Beef Calf Club Manual

BY W. H. SMITH AND R. R. SNAPP
REQUIREMENTS FOR A LOCAL CLUB

1. Five or more members, more than 12 and less than 21 years old by July 1 of the year the club is started, are required for a local club.

2. All enrollments in this project should be in the hands of farm advisers not later than December 1, and calves should go on feed not later than January 1 of each year.

3. Each member must feed and personally care for one or more calves during a feeding period of at least six months.

4. Records of the kind, amount, and value of all feeds fed, together with notes on the care and management of the calf, should be kept by each member. Record books for this purpose will be furnished by the Agricultural Extension Service of the College of Agriculture, University of Illinois.

5. All animals must be weighed at the beginning and close of the feeding period and should, if possible, be weighed once each month.

6. Each member is expected to exhibit his animal at a show arranged by the county club committee.

7. Members will submit a final report of their work to their local leaders, who will forward them to the farm adviser.
Beef Calf Club Manual

By W. H. Smith, Associate Chief in Animal Husbandry Extension, and R. R. Snapp, Assistant Chief in Beef Cattle Husbandry

The profitable production of a beef calf for the market, or the development of a purebred heifer into the right kind of a breeding animal, is a science and an art which can be learned only thru the actual experience of feeding and caring for the animal. For the boy interested in learning about beef cattle, there is no better way to gain this knowledge and experience than to take an active part in a beef calf club. These clubs are organized especially to teach the fundamentals in handling beef cattle, such as the proper selection of beef calves, improved methods of feeding and management, the keeping of feed and production records, and the art of exhibiting. Besides teaching boys these fundamentals, which are necessary for success in the cattle business, these clubs provide an opportunity for practice in community organization and leadership.

Two Kinds of Clubs

Beef calf clubs are classified as baby beef clubs and purebred heifer clubs, depending upon the kind of calves used. The kind of club to organize should be determined by such factors as the training and experience of the club members, the availability of the calves, and the general importance of purebred livestock in the community.

Those without experience in handling calves had better begin in a baby beef club, as the investment in animals is smaller and the risk less. Then, too, unless a boy can properly handle and fatten a steer calf for the market, he is likely to fail in an attempt to develop a purebred heifer into a useful breeding animal. In clubs in communities where there are relatively few breeders of purebred stock and where it is hard to find purebred calves, the members will do well to begin with baby beeves.

Purebred heifer clubs may be started with best chances for success in communities where the members can get the counsel and support of local breeders in the development and sale of their animals. While purebred heifers cost more than steers, the returns from the heifers may be greater than from the steers and the interest in the work continued for a longer period. Club members with purebred heifers also are more likely to become interested in the breeding and improvement of beef cattle. A boy beginning with a purebred heifer calf may develop her into a mature cow that can be used as the foundation of a purebred herd.
Best for Members to Use Same Breed

The selection of the breed of calves to be used should be given careful thought. Whatever decision is made should be based upon such factors as the breed most prevalent in the community, the availability and price of the calves, and the preference of the members. Members of an average sized club should select calves of the same breed whenever possible. This simplifies the club management and gives the members more nearly equal opportunities in feeding, exhibiting, and selling the animals. Individual members usually are willing to make their preferences in the matter of breed conform to the sentiment of the majority in the club. When there is no choice, any one of the beef breeds—Short-horn, Hereford, Angus, Galloway, or Red Polled—may be selected.

FIG. 1.—FANCY SELECTED HEREFORD CALVES

Altho it is highly desirable for club members to buy their calves near home, it is possible to get them on the open market at the larger stockyards.

Can Buy Locally or on Open Market

Calves for feeding may be bought either locally or on the open market. Usually the best place to buy is from high-grade or purebred herds near the homes of the club members. While a good, purebred calf generally is too costly to use for feeding purposes, it occasionally happens that one may be bought at market price because it is off-color or has a broken horn or a discolored nose. Such defects would lower the animal’s value as a purebred bull, but in no way would affect it as a calf club steer. Local buying enables the members to select their own calves and insures the interest of local breeders in the progress of the club. It also eliminates the necessity of shipping the calves long distances, thus saving a loss from shrinkage and eliminating some of the risk of the animals’ contracting disease.
When desirable calves cannot be bought locally, it is possible to get them on the open market at the larger stockyards (Fig. 1). This plan has the advantage of enabling one to get calves on short notice that are uniform in age, weight, breed, and flesh. However, purchases of this kind should be made only by those who are familiar with this kind of buying. Usually some competent, local feeder-buyer can be secured to buy calves for the entire club.

Supply of Good Heifers Limited

Getting purebred heifers is one of the most important and difficult phases of all beef calf club work, largely because the demand for good heifers often is greater than the supply. For this reason they sell at relatively high prices.

