Dairy Goat Guide
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Introduction

Goats are sometimes called “the poor man’s cow” for good reason. For homesteaders who want to raise their own dairy products, a goat can be a more manageable and practical choice than a cow.

The initial cost of a goat or even several goats is much lower than a cow. Feed and equipment costs are also more affordable. Something the size of a cow can be intimidating for the first-time livestock owner, but a typical goat is more like a large friendly dog.

In her book A Practical Guide to Small-Scale Goatkeeping, Billie Luisi eloquently describes why goats fit so well into the homesteading life and philosophy. “The dairy goat should be both the mascot and figurehead for the soft or appropriate-technology lifestyle. She has always been the protein resource of cultures living on marginal land and of lower-class rural populations in times of depression, war or other periods of transition and unrest...Goat technology is small-scale technology.”

So a goat makes sense...but is it the right choice for you? To find out, let’s answer some of the most common questions prospective goat owners ask.

How much milk does a goat give?

An average goat produces 1,500 pounds (750 quarts) of milk a year. Naturally, this figure varies widely depending on the animal, but this means a gallon of milk a day from a pair of average goats. That’s more than enough for most families. Even a marginal dairy cow produces several gallons of milk a day, and the surplus is often fed to the pigs or given away. Goats are often the better choice for the properly managed homestead.

Keep in mind that goats typically milk for only 10 months a year and are “dried off” for two months of rest before kidding (giving birth) again. Milk production tends to rise quickly after kidding before tapering downward. With just one or two goats, you won’t have a consistent, year-round milk supply.

What does goat milk taste like? Is it richer than cow milk?

Goat milk tastes almost like raw cow milk. In most cases, few people can tell the difference. Goat milk is whiter, however. In composition, there is very little difference between the two. Some people think goat milk tastes richer, but that’s because they’re used to drinking “standardized” cow milk from the store. Standardized milk generally contains three percent butterfat, and today two percent, and even one percent milk is popular. Most cows, notably Jerseys, have far higher butterfat averages, which makes the milk taste richer.
Goats vary by breed too, with Nubians generally producing the highest butterfat and Saanens usually producing the lowest...quite akin to the Jerseys and Holsteins of the cow world. However, many other factors influence butterfat content, including the stage of lactation and the feed.

**How much does it cost to keep a goat?**

This will vary from year to year and place to place, depending on feed prices and, of course, on what you feed. A general estimate for feed costs would be $125 to $250 a year. Goats will need anywhere from a half-ton to two tons of hay a year, depending on the kind, quality, waste, and on what browse is available.

A goat also needs a pound of grain a day. A mixture of corn and oats is a common ration, although barley, wheat bran, sorghum and other grains are also used. The choice depends largely on what is grown or available in your area, and the cost. A doe (female goat) will need an extra pound of grain for every two quarts of milk she produces.

These rough figures along with local feed prices will determine your annual feed costs. Bedding and health care costs will also vary. Some people spend a great deal on these, while others spend little or nothing. Other costs to consider are one-time investments, such as housing, fencing, feed and water containers, hay storage, and milking equipment. Here again, you can spend a lot of money, or you can make do with facilities and equipment already on hand or available at little cost.

There is one other cost consideration. Unless a neighbor provides free buck service, there will be breeding fees, or you’ll have the expense of buying and caring for your own herd sire.

**I don’t have a lot of room, can I still keep a few goats?**

These animals are ideal for the small homestead. Goats require from 12 to 20 square feet per animal for housing (less in warm climates where they spend more time outdoors) and a modest outdoor exercise pen. Housing should be dry and draft-free, but it doesn’t have to be heated.

**Do goats make good pets?**

They certainly do. They are extremely intelligent and very friendly and personable. The occasional mean goat was either mistreated, or simply wasn’t handled enough.

However, goats are livestock, not dogs. They shouldn’t be chained up or allowed to run loose. They can and will eat rose bushes, fruit trees and pine trees and will make nuisances of themselves if allowed. To the person who asks, “How can I keep my goats from jumping on the car?” the answer is, “Don’t park your car in the goat pen.”

**What about health problems?**

Goats tend to be extremely hardy and have few problems when properly cared for. They are liable to have some internal parasites (and probably couldn’t live without some of them), but a veterinarian can help you develop a deworming program.

Mastitis (udder inflammation) is fairly common, but that falls under the category of milking management. In general, unless you plan to raise a large number of goats or have a commercial operation, you’ll probably rely on the vet rather than trying to become a goat health specialist.
What about chores?

Goats have to be fed and watered every day. If they’re in milk, you’ll have to milk them every 12 hours—but that doesn’t mean on the minute, and it can be at 7 a.m. and 7 p.m. or noon and midnight. There will be pens to clean and fresh bedding to spread.

Goats need to have their hooves checked and trimmed occasionally, depending on a number of factors. Hooves of goats confined to bedded pens will grow faster than those of goats scampering around on rocks. Once a month is a typical average.

I’ve heard goat meat is quite tasty, is that true?

Goat meat (it’s called chevon, or cabrito) is very much like lamb, and can be used with any lamb recipes. Most people find it delicious, which is fortunate, because since a doe will have to kid to produce milk, and you can expect half the kids to be bucks (males), the use of the meat is an important consideration even in a backyard dairy.

Speaking of bucks, will I need one?

No, especially if you’re a small goatkeeper. It doesn’t make economic sense. Once you learn something about goat genetics, it may not make genetic sense, either, because you’ll probably want to use several different bucks for breeding. There are usually excellent animals available for stud service at reasonable fees.

Artificial insemination (AI) is also an option.

What other expenses I can expect?

There isn’t a great deal after the initial cost of the animal, housing, feeding, bedding and a modest amount for health care. Some people put off buying a hoof-trimming tool and use a sharp pocket knife to do the job. Caution is advised if you decide to take that route. Some types of rose bush pruning shears can also be used.

Some new goat owners will use any pail they have on hand and defer the purchase of an expensive stainless steel pail with cover until they are certain that the goats are going to stay. Avoid plastic, if possible. But more than a few goats are milked into everyday kettles or bowls from the kitchen.

One important item is the milk strainer. The practice of straining milk through cloth or layers of cheesecloth can’t be recommended, but disposable milk filters are inexpensive, and a metal strainer is worth the small investment too. Just about any clean, watertight container will do when watering your goats. Most hay and grain mangers are homemade from used lumber and available materials.

Cheesemaking requires some additional items, but it’s possible to make your own cheese press. If your budget is larger and you want to take a more deluxe approach, there’s store-bought cheesemaking equipment, a disbudding iron, a tattooing set…and maybe even a trailer to haul your goats to shows!

Whether your budget is spartan or princely, goats can fit quite well into any home dairy.

Is there anything else I need to know?

Definitely! The decision to buy a goat should not be made hastily or impulsively. A goat will try your patience and consume much of your time and some money. It will return both the principle and a fine rate of interest if you manage and care for it properly.

There is much to know. Even the most experienced and wisest goat owners are still learning all the time. Despite that, you don’t have to be an expert before obtaining a goat. In fact, there’s no real way to get knowledge and experience without raising them yourself. But you do owe it to yourself and your animals to become as well-informed as possible before plunging in.
Buying A Goat—Six Common Breeds

Buying a dairy goat to meet your needs and expectations may not be easy. You can’t just pick a goat off the shelf, and if you want a healthy and productive animal, you can’t use the pet-shop-puppy approach of taking the one with the happiest tail. One of the first things you’ll want to decide is which breed to get.

There are six common breeds of dairy goats in the U.S. Each has its fans, and most people have a preference for one or another.

- **Nubian** is the most popular and is distinguished by its long, drooping ears and Roman nose. While Nubians may not produce as much milk on average as other breeds, they are known for high butterfat content.

  Since they originated in Africa, Nubians thrive in warm weather, but they can handle just about any climate. Nubian coloration ranges from white, browns and reds to black. Combinations of these colors also occur, but there are no set patterns.

- **Saanens** (pronounced sah-nens) are all white with standing ears and “dished” faces that are just the opposite of the Nubian’s Roman nose. On average (remember that “averages” can vary widely), Saanens produce the most milk. The breed is heavily represented among the ranks of record producers. Saanens originated in Switzerland and are very Swiss in character: a no-nonsense, all-business milk producer.

