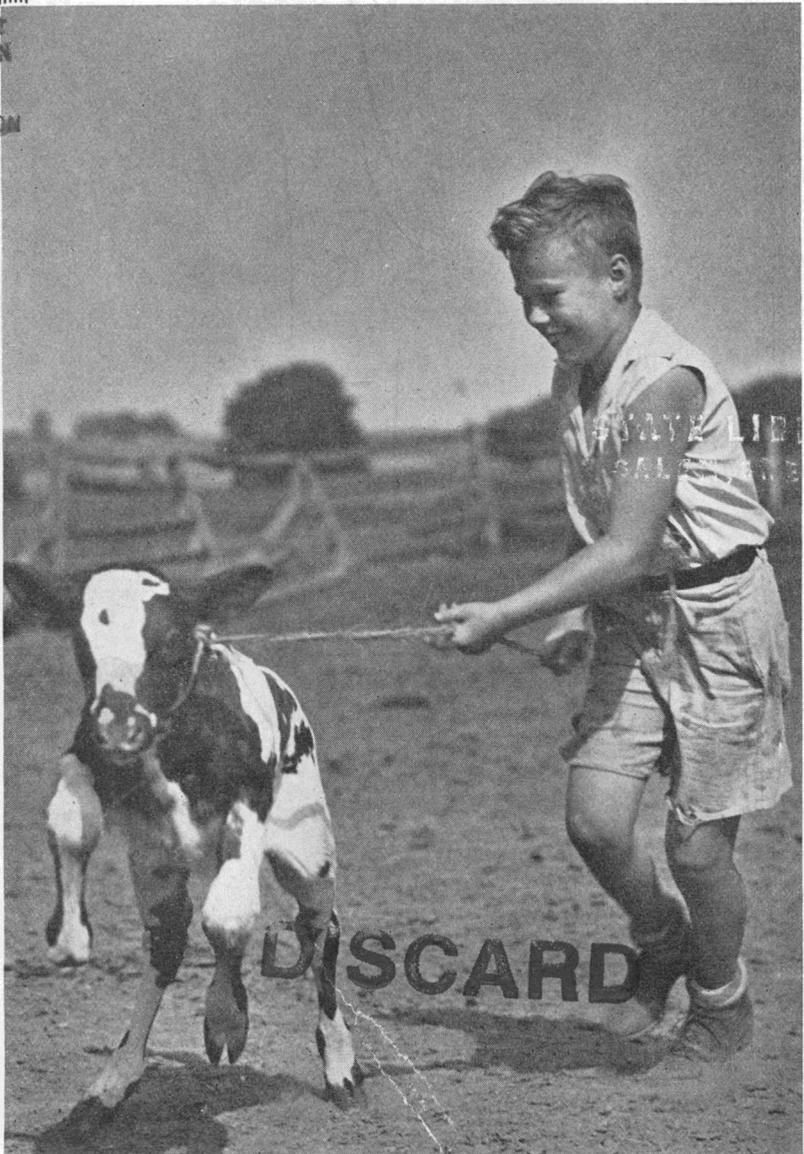


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Raising THE CLUB CALF

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Oregon State System of Higher Education
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4-H Club Dairy Project

RAISING THE CLUB CALF

In raising dairy calves an old saying might be changed to read, "A good start is half grown." This is not intended to mean that the raising of calves is necessarily so difficult, but to emphasize the importance of paying close attention to details and not depending on haphazard methods. Because of the decided advantage given by a good start, it is not only advisable but necessary that the mother receive proper care and attention before the birth of the calf. In the first place she should be allowed to be dry six or eight weeks before the arrival of the calf and during this time she should receive the proper kind and amount of nourishing feed. Unless the cow is in very good flesh the grain allowance should be liberal; but in any event about a week prior to freshening this grain allowance should be cut down, as the cow may easily go off feed at that time. Cutting down the grain allowance also tends to lessen the possibilities of milk fever. Wet mashes are very good feed for the cow both just before and after freshening. In cold weather warm water may be used to make the mash.

After the calf is born be sure to note whether or not it is strong enough to get up and suck. If it does not suck within an hour after birth it should be assisted. It is not likely that further assistance will be necessary unless the calf is exceptionally weak.

It is a very good plan to allow the calf to remain with its mother for at least two days, as this permits it to get the colostrum milk (the first milk), which is very necessary to a proper start. This practice is also beneficial to the cow's udder. If the calf is allowed to remain with the mother longer than the two days, however, both will be more disturbed when the separation takes place and it will be more difficult to teach the calf to drink.

