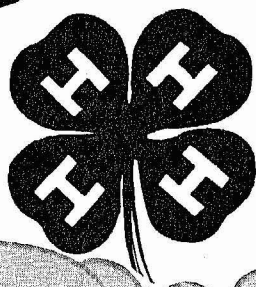


4-H CLUB Dairy Calves



A REAL JOB

Only those 4-H club members who have a keen interest in livestock and who really like the work which goes with their management and care should go into livestock club work. This truism applies particularly to the dairy calf project for dairy cattle are most responsive to good feeding, kind and careful treatment, and comfortable, sanitary quarters.

The club member who undertakes to feed and manage a dairy calf must have a high degree of patience and perseverance. Development often seems slow. A lag in interest and effort after the first few weeks means failure. A good dairy cow is the result of the utmost in care and attention and this is the goal in the dairy calf project. It is necessary of course, that the calf be of the desired breeding, after that it is up to the club member. Those who lack the interest and energy necessary for success should not engage in the dairy calf project.

4-H Club Dairy Calves

By

J. O. TRETSVEN, Extension Dairyman

The business of raising a good dairy calf starts before the calf is born. Generally it is likely that club members in the dairy calf project will take over the care and management of their calves after weaning, but the members should know how to care for the cow at calving time. Therefore, this bulletin briefly presents the essentials of successful feeding, care and management of dairy calves, starting with the care of the cow.

FEEDING AND MANAGEMENT

Care of the Cow	A careful breeding record should be kept of all cows in the dairy herd so that the owner will know when each is to freshen. At freshening time the cow should be put in a large box stall unless the weather is warm and she is on good pasture.
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As calving approaches the cow's udder becomes more distended and muscles on either side of the tail head loosen, giving a sunken appearance to those parts.

From these and other indications the dairyman knows that calving time is near. The cow should not be disturbed but the attendant should be present to give assistance if necessary.

Care of the Calf	When the calf is born, examine the cow's teats carefully and clear them of dirt and milk serum. Clogged teats often cause udder trouble and hinder the calf in getting proper nourishment. If the calf is weak or the cow fretful it is often necessary to help the calf to nurse. The calf should be left with the cow one or two days; a little longer if the calf is weak or if the cow's udder is caked and tender.
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**Teach
Calf to
Drink**

At weaning time, remove the calf to a clean well-bedded pen while the cow is out of the barn. If removed in this way so that cow and calf cannot hear or see each other they soon become accustomed to the separation.

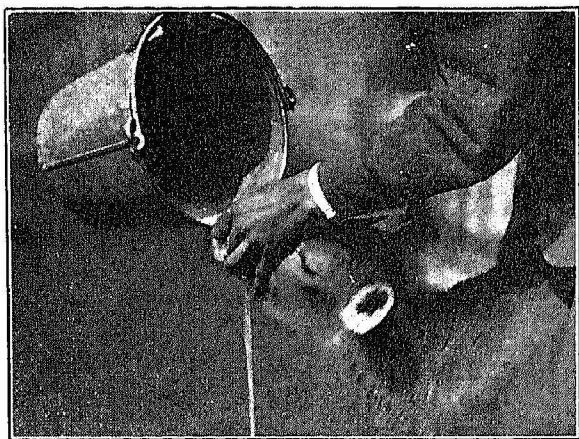


Fig. 1—Teaching the calf to drink milk.

Wait 12 to 18 hours after removing from the cow before attempting to make the calf take milk.

Before milk is offered, the calf should be petted and handled gently to win its confidence. A frightened calf and one that is several days old often is reluctant to suck the fingers, the first step in getting it to drink milk. If the calf refuses to suck the fingers, it may be backed gently against a wall or into a corner, its head held upward and a small amount of milk poured from the pail into its mouth. The taste of the milk often will cause the hungry calf to suck the fingers to obtain more. The nose then should be gently lowered into the bucket. Remove the fingers slowly from the calf's mouth and leave them rest for a moment upon the calf's nose. If the calf jerks its head up the milk-drinking lesson will have to be repeated. One or two lessons usually are enough. Never try to force the calf to drink.