- **Toggenburgs** are another Swiss breed. Distinguished by their brown coloring, white faces and rump markings, “Toggs” have long been a popular breed in the U.S. Poet Carl Sandburg maintained a herd of Toggenburgs.

- **Alpines** used to be divided into French and Swiss, but the Swiss variety is now called **Oberhasli**. Alpines have erect ears and widely varying color patterns ranging from white to black. Animals with several shades are common. The Cou Blanc has a white neck and shoulders with silver-gray shading glossy black hindquarters, with grey or black markings on the head.

- **LaManchas** often attract attention because of their unusual ears. Fairgoers and others seeing a LaMancha for the first time often ask “Why did you cut off their ears?” or, if they know something about animals, it’s, “Oh, their ears froze off!”

  The truth is, that’s the way they’re born. But as LaMancha breeders say, you don’t milk the ears…and as a breed, these are excellent dairy animals. While most goats are tattooed on the ears, LaManchas have their IDs on their tail webs.
These are the major breeds of dairy goats, but there are others. The African Pygmy (or Pygmy) and Nigerian Dwarf are more commonly kept as pets than for milk production, although even some of these miniatures can produce a quart of milk a day. The original Kinder was a cross between a Pygmy buck and a Nubian doe. These compact goats are larger than the Pygmies and Dwarves, but not as big as the standard breeds. They also give more milk than the smallest goats.

There are still others, such as silky-haired Angoras and the Tennessee Fainting or Wooden Leg goat, and recently the Boer. But these are raised for fiber or meat, and are seldom considered for milk production.

Which breed is best? That’s a question without an answer. Every breed has its supporters, and you’ll just have to choose for yourself. In addition, at least so far as milk production is concerned, there can be wider differences within breeds than between breeds.

However, there’s a good chance that you won’t have to decide right away. Most homesteaders start out with goats of mixed ancestry, simply because there are so many of them. There are far more unregistered goats in the U.S. than registered ones. Without papers and other records, you can’t tell what you’re getting. Some unregistered goats are purebreds. The owners just didn’t bother keeping up with the paperwork.

However, the vast majority are mixed breeds. The owners just wanted a few animals for milk or as pets, or they didn’t know or care about registration. Some of these mixed breeds are excellent milkers. If you just want a decent dairy animal, one of these goats could be right for you.

At the same time, a pedigree is no guarantee of productivity. Many purebred, registered goats are poor milkers, especially if they are bred for show qualities rather than dairy use. While goats are supposedly judged on their dairy characteristics, not only does it not always work out that way, but many registered goats are never shown and wouldn’t win if they were.

So the only proof of a milking goat’s worth is how much milk she puts in the pail. If you’re a novice, this means you’ll need to learn something about what a good goat should look like. Plan on attending a few goat shows and visiting some goat farms as part of the education process.

You’ll want to buy your first goat from someone you trust who has a reputation for honesty. Tell them what you want and let them help guide you through the purchase. There might be some good goats at a run-down place where the goats have the run of the littered yard as they eat weeds. There might be, but you’d have to be a sharp and experienced goat judge to know for sure.

How much more pleasant it is to visit a neat, well-kept place where the goats are well cared for, and the owner is friendly and helpful. It’s not always easy for a beginner to know if a seemingly knowledgeable person is a real expert (and some people “know” things that aren’t true!), but you can spot signs of good care and pride of ownership.

What can you expect to pay for a goat?

There is no goat “industry” in America with daily commodity prices as are there are for cattle, hogs and sheep. Goat owners range from the casual keeper to the serious breeder, so prices could be anywhere from a few dollars to thousands.

Naturally, registered purebreds cost more. Some people who raise goats strictly for milk and not for show deal exclusively with registered animals because the kids are worth more, and that helps pay the feed bill. If you plan to follow that system, they’re worth more to you, too. When there are papers on a goat, you’re not buying blind. There is an established history that should tell you something about the potential of the animal and its offspring.

To determine a fair price, you could start with the estimates of your annual costs. If you think it will cost $125 to feed a goat for a year, that would be a reasonable sum for a year-old doeling just coming into milk. The breeder who raised it has that much money in it, plus time and other considerations. A far higher price might be justified if the goat is an exceptional milker or a show champion. Her offspring will also fetch a good price. As for “bargain” goats, a low price is never a good deal if the animal turns out to be worthless. Even after examining and pondering all the considerations, there is still an element of risk. So shop around, buy your goat—and start learning.
This also applies to buying young kids. Buying a kid anytime after it no longer needs its mother’s colostrum (first milk) which contains antibodies necessary for good health makes sense on several counts. The goat grows up with you, so there’s no adjustment period. You get to know that goat very well. You’ll learn about housing, feeding and other management factors as the goat grows up.

Depending on the season and other market factors, a young goat is worth $1 a pound or more just for meat. That’s a reasonable starting point, with pedigree and other factors to be considered. There are lots of cheap goats out there. Some of them are substantially underpriced because their owners don’t know what they have. Congratulations if you find a true bargain, but don’t count on it. Don’t be afraid to pay a fair price. A good goat is a valuable animal. As in most aspects of life, you generally get what you pay for.

**Housing And Equipment**

Most goats are kept in loose housing. They are not chained like dogs, nor left to roam in fields like sheep or kept in stanchions like cows. They have the freedom to move about in their shelter and in a small outdoor exercise yard.

Goat housing need not be elaborate, but it should be well ventilated and draft-free. Don’t close a goat barn tight with the mistaken notion that they’ll stay warmer in cold weather. The moisture buildup will be far worse for them than the cold.

If the goats have access to a reasonably sized outdoor pen, an area with 20 square feet per animal is suitable as a shelter. The indoor shelter can be smaller in warm climates where goats spend more time outdoors. You don’t need a barn to raise goats. A basic 8 x 10-foot structure will house four does. Be sure to allow for kids and future expansion of the herd. You’ll also need some space for hay and grain storage, equipment, and a place to milk.

Goat buildings can be anything from old chicken coops to old garages or structures designed and built especially for the goats. Don’t bother with a fancy or high-priced floor. Most experienced goat raisers prefer earthen floors, since they are warmer and drier than concrete and won’t rot like a wood floor. Don’t make the common mistake cited in the book *Raising Goats the Modern Way*. Many first-time goat owners “especially those who haven’t had much experience with livestock, are prone to bring home an animal and then decide where and how they’re going to keep it. This is definitely starting off on the wrong foot.”

One pen is suitable if you have three or fewer goats. There is always a “boss” goat, which means an occasional fight (one reason most goatherders don’t allow horns on their goats). Once the pecking order has been established, fights should be rare. When designing your goat housing, allow for an area that can be blocked off as a kidding pen. This will allow does to give birth without being pestered by other goats.

Speaking of kids, if you intend to keep them separated from the milking does, you’ll need a kid pen, preferably some distance away from the does. If your building is going to have aisles or gates, keep barn cleaning in mind. Allow enough room to maneuver a wheelbarrow without skinning your knuckles. On gates, pay special attention to latches. Goats are extremely clever at opening latches! If you put a gate in an indoor pen, be sure it opens out into the aisle. Otherwise, the gate won’t open when bedding builds up inside the pen.
The main requirement for the outside yard is good fencing. This is not the place to skimp or cut corners. There’s an old saying that a good goat fence not only has to be horse-high and bullproof, but also watertight! Some goats are excellent jumpers. They like to stand on things and will frequently be seen with their front feet on your woven wire fence, causing it to sag until, usually sooner than later, they can walk right over it. They will also rub against the fence posts, wire or boards to get the same result. Kids will squeak through an opening you were confident was mouseproof. For all of these reasons and more, not many goat owners fence in acres of pasture. It’s just too expensive. Forget about those white board fences found on Kentucky horse farms. Goats will go right through them. Woven wire is the most common fencing material, but it does have some shortcomings in addition to the standing-sagging sequence. Wherever it’s not tight on the ground, kids will crawl under it. Horned goats will become trapped when they stick their heads through the mesh.

Goats can be trained to live with electric fencing—but they have to be taught. Even then, they often find ways to circumvent it. Electric fencing may not be desirable where there are children, who will certainly be attracted to the goats. One of the best goat fences consists of four-foot-high woven wire or field fencing, with a smooth, electrified wire running inside and at the top. The electric wire keeps the goats from standing and leaning on or jumping over the woven wire, and the woven wire reinforces the electric strand.

