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Raising the Dairy Calf

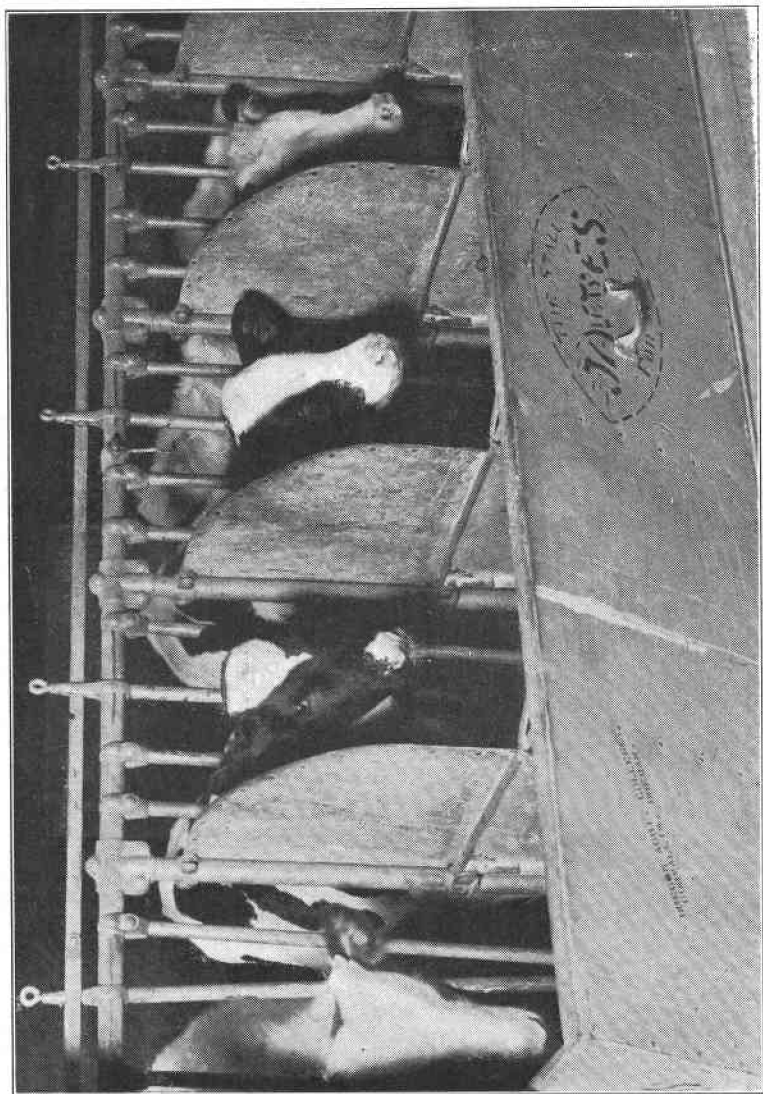
BY
EDWARD B. FITTS.



A CONTENTED GROUP WELL FED AND CARED FOR.

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of the State who request them.



CALVES IN STANCHIONS READY FOR FEEDING.

RAISING THE DAIRY CALF

BY EDWARD B. FITTS.

To perpetuate or continue a dairy herd, it is necessary to replace a certain number of animals that are dropping out each year from old age, accident, or various other causes. Two methods are open to the dairyman for keeping up the number of productive individuals in his herd, or for increasing them, if he cares to do so: The method of purchase, and the method of raising the heifer calves.

The method of purchase is hazardous. The cows found on the market are almost certain to be of ordinary or inferior merit, and, consequently, the chance of getting uniformly good cows through purchase is small. There is also serious danger of introducing disease into the herd. It should be the ambition of the dairyman to increase the productiveness of his herd, and thus get a larger return for the feed consumed and labor expended. Purchasing inferior cows is sure to defeat this aim.

The only practical method by which the average milk yield, per cow, can continue to increase, therefore, is through the use of a carefully selected bull and the raising of the heifer calves from the best cows. By this means, it is possible to increase production to a marked extent within a very few years.