Use Mother's Milk Feed the calf its mother's milk for the first five or six days. The milk should be sweet, clean and of body temperature; it is well to feed it immediately after it is drawn. Scours often result from cold milk in dirty, sour buckets.

Over-feeding and irregular feeding are other common causes of scours (indigestion), an ailment which frequently results in sickly, poorly developed calves. Feed regularly and moderately to insure health and steady gains. One pint of milk per day for each nine pounds of live weight is about right. A 90-pound calf should get about 10 pints of milk each 24 hours in two or three feedings. Increase the milk only as the calf grows.

Feeding Skim Milk By a little effort calves can be taught to eat grain when they are four weeks old. At this time a gradual change from whole milk to skim milk also may be made. The change to skim milk should take a week or ten days. A sudden shift is likely to cause indigestion. As the calf increases in weight increase the amount of skim milk. A calf three to six months old should get from 18 to 24 pounds of skim milk daily. Feed skim milk for at least six months and longer if available.

Starting Grain Feeding The calf should be taught to eat grain as early as possible, usually when about four weeks old. To train the calf to eat grain, place a few kernels of grain in the milk bucket when the calf finishes its milk. A little grain also may be trickled into the calf's mouth when it sucks the fingers after drinking milk. Some dairymen also encourage grain eating by placing grain before the calf and leaving the animal in the stanchion for an hour after feeding milk.

Until the calf is five or six months old it should receive at each feeding all the grain it will eat in a few minutes. Since skim milk contains all the nutrients found in whole milk except butterfat, the grain ration should consist largely of fattening grains. Whole oats with cracked corn, barley or wheat, make a good feed with skim milk. Five to 10 per cent of linseed oil meal

and 10 to 15 per cent wheat bran and shorts may be added to the grain mixture.

Here are three suggested grain rations which go well with skim milk and alfalfa or mixed hays:

I. When a mixture of legume and grass hays is fed:

Rolled barley or corn	-	-	-	4 parts
Whole oats	-	-	-	5 parts
Bran or shorts	-	-	-	1 part

II. When cereal or grass hays are fed:

Rolled corn or wheat	-	-	-	4 parts
Whole oats	-	-	-	5 parts
Linseed oil meal	-	-	-	1 part

III. When alfalfa hay is fed:

Rolled barley, corn or wheat	-	-	-	4 parts
Whole or ground oats	-	-	-	6 parts

**Roughage
For
Calves**

The best hay for young calves is a mixture of fine quality grasses and alfalfa. Alfalfa when fed with skim milk is rather laxative to calves under three months, but excellent results are obtained after this age. Cereal and millet hays are not very satisfactory. Give calves a little more hay than they will eat. Remove coarse left-over stems from manger daily. After calves are three months old they may be fed a little silage.

**Pasture
Water
Salt**

When calves are on good pasture they need no other roughage. Hay or green crops may be fed when pasture becomes short and dry. Calves under two or three months will do better on dry hay than on "watery," early spring pasture. When on pasture calves should have shelter to protect them from flies and heat.

Plenty of fresh, clean water is always necessary. Milk is not a substitute for water. The calf should have access to plenty of fresh, clean water at all times, or it should be provided frequently.

Salt is another essential that should be available at all times. Use good stock salt.

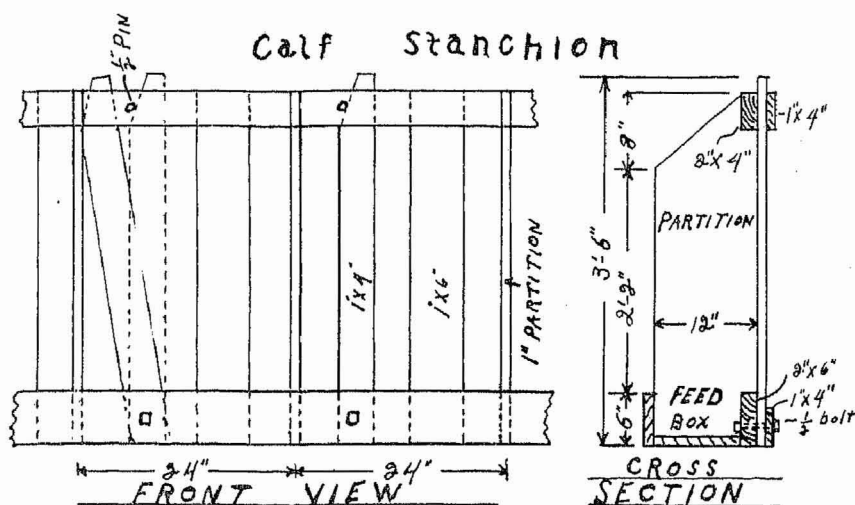


Fig. 2—Directions for making a stanchion.