The successful cattleman is very careful in buying animals for the foundation and improvement of his herd, and each club member can afford to be even more cautious when going into the market for purebred heifers. The right kind of foundation stock is the first essential in successful cattle production. Blood lines and the individuality of the animals play highly important parts. Both should be studied carefully. Experienced cattlemen, county advisers, and others should be called upon for counsel and assistance in making the selections.
Beef Calves Should Be Less Than One Year Old

In the earlier days, nearly all cattle were fattened as two- and three-year-olds and sometimes as even older animals. With increased cost of feeds and the use of rotated pastures, however, there has been a growing tendency to fatten younger animals, such as yearlings and calves. These younger animals make more efficient use of their feed and consequently the gains made by them cost less than gains made by mature steers. The beef from young animals also is more tender and palatable, and the retail cuts are of a size better suited to the demands of the present-day consumer. For these reasons, animals finished for the market at the age of twelve to sixteen months and weighing 850 to 1,000 pounds have found favor with both the cattle feeder and the consumer. They have been termed “baby beeves” because they are smaller and younger than mature animals.

This is the kind of animal club members should strive to produce (Fig. 3). Calves should be about six months old at the start of the club work, so they may be of the proper weight and age after eight or nine months of feeding to be classed as baby beeves. To meet these requirements, the calves in the club should have been dropped
between January 1 and September 1, previous to the start of the feeding period. Calves dropped before January 1 and those weighing more than 600 pounds probably should be excluded.

For the purebred heifer club, calves six months to a year old are the most desirable. Heifers dropped in the spring and started on feed in the fall make desirable animals for exhibiting the following summer, when they will be of an age to command a good price if sold.

**Inferior Animal Is Big Handicap**

Regardless of whether the calf is being picked for a baby beef club or for a purebred heifer club, the importance of selecting the right kind of animal cannot be too strongly emphasized. A good calf will prove not only to be more profitable but it will also develop more pride and interest in the owner. The boy who begins with a poor animal is put under a handicap which no amount of effort on his part can entirely overcome. Careful discrimination should be made in the selection of each individual calf that is to be in the club, in order to get calves that are uniform. This gives the club members equal opportunities in their work.

Each calf should be of strictly beef type, having the right form and quality, and should be in proper condition. Individuals that are off-type or lacking in size, quality, or condition should not be considered in club work. Such animals will develop poorly and are likely to prove a disappointment when exhibited or sold (Fig. 4).
Blocky Form First Requirement

Form, or what is commonly known as the general outline or type of the animal, is of first importance in selecting a calf for club purposes (Fig. 5). In the first place, the calf chosen should be short-legged and blocky and have straight top and bottom lines. Also he should be smooth and symmetrical, showing good balance between front and hind quarters. While good width and depth of body are essential, it should be realized that both these dimensions will improve with age and feeding. On the other hand, unevenness of width, such as results from prominent shoulders or hips, narrow crops or pinched rump, is a fault that no amount of feeding and care can overcome. Likewise a low back, dropping rump, sagging underline, and crooked hind legs are defects

![Fig. 5.—A Desirable Type of Feeder Calf](image)

A calf that is well bred, having good width and depth and straight body lines, will give the club member the right start in his project.
that likely will get worse instead of better as the animal gets older and heavier. A smooth, tidy calf with no outstanding defects is much to be preferred over one that is unusually good in some respects but noticeably lacking in others.

Quality Calves Make Better Beef

If the form of the calf that is being selected is of first importance, quality is a very close second. In fact some argue that it should be placed above all else. Quality refers to the character of bone, hide, hair, and flesh of the animal. From the standpoint of quality, a beef calf is wanted that has soft, fine hair; a pliable, elastic hide of medium thickness; a clean, dense bone, and flesh that will be smooth and firm when the animal is finished. A coarse-boned, heavy-hided calf or one with "ties," or dimples, in its back, or indications of lumps of fat over the loin and rump should be avoided. Not only will an animal of high quality look better when finished but it usually will make better use of its feed and hence make faster and more economical gains than a calf of poor quality.

Calf Need Not Be Fat

It is not necessary that the calf selected for club work be fat. There usually is enough time between the beginning and the end of the project to get even a thin calf in fairly good condition. Occasionally a calf that is too high in condition at the start will be "overdone," or hard and rough in its fleshing, by the time it is shown. This is especially likely to happen if the feeding is done by an inexperienced person. On the other hand, a calf that is very thin is not likely to prove satisfactory, for unless it makes unusually good gains it will not be carrying enough flesh to show to advantage at judging time. The calf most likely to give good results is one that has neither been pampered nor neglected, but is in strong, thrifty condition, and able to make good use of its rations.

Previous Treatment Should Be Considered

The previous handling of a calf will have much to do with the way it behaves and develops in the hands of a club member. Calves fed skim milk are often unsatisfactory, as many of them are permanently injured by faulty methods of feeding. Their failure to get the milk fat usually makes them smaller and thinner than calves of the same age that have nursed their dams. A calf that has learned to eat grain may be taken from its dam when six or eight months old and given directly to a club member to feed, with but little danger of its getting a setback from weaning.