Calf raising is not a difficult matter, but it does require care and attention. The calf should be kept growing from birth to maturity if she is to be fitted to do her best work. Stunted or ill nourished calves will not develop into the best of cows.

New milk is the ideal food for the calf for the first few months of its life, but under most conditions raising a calf wholly on new milk is too costly.

It is a well established fact that a calf can be raised almost exclusively on skim milk, and that it will be equally as good as one nursed by its mother. Where skim milk is available, then, but little trouble is experienced in raising calves.

The calf should remain with its mother for a little time after it is born, as it is physically benefitted by being tended by the cow, and it is deemed essential that the calf get the first, or colostrum milk. This milk differs greatly in composition from normal milk; it is rich in mineral matter, is a powerful laxative, and serves as a tonic.

The calf may remain with the cow three or four days, until the milk is fit to use in the dairy. Some dairymen, however, prefer to take the calf away the first day, claiming that it can be taught to drink more readily and that the cow will miss it less. Each method has its advocates, and equally good calves are secured by each.

Teaching the calf to drink is not a difficult matter. It is easiest accomplished by placing the fingers in the calf's mouth and gently lowering its head into the pail. Allow the calf to take the milk from

between the fingers; when it gets to sucking well, remove the fingers carefully down into the milk and take the hand away. A few lessons usually suffice. If the calf is allowed to become hungry before having its first lesson it will be easier to teach it to drink.

New, warm milk, fresh from the cow, should be given for the first week or ten days. If the calf is strong and vigorous, skim milk can be gradually substituted for the new milk, after the second week, and when it is one month old it can be fed wholly on skim milk.

In making the change to skim milk care should be taken not to disturb the digestion of the calf. The milk should always be sweet; it should be warm (about 95 degrees F.), and should be given in a clean pail, and always in a uniform amount.

Most of the ailments of young calves come from one or more of the following causes: Sour milk, over feeding, variations in temperature, dirty pails.

The proper amount of milk to feed will vary somewhat according to the size of the calf. For the first three weeks, three to six quarts is sufficient. This may be given in two or three feeds, as convenient. The calf's stomach is small, and it is in some instances advisable to feed three times daily for a short time.

The amount of milk may be increased as the calf gets older, but at no time is it necessary to feed more than fifteen pounds daily, and many calves are raised on less.

If skim milk is abundant, larger amounts may be fed up to 20 pounds, but the increase must be gradually made.

The milk should always be carefully weighed, or measured, and if more than one calf is kept in a pen, care must be taken to see that each gets its share, as some calves drink much more rapidly than others.

In this connection it is an excellent plan to have small stanchions on one side of the pen or corral where each calf can be fastened while being fed. This not only makes it possible to feed each calf separately, but prevents the calves from sucking each other, a thing which they are almost sure to do unless prevented in some way. A half hour after being fed, they should be released until next feeding time.

This same plan is also advised where young calves are fed in the pasture.

The temperature of the milk should always be the same.

Nothing will upset the digestion of a calf quicker than to feed warm milk one day and cold the next.

Calves raised on skim milk should be taught to eat grain at an early age, the grain taking the place of the fat that has been removed from the milk.

At the age of two weeks, a little grain should be given. The easiest way of teaching the calf to eat grain, is to put a handful in the pail as soon as it has finished drinking. In its effort to get the last drop of milk, the calf will get some of the grain in its mouth and soon

acquires a liking for it. As soon as the calf has learned to eat the grain, it may be fed in the manger or in a box placed in the pen for that purpose. Grain should not be fed mixed with milk, as it will be swallowed without mastication.

No definite rule can be given as to the amount of grain to feed the very young calf, but it is a good practice to feed as much grain twice a day as it will clean up. Uneaten grain should never be left in the box, or manger, as it is likely to become sour and disturb the digestion.

After the calf is two months of age, feed what grain is necessary to keep it in good growing condition. One pound daily, increased to two or three pounds up to six months of age, is the amount ordinarily required.