Pens And Stanchions

A 5x5 foot pen for each calf until it is two to four weeks old is desirable. After this age several calves may be put together in a larger pen. The individual pen permits more attention for each calf and prevents calves from sucking one another. When several calves are put in a large pen stanchions and a feed manger should be provided along one side of the pen. A partition between each stanchion prevents calves from upsetting milk buckets and from eating each other's grain.

A clean, deep bed of straw should be provided for each calf. Pens should be of good size, well-lighted, dry and free from drafts. Dark, damp, dirty quarters often cause indigestion and poor growth. In winter, calves after they are two weeks old, should be turned out for exercise on bright, sunny days.

COMMON TROUBLES AND THEIR TREATMENT

Scours Diarrhea Indigestion

Common calf scours, also called indigestion and diarrhea, is a common and troublesome disease among calves raised by hand, frequently resulting in stunting and death. Common causes are too much milk; cold milk; sour milk; dirty buckets; too much

laxative feed such as bran, oil meal, legume hay and succulent pasture; spoiled feeds; sudden changes in feeding; and damp cold pens.

Find the cause and remove it. Reduce the milk ration to one-fourth by substituting warm water. Gradually increase the milk to normal as the calf improves. In severe cases also give the calf one and one-half to two and one half-ounces of castor oil. Follow this with two or three drops of formalin in each pound of milk. If the calf becomes very weak an egg beaten into the milk is beneficial.

CAUTION

Do not confuse common scours with white scours, a highly infectious disease affecting calves shortly after birth. White scours can be detect by light colored, offensive smelling droppings. It usually causes death within 48 hours. Call a veterinarian for white scours.

Treating Lice and Ringworm

For the small gray louse use powdered sabidilla seed. With a large salt shaker dust the powder over neck, back and sides of the calf. Two or three light applications during the winter

are usually enough.

Crank-case oil is recommended for the large blue louse. Do not use oil that contains a high percentage of coal oil as this injures the skin. Two applications of "Black Leaf 40," mixed one part to 1000 parts of water and applied ten days to two weeks apart is very effective.

Ringworms which cause the white scabby formations around the eyes of calves, usually during winter and spring months, can be cured by frequent applications of a mixture of crank-case oil and five percent of Kreso dip. Apply the mixture with a brush every day or two for ten days or two weeks.

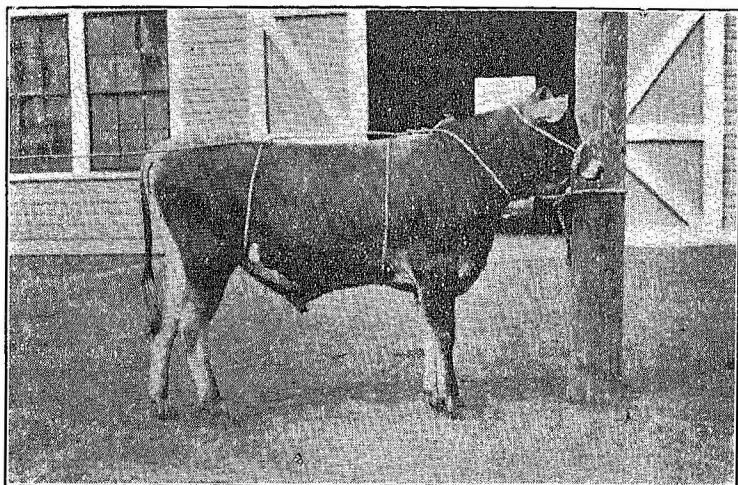


Fig. 3—A simple and easily made device for throwing a calf.