The disadvantage of buying calves from ranchmen for club purposes is that the long railroad journey, together with the abrupt change
from cow's milk and grass to dry feed, is apt to give the animals a setback from which they need considerable time to recover. In some cases range calves are wild and hard to handle when removed from the bunch.

**Extreme Prices Should Not Be Paid**

The price to pay for individual calves always is a debatable point, but in every case it should be based upon the actual value of the animal. In buying calves for baby beeves, this value can be determined easily from current market quotations. In the purchase of purebred heifers the problem is more difficult, as there is considerable variation in the prices asked for these animals. This is due in part to the difference in blood lines represented and in part to the reputation of the owners as breeders. In general, a member purchasing a purebred at a price lower than the actual value of the animal should be required to figure it in his final report on the same terms as would any other purchaser. By so doing he will gain an accurate and not an inflated idea of his success.

The animals purchased should be as well-bred as the available funds will permit and the general conditions warrant. Good individuals, of course, should be demanded in every instance, since inferior animals will discourage the club members and thus defeat the very object of the club work.

Neither extreme should be reached in the price paid for animals. In fact, average prices should be the standard in the first year of a club's experience. As the work develops and the members show more interest and ability, efforts should be made by the club to get better animals, even tho they cost more.

**Proper Feeding and Handling Aid Success**

Club members should realize that much of their success will depend upon the kind of care they give their animals. Many men have failed as livestock breeders because they neglected to take the proper care of well-bred, high-class breeding animals that cost considerable money. In the hands of other breeders using more carefully thought-out methods of management, the same animals would have made money for their owners. Likewise in a calf club, a given calf in the hands of a boy who is indifferent to its care and training, is likely to grow to be mediocre, commonplace sort of animal, attracting no special attention. If it had been placed in the hands of a club member who was willing to give it the right kind of treatment, the same calf would have developed into a creditable individual and perhaps into a prize winner.

**Comfortable Calf Makes Best Gains**

Every reasonable precaution should be taken to make the calf comfortable, for it will make maximum gains only when quiet and contented.
Comfort implies protection from extreme weather conditions, from insects, such as flies, and from possible disturbance by other animals. Cold weather is not so likely to make the calf uncomfortable as is very hot weather. In winter protection from dampness and winds rather than from cold is most needed. This protection can be given by a deep shed open on the south, allowing for plenty of sunshine and fresh air, or by a large, roomy box stall in a well-ventilated barn. During the first few days, while the calf is being taught to lead, it may be kept tied in a single stall, but afterwards it will do better if given more freedom. The stall or shed should be cleaned out daily and plenty of fresh bedding supplied. This will keep the calf comfortable while it is lying down and at the same time keep it clean. Cattle that are fattening rapidly spend considerable time lying down, contentedly chewing their cud; hence, the importance of clean, dry, well-bedded stalls and sheds.

In hot weather the calf should have a cool place where there is good circulation of air. Usually it will do better if kept out of the sun during the day and turned out on pasture to graze and exercise at night. If the calf is allowed to run out during the hot days, its coat will be sunburned and the hair will become dry and harsh, a condition which of course will detract materially from its appearance.

Darkened Stall Is Protection Against Flies

Spraying the calf with either patented or homemade repellants will give some relief from flies, but many of these preparations tend to make the hair harsh and rough. The best protection is a darkened stall. Gunny sacks or strips of burlap nailed over windows and openings will keep out the light but will still allow the air to circulate. Early in the summer the number of flies can be materially lessened if several pans of fly poison are placed in and around the barn. An ounce of formalin mixed with a quart of sweet milk and diluted with a pint of water makes a very satisfactory fly poison. If the flies become very numerous and it is not practical to darken the stall, the calf should be covered with light burlap or a cotton blanket.

Ordinarily, lice will give little trouble. The occasional currying and brushing given by the industrious club member usually will cause any stray lice to migrate to ordinary farm cattle, where they can live and multiply without fear of frequent disturbance. Should an infestation of lice occur, the calf should be given a good scrubbing with tar soap and warm water, to which has been added 1 to 2 percent of creolin, or dip. This treatment should be repeated in about twelve days in order to kill the young lice that have hatched since the first application.

Calves Do Best Away from Herd

In so far as possible, calves that are being fitted for show should be kept away from other cattle and other farm animals. After getting
acquainted to being alone they will be quieter and more contented than they would be if allowed to run with other cattle. Also keeping the calf separate is desirable, if not absolutely necessary, so that an accurate record can be kept of the amount of feed used. By all means, each calf should have its own stall or pen when brought up to the barn for feeding, even tho it may share the pasture with other stock.

**Feed Must Do More Than Keep Calf Growing**

It is well recognized that feeding is one of the most important phases of calf raising. Feeding should both develop the size and increase the weight of the calf, or in other words, grow and fatten it. Growth alone is not enough; increase in size must be accompanied by a marked improvement in condition, so that by the end of the feeding period the calf will be prime and finished from the standpoint of the butcher. Rations should therefore be used that furnish the proper kind and amount of nutrients for the fattening as well as for the growing animal.

