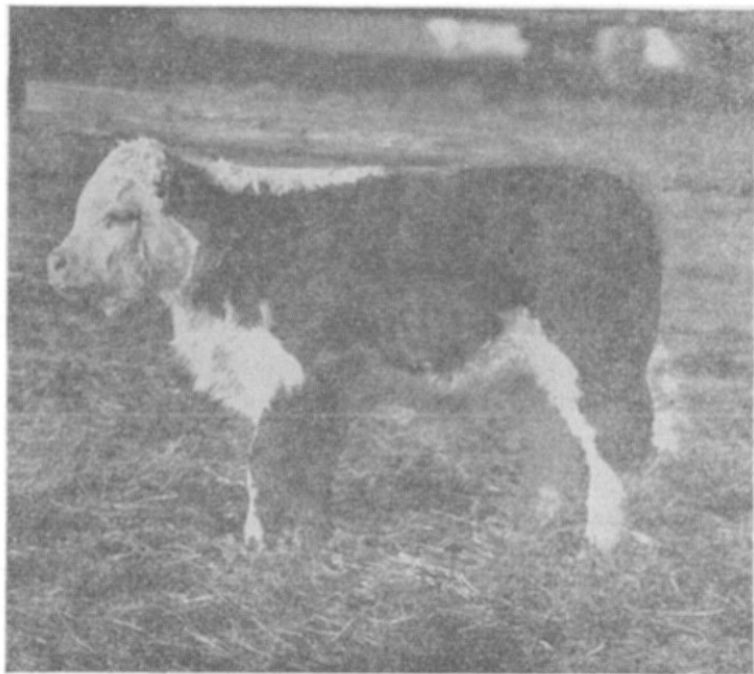
As soon as the calf is safely on feed and is accustomed to his new quarters and his owner, he should be trained to lead. In anything a club member does with his calf, he should remember that he has to do the thinking for the calf. Do not get impatient and jerk or strike the calf because he is slow to respond to your wishes. This is apt to make him afraid of you and you will not make any progress until you have overcome this fear. Have your halter properly fitted and start your training work in a corral where the calf can not get away from you. Work slowly and patiently giving the calf time to learn what you want



The clear cut smoothness, the depth and width of body and the alert, wide awake expression in the face of this Angus calf are characteristics desired in good feeder Angus calves.

Picture—Courtesy, Aberdeen-Angus Breeders' Association

him to do. Teach him to lead and to respond to gentle pulls on the lead strap. Teach him to stop promptly, and by patience on your part you can teach the calf to stop with his feet properly placed, squarely under him, and so spaced that he will not be stretched or cramped. Attention should be given to the width between the forefeet and hindfeet so as to bring out the full width of the calf himself. Much can be accomplished by training the calf in just the right height to hold his head to make him show the best, and if he has a tendency to be a bit easy in the back or a little high at the tail, the back can be brought up or the tail tucked down by careful use of the show



This Hereford calf is an example of the desired type. Note the short, broad head with the placing of the eye nearly equal distance between the muzzle and the top of the head. The short neck, the straight back, the compact deep body set on short legs and the smooth fleshing throughout that extends well down toward the hock.

Picture—Courtesy, American Hereford Association

stick at the proper place.

Along with this training in leading and posing there must come a great deal of grooming. Washing twice a week will do a great deal to keep the calf's skin and hair in condition. Washing should be thorough. After the animal is all wetted, he should be thoroughly soaped and lathered with a mild soap; then it is of the greatest importance in rinsing to get out all of the soap. More damage will be done by a poor job of washing and rinsing than if the calf had not been washed at all. A good coat of hair

is of very great importance on beef calves that are to be exhibited, and while it is due in part to an inherited tendency it can be encouraged and improved materially by regular washing and grooming. Usually the hair is brushed up, that is, against its natural direction, but on calves with definitely short hair it is sometimes best practice to brush the hair down or with its natural direction of laying. In this case, the brush should be followed with the hand which will bring the natural oil out on the hair and give the animal a better appearance. Here again each animal must be treated as an individual and the best method of dressing of the hair determined for that animal.

Calves with horns show best if there is a pleasing downward curve to the horn. Some may have this as a natural characteristic; others will have to be weighted and trained. Let the horns develop some before weighting, and it is better to use a light weight and take more time than to use a heavier weight and cause too sharp turning of the horn. The size of the horn can be influenced materially by working it down with a rasp and scraper. Horns can be shortened much more than is generally realized by carefully working them back from the tip. Working off the tips of the horns and reducing the overall circumference of them helps to add refinement and an appearance of greater quality to many steers heads that might otherwise appear coarse.

Tails should be clipped. Most experienced herdsmen clip the hair from the tail head down to a point even with the depth of the twist of the hindquarters. This adds a neater appearance to the animal and enhances the natural width of the hindquarters. This clipping should be done five to ten days before exhibiting the animal, otherwise there will be too much evidence of a fresh haircut.

The feet should be trimmed regularly throughout the feeding period. Many calves become crooked in their legs or stand poorly on their feet because their feet have been allowed to grow out during the feeding period. Trimming at regular intervals will prevent these troubles and keep the calves well balanced on their feet and legs tending to assist more uniform development throughout the carcass of the animal. A few simple tools are all that are

needed for trimming feet. A farrier's knife is desirable, but a pocket knife can be used. A wood chisel is very handy for certain parts of the work, and a pair of hoof nippers simplify the job although it can be done entirely with a wood chisel and a rasp and plenty of patience.

