



THE DAIRY CALF

The 4-H Dairy Club Series

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By

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In your first year of Dairy Club work you will probably select a calf for your project. This bulletin will help you do a good job of raising your calf.

Selecting a Calf

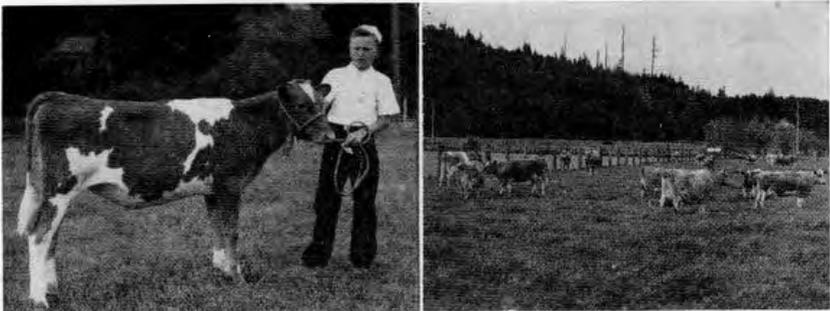
When you get your calf, get a good one because:

1. The calf you choose should serve as the foundation for a herd.
2. It won't cost you any more money or effort to raise a good calf than to raise a scrub.
3. It costs quite a lot of money to raise the calf from the time that you buy her until she comes into production.

Here are some more things for you to think about when you are ready to pick out your calf.

1. Should you start with a purebred or a grade? Discuss this with your parents and your club leader.

Fig. 1.—Use care in selecting your calf.



This—may lead to—This

2. If there are any questions as to the breed of the calf you should start with, discuss this with your parents and leader.
3. The mother of your calf should be a good producer, and she should be in a herd of good producers. The sire of your calf should also have good production records back of him.
4. Select a calf with good type. The dam and the sire should have good type.
5. If you are in doubt as to good type, get your County Extension Agent or some other experienced person to help you.

Care of the Newborn Calf

Here are some things that you should know about newborn calves.

1. Before the calf is born, the mother should have a dry period of at least 8 weeks.
2. Be sure that the mother has all the good, green, leafy hay she will eat. Also see that she gets some grain.
3. When your cow is ready to calve, place her in a clean, dry, well-bedded stall.
4. As soon as your calf is born, you should remove the mucus from its mouth. If it isn't breathing, slap the chest vigorously right after she is born.
5. Your cow will usually begin to dry the calf by licking. If she doesn't, you should rub the calf dry with a piece of sack or cloth.
6. Disinfect the navel with iodine right after the calf has been licked dry. This helps to prevent body infection.
7. Your calf should be sucking within an hour after it is born. If not, lend a hand and see that the calf gets some of the mother's milk. Before the calf is allowed to suck, however, be sure that the mother's udder is clean.
8. The first milk that your calf gets from her mother is called *colostrum*. Unless your calf gets a good supply of

this milk, she will probably be sickly and hard to raise. Colostrum has an extra supply of the food that is needed to get the calf off to a good start.

9. Do not leave the calf with its mother for more than 2 or 3 days. Some dairymen, however, prefer to leave the calf with its mother for no more than 1 or 2 hours. The main thing to remember is that your calf should have a good supply of colostrum.

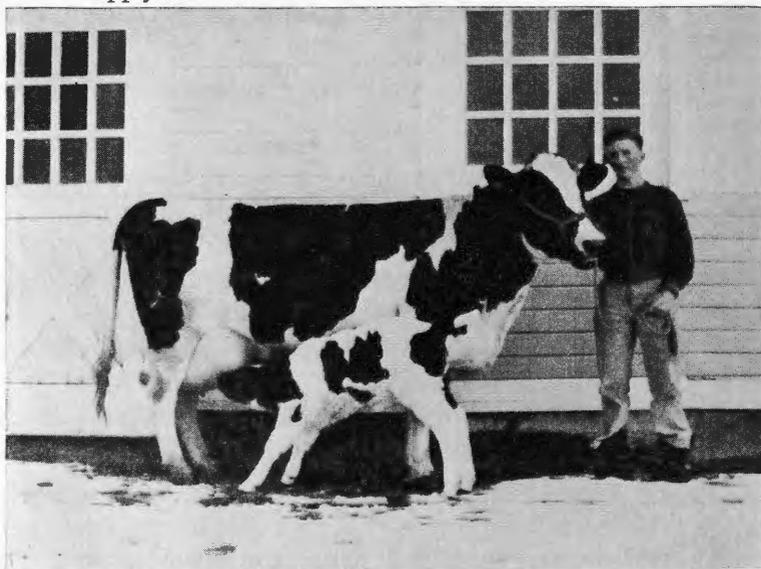


Fig. 2.—Your calf should nurse within an hour after it is born.