**Two Classes of Feeds**

Feeds for the calf may be divided into two general classes, concentrates and roughages. The concentrates include the common farm-grown grains and the various mill by-products. Roughages are coarser feeds, such as hay, straw, silage, and pasture. Successful calf feeding depends to a great extent upon the use of the proper combination of these two kinds of feed. Cattle, being ruminants, are particularly well-adapted for handling a considerable amount of roughage. However, this applies more to mature cattle than to calves. It should be remembered that the digestive system of a calf has a rather small capacity and if filled with hay and silage can hold but little grain. Since the concentrate part of the ration produces most of the gain, particularly the gain due to improved condition, it is important that the calf eat enough grain. It may be necessary to limit the amount of roughage in order to accomplish this.

**Variety of Feeds Desirable**

In general, the calf may be fed anything for which he shows a keen appetite. It should be remembered, however, that an average consumption of grain (at least 1½ pounds daily for each 100 pounds of live weight) must be eaten if the calf is to be made fat enough to find favor with the judge and bring a good price when sold. Almost anything the calf will eat without materially lessening its appetite for grain may be fed safely. A variety of feeds is highly desirable, since variety insures palatability and increases the consumption of total food material.

From the standpoint of economy, the grain part of the ration should be made up as far as possible from the common farm-grown grains.
Most of these grains are high in starch and oil and hence are fat producers. They are low, however, in protein and should be supplemented with a nitrogenous concentrate such as wheat bran, linseed meal, or cottonseed meal. Especially are such protein feeds needed when the bulk of the roughage is not clover or alfalfa hay.

A good grade of legume hay should form a considerable proportion of the roughage fed. Such hay is palatable, rich in protein and mineral matter, and slightly laxative. Any one of these qualities would make it a desirable feed and all three together undoubtedly make it the most valuable of all common roughage materials. Occasionally a calf is found that shows a tendency to bloat or scour when fed liberally on clover or alfalfa. This trouble can be overcome by reducing the amount of hay and supplying some other dry roughage, such as timothy or oats straw, or by substituting mixed hay for the legume. Some silage may be fed if it is available, especially during the early part of the feeding period. A small pasture is desirable into which the calf may be turned at night in summer. Besides furnishing nutritious, laxative feed it provides an inducement for the calf to exercise, while the dew from the grass keeps its feet clean, thus lessening the danger of foul feet.

The following grain mixtures are recommended for calves and yearling steers:

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<tr>
<th>By weight (pounds)</th>
<th>By measure (pecks)</th>
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<tbody>
<tr>
<td>I Ground corn</td>
<td>Ground corn</td>
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<tr>
<td>Ground crushed oats</td>
<td>Ground oats</td>
</tr>
<tr>
<td>Bran</td>
<td>Bran</td>
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<tr>
<td>Linseed meal</td>
<td>Linseed meal</td>
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<tr>
<td>II Ground corn</td>
<td>Ground corn</td>
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<tr>
<td>Ground oats</td>
<td>Ground oats</td>
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<tr>
<td>Bran</td>
<td>Bran</td>
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<tr>
<td>III Shelled corn</td>
<td>Shelled corn</td>
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<tr>
<td>Whole oats</td>
<td>Whole oats</td>
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<tr>
<td>Linseed or cotton seed meal</td>
<td>Linseed or cotton seed meal</td>
</tr>
<tr>
<td>IV Ground or shelled corn</td>
<td>Ground or shelled corn</td>
</tr>
<tr>
<td>Linseed or cottonseed meal</td>
<td>Linseed or cottonseed meal</td>
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If ground barley is available, it should be substituted for approximately half the corn in the above rations. Since barley and corn have nearly the same weight per unit of measure and are about equal in feeding value, the substitution can be made pound for pound or peck for peck. It also is recommended that near the close of the feeding period the above grain mixtures be sweetened slightly by adding to each feed about a pint of water containing a small handful of brown sugar, or two or three tablespoonfuls of sorghum or the cheaper blackstrap molasses. Sweetening the feed in this way makes the mixture more palatable and more of it is eaten. Prepared molasses feeds may serve the same purpose but are usually more expensive. Because of their bulky nature, their use may result in a reduction rather than an increase in the amount of feed consumed.
Calf Should Not Go Hungry

The calf should be fed according to its appetite. At least one kind of feeding stuff should be fed in an amount slightly larger than that usually eaten, to guard against the possibility of the calf going hungry. Except in the case of a calf that fails to eat the right amount of grain, this material should be roughage, preferably hay. Some time should be taken to get the calf on a full feed of grain. At the start, but three or four pounds of grain should be fed a day. This amount should be increased by one pound every fourth or fifth day until the calf is getting all the grain it will clean up in about sixty minutes after feeding. Any feed left at the end of this time should be taken away and the roughage part of the ration fed. Likewise, at the next feeding any uneaten roughage should be removed before the grain is put in the trough.