It might not pay to electrify a small yard. Even fairly expensive welded rod stock panels might be cheaper, and they do provide excellent and maintenance-free fencing for goats. The goat yard need not be large. It doesn’t have to have grass, and it definitely shouldn’t have any trees that you don’t want destroyed. On the other hand, it should be sunny (with the goats using the inside pen for shade) and well-drained and dry. The ideal goat yard has the topsoil removed and replaced with sand. That’s isn’t necessary, but at least make certain the yard is not in a low spot that will remain soggy.

Glossary

As with any other specialized area, the goat world has its own terminology and key words. Here’s an overview of some important definitions.

~ Doe: A female goat. Goat aficionados (Refrain from using the term “nanny.”)

~ Buck: A male goat. (Refrain from using the term “billy.”)

~ Kid: A young goat.

~ Doeling, Buckling: Terms that are sometimes applied to goats that are not fully mature, but are older than kids.

~ Yearling: A one-year-old goat.

~ Polled: A naturally hornless goat.

~ Wattle: An appendage of skin, with no purpose, which hangs down on some goats, frequently on the neck, but potentially anywhere.

~ Udder: The mammary gland.

~ Teat: The nipples of the udder.

~ Purebred: A goat whose ancestors are all of the same breed, and are all purebreds themselves.

~ Pedigree: A document showing a goat’s ancestry.

~ Registered: A purebred goat registered with one of the goat registry associations.

~ Grade: A goat of unknown ancestry, usually not purebred.

~ Freshen: Giving birth and coming into milk.

~ Disbud: To burn out the horns of very young goats (three to 10 days old) with a disbudding iron or caustic chemical.
Mangers can be quite simple. They are designed to keep hay clean and prevent as much waste as possible. With these two purposes in mind, you'll want to consider building keyhole mangers. Although grain must be rationed, goats should have good hay available at all times. But if you simply put the hay in a trough, the goats will pull much of it out and scatter it on the floor, where they'll trample it and refuse to eat it. What they'll probably do is think of the hay feeder as a nice place to lie. That's why the keyhole manger is a good choice. It consists of a hole nine inches in diameter, centered about 44 inches from the floor. The goat has to step on a cleat to put her head through the hole and down the four-inch neck space. Then even with a simple trough on the other side, she can't pull hay out, and she can't get into or defecate in the manger. The manger can also be used for feeding grain, and it eliminates fighting between does.

If you have a speedy eater who finishes her grain and moves on to another station to butt goats that are still eating, you can construct a system that keeps all does in their keyholes until you release them. You can keep the does in with individual hooks on each keyhole, or with a bar that will open and close several hooks at once. These hay-saving and sanitary mangers won’t work very well (if at all) with horned goats.

A water container should be placed in a corner, preferably off the ground to avoid contamination from droppings. Heavy black rubber buckets sold in livestock supply and rural hardware stores are a good choice. Frozen water can easily be knocked out of a non-corroding, virtually unbreakable rubber bucket.

Storage of hay and bedding will depend on your circumstances. Some people grow their own and need enough space for a year’s supply, while others purchase smaller quantities from farmers or local feed dealers, perhaps weekly or monthly. In any case, keep these materials where they'll be safe from the weather and the goats, but where they'll be convenient to handle for both unloading and use. Grain should be kept in goat-proof and rodent-proof containers. Metal garbage cans are satisfactory.

Running water in the barn is handy, but not an absolute necessity for the small herd. However, you don’t want to haul water over long distances, even for a single doe.

Electricity is an important priority for lights for early and late milkings in the winter, 3 a.m. kiddings and for the electric disbudding iron and clippers you’ll want someday.

Finally, do as much as you can to make your goat complex neat and attractive. Be sure to use unleaded paint to avoid poisoning animals.

**Feeding**

Concocting a ration for a dairy goat is somewhat different from whipping up something for a cat, dog or human. Like cows, goats are ruminants. They have four “stomachs” and feed only on plant matter which consists largely of cellulose and other carbohydrates, and water. Goats rely on vast numbers of tiny animals in their digestive tracts to break down the cellulose. When herbaceous food enters the rumen
and reticulum, the resident protozoans and bacteria break it down into other forms the goat can use to sustain life, grow bone, muscle and hair and produce milk. In essence, you’re feeding the microbes, and the microbes feed the goat.

This means the goat can make use of, and actually needs, large quantities of roughage, such as hay. A good milk producer also needs the capacity to handle that hay. Alfalfa is usually the type of hay mentioned in connection with goat feeding, since it’s widely available and high in protein and calcium. However, it’s not available everywhere, and other types of hay are also used with success. But carbo-
naceous hays such as timothy and brome need to be supplemented with protein and calcium from le-
gumes. (Alfalfa contains about 13 percent protein, while timothy and brome are closer to five percent.)

Whatever kind of hay you provide, it should be fine-stemmed, green and leafy. Avoid hay that isn’t cut at the proper stage of growth or hasn’t been properly cured. Don’t feed moldy hay. The better the hay, the better the nutrition.

Goats can be fed fresh-cut alfalfa, clover, comfrey and other roughage during the growing season. However, any dietary change must be made gradually to avoid upsetting those rumen bacteria. For example, don’t pick the last of your sweet corn and cut the stalks to give to the goats all at once. A little at a time, with whatever roughage they’re used to, will be all right, though.

The easiest and possibly the best way to feed grain to goats is with a ration specifically designed for them. These bagged feeds typically contain a mixture of grains, supplements and molasses with the consistency of Cracker Jacks.

Sometimes, ready-made goat feeds aren’t available. If that happens to you, certain horse feeds can be an adequate substitute. Grain rations for cows are too finely ground and dusty for goats. Many goat owners want to mix their own rations to save money, to provide an organic diet, or because they have homegrown grain on hand. You can mix your own grain concentrate ration, but it probably won’t be any cheaper, and it will certainly be more work.

The grains should be coarsely ground or cracked. You’ll need small but essential amounts of minerals and protein supplements mixed in the proper proportions. When you price the ingredients and determine the amount of time and equipment it will take to prepare them, you’ll probably prefer to buy a commercial feed mix.

This ration will provide about 12-1/2 percent protein, so it could be used by a milking doe who gets good alfalfa hay.

As with most recipes, there are numerous variations. Protein levels can be adjusted up or down because of the quality of hay available, or because dry does require less protein.

(Any excess is just wasted, and expensive.) You could be using soybean oil meal instead of linseed oil meal, but soybean oil meal has more protein than linseed…and the amount varies with the type. Some people don’t have corn available, or barley or wheat is cheaper.

If you don’t use a commercial ration, select a formula from a goat book that will meet your needs. And then, don’t upset the balance of a carefully formulated ration by feeding “treats,” at least not in significant amounts. The occasional apple or carrot won’t do any harm, but too many departures from a normal diet are like the child who fills up on candy before dinner. You have more control over your goat’s nutrition than you do over its genetic makeup, and a poor feeding program can negate even the best genetics. Naturally it affects health.

If you’re just starting out, you might be overwhelmed by all of this. Don’t be. You have just learned enough of the basics so that, with common sense, you can do a good job of feeding your goats. You’ll learn more as you go along.
Breeding And Kidding

In order to produce kids and milk, your doe will have to be bred. Getting the doe bred—and, 155 days (more-or-less) later, waiting for the kids to appear—are especially anxious periods for most new goat raisers.

It all starts with the doe’s estrous cycle, or heat period. Unlike many other mammals such as humans or cows, goats have a distinctive and limited breeding season. Ordinarily, a doe will breed only between September and January, with some leeway due to climatic and other factors. As a result, most kids are born in the spring.

In addition, the estrous cycle lasts only for short periods within the breeding season. Ordinarily a doe will be in “standing heat”—meaning she’ll willingly accept a buck—for only a day or two of what is normally a 21-day cycle.

This can be make it tough on the new goat owner who doesn’t have a buck. Late August is the time to start paying special attention for signs of heat. Sometimes it’s very easy to tell when a doe is ready to be bred; sometimes it’s very difficult.

Some signs to look for are increased tail wagging, nervous bleating, a slightly swollen vulva (sometimes accompanied by a discharge) and riding other goats or being ridden by them. A lack of appetite or a drop in milk production can be other indicators. Seldom are all these signs evident. In fact, many times none of them are very obvious to any but the experienced observer.