SHOWING THE CALF

A good job of selecting the right kind of animal, feeding and developing him properly, and training him for the show should be followed through with the best show yard effort.

Make arrangements well in advance for the comfortable and economical transportation of your steer to the place of exhibition. Stall and bed him in the most comfortable place and manner you possibly can. Get him washed and cleaned up so that he is always an exhibit that you will be proud to show anyone as soon as he is rested from the trip. Exercise him to relieve the soreness from transportation, and give him such other handling as your judgment or that of your County Agent and counselors tell you is best for having him in the most presentable condition possible. Be on hand so that any show official needing information from you can locate you at any time. Have your animal ready for display when the class is called so that the judge does not have to wait on you. Pay attention to the instructions of the ring superintendent, but give yourself and your calf the best break possible in lining up. See to it that your calf is standing with his forefeet a little higher than his hind feet if that is possible. Have the calf so well trained that he will respond to your will in carrying out instructions of the judge or ring master promptly. Keep an eye always on the judge but not to the extent that you overlook any misplacement of a foot or some disadvantageous position your calf may get into. If the class is large and the judge has inspected your steer and gone on to another section of the class, it is sometimes worthwhile to allow your steer to relax and rest, but be on the alert to have him in proper position before the judge returns to you again. If you are moved up or down the line, unless otherwise instructed by the judge or ring superintendent, pull your calf out of line to the rear and move him into place from the rear of the calves already lined up. In lining up, allow sufficient space between your steer and

the ones next to him so examination of your steer will be possible without having to crowd against other animals. Remember in most cases you will have worked twelve months for this one short period. Do not fail to give your calf every opportunity to make the most of this showing.

Remember in every showing there is a lesson. Whether you win or lose, you have gained much by experience. Thank the judge who places you, thank the man who hands you the ribbon, and if it is not as high as you would have liked for it to have been study out the reasons for your placing and strive to overcome them. If it is at the top of the class, remember that is the reward for outstanding effort, and the results of the next contest will be based entirely on the effort you put into it.

SOME SUGGESTED RATIONS FOR CALVES

(Parts by Weight)

Be Sure to Read the Notes Following These Rations.

With alfalfa hay Whole oats	Starting 1st 10 days	Prairie hay Whole oats
	10-15 days	
1 part cracked corn 2 parts whole oats alfalfa hay		1 part cracked corn 2 parts whole oats 1 part bran prairie hay
	30 days	
1 part cracked corn 2 parts whole oats 1 part rolled barley alfalfa hay		1 part cracked corn 2 parts whole oats 1 part rolled barley 1 part bran prairie hay
	60 days	
1 part cracked corn 1 part whole oats 1 part rolled barley alfalfa hay		1 part cracked corn 1 part whole oats 1 part rolled barley 1-2 part bran prairie hay
	90-120 days	
1 part cracked corn 1 part rolled oats 1 part rolled barley alfalfa hay		1 part cracked corn 1 part rolled oats 1 part rolled barley 1-2 part bran prairie hay
	120-175 days	
2 parts cracked corn 1 part rolled oats 1 part rolled barley alfalfa hay (limit)		2 parts cracked corn 1 part rolled oats 1 part rolled barley 1-2 part bran prairie hay (limit)
	175 days and longer	
2 parts cracked corn 1 part rolled oats 1 part rolled barley 2 parts alfalfa plus prairie hay		2 parts cracked corn 1 part rolled oats 1 part rolled barley 1-2 part bran prairie hay

Notes: The rations suggested here are for use until experience in feeding and the individual likes and dislikes of the calves being fed are determined.

Where corn is not available, grain sorghums may be substituted for corn. Corn may be fed whole or coarsely cracked to calves.

Better results will be obtained if finely ground feeds are avoided. Rolling barley and oats is preferable to grinding these feeds.

Where alfalfa is fed as roughage, care must be taken not to over feed it and cause scouring. If scouring does develop, reduce the amount of alfalfa hay and use prairie hay as roughage. Early cut (late June or July) prairie hay is very palatable and nutritious as a roughage and will cause less digestive trouble to calves.

Keep clean graulated salt or a mineral mixture of equal parts of salt, steamed bone meal, and fine ground limestone available to the calf at all times.

When the calf is taken off the nurse cow, add 1 to 2 pounds of protein supplement to the daily ration unless alfalfa hay is being fed. The amount of protein will vary with the weight of the calf, older heavier calves requiring more than lighter younger calves.

Make all changes in rations gradual.

Do not grind or mix large quantities of feed at a time. Large quantities of ground or mixed feeds have a tendency to become musty and stale. Such feed loses palatability and vitamin content. Best results will be obtained by keeping each grain feed separate and mixing each day's feed on the day it is fed.

If a can is used to measure the feed, **know how much by weight** it holds of each of the feeds used and make your measurements uniform each time.

Keep **fresh, clean** water available to the calf at all times.

Late in the finishing period calves that are becoming too hard or roly in their finish may be improved by feeding cooked whole barley and corn rather than feeding these grains dry.

Daily exercise is important.

Keeping the calves in a dark stall in the daytime and turning them in a well drained lot at night will help the growth of hair.

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