



Circular
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This Calf will Be a Cow— Give her the care she needs!

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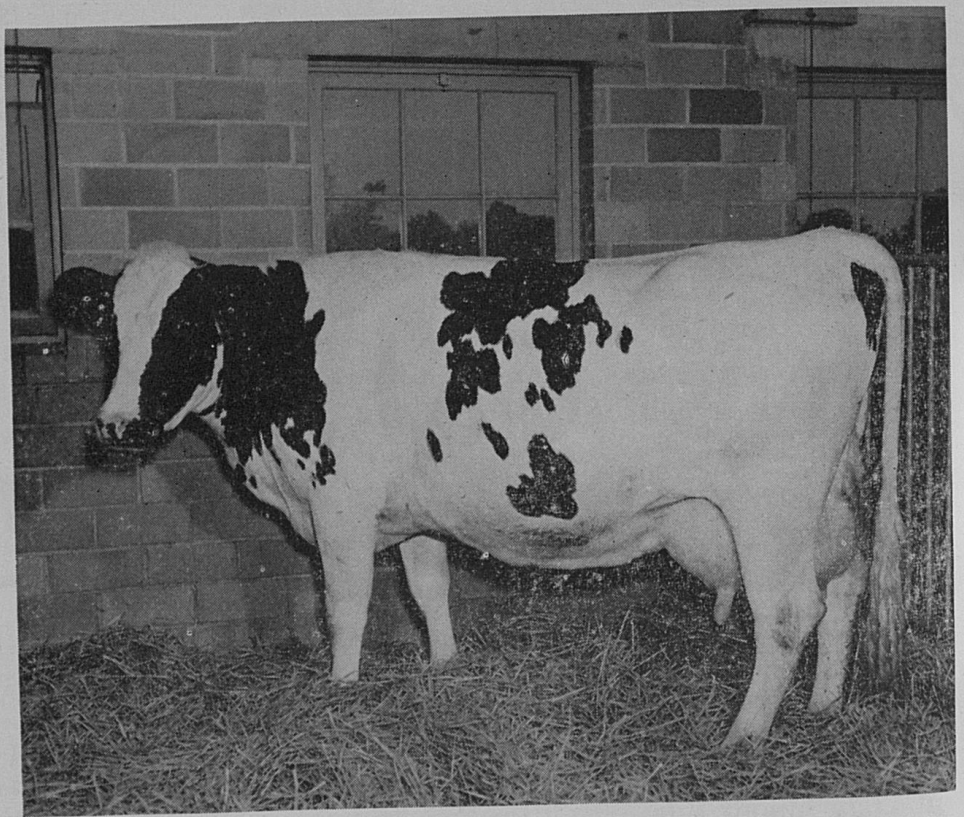
Cooperative Extension Work in Agriculture and Home Economics

**College of Agriculture and Home Economics, University of Kentucky
and the U. S. Department of Agriculture, cooperating**

FRANK J. WELCH, Director

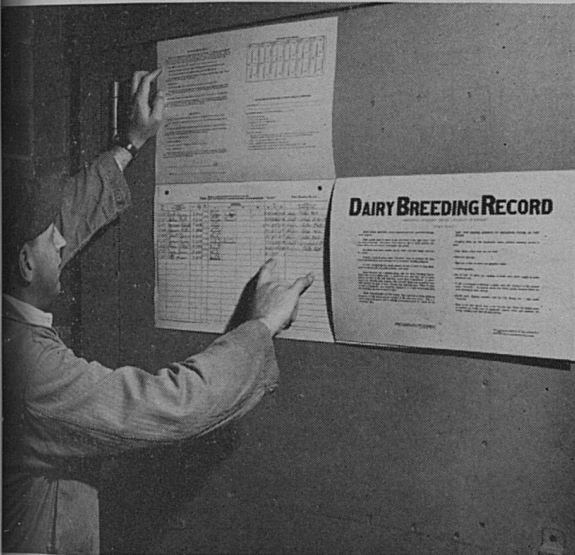
Issued in furtherance of the Acts of May 8 and June 30, 1914.