One neat trick to confirm your suspicions is to rub down a buck with a rag to impregnate it with his scent. Keep it in a tightly sealed canning jar. If you suspect your doe is ready to breed, give her a whiff of the cloth, and you’ll find out if you’re right or not. Note those first heat periods on a calendar. If they appear 21 days apart, you can do some planning.

If you have your own buck, of course, you can breed at your convenience. If the neighbor down the road has the right buck, it shouldn’t be much of a problem. But if you have to put the doe in the car and drive 100 miles, it’s nice to have some idea of when you might be going. If the doe is in standing heat, the buck will mount her, she probably won’t resist…and you have a pregnant doe.

All of this assumes that you’ve given a fair amount of study and thought to the choice of a buck. If you know a lot about goats and know that your goat has weak pasterns (ankles), you’ll want to use a buck that is strong in that area. Maybe you want a buck whose daughters have shown exceptional udder attachment or some other quality that you’re trying to improve in your doe’s offspring. You certainly wouldn’t want to breed a cow-hocked doe to a buck with the same weakness, regardless of the milk production of his daughters.

Any weakness shared by dam and sire is likely to be magnified in the offspring, which means they won’t produce or hold up as well as their parents.

The “normal” gestation period is 155 days, although this can vary. The doe will require special care during this time. If she’s milking, plan to dry her off two months before she kids. Usually, all this takes is to stop milking her, but it’s hard to dry off some top-notch milkers. Reducing or eliminating the grain ration will help. In most cases, being pregnant will cause the doe’s milk production to decline to the point where it’s not worth the effort to milk her.

A fibrous diet, somewhat low-protein, is ideal for the first three months of pregnancy when the kids are growing slowly. Two-thirds of the kids’ growth takes places in the last eight weeks of gestation. During this period the doe’s ration should gradually be changed to ensure that she has enough nutrition for both her and her kids and to build up body reserves. Protein requirements are still low—around 12 percent—but the doe needs plenty of vitamins and minerals, especially iodine, calcium and vitamins A and D. Beet pulp and wheat bran are good feeds at this time. Molasses will provide some iron as well as the sugar that will help prevent ketosis. It also has a desirable slight laxative effect.

It’s a good idea to plan to be with the doe when she kids—but what
first-time goatkeeper would even think of staying away! Start checking the doe with extra care about 140 days after breeding. There are several signs to watch for. Kids can be felt on the right side of the doe. If you do this twice a day, you’ll notice when you can no longer feel them. The doe will then kid within 12 hours. As the first kid is prepared for delivery, the mother’s rump will be forced into a more horizontal position.

As the time nears, the doe will act more nervous and become hollow in the flank. There may be an opaque yellow discharge. By this time the doe should be in her private, well-cleaned and freshly bedded pen. She may paw at the bedding, lie down, stand up again, and bleat nervously.

In the vast majority of cases, the kids will be born; the mother will clean them; and all you’ll have to do will be to clean up the afterbirth and check to see if the newcomers are bucks or does as you disinfect their navels with iodine. In a normal birth, the front feet and nose appear first. This presents a rather cone-shaped object that distends the vagina. In other cases, the kid may be born with one foreleg bent back, hooking it inside the womb, or even backwards. The kids and umbilical cords can get tangled up in the womb, which can definitely cause problems.

Normal labor can last four hours or more, but if you determine that an abnormal delivery is probable, you’ll want to insert your hand and arm, disinfected with a germicidal soap and lubricated with mineral oil or K-Y, into the birth canal to help. Fortunately, it’s extremely unlikely that anything like this will occur on your first kidding experience, but if it does, feel around carefully. “Look” for entanglements. Try to find the front feet and head. In most cases, you can “lead” the kid out the next time the doe strains. Pull very gently and work with the doe to avoid hemorrhaging.

A pessary available from your vet should be inserted into the vagina afterwards to minimize the chances of infection. In most cases, the umbilical cord breaks by itself. If it doesn’t, tie it off with a soft cord two to three inches from the kid’s body and snip it off on the doe’s side of the knot with a sharp scissors. Disinfecting the navel is extremely important, and it’s usually your only midwifery chore. Use a spray, or better, pour some iodine in a small container, press it to the kid’s belly with the cord inside, and briefly tip the kid over to coat the navel with iodine. If there are more kids—two is the usual number, three aren’t uncommon, and four isn’t unheard of—they will usually come quickly after the first has cleared the way.

Then watch for the afterbirth. Not only is this a sign that kidding has been completed, but a retained afterbirth calls for a vet. If the afterbirth is hanging out of the doe, don’t pull it, as this can cause serious damage. Let it release naturally. You can help the doe clean the kids. She will instinctively lick the mucus that covers them, but when the first one is born she may be preoccupied with the second. By the time the next one comes, she may be exhausted. Wipe the mucus from the mouth and body, and dry off the newborn with a soft towel. When it’s over and the doe is resting, offer her a bucket of hot water. If you ever reward your doe with treats, this is the time for a handful of raisins or oatmeal.

What do you do with the kids?
Some people with lots of goat experience “put them to sleep” immediately with a handy bucket of water. Most beginners would never consider this. (But note that in the harsh world of reality, or where survival is at stake, newborn kids can be dressed out like rabbits.) You can leave the kids with their dam or take them away. Both methods have their advantages and disadvantages, and the decision depends on what you plan to do with the kids.

Nursing kids can damage show-type udders; you can’t be sure they’re getting enough milk; you don’t get any milk; and it’s likely the kids will grow up to be wild and wary. Bottle or pan feeding takes a lot of time, as it means milking the doe and feeding the kids and washing milking equipment and pans. It also requires separate facilities.
You’ll probably try both systems and variations on them before you become an advocate of one or the other, but most people start with bottle feeding.

Whatever the feeding method, it’s essential that kids receive colostrum within a half hour of birth. Colostrum is the thick, yellowish “first milk” a mammal produces after freshening. It contains antibodies that are necessary for the newborn’s protection.

If you bottle feed, know that colostrum scorches easily. Milk should be fed at close to body temperature, which is 103º F for goats. It’s easier to avoid overheating by using a double boiler, or by heating a small container of colostrum inside a container of water.

A newborn kid won’t take more than an ounce or two, but their appetites increase quickly. Don’t overfeed them. Four to eight ounces a day is plenty at first. Frequent small feedings are better than a few large feedings, especially at first.

There are numerous theories on feeding kids, but here’s a good one to start with: Feed colostrum three times a day for the first four days. Then until they’re eight weeks old, feed eight to 10 ounces of warm milk three or four times a day (about a quart a day), and an equal amount of warm water afterwards. Then offer them hay and a specially formulated grain ration such as a lamb creep feed. Reduce the amount of milk offered as they learn to eat solid foods. By reducing milk gradually, they can be weaned at eight weeks.

**Milking**

A goat must be milked on a regular schedule, usually every 12 hours. It can be 7 a.m. and 7 p.m. or noon and midnight, but the schedule must be maintained on a consistent, daily basis.

Most goat people consider a hooded stainless steel pail to be a necessity for milking. They aren’t cheap, but since milking is a twice-a-day task, even a $100 pail will cost only pennies a day the first year, and these pails last for decades.

You’ll probably learn the milking process from the seller of your first goat or an experienced friend or neighbor, but here are the basics: The goat should be brushed and her udder washed to prepare for milking. This is usually done when she’s being fed her grain. Dry the udder, using a separate disposable towel for each animal. Then trap the milk in the teat by closing it off at the top with your thumb and forefinger. Gently but firmly force the milk out the teat orifice and into the pail. It takes some practice, but you’ll learn quickly.

Even after you gain skill in milking, it’s easy to overlook the care of that milk. Nothing is more important to the home dairy than proper milk handling. Milk must be drawn quickly into an absolutely sanitary container; it must be strained through a fine-mesh, milk straining pad; and it must be cooled promptly and stored in hygienic containers.

When the goat is milked out, pour the milk through a milk strainer with a disposable filter into a scrupulously clean container such as the two- and four-quart aluminum buckets designed for home dairies. A grade A stainless steel strainer can cost around $80, but a small tin multi-purpose kitchen strainer such as the “Busy Liz” will serve the one-goat family for around $7. The disposable filters—which are essential for clean milk—can cost from $16 per 100 to $16 for 300, depending on size.