Two feedings a day will be enough during the first part of the period, but three feedings are advisable during the last two or three months. Periods between feedings should be as nearly the same length as possible. This can be accomplished by feeding at five-thirty in the morning, at noon, and seven at night.

Water and Salt Also Important

Plenty of fresh water should be provided throughout the feeding period. Unless water in troughs or pails is available, the calf should be watered at least three times a day and preferably four or five times in hot summer weather. If the calf is kept by itself in a lot or stall, water should be kept before it at all times in a large, clean, galvanized iron pail. The pail should be emptied and refilled at least three times a day.

Salt either should be kept before the calf at all times in a small box nailed to the side of the stall or a small handful should be given it three or four times a week. Mixing salt with the feed is not advisable, as it is easy to feed too much in this way. Besides, animals apparently get much satisfaction from licking the pure salt.

Training and Grooming Fit Calf for Show

It should be the ambition of every club member to bring his calf into the show ring in the best possible condition, that is, not only fat and well finished but also well trained and thoroly cleaned and groomed.

The first step in training is to teach the calf to lead. This usually can be accomplished in a few days by leading the calf to water and to and from pasture. Later the calf should be led thru doors, over scale platforms and past unfamiliar objects. This will accustom it to going into strange places without fear or hesitation.

The next step is to teach the calf to stand properly while it is being examined by the judge (Fig. 6). This part of the training is really a
difficult process and should begin as soon as the calf is bought and continued until the day of the judging. Judges find it exceedingly difficult to examine restless, fidgety calves and are likely to regard them less highly than better trained individuals. Instances can be cited where animals have failed to win prizes only because they were not trained enough for the judge to examine them carefully. The calf should be taught to stand perfectly still for several minutes at a time. Each foot should be kept so placed that each leg is perpendicular and bears its full share of the weight of the body. The back should be carried perfectly straight and the head held exactly at the height of the back. Every day, especially toward the end of the project, the calf should be led from the stall and made to take such a position and to hold it for fifteen to twenty minutes. It also should be accustomed to being approached and examined by strangers. Such an opportunity is presented when neighbors come to the farm. The calf should be led out for their inspection and posed with the same care that would be taken in an actual judging ring.

Club boys should not show their calves at the fair without having done everything possible to improve their appearance (Fig. 7). Actual preparation for the showing should begin some four or five weeks before the day when the calves are to be judged. If the calf has been kept reasonably clean by five or ten minutes of daily grooming and a
monthly bath with soft water and soap, the task of putting on the finishing touches will not be hard. If no attempt has been made to keep the calf clean, considerable time and work will be necessary.

Two washings a week should be given during the month before the show. Soft water and tar soap are preferable altho not absolutely necessary. After the hair and skin have been wet thoroly, plenty of soap should be applied and the lather worked in by the vigorous use of a stiff brush (Fig. 8). If a little water is added from time to time, the dirt and dandruff are gradually loosened and washed out. Finally, the animal should be rinsed thoroly with clean water to remove all traces of soap. As much of the rinse water as possible should be scraped or wiped off and the animal put in a place that is free from drafts. It should be covered with a blanket if the weather is at all cool. Frequent washings keep the animal clean, stimulate a heavy growth of hair, and make the hair soft and fluffy. However, washing during cold weather is to be avoided unless the calf can be kept under heavy blankets in a warm barn free from drafts until it is dry.

Brushing the calf with a moderately stiff brush for a few minutes each day keeps the coat clean and the hair in good condition. Too much brushing and currying, however, may thin the hair and consequently is objectionable.
Horns Should Not Be Slighted

In the case of horned breeds, some attention should be given to the horns as well as to the coat. Often the horns take the wrong direction unless effort is made to shape them properly. In general, horns should curve forward, inward, and slightly downward. If they tend to grow upward, they should be weighted to bring them down (Fig. 9). Care should be taken that the horns are not broken close to the head by too heavy weights. If the horns are rather large and stiff, rasping slightly on the outer border of the desired curve will cause them to change shape more quickly.

A week or two before the show the horns should be trimmed and polished. The amount of trimming will depend upon the roughness and size of the horn. Much trimming seldom will be necessary in the case of calves. Usually any roughness can be removed by rasping the horn with a coarse file or rubbing it with coarse sandpaper. Care must be taken that the horn shell is not made too thin. The final smoothing should be made with a fine grade of emery paper or a flannel cloth and emery dust. After the horn has been properly smoothed it can be polished by being rubbed briskly with a woolen cloth moistened with sweet or linseed oil on which has been dusted a little tripoli. Any good metal or silver polish will give a fairly good polish.

Fig. 8.—Washing the Calf

Plenty of water and soap should be applied and the lather worked in by the vigorous use of a brush.
Clipping Improves Calf’s Appearance

Aberdeen-Angus and Red Polled calves look better if their heads are clipped in front of a line drawn around the neck about three inches back of the ears. Clipping the long hair in this way makes the head look cleaner cut and more shapely, the poll more sharply defined, and the ears somewhat smaller. In the case of all breeds, the tail should be clipped from just above the switch to the tail head, the hair being gradually tapered off near the body so that the tail blends nicely with the rump. This clipping should be done some two or three weeks before the animals are shown, in order that the clipped hair may lose its stubby appearance.