Care of the calf begins when the
cow is bred —

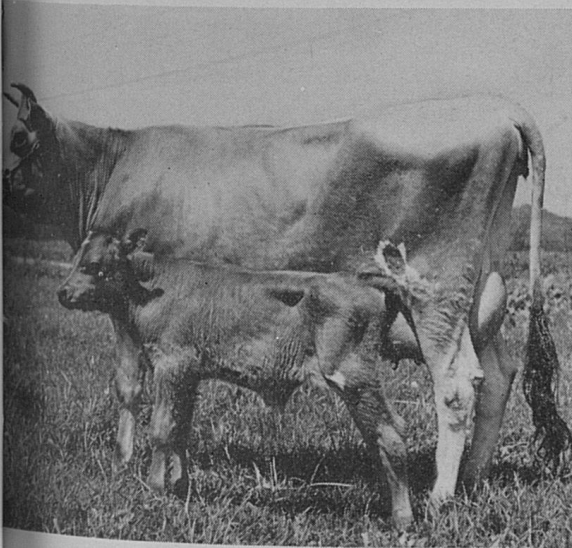


A healthy cow, bred to the best sire available, will usually produce a strong, healthy calf if she is properly fed and managed.

Care of Dam is Essential



Check the breeding record



Provide clean lots

1. Check breeding records and give the dam a dry period of 6 to 8 weeks to complete the development of the unborn calf and prepare for the coming lactation.

2. Feed plenty of high-quality roughage and some grain (usually 2-4 pounds) during the dry period, according to body condition.

3. During the last two weeks of gestation, watch the dam carefully each day for signs of calving.

4. At least three days before calving in winter or in bad weather, provide a clean, well-bedded, well-lighted, draft-free stall. In summer, clean pasture lots, separate from those used by the dairy herd, are satisfactory if shade is available.

**Be on hand
at calving
time**



**Disinfect
the navel**



Be present at calving time to help in delivering the calf, if necessary. Call your veterinarian when labor continues more than one hour. Make certain all fetal membranes are removed from the calf's mouth and nostrils; paint the navel cord with iodine and, in cold weather, dry the calf with clean cloths.

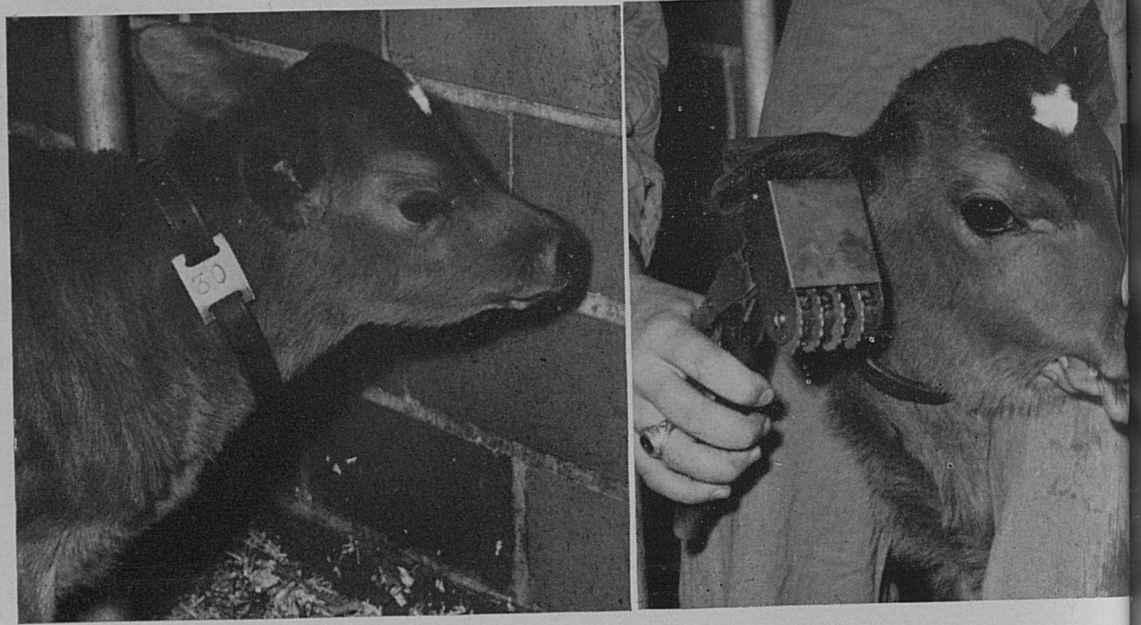
Raise Each Heifer Well



Every calf needs colostrum milk.

Make certain the calf is on its feet and nurses within an hour after birth. If the calf is weak, the first milk (colostrum) from the dam should be milked into its mouth.