Teaching the calf to drink. At the end of the two days, when the calf is taken from the mother, it is necessary to teach it to drink. This is often a difficult step and the more difficult it is the greater the hardship on the calf. It is essential, therefore, that patience be exercised in giving this instruction.

The operation is sometimes made easier if the calf is allowed to get quite hungry before giving it this first drink. With most calves practically no difficulty is experienced, but some may not be such good pupils and it may be necessary to get astride the calf's neck and back the calf into a corner, using one's legs for a stanchion. Then let the calf suck a finger and while doing so lower the finger into the milk. After a few seconds the finger can be gradu-

ally withdrawn and the calf will continue to drink. This procedure may have to be repeated if one lesson is not enough.

For the first four or five days the mother's milk should be fed the calf. After that time milk from any cow in the herd may be used.

Amount to feed. The amount of milk given at this stage is very important and it will vary according to the size of the calf. Some feeders recommend 1 pound of milk for each 8 or 10 pounds the calf weighs. Others suggest about 6 pounds for a Jersey calf weighing 50 pounds and 10 or even 12 pounds for large Holstein calves weighing approximately 100 pounds. For calves in between these sizes proportionate amounts can be fed. For the first three weeks there is an advantage in feeding three times daily. This will, of course, necessitate increased work, but the advantage gained by giving the calf a better start should offset this.

Because of its value, whole milk is not generally used for calf feeding for any length of time, and it has been thoroughly demonstrated that calves fed skim milk develop into equally as good cows as those which are fed on whole milk. In fact, it sometimes happens that the better fed calves, because of their pampered condition, may not turn out satisfactorily because of the abrupt change at weaning time.

Changing to skim milk. It is usually advisable, however, to feed whole milk for the first two weeks, then to change the amount gradually, lessening the whole milk and adding a corresponding amount of skim milk until at the end of the fourth week the calf is on a straight skim-milk ration.

Temperature, regularity, etc. The temperature of the milk fed is very important. Some recommend that it should be about 100° Fahrenheit, while others suggest that it should be about 95° since that is the temperature of drawn milk. The same temperature should be used at all times, allowing no variation, and it is best to use a thermometer rather than to guess. Milk that is freshly drawn will not have to be heated, except in colder weather, but if allowed to stand very long it should be heated even when the weather is warm.

Regularity of feeding is highly essential. Whether on three-times-a-day feeding or twice-a-day feeding, it is very necessary that the periods be equally divided and that feeding be done at the same hours each time.

DAILY FEED CHART

Age of Calf	Whole milk	Skim milk	Grain	Hay	Silage or roots	Water	Salt	Pasture
First and second day	Free feeding with mother, with care							
Third and fourth day	Mother's milk 6 to 10 lbs.							
Fifth to fourteenth day	6 to 12 lbs.							
Third week	Gradually lessen total feed	Begin substitute for whole milk 8 to 14 lbs.	Begin with a taste	A handful		Accessible or in bucket twice daily	Accessible	
Fourth week	Decrease amount total feed	Increase 10 to 16 lbs.	About $\frac{1}{4}$ lb. daily	$\frac{1}{4}$ to $\frac{1}{2}$ lb.	May be started with care	As above	Accessible	
Second month		May be increased to 14 to 20 lbs.	$\frac{1}{2}$ to 1 lb.	$\frac{1}{2}$ to 2 lbs.	2 to 4 lbs.	All they will consume	Accessible	For short period daily with care

Third month			1 to 2 lbs.	2 to 5 lbs.	3 to 5 lbs.	All they will consume	Accessible	For short period daily with care
Fourth, fifth and sixth months		May remain at 16, but 20 lbs. may be used if available	2 to 3 lbs.	4 to 6 lbs.	4 to 10 lbs.	All they will consume	Accessible	May replace roughage if of good quality
Seventh to tenth month		May be discontinued, or, if available, fed for one year	2 to 3 lbs. winter feeding	6 to 10 lbs. winter feeding	10 to 20 lbs. winter feeding	All they will consume	Accessible	In summer good pasture replaces grain and roughage
Tenth month to one year			2 to 3 lbs. winter feeding	8 to 12 lbs. or more winter feeding	12 to 20 lbs. winter feeding	All they will consume	Accessible	In summer good pasture replaces grain and roughage

Cleanliness of pails and utensils used in feeding the calves cannot be overemphasized. Pails in which the calves are fed should be scalded after each feeding and not allowed to remain in the manger or pen.