Curling Adds Final Touches

Cattle with long, fluffy hair usually are “curled” before going into the ring. Short haired animals, on the other hand, are brushed down smooth, the brushing being followed by a brisk rubbing with a woolen cloth slightly dampened with a mixture of equal parts of denatured alcohol and sweet or olive oil. Curling the long, fluffy hair frequently found on Short-horns and Herefords improves the general outline or shape of the body. The operation is performed as follows:

An hour or two before the animal is shown, the hair is made moderately wet by being brushed down smooth against the sides of the body with a stiff brush that is dipped frequently into water containing a little creolin and soap. With a coarse comb, the wet hair then is parted down the center of the back from the neck to the tail and combed straight out from this median line to the extreme edge of the flat portion of the back. Parallel lines about one inch apart next are drawn along the sides of the body from in front of the shoulders to the
rear edge of the thigh (Fig 10). These lines can best be made by using an ordinary curry comb with every other row of teeth pounded down flat against the back surface. After all the lines have been made, the hair is lightly brushed or combed up to make it stand out from the sides of the body. The upper line of hair is curled up even with the level portion of the back, the hair of which is brushed down flat and smooth (Fig. 11). Thus the long hair when properly combed and curled tends to emphasize the width of the animal as well as to soften and minimize any undue roughness of conformation such as is sometimes caused by prominent shoulders, narrow crops, hollow flanks, or a narrow rump.

**Certain Equipment Needed for Showing Calf**

In order that an animal may be well fitted for show and handled...
properly in the judging ring, certain articles of equipment are needed. If possible, these should be secured by each club member some three or four weeks before the date of the contest, so that both he and his calf may be familiar with their use.

![Illinois Club Calves at the International](image)

**FIG. 12.—ILLINOIS CLUB CALVES AT THE INTERNATIONAL**

Twenty-three members of beef calf clubs in Illinois showed their calves at the 1924 International Livestock Exposition. This is part of the string.

A galvanized iron pail should be provided for watering the calf and should not be used for any other purpose. A second galvanized pail, a cake of tar soap, a cheap fiber brush, a high-grade bristle horse brush, a circular spring steel comb, and a coarse bone comb are needed for washing and grooming the calf. For polishing the horns, a file, coarse sandpaper, a small bottle containing equal parts of alcohol and sweet oil, and a little tripoli (or metal polish) should be provided. The calf may be tied in the stall with a used rope halter, but should have either a new rope or leather halter when being shown (Fig. 13). The same blanket used at home to protect the calf from flies may be used at the fair. There should be a pitchfork at the stall for cleaning purposes, and a cardboard sign above the stall showing the calf's weight and age. A long cane or smooth pointer should be used in posing the calf. Club members should have a clean pair of overalls to wear in the show ring.

Most of the articles mentioned are already in use on the average livestock farm, while those that are not can be purchased for a small sum. The rope halters and the blanket can be made by the boy himself if he will follow these directions carefully.
How to Make a Rope Halter

Take twelve feet of three-ply, one-half-inch manila rope. About 33 inches from one end raise two strands and push thru the opening the shorter end \( B \), as shown in Fig. 14. Pull down until a loop about one inch in diameter is formed. Raise two strands of the shorter end \( B \) immediately above the loop, as shown in Fig. 15, and push thru the opening the longer end \( A \). Draw up firmly against the loop.

Unravel the shorter end \( B \) about 8 inches. Keeping the loop to the right, place the center strand (2) in back of the longer portion of the rope, and the outer strands (1 and 3) in front of it, as shown in Fig. 16. Carry the two outer strands (1 and 3) back under \( A \) and up thru the triangle formed by the strands and \( A \), as shown in Fig. 17. Bring the center strand (2) forward under \( A \) and up on the left and under strand 1 (Fig. 17). Draw the strands tight, twisting each so as to tighten the weave. Put strand 2 over one strand and under the next; do the same with strand 1, and put strand 3 under one strand. Draw the strands tight, twisting so as to tighten the weave. Complete by weaving each strand over one and under the next, in order. After putting each thru three or four times, cut off the unused ends about half an inch above where they came out the last time.

Put end \( A \) thru the loop, as shown in Fig. 18. The free end of the rope \( A \) should then be tightly wrapped with waxed cord to prevent raveling. The cord used should be about 18 inches long.

The cord is placed so that end \( X \) points down and end \( Y \) points up, as shown in Fig. 19. \( Y \) is taken at \( Z \) and wrapped around the rope and
both ends of the cord. When a dozen wraps have been completed, pull ends $X$ and $Y$ tight and cut them off close to the wrap.