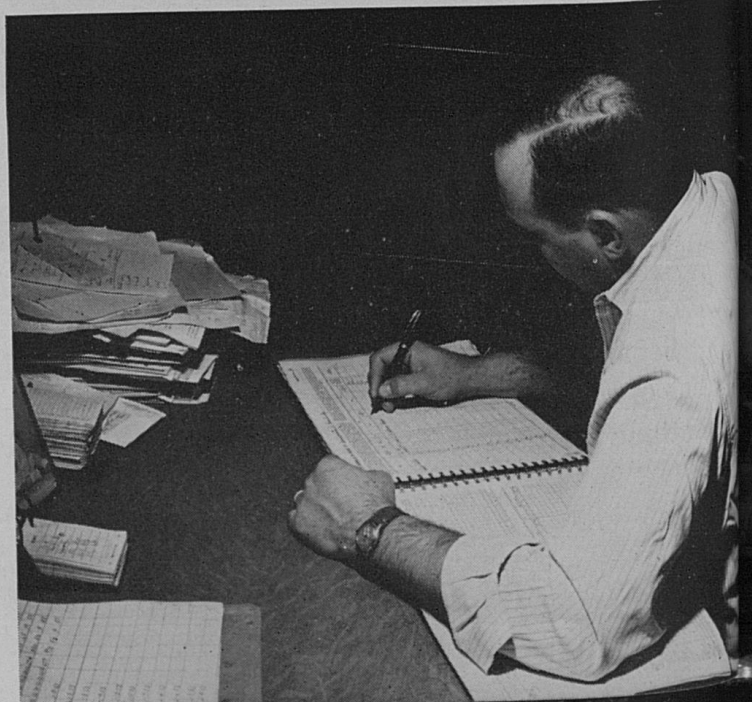
Separate the cow and calf on the second or third day to prevent over-feeding of colostrum milk. However, the calf should continue to receive its dam's milk for the first two weeks.



Identify each calf soon after birth.

Use a neck strap, ear tag, or tattoo to establish positive identification after the calf and dam are separated. Enter the identification information, names of sire and dam, and the date of birth of each calf in a permanent record book.

Establish a permanent identification record



Dehorn the calf at 2 to 6 weeks of age.

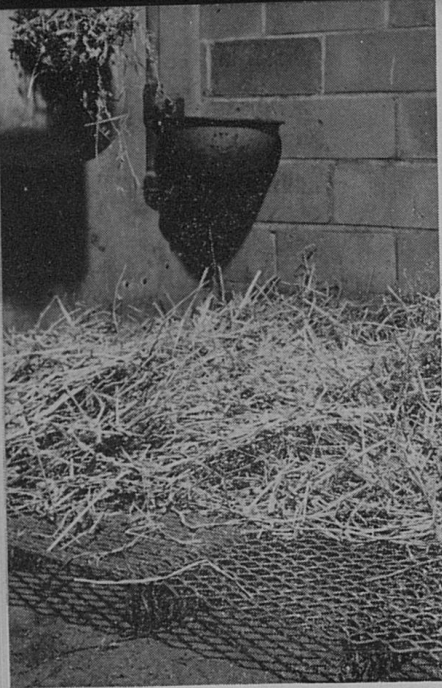
The electric dehorner is about the best way, but other methods can be used.



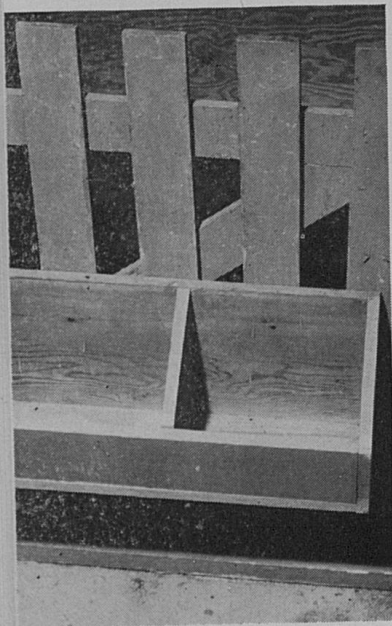
Calves Need Individual Care



Where possible, keep calves in individual pens for the first 12 to 16 weeks. This helps in controlling disease and reduces sucking habits.