There is a great deal of controversy over the need, or benefits, of pasteurizing goat milk. In a survey conducted by Countryside Publications, the vast majority of goat owners were against it, while some health authorities felt it was a necessity.

It’s possible that today, many more goat owners are pasteurizing their milk, for various reasons. In fact, many even pasteurize the milk fed to kids in order to help control CAE, or caprine arthritis encephalitis. Some of the arguments surrounding all of this become very heated, and emotional.

Never add fresh, warm milk to chilled milk. Cold milk should never be left standing outside the refrigerator. Goatmilk is a delicate product—even more so than some fine wines. It needs to be handled with the same care, intelligence and respect.
Health Care

A well-cared-for goat is at least as healthy and probably harder than a healthy dog or human. Despite that, goats do get sick. The average goat breeder has no desire and no need to become an expert in veterinary practices. If an animal is lethargic, dull-eyed, refuses to eat or just acts “different,” it needs to be watched to determine if expert medical assistance is called for.

There are, however, several things the goat owner should know about health care.

Mastitis

Mastitis is probably the most common ailment. It is an inflammation of the mammary gland and usually shows up first as a hardening of the mammary gland (although hard udders are common just after kidding) or abnormal milk. There are three types of mastitis, and most goats probably harbor a mild form of it at one time or another. On the other hand, it’s possible to lose a goat’s production altogether with more acute forms. Mastitis is generally caused by faulty milking procedure. “Curing” it, as with most health problems, may simply attack other symptoms, not the cause. You’ll need a vet to help determine the type, the cause and the cure.

Lymphadenitis

Lymphadenitis, or abscesses, are another common problem. This lump or boil usually appears around the shoulder, although it can occur anywhere. Most goats get them sooner or later, and some herds seem to have lumps constantly. Some people don’t pay any attention to them. Animals with abscesses should be isolated. Some authorities insist that milk from these animals should be pasteurized. And if the abscess is on the udder, discard the milk altogether. The abscess won’t bother the goat, with the extremely rare exception of a lump forming in the throat that can block the windpipe and kill the animal.

Bloat

Bloat is caused by excessive accumulation of gas in the rumen and reticulum. This often happens when goats are turned out to lush pasture or consume large amounts of succulents. As usual, prevention is the best course. Feed dry hay before letting animals graze on spring clover. Don’t treat your goats to pounds of fresh green stuff if they’re not used to it. Bloat is caused by gas trapped in numerous tiny bubbles that make it impossible to belch. A cup of corn, peanut or mineral oil will usually relieve the condition. In serious cases, it might be necessary to relieve the gas by making an incision at the peak of the distended flank, midway between the last rib and the point of the hip, and holding the wound open with a tube or straw.

Goat Pox

Goat pox involves pimples that turn to watery blisters, then to sticky and encrusted scabs on the udder or other hairless parts of the body. Pox can be controlled with proper management. Time and good care are the best cures. Milk infected animals last to avoid spreading the disease.

Ketosis

Ketosis is a disease that occurs in the last month of pregnancy. It usually strikes overweight animals or underfed ones in poor condition, but it can also be brought on by extreme exercise, such as being chased by dogs. The doe with ketosis is listless, dull and goes off feed. She may become paralyzed and abort. Even with treatments such as giving the animal a cup of molasses twice a day or six ounces of glycerin or propylene glycol daily, such a doe has only a 50/50 chance for recovery.
Worms and Lice
Parasites such as worms and lice will require your attention. All goats have worms, but the good goatherder will keep them under control. Since there are different types of worms and no wormer (vermifuge) will work on all of them, it’s important to work with a competent and interested veterinarian to determine which worms you should be concerned about, what treatment to use, and how often. Most breeders worm twice a year in the spring and fall. Worming frequently and indiscriminately is just as bad as not worming at all. “Home cures” such as feeding the goat tobacco have not been proven effective. Lice and the tiny mites that cause mange are external parasites. They can torment and debilitate goats. If your animals are skinny, scruffy and act uncomfortable, external parasites are the likely cause. Again, this brief overview isn’t intended to be a primer on goat health. Call your vet.

Poisoning
New goat owners are often concerned about poisoning, but it’s not a common problem. Most goats have their food brought to them by their owners. For the others, the typical goat habit of taking a bite here and a nibble there usually prevents them from ingesting substantial amounts of any toxic plant…or leaded paint or old car or tractor batteries…to cause serious problems. While poisonous plants are rare in terms of percentage of available forage, even common plants can be toxic under certain circumstances. If you suspect problems in this area, get advice from your local county agent.

There are, of course, many other diseases and health problems that are covered in various books that deal with goat raising in a more comprehensive manner than this beginner’s guide is able to. Dairy goats have a reputation as hardy, healthy animals—and they deserve it!

Goat Products
We often receive requests for “goat milk recipes.” True, there are recipes for “goat milk fudge,” but in reality, goat milk can be used in any recipe calling for milk. Of course, goat milk enthusiasts think anything made with goat milk is better than if cow milk is used. Many people have been introduced to goats because of a child who couldn’t tolerate cow milk. Some allergic reactions to cow milk can be avoided with goat milk. In general, however, there is very little difference between cow milk and goat milk, in terms of healthfulness, taste and use. One of the most noticeable of those little differences is that the cream in goat milk doesn’t rise nearly as rapidly as the cream in cow milk. This can be great for table milk: it’s like having it naturally homogenized. But it makes it harder to make butter from goat milk. Either the milk has to be allowed to stand in shallow pans and the cream skimmed off, or it has to be run through a cream separator.

On the other hand, goat cheese is quite easy to make. It requires few utensils or ingredients that aren’t already found in the average home. You’ll need a large kettle, spoons, a long-bladed knife, cheesecloth, a cheese thermometer (or any that will tell you when the milk is 86º and 100ºF) and some rennet. Rennet, which comes comes in tablet or liquid form, makes the curds form, and includes basic cheesemaking instructions.

Goat milk can easily be made into yogurt. A number of yogurt makers are on the market, since even people without dairy animals make their own with purchased milk.

Goat meat is a byproduct of the home dairy. Very young animals are sometimes cut up like rabbits. Milk-fed kids are a delicacy whether roasted on a spit or cooked in other ways. Lamb recipes can be used with goat. Those recipes will also work for older goats. And when a goat’s milk-producing life is done, it can provide sausage, or human sustenance in other forms that deal with the tougher meat from a mature animal. Goat hides can be made into fine leather, while the pelts of younger animals can be used as fur.

From beginning to end, a goat is one of the most practical and productive animals we have. No wonder so many people are coming to recognize its great value.
Pulling carts around the farm or serving as loyal pack animals, goats are naturally hardworking and make for friendly companions. This straightforward guide teaches you how to choose, house, feed, train, and breed the best goats for your space and needs. Whether you want to churn out fresh dairy products, harvest soft cashmere for knitting, or keep goats as playful pets, *The Backyard Goat* makes it easy to enjoy the benefits of owning goats, with no experience necessary. **215 pages**
I built my first goat playground several years ago after my Toggenburg doe, Belle, learned how to open door handles with her mouth. If she had enough time during the day to invent ways to break into the feed room then I figured she needed some activities to stimulate her mind and allow her to get some exercise. I found there were a lot of different things around that could make good goat toys. I also found my goats to be very intelligent and giving them something to “play” with helped them to be more contented and less likely to make a game out of escaping from where they were supposed to be.

I began gathering items that could be used for a playground. The first toy consisted of two large tractor tires. One was placed on the ground flat, and the other tire rested on half of it at an angle. The goats spent hours and hours jumping on and off those tires, and since the tires were large enough that several goats could play on it at one time, they all got in on the action.

The second playground feature I brought in was a playground set made by Little Tikes, complete with a slide and ladder. Little Tikes products are durable and made from a weather resistant material, and are fairly inexpensive to purchase. Used playground equipment can be picked up at yard sales and auctions at a reduced price for those on a budget. The intention for this playground toy was for the kids, but the senior does had more fun with it, so it was moved into their pen.

The third portion of my goat playground was made from varying sizes of ends cut off of 50-gallon plastic drums, left over from the horse barn. My goats love to climb on these and leap from one to the other, then turn and go back the other direction.