Removing Horns and Extra Teats

When the calf is three to ten days old clip the hair over the horn and rub the spot with moistened stick of caustic potash until a bean-sized raw spot appears. If the caustic potash is inserted in a piece of rubber tubing it will not burn the hands. Caustic potash is poisonous and should be kept in a sealed bottle. It may be obtained at any drug store.



Fig. 4—Clip the hair, then rub the spot with caustic potash.



Fig. 5—Wash the calf by using good soap worked up into a heavy lather.

Extra teats detract from appearance and are otherwise undesirable. They should be removed when the calf is young. Apply iodine or other good disinfectant and snip the teat off with sharp scissors. A rudimentary or extra teat also may be removed by placing a tight rubber band around it, causing it to slough off.

Dairy Calf Weights

The following table will serve as a guide to club members, indicating the approximate weights calves may be expected to attain at different ages when properly fed and managed:

Months	Holsteins Shorthorns	Guernseys Jerseys Ayrshires
At birth	90 pounds	55-60 pounds
3 months	220 pounds	140 pounds
6 months	360 pounds	260 pounds
9 months	520 pounds	380 pounds
12 months	680 pounds	490 pounds

PREPARING CALVES FOR SHOW

The show ring is not the aim nor the end of 4-H calf club work but exhibits at fairs stimulate interest and provide a yardstick by which results may be measured. Many club members do exhibit their stock and it is desirable that such showing be made as creditable as possible. The remaining portion of this bulletin gives some of the important points in selecting and preparing dairy calves for exhibit.

Selecting the Calf

Breed characteristics are important in the show ring. Therefore, when selecting the calf that is to be exhibited, and this should be done well in advance of the show so as to allow ample time for feeding and fitting, the club member should have in mind the ideal characters which are recognized by judges and breeders in the breed of his choosing. Breeders, extension agents and others can give the club member the desired information and literature of breed associations is always available. The first step is to select the calf carefully, which means that the calf member must become a good judge of the breed in which he is interested.

Feeding For Show

Feeding calves for the show ring is not materially different than the methods already discussed. The club member should endeavor to have his calf as large as possible and to carry a medium amount of flesh. Pasture grasses, roots, silage and oil meal produce a soft, pliable skin and fine, silky hair, points of great importance in show exhibits. The grain ration of the show animal should contain from five to 15 per cent oil meal. It may take three to four months to get an animal in good show condition. It is well to discontinue feeding silage, roots or grass a week before the exhibit. During the last three or four weeks the calf should be kept in a clean, well-bedded stall in the barn.

Teaching To Lead

Neither the club member nor his calf will make a good impression in the show ring unless he has carefully taught his animal to lead. This training is best done when the calf is young. There are just a few general essentials that are important: be kind, be gentle, be calm, be patient. A good rope halter should be made (get directions from the county agent) and a short lead rope attached to it. If the club member will lead the animal while another person urges it on with a light switch, usually only a few lessons are necessary.

Washing and Grooming

Six weeks before the exhibit the calf should be thoroughly washed with toilet soap and warm water. Repeat the day before the show. Stained white hair may be bleached by putting a little blueing in the rinsing water or by rubbing with lemon juice. Rinse off all soap and suds with clean water. Immediately after rinsing brush off all excess water and cover the

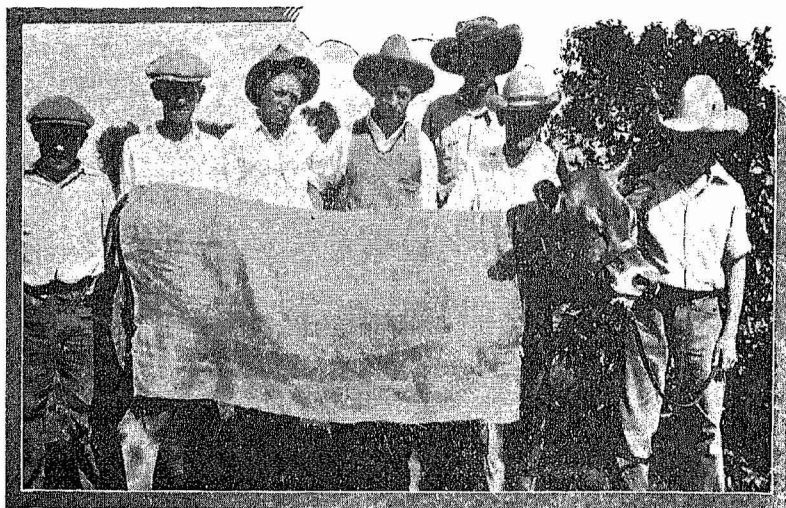


Fig. 6—A homemade, inexpensive, but suitable blanket.