**Raised
mesh
floor**



**Feed
box
on
gate**

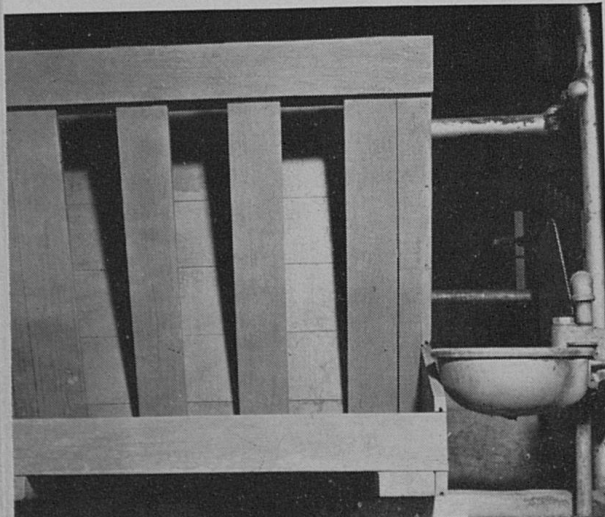
Keep pens dry and clean. The use of raised floors, slatted or metal mesh, is recommended.

Supply ample ventilation, but avoid drafts.

Clean and disinfect each pen before putting in a new calf.

Select a housing system that permits individual care and attention.

Below: Hay rack and waterer, and movable plywood pen.

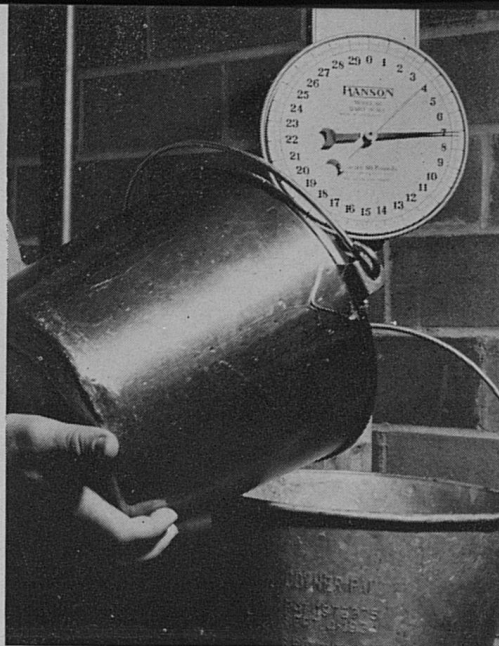


Use a Scale — Feed According to Body Weight

1. Use a scale and feed 1 pound (1 pint) of whole milk daily for each 10 pounds of weight. Thus, a 60-pound calf would receive 6 pounds of milk per day. This should be fed in two or more equal feedings. Calves have been started successfully on slightly less than this, and some milk can be saved if they are fed 0.8 pound of milk for each 10 pounds of body weight.

2. Feed the calf, preferably from a nipple-pail, immediately after milking the dam. If this is impractical, heat the milk to body temperature (about 100 degrees F) before feeding. Warm milk will help prevent stomach upsets and digestive scours.

3. Practice regular feeding from *sparkling-clean* buckets as another precaution against scours.



Know how much milk you are feeding. More baby calves are lost by over-feeding than by under-feeding.



Buckets and nipples must be kept clean.



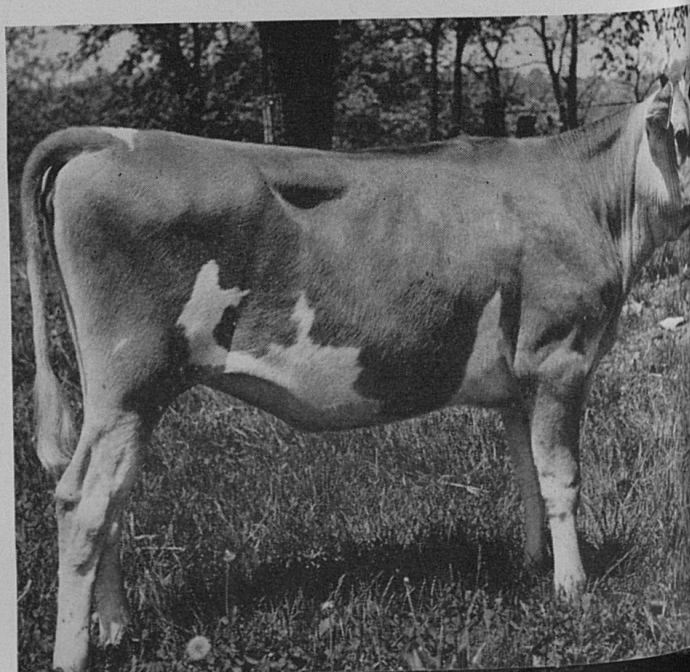
Offer calf starter the first week. A number of excellent starters are on the market. Several simple ones used by the Kentucky Agricultural Experiment Station have given normal growth and have been economical. (See page 15.)

