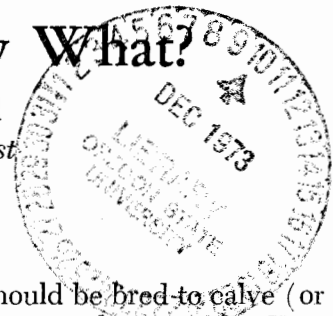


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# So You Own a Cow . . . Now What?

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People living in the suburbs and owning a small acreage often select dairy cattle or dairy goats as a means of harvesting and utilizing their forage. Goats, especially, will help control brush and weeds and keep the area from becoming unsightly, and through milk production goats can reduce the family grocery bill.

## Selection of the animal

There is a tremendous variation in the ability of individual dairy cows and goats to produce milk. Buy animals from a producer who keeps production records. Select an animal with the desired level of production, or a calf or kid from a dam (female parent) with an acceptable production record. In most cases, a long milk production period is more important for family use than very high production. An animal with poor lactation qualities that milks for only a short period after calving often will cost more to keep than the value of the milk produced.

Next, in selecting your animal, select one of the proper size. A big cow, such as a Holstein, will eat much more forage than a small cow like a Jersey; and, of course, a goat needs less forage than any cow. To estimate needs, a milking animal will eat about 3 percent of her body weight in air-dry feed (hay) every day. (Example: A 1,000-pound cow will need 30 pounds of hay or pasture dry matter per day.) Select the right animal to meet family needs, using the pasture supply you have available. In addition to this, a cow may need supplemental grain or purchased feed daily.

## Feeding

There are many bulletins and books on feeding dairy animals, and Extension agents, feed suppliers, and others can give advice for your specific situation. A well-fed animal will produce more milk than one poorly fed. Often, when a family cow produces more milk than needed, her production can be adjusted downward by reducing her grain ration. This may be desirable when the extra milk cannot be used, but there are limits, of course, and you cannot stop the delivery during your vacation.

## Breeding

Cows or goats should be bred to calve (or kid) at approximately 12-month intervals. You may breed them to your own or a neighbor's males, or you can be more sure of top quality by using an insemination service. Semen and insemination service are available through several businesses. The use of their service insures superior, disease-free semen, and eliminates the necessity of keeping a male. Your county Extension agent can provide addresses of the services in your area.

## Use of the milk produced

One problem in keeping a family cow or goat is that often more milk is produced than can be used by the family. Some would like to sell this surplus. There are provisions to allow the owners of not over two producing cows or three producing goats to sell their surplus milk. Before planning to sell, however, you should apply to the:

Dairy & Consumers Services Division  
Oregon Department of Agriculture  
635 Capitol Street, N.E.  
Salem, Oregon 97310

In order to sell fluid milk, the producer must be licensed, and requirements for the milking area and milk room must be met in order to insure high quality, safe milk. Unless you can meet these requirements, you will have to find other ways to use surplus milk. A few suggestions follow:

## Fluid milk

Fluid milk is the most obvious way to use surplus milk. All milk, even from your own cow, should be pasteurized. Though your cows or goats are tested and known to be free of brucellosis or tuberculosis, milk can be a medium for the transfer of other diseases and even transfer between people, such as from the milker to the consumer. Typhoid fever, septic sore throat, paratyphoid fever, scarlet fever, and gastroenteritis can be transferred in milk. These organisms are destroyed by pasteurization, so all responsible people will recommend it.



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There are small, commercial pasteurizers available, or milk can be pasteurized in a double boiler by heating to 165° F, stirring the milk while heating. When the milk reaches 165° F, put the top of the double boiler in cold water and cool as quickly as possible. Store milk in a refrigerator until used. Do not store or process milk in direct sunlight, as this may cause an off-flavor.

Cleanliness in all phases of milking and milk handling is important. Churns, separators, and all milk-handling equipment should be washed thoroughly and sanitized with chlorine (bleach) or iodophor (tamed iodine) solution. These are available from most farm or dairy supply stores or mail-order firms. Follow instructions on the container. As with most household and farm chemicals, store out of reach of children.

### Making butter at home

You can make high quality butter from pasteurized sweet or slightly sour cream. Butter made from cream that is too sour has a strong flavor and does not keep well. You probably will want to save the cream skimmings for three or four days before churning. Churning uses mechanical means to pound, dash, or beat the cream until the minute globules of butterfat in the cream stick together and form butter granules.

The most common churn for making small quantities of butter is a 1-gallon glass churn equipped with wooden paddles. Fill the churn only one-third to one-half full. Churning mixes air into the cream and causes it to increase in volume. After 30 to 40 minutes of churning, butter granules should form.

Butter granules form best when the cream is at a temperature of 54 to 58° F in summer and 58 to 64° F in winter. Stop churning when the butter granules are about the size of corn kernels. Remove the granules of butter from the buttermilk and wash them with water about the temperature of the buttermilk or a little cooler. Drain the water off, add salt at the rate of 1 tablespoon to each pound of butter, then work the butter with a paddle until the salt is evenly distributed and the buttermilk is extracted.

It will be necessary to use a separator to make goat butter since goat cream does not separate from milk by itself.

### Homemade yogurt

For 3+ quarts of yogurt, prepare yogurt base in a 4-quart saucepan or double boiler.

- 3 quarts of fresh whole milk (non-fat)
- 1½ cups of non-fat dry milk or
- 1 can of evaporated milk

Heat the yogurt base to a temperature of 180° F and hold for 10 to 15 minutes. This changes the properties of the milk protein and results in a firmer, more custardlike body and texture in the finished product.

Cool the heated milk to 110° F. (You will need a good thermometer.) Inoculate the tempered milk with approximately ½ cup yogurt (plain commercial or your own yogurt starter). Pour into yogurt containers (jars or plastic cottage cheese cartons).

Set the yogurt containers on a tray in the oven for incubation at 110° F (permissible range is 100-115° F). Turn oven on to lowest temperature to help maintain the desired incubation temperature.

Continue checking temperature every hour, turning oven on or off to maintain temperature as close to 110° F as possible. *Do not exceed 115° F* or the culture will be inactivated. Maintain a 100° F temperature for 3 to 4 hours. When the yogurt base coagulates and reaches the consistency of commercial sour cream, refrigerate immediately.

Try to avoid excessive vibration of the yogurt base in the late stages of incubation and when transferring to the refrigerator. This will help insure a smoother, more custardlike consistency.

Yogurt should keep for 1-2 weeks, depending on the degree of care exercised in the making process. Use of well-cleaned, sanitized containers will greatly aid shelf-life.

A more satisfactory yogurt culture can be maintained if a special ½ cup container is prepared and *reserved* for inoculating the next batch of yogurt. This minimizes the introduction of some unwanted or undesirable micro-organism.

### Cheese

A number of different types of cheese can be made at home. Instructions can be obtained through your local Extension office.

### Animal feed

Excess milk can be used for animal feed. A few suggestions are:

*Calves or kids.* Milk, of course, is the natural food for calves or kids. It should be limited to 8 percent of the body weight of young calves or kids, to avoid digestive disturbances.

*Pigs.* Skimmed milk, buttermilk, or whey are excellent feed.

*Chickens.* Milk is an excellent feed supplement for chicks. It is somewhat laxative and may cause wet litter when birds are confined.

*Miscellaneous.* Milk can be fed to a variety of young animals such as puppies, lambs, foals, or kittens.