10. To teach your calf to drink from a pail, get her into a corner, straddle her neck, place your fingers in her mouth, and, while the calf is sucking your fingers, gradually lower her head into a bucket of warm milk. After the calf has taken several swallows, withdraw your fingers from her mouth.

Whole Milk Feeding

During the first 3 weeks, there is no feed that can equal whole milk. If your calf is not strong and vigorous, you may want to feed her whole milk for 2 months.

A strong, sturdy calf needs to be fed only twice a day; a weak calf should be fed three times a day. One pound of milk a day to each 10 pounds of live weight is enough for your calf.

The average weights of heifers at birth are as follows:

Jersey	53 pounds
Guernsey	65 pounds
Ayrshire	72 pounds
Brown Swiss	95 pounds
Holstein	90 pounds



Fig. 3.—Applying tincture of iodine by using the screw cap from a bottle of iodine. The cord should be completely saturated with the iodine solution. Dusting with powdered borax afterward is advisable.

When your calf is first taught to drink, the amount that you feed will, of course, depend upon her size. The following are the amounts that average calves of the various breeds will drink when they are 1 or 2 days of age:

Jersey	5 pounds
Guernsey	6 pounds
Ayrshire	7 pounds
Brown Swiss	8 pounds
Holstein	8 pounds

As your calf grows, the milk should be increased, and at 4 weeks of age she should be drinking about the following amount:

Jersey	7 pounds
Guernsey	8 pounds
Ayrshire	9 pounds
Brown Swiss	12 pounds
Holstein	12 pounds

You should weigh the milk that you feed to your calf. If you don't, she may get too much and be *thrown off feed*. It's just as bad for you to overfeed your calf as it is to underfeed her. After your calf has received its mother's milk for 4 or 5 days, she may be fed milk from the lowest testing cows in the herd. Make sure that the milk you feed your calf is from a healthy cow. You should make certain that—

1. The milk is fresh and clean.
2. The milk is fed at regular intervals.
3. The milk has a temperature of about 100° F.
4. The utensils are clean.

Calf Meals

If your parents sell whole milk, you will want to wean your calf as soon as possible. Of course, if you can feed her whole milk for 2 months instead of 1 month, this is best. Always remember that it will cost you money in the long run if you don't have a well-grown heifer. Make the change-over from whole milk to calf meal gradually.

If you feed your calf on a commercial calf meal, feed the meal according to the manufacturer's instructions. Place the calf meal or pellets before your calf by the time she is 10 days of age. As your calf eats more and more of the calf meal or pellets, you can lessen the amount of milk.

The following schedule of feeding has been satisfactory at The State College of Washington:

1. Feed mother's milk to your calf for 48 hours.
2. Feed whole milk until the calf is 2 weeks of age.
3. When the calf is a week old, give her calf meal and encourage her to eat it.
4. Give your calf good quality hay and water all the time.
5. At 4 weeks of age, your calf should be eating some hay and from 1 to 2 pounds of calf meal each day.
6. You may increase the calf meal to about 3 pounds a day when the calf is 4 months old. When your calf is this age, you may change to the regular herd grain mixture.

When your calf is about 10 days of age, place some grain in her mouth after you have fed her milk. Then she will eat grain more quickly than otherwise. Your calf will probably learn to eat ground grains more readily than unground ones. But whole grains are also good for your calf.

Feed your calf all the grain she will eat until she is about 3 months of age. After this, limit her to about 3 pounds a day until she is 6 months old. For grain feeding, oats either ground or fed whole are satisfactory.

The following grain mixture has given good results:

- 100 pounds ground oats
- 60 pounds wheat bran or millrun
- 20 pounds linseed oil meal or soybean meal
- 20 pounds ground barley

Make sure that the calf's feed box is clean. Don't allow moist grain to collect in the feed box because it will sour and may *throw your calf off feed*. Soaking grain for calves is unnecessary and feeding it in the milk isn't a desirable practice.

Roughage Feeding

Your calf will start to nibble at hay when she is about a week old. She, of course, will eat only a small amount, and should be fed green, leafy, well-cured hay. Don't feed moldy or damaged hay or silage. When your calf is about 4 months of age, you may feed her about 1 pound of silage a day. This may be increased until at 6 months she is eating about 3 pounds a day. Give her all the good hay that she will eat.

Pasture

If you do turn her on pasture before she is 6 months old, be sure she gets enough grain and hay so that she will not become stunted in her growth. Your calf cannot get enough feed from pasture alone until she is about a year old.

Water and Salt

Your calf should have all the clean water that she will drink even when she is getting milk. Have salt available all the time.

Minerals and Vitamins

When you feed your calf whole milk she will probably be getting all the minerals that she needs. When she starts to eat hay and grain, she will usually have all of the minerals she needs. If you feel it is necessary to feed minerals to your calf, you may give her some steamed bone meal. Place this in a box where she and the other calves can eat it whenever they want it.