Raise Herd Replacements Economically

1. Use a limited amount of milk plus a dry calf-starter (Table 1). Feed about 1 pound (1 pint) of milk daily for every 10 pounds of body weight.

2. Offer a good calf-starter (Table 1) at the end of the first week. Begin with small amounts; usually a handful rubbed on the calf's nose after milk has been fed will start her eating it. Increase the amount as the calf's appetite for dry feed grows. Usually it is not necessary to feed over 5 pounds of starter per calf per day.

Keep calves growing



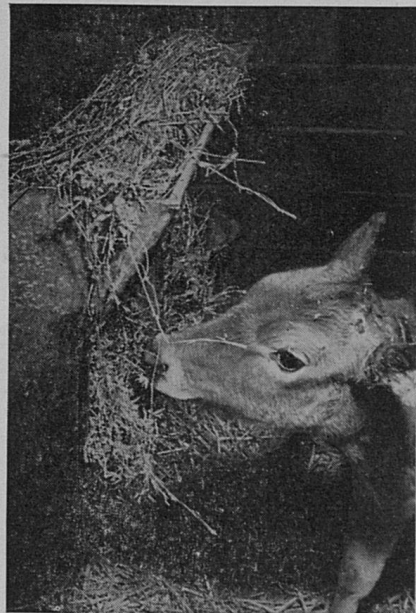
3. By the end of the second or third week, when the calf is eating starter well, decrease the amount of whole milk fed by 0.2 to 0.5 pound per day (from $\frac{1}{2}$ to 1 cup) and add enough warm water to replace the milk; keep the ratio of 1 pound of liquid for every 10 pounds of body weight.

4. Feed a small amount of clean, good-quality, green, leafy hay after four or five days. (Legume hay is often preferred, but good-quality, mixed hay may be used.) Replace hay daily with a fresh supply, and increase the amount as the calf begins to eat more hay.

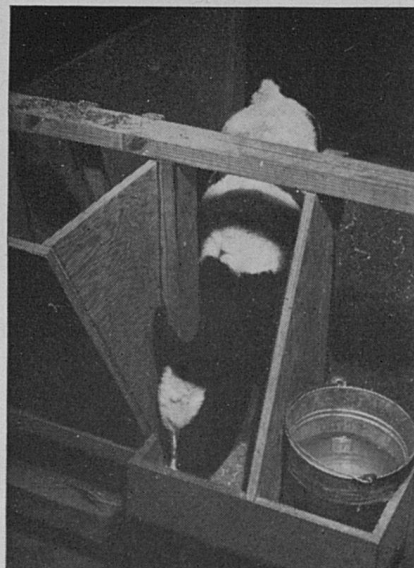
5. If a reconstituted milk substitute (gruel) is used, *extreme precautions* must be taken with respect to quantity, temperature, and sanitation. *The manufacturer's directions must be followed to the letter.*

6. Supply fresh, clean, drinking water at least twice daily if a drinking cup is not used. In winter, it is usually advisable to have the water slightly warm.

**Good hay
is the
key to
success**



**Provide
fresh,
clean
water
daily**





Good-quality hay should supplement good pasture, especially for calves 4 to 6 months old.



High-quality roughage is the most economical feed for growing heifers. Be sure they have plenty of shade, water, and minerals.

Important that Roughage Be of Good Quality

1. Provide calves 4-6 months of age with a good-quality hay to supplement pasture. Grass alone is too low in dry matter to promote satisfactory growth at this age. Continue limited grain feeding. (A good mixture is made of equal parts of coarsely cracked corn, oats, and wheat bran.)

2. Be certain that heifers 6-12 months old have a good supply of high-quality hay and pasture, if possible. At this age limited quantities of silage (10-20 pounds) can be added for late summer or winter feeding. Depending upon the condition of each calf, 1-2 pounds of grain per day may be necessary to maintain normal growth.

3. Economy can be maintained and heifer growth continued after the first year on good roughage alone. However, if pastures become short or hay scarce or of poor quality, 2 to 4 pounds of concentrates per day should be fed for growth and development, especially after heifers are pregnant.