BY DANIELLE WESTVANG
For others looking to create a goat playground, it is important to keep in mind that safety should come first. All materials used to create the playground should be free of sharp edges and small parts that can easily come off and be swallowed. Tires, boards, and barrel ends should be stable enough that they do not tip over and potentially pin a goat to the ground. Playground equipment made for children works well as they are designed for young children and have age limits of two years and under. Many playground objects can be obtained free of charge just by asking.

Goat toys don’t have to be made out of anything that would cost a lot of money. A little bit of imagination can turn a few recycled objects from around the farm into hours of fun. Having different things for the goats to play on and around will stave off boredom. It is my opinion that happy goats tend to live longer and be better producers.
Make Your Own Cheese
A Natural Way To Preserve Your Goat Milk

BY MARY JANE TOTH
AUTHOR OF CAPRINE COOKING

Making cheese is a great way to preserve your milk supply. Some types of cheese can be aged for two years or more without refrigeration, while others have a shelf life of two years or less. We freeze the soft cream cheese-style cheeses. We wax the cheddars, colbys and parmesans, since they will keep for a long time. We also make a marinated feta that is covered in herbs and oil. It keeps in a jar in a cupboard at room temperature for several months with no problems.

Cheese is basically milk, culture and rennet. All cheese will be white unless you color it. I never do this, as it is totally unnecessary. The different kinds of cheese are a result of the type of culture used, temperature control and cooking time. Some cheeses such as blue, Brie, Swiss or strong feta do require special enzymes to change the character of the cheese.

Forget about making American cheese. America seems to be in love with it, and yet it isn’t really considered a true cheese at all. It is real, all right, but it is the result of several types of cheeses blended together with milk and stabilizers, then pressed into the neat squares you see at stores. Because it is no longer a recognized type of cheese like cheddar, colby or Swiss, it is now considered a cheese food. Check the label the next time you go to the supermarket. You won’t have the type of equipment at home that is needed to reproduce American cheese.

To get started, you’ll need to consider what kind of culture or starter to use. Rennet coagulates the milk. Cheese wax is a must for colby, cheddar and parmesan. Cheese wax is reusable. It can be washed in warm water, dried and melted again and again. It’s an investment in your home cheesemaking. Get some good recipes, and you should be on your way to making your own dairy products. Cultures, wax and rennet can be purchased from any good cheesemaking supply company.

Some Basic Information

1. Pots and utensils: Use only stainless steel or unchipped enamel for making cheese. Acidity levels in cheese will cause the aluminum to leach into your cheese. Any stirring or cutting utensils are fine as long as they can be sanitized and are not made of aluminum.

2. Salt: Use only non-iodized salt, such as kosher or canning salt. Iodine will give your cheese a greenish cast.

3. Cheese press: You need this if you plan to make waxed cheeses. You can make one with an empty coffee can. Cut out both ends and cut a wood follower to fit the opening. Small red bricks can be
wrapped in foil and used for weights. There are several good cheese presses available at a variety of prices. The best deal is the one Hoegger makes for around $130. Anyone who is handy with wood can make their own.

4. Cheese wax: Don’t substitute paraffin or beeswax for the cheese wax. I have already tried them, and they don’t work. Cheese wax is softer and more flexible than the other types.

5. Rennet: It comes in liquid or tablet and in vegetable or animal types. They all work equally well. The tablets keep on a shelf, but liquid rennet needs to be refrigerated. However, it does have a life expectancy of two to three years. It never really dies, but it does lose potency at about two percent a month. This can be compensated for by adding a little more rennet as it ages. The liquid rennet is a must for making soft-style cream cheese. Don’t buy Junket brand rennet from the grocery store. This is not the same thing as cheesemaking rennet.

6. Starter cultures: Cultures come freeze-dried in small packets. Some must be recultured first before using. These are considered regular type cultures. Others are called DVI (Direct Vat Inoculate). This means that they can be added directly to the warmed milk without the added step of culturing them first. They are a real time-saver and handy for the occasional cheese-maker. The drawback is that they are generally more expensive to use. I prefer them because they are more convenient. If money is a concern, those that can be recultured are cheaper to use in the long run. Their drawback is that the culture must be recultured on a regular basis just like yogurt to keep them live and working well.

These cultures fall into two basic categories—thermophilic and mesophilic. Thermophilic is a heat-loving culture. It is used for cheeses that must be heated to a higher temperature such as mozzarella, parmesan or Swiss and Italian-type cheese. Yogurt is also made with a thermophilic culture. Mesophilic is a non-heat loving culture which would be destroyed at higher temperatures. It is used for 90 percent of your cheesemaking. Buttermilk is made with a mesophilic culture. I often used these items as culture substitutes in some of my recipes.

7. Cooking curds: Most times when you need to cook the curds (cooking firms them up), a sink of hot water works better than a stove. You can control the temperature better by adding more or less hot water as needed.

8. Cheesecloth: Don’t buy cheesecloth from the grocery store. This isn’t real cheesecloth, and it won’t be useful for draining anything. Cheesecloth is a much thicker, muslin type 100 percent cotton. It can be washed in hot soapy water with bleach and be used over and over again. The best way I can describe it is that it reminds me of diaper material—not prefolded, but the old-fashioned diapers that we had to fold ourselves. When held up, you could almost see through it, but not clearly.

Old pillowcases work great for draining cheese. I cut open the seams and wash them in hot soapy bleach water. They make a nice square yard of cloth and can reused for years until they actually wear out.

To hang the cheese, we use old shoelaces which we also bleach and use over and over. Tie a big knot in each end of the lace before using. This will keep the laces from sliding out while the cheese hangs. Cheese that falls from hanging on a cupboard handle can really make a mess.

9. Aging: Waxed cheeses can be aged several ways. The ideal temperature is around 55 to 60°F. A basement or root cellar works great. A non-working refrigerator or freezer can be used to keep out rodents. I have had really good luck using a chest freezer with a tight-fitting lid. I set it in my basement and have kept cheese in there for over 1-1/2 years. Unwaxed cheeses can be kept for several months if covered with oil. Any type will do nicely, but you need to be sure that all the cheese is completely immersed in the oil. Mold needs air to grow.

10. Milk: Milk from any species can be used to make cheese. My recipes were developed using whole milk. If you’re saving the cream for butter making or ice cream, you can use the leftover milk to make cheese.

Milk must be clean, cooled properly, or pasteurized and heat-treated. If you’re using raw milk to make cheese, the cheese should be aged for 60 days or more. Any harmful bacteria won’t survive the aging process after 60 days.
11. Pasteurizing: There are pasteurizers available for purchase, but this job can also be done on a stovetop. Use the double boiler method, placing one pan inside another. Add a few inches of water to the outside pot and heat the milk until it reaches 161 degrees F. Stir to make sure the milk is at an even temperature throughout, then place in a sink full of very cold water for quick cooling.

Even if you decide not to pasteurize your milk, quick cooling is the most important step you can take to have good-tasting milk and successful cheese making. A candy thermometer works great for pasteurizing. It can be hung on the side of the pot.

Once you know how long it takes for the milk to reach 161°F degrees, you can set a timer to keep from accidentally overheating the milk.

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**Milk Facts**

- A gallon of milk weighs about eight pounds
- Ten lbs of milk produces one pound of cheese and nine lbs of whey
- It takes 21 lbs of whole milk to make one pound of butter

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**Soft Cheese (Cream Cheese Style)**

5 quarts whole milk  
1/3 cup buttermilk  
2 tablespoons diluted rennet  
(dilution is 3 drops of liquid rennet into 1/3 cup of cool water)

Warm the milk to 80°F. Stir in the buttermilk, mix well and add the dilute rennet solution. Stir well, cover and allow to set at room temperature for eight to 12 hours. The cheese is ready when it is thick.

Line a large bowl with a cloth and hang to drain for six to eight hours. Draining can be speeded up if you take the bag of curds down and scrape them from the outside of the bag to the center. The cheese is drained when it has stopped dripping and has the consistency of cream cheese. This cheese will freeze for several months. Makes 1-1/2 to 2 pounds.