A good grain mixture is made from the following: Oil meal, 1 part; wheat bran, 2 parts; rolled barley, 2 parts; crushed oats, 4 parts. Calves are often raised on oats alone for grain, crushed oats being fed at first and later the whole grain. In corn growing districts, corn is sometimes the only grain used, so that a wide latitude in grains is permissible, but a mixture is preferable.

At the age of two weeks, the calf will begin to nibble at hay, and it should have access to clean, bright, well cured early cut hay. A mixed hay, including some clover or alfalfa, is the ideal feed. Silage, roots, or other succulent foods, may be used to advantage as soon as the calf is old enough to eat food of this character.

Calves often suffer from thirst; they should be given what water they want to drink. Salt should also be accessible.

The time at which the calf should be weaned from the use of milk will depend upon circumstances. If skim milk is abundant and cheap, it may be used until the animal is a year old, though ordinarily it is discontinued when the calf is five to six months old. On the other hand, the calf can safely be weaned at any time above two months of age, if carefully handled and fed.

If calves are turned to pasture before six months of age, they should still be fed milk and a little grain, if the best results are desired in growth and development.

C. H. Eckles of the Missouri Experiment Station has found that the following is needed, under average conditions, properly to feed a calf for the first six months:

Whole milk.....	90 to 200 pounds.
Skim milk.....	2300 to 3000 pounds.
Grain	150 pounds.
Hay	500 pounds.

At the Illinois Experiment Station, work has been carried on to ascertain the smallest amount of milk that will answer to start a calf satisfactorily. A summary of the experiments shows that new milk in small amounts seemed necessary the first two weeks. During the third week a change to skim milk was made, and twelve pounds of skim milk was fed daily until the seventh week. The amount was

then reduced daily, so that at the beginning of the eighth week the use of milk was discontinued.

These calves gained 65 pounds in the first eight weeks, showing that they were kept in good growing condition. The cost for milk to raise these calves was as follows:

152 pounds whole milk @ \$1.50 per cwt.....	\$ 2.28
435 pounds skim milk @ \$.25 per cwt.....	1.09

\$ 3.37

These facts should be of much interest and value to dairymen in sections where whole milk is sold.

If a heifer has made a good growth, she should be bred to drop her first calf at from twenty-four to twenty-seven months of age, as it is well to establish the milk producing function early in life.

The essential points in raising calves are here briefly given:

Sweet, fresh milk.

Warm milk, (95 degrees F.)

Regularity of feeding.

Feed a uniform amount.

Clean pails.

Clean, dry pens, well lighted and ventilated.

SOME DISEASES OF CALVES.

The most common trouble in raising calves by hand comes from indigestion or "scours." This trouble is almost sure to follow careless methods in feeding and handling. Feeding cold or sour milk, over-feeding, dirty pails or stalls, uncomfortable surroundings, are the most common causes.

It can be almost entirely prevented by exercising a little care, and in keeping conditions right. The result of an attack of scours is to give the calf a setback from which it often recovers very slowly. On the first indication of disorder the amount of milk fed should be materially reduced. If the trouble is not serious, reducing the feed will often correct it without further treatment.

If treatment is necessary, it is well to use a solution of formaline made by mixing one-half ounce of formaline with 15½ ounces of water.

Use one teaspoonful of this mixture in each pint of milk fed until the trouble disappears.

In severe cases a drench of three ounces of castor oil in a pint of milk is often advisable.

White Scours or Calf Cholera. This disease quite commonly occurs in some herds, usually appearing one or two days after birth. The most common symptom is the passage of a white, foul smelling dung. This is a contagious germ disease, the germ usually gaining access to the body through the navel soon after birth.

The calf is very sick from the beginning; rarely recovers, and

usually dies within a short time. Where one case appears, others usually follow, if the calves are born in the same stall, for the germ will persist there for a long time, unless the stall is thoroughly cleaned and disinfected.

If the calf is born in a clean stall and its navel disinfected and tied with a cord at birth, no more cases should occur.