Grain may be needed to supplement roughage

4. Protect heifers from flies and provide suitable shade and plenty of water while heifers are on pasture.

5. Provide salt and steamed bonemeal free choice to growing heifers.

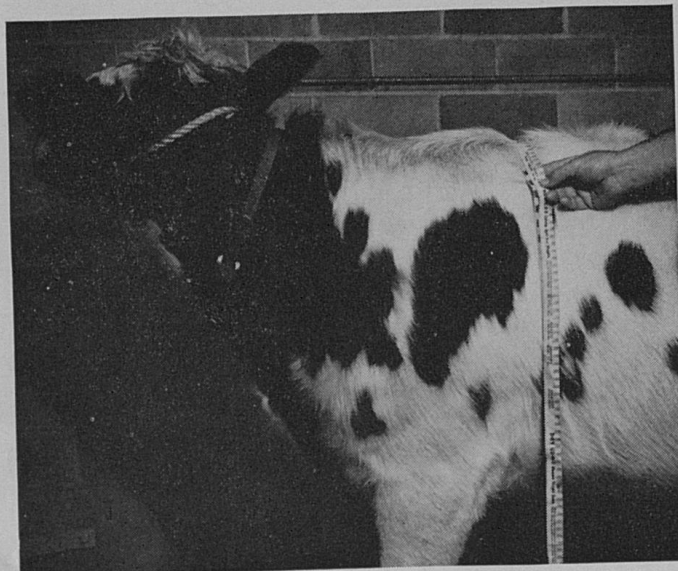
Consider Age and Weight Before Breeding

Determine breeding time by age, size, and the market demand for milk. Usually fall-freshened cows are more profitable than those that freshen in spring or summer, for they produce at higher levels and their milk sells at a premium during the period of highest production. Breed from October to January for July to October freshening.

Heifers should meet the following age and weight schedule before being bred:

<i>Breed</i>	<i>Age, Months</i>	<i>Heart girth,^o inches</i>	<i>Weight, pounds</i>
Jersey	15	52.0	500
Guernsey	17	57.0	550
Ayrshire	18	59.0	600
Holstein	18	62.0	700
Brown Swiss	20	66.5	850

^o Adapted from "Dairy Science," 2nd Ed., by W. E. Petersen.



Heart girth, or weight and age determine time of breeding.



Results of good management pay off! These four generations are the result of longevity, regular breeding, and persistent production.

Table 1.—Some simple starters used by the Kentucky Agricultural Experiment Station:

	<i>Ration 1</i>	<i>Ration 2</i>	<i>Ration 3</i>
Linseed oilmeal	50	50	50
Ground or crimped oats	120	120	120
Ground yellow corn	80	80	80
Wheat bran	50	50	50
Dried skimmilk	100	0	50
Distillers' dried solubles (72 percent corn)	0	100	50
Steamed bonemeal	5	5	5
Salt	5	5	5
Vitamin A	*	*	*

* Vitamin A may be supplied by 0.5 pound of cod-liver oil or by stabilized vitamin A as recommended by the manufacturer. Two or 3 percent dried molasses may also be added to improve the palatability, but this is usually not necessary. These starters may be fed until 16 weeks of age, when a change can be gradually made to a good growing ration.

Summary

For Desirable, Economical, Dairy-herd Replacements —

1. Breed each cow to the best dairy bull available.
2. Condition the cow during the 6- to 8-week dry period for the coming lactation.
3. Provide a dry, draft-free, sanitary maternity stall, or a clean lot for calving.
4. Be present and help, if necessary, when the calf is born.
5. Disinfect the navel of the new-born calf with tincture of iodine.
6. Make certain the new-born calf gets the colostrum milk.
7. Provide a dry, draft-free, disinfected stall for each calf for 12-16 weeks.
8. Feed warm, clean milk according to body weight in *sparkling-clean* buckets. Don't over-feed! Be regular!
9. Make gradual changes in feeding to avoid "off-feed" periods.
10. Feed good-quality, green, leafy hay after 4 or 5 days.
11. Feed a good calf-starter after the first week.
12. Provide fresh, clean water daily if a water cup is not used.
13. Provide salt and steamed bonemeal free-choice to growing heifers.
14. Feed heifers the best-quality roughage possible. Use concentrates only to supplement roughage.
15. Keep heifers growing; weight losses are costly.
16. Breed heifers after they reach satisfactory age and weight.