calf with a heavy blanket until dry. This keeps the skin soft, keeps the hair straight, and gives the hair the desired silky appearance. A good blanket may be made from burlap, lined with flannel. Wash the calf soon enough before the exhibit so that it will be dry and warm when it goes into the ring.

Brush the calf vigorously with a soft brush ten or 15 minutes each day after the first washing. The curry comb should be used only to clean the brush and to remove dirt from thighs and legs. After brushing, the calf should be wiped with a flannel cloth dampened slightly with sweet oil. The day before the show wash and braid the tail into five or six braids. Remove the braids and comb the switch just before showing to give the desired fluffy appearance.

If the hoofs are too long they should be trimmed to the proper length with a pair of nippers and a knife.

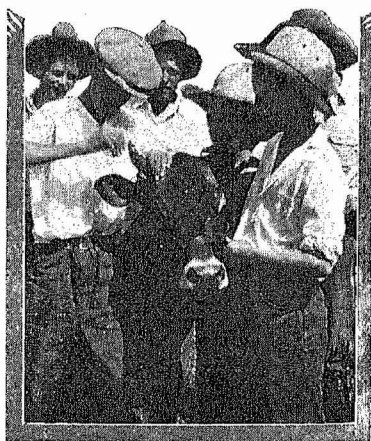


Fig. 7—Scraping horns with glass.

Preparing Horns and Clipping

To bend or shape a horn to conform to breed characteristics it may be scraped thin on the side toward which it is to bend. Weights or horn trainers may also be used for this purpose. The work of shaping horns should start well in advance of the show.

Before the exhibit horns should be carefully polished. First remove all rough parts with a wood rasp, and scrape with glass to remove ridges. Then rub with fine emery cloth, first working around the horn and finishing with lengthwise strokes. When perfectly smooth the horn is ready to polish with a paste made of powdered pumice stone and sweet oil and applied with a soft woolen cloth. A final rubbing should be given with a dry flannel cloth.

If the calf has long hair it may be advisable to clip the entire body except the switch. Clipping should be done three to four weeks before the show. Such clipping, however, should not be necessary if the animal has been properly fed and cared for, in which case only the head, ears, neck and tail should be trimmed. In trimming the tail begin clipping far enough from the end to leave a good brush. In all cases no rough edges should be left. A good machine is necessary, and it is well to have the assistance of someone with experience.

In the Show Ring

Every detail of training and preparation must be done before the calf is in the show ring. Here is the final test of how well the club member has done his work. If properly trained the animal will stand to show his best points to the greatest advantage. If movements are necessary they should be brought about with least possible effort on the part of the club member. The animal should stand with all four feet well-placed under the body. A slight pull or push on the head should be all that is necessary to bring the animal into the desired position. The back and rump should be in a straight line. If the calf is high in the back, pinch him over the loin, place the hind legs farther back and hold the head high. With a low-backed calf the hind legs should be placed closer to the front ones. The calf is most attractive when the head is held in a medium high position. A good, well-made rope halter is necessary for showing cattle.

Some Extra Points

Do not give the calf a drink of cold water just before going into the ring, as this causes the animal to hump its back and the hair to look rough.

Find out from the superintendent when the class will be called into the ring. Feed and water well in advance so the animal will be comfortable and at the same time have the desired "fill" when in the ring. Do not feed too heavily. Be ready when the call comes.

In the ring move the animal about as requested by the judge. Have in mind the calf's strong and weak points and make every effort to show

him to best advantage. Be alert. Keep one eye on the judge and one on the calf. Promptness, courtesy and a smile in defeat are marks of a good showman.

While at the show the calf should be kept clean and well groomed at all times. Stalls should always be clean and well-bedded with straw. Remove litter at once. At a show the club member is under careful scrutiny as well as the calf—make the best showing possible.