*Note*: Cheesecloth won’t drain this type of cheese. You must use a muslin-type cheese-cloth or case cloth, as I like to call it. Case cloth is simply an old pillowcase with the seams opened up to make a large square of cloth. It can be washed out in hot, soapy bleach water and reused until the cloth wears out. Shoelaces will work for hanging the cheese to drain. You can use this cheese as a substitute for cream cheese. We like to mix in herbs and spices and make cheese balls. Because this cheese is so versatile and easy to make, I recommend it as one of the first cheeses for the beginner.
No-Rennet Cottage Cheese

1 gallon milk
1 cup cultured buttermilk

Warm the milk to about 95°F. Stir in the buttermilk and allow to set at room temperature for 12 to 18 hours. The milk will clabber, or become thick.

Cut the curds into 1/2-inch cubes and let rest for 10 minutes. Place the pot into a double boiler-type pot and heat at a very low setting until the curd reaches 115°F. Stir often to keep the curds from matting together. This will take an hour or more.

The curd is ready when it is somewhat firm on the interior of the cheese. Cook longer if necessary. Some whey will rise to the top. Let the curds settle to the bottom of the pot, drain off the whey and place the curds in a cloth-lined colander to drain. Be gentle, as the curds are rather fragile.

Allow the cheese to drain until it stops dripping. Place in a bowl and add salt to taste. I usually use about one teaspoon of kosher or canning salt per pound. Stir in about four ounces of half-and-half or cream per pound if you like a creamed cottage cheese.

Quick Cottage Cheese

1 gallon milk
1/2 cup cultured buttermilk
1/4 teaspoon liquid rennet
1/4 cup cool water

Warm the milk to 86°F. Stir in the buttermilk, mix the rennet into the cool water and add to the warmed milk. Set until it coagulates, usually about an hour. Cut the curds in 1/2 inch cubes. Heat slowly using the double boiler method until the temperature reaches about 110°F. Hold at this temperature for 30 minutes and stir often to prevent matting.

When the curds are firm, place into a cheesecloth-lined colander and let drain for 20 minutes. Lift the curds in the cheesecloth and dip into a pot of cold water. Drain until the curd stops dripping. Place curds in a bowl and add salt and cream if desired.
2 gallons milk
1/2 cup cultured buttermilk or substitute
1 teaspoon liquid rennet or 1/2 rennet tablet
1/2 cup cool water
4 teaspoons salt

In a large stainless or enamel pot, warm the milk to 88°F and stir in buttermilk or other culture. Allow the milk to set to ripen for one hour. Keep the milk warm at 88°F during this time. This can easily be done by placing the milk in a sink full of warm or hot water. Cool or hot water can be added as needed.

After one hour, mix the rennet in cool water and stir into the milk for 30 seconds. Maintain the temperature at 88°F for 45 minutes to coagulate the milk. The curd is ready to cut when you dip your finger into the curds and they break cleanly over your finger as whey fills the depression.

Cut the curds into 1/2-inch cubes and let them rest for 20 minutes, then gently stir them while increasing temperature to 98°F. Increase heat very slowly over a 30-minute period.

This process is called cooking the curds. Stir often to prevent the curds from matting together. Keep at 98°F until the curds have firmed up enough where they feel spongy when gently squeezed between your fingers and no longer have a custard-like interior. This will usually take 30 to 45 minutes.

Let the curds settle to the bottom of the pot and carefully pour off some of the whey. Pour remaining curds and whey into a colander and allow to drain for 10 minutes. Place the curds back into the pot and stir in four teaspoons of salt. Mix well, breaking up any curds that have matted together. Keep the curds warm in the pot in a sink full of hot water for one hour. Stir often to keep the curds from matting.

Line a cheese press with cheesecloth, scoop curds into the press and fold over any excess cheesecloth. Place a wood follower on top of that and press at 15 pounds pressure for 20 minutes. Remove the cheese from the press, turn over and redress onto another clean cheesecloth and press at 30 pounds pressure for two hours. Remove cheese from press, redress in a clean cheesecloth and press at 30 to 40 pounds overnight.

In the morning, remove the cheese from the press and allow to air dry several days until the cheese is dry to the touch. Turn several times a day while it is drying. Coat with cheese wax when the cheese is dry to the touch. Age at 55°F for two to six months, depending on how strong you like the cheese. Really good cheddar is aged for 12 months or more. Culture substitutions: You can use 1/4 teaspoon mesophilic DVI (direct vat inoculant) or 1/2 regular mesophilic culture in place of buttermilk.
Mild Feta Cheese

1 gallon milk
1/4 cup cheese culture or buttermilk
1/2 teaspoon liquid rennet
1/4 cup cool water
Coarse salt

Warm milk to 86°F and stir in cheese culture or buttermilk. Set one hour to ripen. Mix rennet into cool water and stir into milk. Cover and allow to set another hour to coagulate.

Cut curds into 1/2-inch cubes and allow to rest five minutes. Stir gently for 15 minutes, keeping the curds at 86°F.

Pour curds into a cheesecloth-lined colander, tie the bag of curds and hang to drain for four to six hours. Slice the cheese ball in half and lay the slabs of cheese into a dish that can be covered. Sprinkle all the surfaces with coarse salt, cover and allow to set at room temperature for 24 hours.

After 24 hours, salt all the surfaces with more coarse salt and let it rest for two hours. Place the cheese in a covered dish and refrigerate for five to seven days. Use within two weeks or freeze for future use. The cheese will keep at room temperature for months if marinated in oil.

Marinated Feta Cheese

Mild feta cheese (stronger cheese may be used)
Jars with lids
Olive, canola or soybean oil
Your choice of herbs (use aromatic herbs for best flavor)

Cut or break the cheese into smaller pieces, about 1 to 1-1/2 inches. Use a clean jar that has a tight-fitting lid. Layer the herbs first, then the cheese. Repeat until the jar is full. Leave about 1/2 inch of space at the top. Pour oil over the cheese and herbs, filling the jar until the mixture is completely covered with oil.

Place the marinated feta on a cupboard or shelf. Refrigeration is not necessary as long as the cheese is completely covered with oil. Air won’t be able to get in, and the cheese won’t mold. Enjoy it straight out of the jar or crumble into your favorite salad. The cheese gets better with age.

Some herbs to consider are rosemary, thyme, bay leaves, marjoram, sun-dried tomatoes, garlic cloves, dried hot peppers, peppercorns, basil, oregano or onions. My personal favorite combination is rosemary, basil and garlic.
Feta cheese aged in salt brine
1 gallon milk
1/4 cup cheese culture or buttermilk
1/8 teaspoon lipase enzyme powder
1/2 teaspoon liquid rennet
1/2 cup cool water
Coarse salt
Brine solution

Warm milk to 86° F. Stir in culture or buttermilk, add lipase enzyme to 1/4 cup cool water, dissolve enzyme and stir into milk. Set 1 hour to ripen.

Mix rennet in 1/4 cup cool water and stir into ripened milk for one minute. Allow 40 minutes to coagulate. Cut curds into one-inch cubes and let rest for 10 minutes. Stir gently for 20 minutes, keeping the curds at 86°F. Pour curds into cheesecloth-lined colander and hang the bag of curds to drain for six to eight hours.

After draining, the cheese will be very firm. Slice in half, salt all the surfaces of the cheese with coarse salt and place sections of cheese into a dish. Keep the cheese in a covered dish during the salting process at room temperature for two days. Rub all the surfaces with more salt each day. Drain off any liquid that seeps out of the cheese. This cheese will become very strong smelling during the salting process. That is the lipase enzyme powder doing its job. After two days, the cheese should become tougher and can now be aged in a brine solution in the refrigerator. Age in brine for one to four weeks.

Brine Solution

7 ounces canning or kosher salt
1/2 gallon cool water

Mix salt and water together. Not all of the salt will dissolve. Place the cheese into a crock or dish with a lid. Cover the cheese with the brine solution. Cheese needs to be immersed in the brine.

Note: Feta is traditionally a very salty cheese and is best eaten crumbled over a salad or used in small amounts in other dishes. Some of the saltiness can be removed by soaking in fresh milk overnight.
Brick Cheese

1 gallon milk
1/2 cup cultured buttermilk
1/4 rennet tablet or 1/2 teaspoon liquid rennet
Salt

Mix the buttermilk with the milk and warm to 86°F. Set two hours to ripen. Dissolve or add the rennet into 1/2 cup cool water. Stir into the milk for one minute, then cover and allow to coagulate for 45 seconds.