Calves are sometimes born with *big necks*, or goiters. This is caused by a lack of iodine in the feed. This condition can be prevented if you feed iodized salt to the cows. We recommend that stabilized iodized salt be fed to all livestock in Washington.

When you are feeding whole milk and good quality leafy, sun-cured hay, the chances are slight that your calf will need any more vitamins such as A and D. But if your calf is small and unhealthy, especially during the winter months, you may want to feed her oil that has a high vitamin A content.

Housing

1. Keep your calf in a dry, well-bedded place.
2. The shelter that you provide for your calf should furnish protection from wind and rain, and should be well-ventilated.
3. Keep her pen clean.
4. Your calf should be kept in a pen by herself until she is about a month of age.
5. If she doesn't have an individual pen, keep your calf tied in a large stall away from other calves so she can't suck them after she has been fed milk.
6. After your calf has begun to eat some grain and hay, you can turn her into a larger pen with calves about her own age. Be sure that they aren't too crowded.
7. Have stanchions in the large pen so that when you feed the calves, including your own, they can be fastened. After you feed the calves milk, you can feed them a little grain. This will discourage them from sucking one another.



Fig. 4.—Individual calf pens for small calves help to prevent the spread of disease.

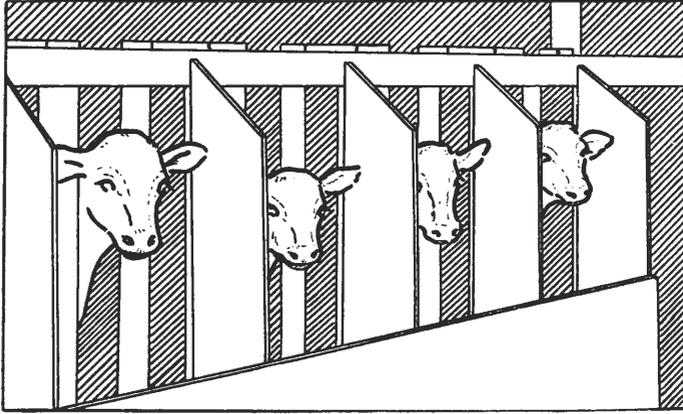


Fig. 5.—Pens for larger calves should have stanchions to separate the calves.

8. Have a hay rack and keep it filled with leafy, green hay.
9. Your calf should have a well-drained and sunny exercise lot with plenty of shade.

Preventing Horns

You will probably want to dehorn your calf when she is about a week old. Use caustic potash sticks to prevent the growth of horns.

First, fasten her securely. Then clip an area about the size of a half dollar over and around the horn *buttons*.

Next, cover this area with vaseline to keep the caustic from burning beyond the horn area.

Wrap one end of the stick of caustic in paper to keep from burning your fingers. Place the other end of the stick of caustic over the center of the horn button and rub with a circular motion until the caustic has gone through the skin and into the center of the horn button. You will need some practice to get the best results. Figure 6, center, shows how to put the vaseline on the clipped area, and the picture below shows how the caustic is put on the horn button.

Do not turn your calf out in the rain for a day or two and do not allow other calves to lick the treated horn buttons.



Fig. 6. — *Top* —
Clipping the hair
around the base of
the horn.



***Center* —** After
clipping the hair, ap-
ply vaseline around
the base of the horn.



***Bottom* —** Apply
caustic to the button.
Caustic must be
wrapped in paper to
protect your hands.

SIX MONTHS TO ONE YEAR

Your heifer will be easier to raise after she is 6 months of age. Here are a few things, however, that you will want to remember.

1. Don't expect your heifer to shift for herself. To develop her into a healthy, well-grown cow, see that she is properly fed and cared for.
2. Feed her enough grain to keep her in a thrifty condition until she is about 12 months of age.
3. Feed her all the good hay that she will eat. This is one of her cheapest feeds.
4. Let her have plenty of clean water.
5. Give her iodized salt.
6. If you turn her on pasture, or if the roughage is poor, increase the grain so that she will not become stunted in her growth.

Normal Growth

You should make every effort to keep your calf growing normally. Many of our 4-H boys and girls have received red ribbons on their calves at fairs when they would have received blue ribbons if their calves had been properly grown. You should plan to check the height at the withers and take chest girth measurements of your calf at regular periods. Take three measurements and use the average.

While using a cloth tape to get the heart girth measurements, be sure that it is not allowed to stretch or to get wet. You can measure the height of the withers with a homemade device made from a yardstick. When animals are being measured they should be standing with head erect and with feet placed squarely on a smooth floor. Get estimated weights from chest girth measurements by using Table 2, page 27, Extension Bulletin No. 269, *Raising Dairy Calves*.

You should also have copies of Extension Bulletin No. 231, *Fitting and Showing Dairy Calves*; Extension Bulletin No. 392, *Your Dairy Heifer*; and Extension Bulletin No. 395, *4-H Dairy Club Outline*.

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