How to Make a Blanket

To determine the proper size of blanket to make, the club member should measure his calf lengthwise from a point about 10 inches in front of the shoulders back to the root of the tail, and over the crops from a point midway between the elbow and knee-joint on one side to a point midway between the elbow and knee-joint on the opposite side. Lightweight canvas is the best material for a blanket, altho either heavy, unbleached muslin or a good grade of burlap will give just as good service as long as it lasts. The blanket should be cut out according to the pattern shown in Fig. 20 and then all edges should be doubled back and thoroly stitched to prevent fraying.

Approximately six yards of one-inch webbing are required for reinforcement and surcingles. This should be stitched to the blanket, as shown in the illustration. Ends of surcingles should be left long
enough to permit a loose, comfortable adjustment even after the calf has made considerable growth. The blanket will be more attractive if webbing of a bright, attractive color is used.

The rear surcingle should be stitched to the underside of the blanket for a distance of about 12 inches on either side of the center. The long ends are left free to serve as tie straps, which are passed under the flanks between the hind legs and tied in the rings at the rear.

Attractive cattle blankets of the style shown can be bought already made from dealers who handle stockmen’s supplies. Most firms can furnish blankets made of burlap, grey duck, khaki duck, or various shades of wool. Catalogs with prices can be obtained by writing to those dealers who advertise in reliable stock journals and farm papers.

Records Show Cost of Fattening Calf

A careful record should be kept of all feed the calf received so that the total cost of fattening the animal can be calculated (page 24). It also is a good plan to note all other important facts that in any way affect the management or care of the calf, so that plenty of material for a complete report of the project will be available when needed (page 25). The record should be kept up to date by entering each item as soon as possible, for one not entered promptly is likely to be forgotten. The calf should be weighed at regular intervals, about every ten days or two weeks, and the date and weight carefully recorded. By this means it is possible to determine just how fast the calf is gaining and whether or not recent changes in the ration have been beneficial.
1. Enter all feeds fed in Table II.

2. Weighing up enough feed to last for a week or more will save time and labor. After weighing, keep this supply separate from other feeds and record the amount. When this method is followed, it is not necessary to keep daily records.

3. When kitchen waste and milk are fed, they should be entered in the record at regular (weekly or monthly) intervals.

4. Consult your county leader before determining the price and value of home grown feeds. Purchased feeds should be entered at actual cost.

5. Pasture rates on average bluegrass pasture may be taken:

   - Colts and calves 6-12 months old: 4 cents per day
   - Colts and calves, 12-24 months old: 6 cents per day
   - Pigs, 50-100 pounds: 1/2 cent per day
   - Pigs, 100-150 pounds: 1 cent per day
   - Pigs, over 150 pounds: 1 cent per day
   - Lambs, up until weaning: 1 cent per day
   - Lambs or sheep, after weaning: 1/2 cent per day

   While legume and rape pastures are slightly more valuable than bluegrass, no difference is made in the charge.

6. In listing pasture in Table II, give the number of animals, and days on pasture in the column headed "amount."

### TABLE II—FEEDS FED

<table>
<thead>
<tr>
<th>Date</th>
<th>Kind of Feed</th>
<th>Amount</th>
<th>Price</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-7-24</td>
<td>Corn (shelled)</td>
<td>90 lb</td>
<td>$0.90</td>
<td>81</td>
</tr>
<tr>
<td>5-9-24</td>
<td>Bluegrass (green)</td>
<td>100 sq ft</td>
<td>0.90 per sq ft</td>
<td>90</td>
</tr>
<tr>
<td>2-1-24</td>
<td>Barley (shelled)</td>
<td>100 lb</td>
<td>0.80</td>
<td>80</td>
</tr>
<tr>
<td>2-1-24</td>
<td>Oats (Whole)</td>
<td>100 lb</td>
<td>0.80</td>
<td>80</td>
</tr>
<tr>
<td>3-1-24</td>
<td>Corn (shelled)</td>
<td>100 lb</td>
<td>0.70</td>
<td>70</td>
</tr>
<tr>
<td>3-1-24</td>
<td>Oats (Whole)</td>
<td>100 lb</td>
<td>0.70</td>
<td>70</td>
</tr>
<tr>
<td>3-1-24</td>
<td>Clover Hay</td>
<td>100 lb</td>
<td>0.60</td>
<td>60</td>
</tr>
<tr>
<td>3-1-24</td>
<td>Molasses</td>
<td>100 gal</td>
<td>0.50</td>
<td>50</td>
</tr>
<tr>
<td>4-1-24</td>
<td>Corn (shelled)</td>
<td>100 lb</td>
<td>0.50</td>
<td>50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Kind of Feed</th>
<th>Amount</th>
<th>Price</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-1-24</td>
<td>Barley (ground)</td>
<td>100 lb</td>
<td>0.80</td>
<td>80</td>
</tr>
<tr>
<td>5-1-24</td>
<td>Oats (ground)</td>
<td>100 lb</td>
<td>0.80</td>
<td>80</td>
</tr>
<tr>
<td>7-1-24</td>
<td>Barley (ground)</td>
<td>100 lb</td>
<td>0.60</td>
<td>60</td>
</tr>
<tr>
<td>7-1-24</td>
<td>Oats (ground)</td>
<td>100 lb</td>
<td>0.60</td>
<td>60</td>
</tr>
<tr>
<td>7-1-24</td>
<td>Alfalfa Hay</td>
<td>100 lb</td>
<td>0.50</td>
<td>50</td>
</tr>
<tr>
<td>8-1-24</td>
<td>Corn (ground)</td>
<td>100 lb</td>
<td>0.40</td>
<td>40</td>
</tr>
<tr>
<td>8-1-24</td>
<td>Oats (ground)</td>
<td>100 lb</td>
<td>0.40</td>
<td>40</td>
</tr>
<tr>
<td>8-1-24</td>
<td>Alfalfa Hay</td>
<td>100 lb</td>
<td>0.40</td>
<td>40</td>
</tr>
<tr>
<td>8-1-24</td>
<td>Molasses</td>
<td>100 gal</td>
<td>0.30</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Kind of Feed</th>
<th>Amount</th>
<th>Price</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-1-24</td>
<td>Corn (shelled)</td>
<td>100 lb</td>
<td>0.20</td>
<td>20</td>
</tr>
</tbody>
</table>