Older calves fed more. Depending on the vigor of the calf the amount of milk may be gradually increased so that by the time it is 6 weeks old it will be getting 15 to 18 pounds daily. Calves may be properly developed if they never receive more than 15 pounds daily, and it is unnecessary to feed more than 20 pounds daily at any time even though milk is very plentiful.

The calf may be weaned at 6 months of age or may continue receiving milk to the seventh or eighth month or even longer. In most cases, however, the calf is weaned during the sixth month; if the supply of milk is short it may be done earlier providing liberal amounts of grain and hay are substituted for the milk.

In raising calves by hand they should be confined in stanchions until they have consumed their milk and grain. This will largely prevent sucking one another's ears or udders.

Grain feeding. Beginning the third week the calf may be taught to eat grain. This is done by either placing a small amount in the bottom of the pail after the milk has been drunk or placing a little in the calf's mouth. After the calf begins to like the taste of the grain a small amount may be placed in a box or trough where accessible. A mixture of either barley and oats in equal parts, ground or rolled, or corn and oats may be used. A more palatable mixture is obtained by adding some bran and a little oil meal.

In two weeks time the grain allowance may be increased to $\frac{1}{2}$ pound daily, and by the time the calf is 2 months old it may amount to 1 pound per day. When the calf is 5 months old the grain ration may amount to 3 pounds daily, or if there is plenty of good roughage or pasture and the calf is doing well, it may be left at 2 pounds per day.

From the seventh to the tenth month good pasture may replace grain and roughage, but it must be plentiful as well as of good quality. In winter feeding, at that age, the grain mixture may still be 2 to 3 pounds daily, while it may be entirely discontinued after 10 months of age if hay and succulent feed are of good quality. If the calf is not as thrifty as it should be, however, the grain may be continued.

Hay feeding. Hay is apparently important in the calf's ration not only because it is economical but also because it seems essen-

tial to proper development. The calf will begin eating hay about the third week. A handful at a time is enough at first but it should be encouraged to eat more as it grows older until it will be consuming about 8 pounds when 8 months old if on winter feed. Clover and alfalfa or oats and vetch are usually preferred. When the calves are very young, however, clover and alfalfa may tend to produce scours. If this is noted, the amount fed can be lessened or a mixed hay may be substituted for a time.

Succulent feeds. Silage may be fed to young calves not on pasture or before they are turned to pasture. It should be free from mold and not too sour. Only small amounts should be fed the young calves as it is preferred that they eat hay. When the calf has passed the sixth month and is on winter feed the amount of silage can then safely be increased until it will be consuming about 20 pounds at 1 year old.

Roots can also be used. In some cases they have given better results than silage and there has been less trouble from scours than with silage.

Pasture. Pasture is of little value to calves under 2 months of age, and often it is better to wait a little longer before pasturing them since there will be less trouble from scours. In some sections, due to heat and flies, pasture is of doubtful value to spring calves during their first summer. In such cases they should be protected during the day time. Fall calves will make good use of pasture the following summer, and if it is of excellent quality it may replace all other feed after the seventh or eighth month.

Water, salt, minerals. Calves will begin to drink water the third or fourth week and will soon be drinking several times a day, a little at a time. It is best to have water before them at all times, but if this is not possible they may be watered twice daily in pails.

The calves should be supplied with salt as soon as they start eating grain and hay. Best results are obtained by placing salt where it will be accessible.

If the calves are getting plenty of skim milk and clover or alfalfa hay, the addition of minerals is not ordinarily required. If there is any doubt about their getting enough mineral matter, $\frac{1}{2}$ to 1 ounce of sterilized bone flour or meal may be used in the grain ration.

Sanitation. Cleanliness of feeds fed as well as of utensils used, is of great importance. Unclean or diseased milk has the effect of

so much poison to the calf. An unclean pen and lack of sunlight or proper ventilation are handicaps which may prevent proper development and at best will increase costs of raising.

Care at shows. When the calf is to be shown at the fairs there may be a little change in its grain ration. Two or three weeks before the fair and during the fair a little oil meal may be added to the mixture; then a few days before showing, the amount of succulent feed may be cut down slightly. The calf should have plenty of exercise to insure good health as no animal shows so poorly as one that is clearly out of condition.

A daily feed chart is given which will tell at a glance the relative amounts of feed to give each day at different ages. Varying amounts are given at each age; the amount of feed to use will depend on the size of the calf and how vigorous and thrifty it is. The bigger or healthier calves can take more, but the smaller ones or those that are not so healthy will require the smaller amounts. Two ways of feeding calves more than 7 months old are shown: (1) winter feeding with grain, hay and silage, or (2) pasture alone.

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