Total Carried Forward: 136

<table>
<thead>
<tr>
<th>Date</th>
<th>Kind of Feed</th>
<th>Amount</th>
<th>Price</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1-24</td>
<td>Corn (shelled)</td>
<td>100 lb</td>
<td>0.20</td>
<td>20</td>
</tr>
</tbody>
</table>

Total Value of All Feeds Fed: $43.41

A PAGE FROM THE RECORD BOOK OF A BEEF CALF CLUB MEMBER.—A careful record should be kept of all feed the calf gets so that the total cost of fattening the animal can be calculated.
### EXPENSES

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of animals at beginning</td>
<td>$45.00</td>
</tr>
<tr>
<td>Value of feeds fed</td>
<td>$43.41</td>
</tr>
<tr>
<td>Miscellaneous expenses</td>
<td>$1.10</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td><strong>$89.51</strong></td>
</tr>
</tbody>
</table>

### RECEIPTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of original animals at end of project</td>
<td>$104.40</td>
</tr>
<tr>
<td>Value of animals sold or used and estimated value of those on hand</td>
<td>$14.25</td>
</tr>
<tr>
<td>Value of products obtained</td>
<td>$118.65</td>
</tr>
<tr>
<td>Net Profit (Receipts less expenses)</td>
<td>$29.14</td>
</tr>
</tbody>
</table>

### FINANCIAL STATEMENT

Do not write on this page until the project is finished. Then make out this statement from the records on the preceding pages.

#### EXPENSES

<table>
<thead>
<tr>
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#### RECEIPTS

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<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of original animals at end of project</td>
<td>$104.40</td>
</tr>
<tr>
<td>Value of young animals sold or used or the estimated value of those on hand</td>
<td>$14.25</td>
</tr>
<tr>
<td>Value of products obtained</td>
<td>$118.65</td>
</tr>
<tr>
<td>Net profit (Receipts less expenses)</td>
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</tr>
</tbody>
</table>

#### SHOW RECORD

Where Exhibited: Bureau Co. Placing 4th Premium

Written Report

Each member should write a short story of his or her club work and attach it to this report before turning it in to the county club leader. The following suggestions will help you in writing the report:

- a. Tell how you came to enroll as a club member.
- b. Tell what breed you selected and why.
- c. Tell why you selected the individual.
- d. Tell of the methods used in your project and of any difficulties.
- e. Tell of what benefit club work has been to you and suggest ways that would make the work more interesting.
- f. Attach a photograph of yourself and project.

The Final Step in the Project.—Making out a statement of receipts and expenses helps the club member measure his success and at the same time definitely concludes the project.

Note—No charge is made for labor and no credit is given for manure produced. It is assumed that one will offset the other.
Disposition of Finished Calves

Calf club members should carry on their project so that they will be able to dispose of their animals thru regular marketing channels, either selling to local buyers or butchers, or shipping cooperatively to a terminal market where each member's animal will be sold upon its individual merits.

At the time the club is organized the method of disposing of the calves should be discussed and the plans understood by each member.

The local auction may be used to advantage where local interest in the purchasing of market and breeding animals warrants. In some cases club calves put up at auction may bring more than on the open market, if the buyer can use them for special purposes. Sometimes outside buyers can be encouraged to attend the sale if enough calves are to be sold. The recent inauguration of special auctions for club calves at the market centers on certain days may provide another system of selling. Where there are enough calves to make a carload, they may be shipped to market and sold as a cooperative shipment, each member receiving in return what his animal brings minus his share of the expense of marketing. This is usually a satisfactory method of selling where at least twenty calves are involved.

In the purebred heifer club the aim of each member should be to keep his calf. With this as a start, club members can build up a herd of their own by retaining the female offspring year after year. The expenses of doing this can be taken care of largely thru the sale of bulls and steers.