The curd is ready to cut when a whey-filled depression is left after it is touched by a finger. Cut into 1/2-inch cubes. Cover and allow the curds to set for 30 minutes. After setting, place the pot into a sink of hot water and slowly bring the temperature to 102°F. Hold at 102°F for 30 minutes.

Stir the curds every five minutes to prevent matting. They will look like scrambled eggs at this point. They should hold their shape and will require more cooking if they don’t.

Remove curds from sink and allow to set for one hour, stirring every 10 minutes. Line a colander with cheesecloth. Lift the curds out of the whey and place in the cheesecloth. Rinse with warm water and let drain for 25 minutes. Work in a teaspoon of salt if desired.

Make a folded band out of a clean dish towel and pin it together. While leaving the curds in the cheesecloth, place them inside the band. Using two small bricks, press between two boards for 12 hours. Remove the cheesecloth and put the cheese on a rack to air dry.

Turn once in a while to allow drying until all surfaces are dry to the touch. Salt the outside surfaces of the cheese to help draw out moisture. Turn daily and lightly salt again if needed. The cheese may dry quickly and not need much salting. When dry, wax may be applied to seal and age the cheese.

Store cheese at 50° to 60°F in a dry place, turning every other day or so. This keeps the moisture evenly distributed inside the cheese. Aging can last from one to six months, depending on how strong you like your cheese.
Ricotta is a fresh Italian cheese. It is traditionally made from fresh whey left over from the cheesemaking process. Ricotta is very mild, and is used in many Italian dishes such as lasagna or stuffed manicotti.

You can use the whey left from all types of cheesemaking with the exception of the soft French-style goat cheese, soft molded or herbed goat cheese and Neufchatel. Those cheeses are made with drops of rennet which are not sufficient for ricotta.

The whey must be very fresh, so plan ahead to make ricotta on a day when you are already making other kinds of cheese. Yield is very low, and whole milk is added to boost the yield.

There are several ways to make ricotta. Here are some interesting ones to try. Ricotta can be used in many recipes, and it’s great in cake mixes and other recipes. Besides adding extra protein, it makes cakes come out rich and moist. You can also beat it until smooth, add some herbs or dip mixes and have a terrific dip or spread. Because ricotta is such a mild cheese, it mixes nicely with other dishes. Be creative

**Ricotta Cheese**

1 gallon or more of fresh whey
1 to 1-1/2 quarts milk

Heat whey to 195°F in a large kettle, then slowly stir in the milk. Bring heat back to 195°F, stirring often to prevent scorching. The ricotta is ready to drain when you see little white, fine-grained pieces forming in the pot. Line a colander with cheesecloth and pour the curds into the cloth. Hang to drain for one hour.

When drained, remove the cheese from the cloth and add salt to taste. One half teaspoon per two cups is about right. Store in the refrigerator.

Will keep for about a week. Use whole milk or cream for a richer ricotta.
Ricotta Cheese  
(Using Lemon Juice)

1 gallon fresh whey  
1 quart fresh milk  
Juice of one lemon (about ¼ cup)  
1/2 teaspoon canning or kosher salt

Whey should be very fresh. It will still be good if you have less than a gallon. Place whey and whole milk in a large stainless or enamel pot. Heat to 195°F, remove from heat and add lemon juice.

Stir the mixture for several minutes, watching as the juice produces tiny curds in the liquid. Pour the hot whey and curds into a cheesecloth-lined colander and allow to drain and cool for 25 minutes. Remove curd from the cloth and break into tiny pieces in a bowl. Add salt to taste. Add a little whole milk or cream for a richer ricotta. Will keep for one week in the refrigerator.

Ricotta Cheese  
(Using Vinegar)

1 gallon fresh whole milk  
1/4 cup cider vinegar  
1/4 to 1/2 teaspoon salt

Bring the fresh whole milk to 185°F. Remove from heat and add vinegar while stirring continuously. Curds will form very quickly. Pour into a cheesecloth-lined colander. Drain for 20 minutes; mix in salt to taste. Keeps for about a week.
Mozzarella

Mozzarella seems to be one cheese we make often, and there are many ways to make it. Old World traditional mozzarella takes longer to make, but has a higher yield per gallon of milk.

Quick mozzarella is simpler and faster to make. The cheese freezes very well and is used in many recipes besides pizza. The following recipes will make a very mild mozzarella. You'll need to add a lipase powder if you like mozzarella with a stronger flavor.

Lipase powders are available from cheesemaking supply companies and are usually added at the rate of 1/8 teaspoon per two gallons of milk. Be sure to mix in water to dissolve powder before adding to milk.

Mozzarella is a fun cheese to make. It doesn't require lots of expensive equipment. You don't need a cheese press to make it, and it can be eaten fresh. Children especially enjoy helping with this cheese. I use liquid rennet because it can make a bigger variety of cheese and is cheaper to use than the tablets. Either calf or vegetable rennet work equally well.

Mozzarella is heat treated in the final stages to give it the desired stretch. This can be done either in the microwave or on the stove. Because mozzarella requires a high acidic level in the cheese before it can get stretchy, we add citric acid powder to speed this process along. The Old World traditional mozzarella gets its acidity by adding a culture and allowing it to ripen over a two-hour or longer period.

All cheese should be made in a stainless steel or unchipped enamel pot. Never use aluminum, as this can leach into the cheese. Use only canning or non-iodized kosher salt. Salt with iodine will give your cheese a slight yellowish-green tint. It's best to use a sink of hot water to raise or lower the temperature of the cheese. You can add more hot water as needed without scorching the milk.

Citric acid powder quickly raises the acidity so that the cheese will stretch. This is used for the quick method, but traditional mozzarella gets its acidity slowly by adding a culture and allowing it to ripen. Citric acid powder is available at cheesemaking supply companies and pharmacists will sometimes order it. Candy and cake decorating supply companies often have it, as citric acid is used to make rock candy.

Thermophilic culture can be heated to 110°F or more. It is used to make many Italian-type cheeses such as mozzarella. It is an old-fashioned culture sometimes called traditional or regular thermophilic and must be recultured before using. The other and more convenient type is a DVI thermophilic culture. DVI stands for direct vat inoculant and can be added directly to the warmed milk.

Old World Traditional Mozzarella Cheese

It takes a little practice to know the exact time to begin the stretching process, but this mozzarella is well worth the effort. It has a higher yield per gallon of milk than the mozzarella made with citric acid powder. However, the citric acid assures you that the stretch will be ready when you are.

The old-fashioned mozzarella takes a bit longer, and the acidic level is reached over time with the aid of a thermophilic culture, so it can be a little tricky to know when the cheese is ready to stretch. Continued practice will help you get better at making this cheese.
2 gallons milk
1/8 teaspoon DVI thermophilic culture
1/4 to 1/2 teaspoon fresh rennet—amount depends on age and freshness
1/2 cup cool water

Warm the milk to 90°F and add the thermophilic culture. Dilute the rennet into cool water and stir into the milk for 15 seconds. Allow the curds to coagulate for 45 minutes to one hour and 15 minutes. Curd is ready to cut when it breaks cleanly over your finger and whey fills the depression. Cut curd gently into one-inch pieces and let rest for 20 minutes.

Increase the temperature of the curds about two degrees every five minutes, stirring often to keep the curds from matting together. Heat until the mixture reaches 100°F, hold at this temperature by adding hot water to the sink as necessary and begin timing. You don’t need to drain off the whey and curds. Let it set in the sink, keeping warm to acidify for about 2-1/2 hours.

Test a small handful of curds in very hot water (150°-155°F). If they aren’t ready to stretch, leave them to set a little longer. Determining the point when the curds are ready to stretch is a matter of getting a feel for how the cheese is supposed to be. When right, the curds melt together and stretch beautifully. At this stage, you can drain the curds, refrigerate and finish the stretching another day by using hot water.

Another method is to remove the curds from the whey, place the whey back on the stove in a double boiler and heat the whey back to 150°-155°F. Place the curds, which by now have knitted themselves into one mass, back into the hot whey. Work quickly. Use of a large slotted spoon and a large regular spoon will help in the stretching process. Pull and stretch like taffy, shape into a ball and place in a brine solution for 10 to 30 minutes, depending on how salty you like your cheese.

The brine solution is two pounds of kosher salt per gallon of water, or eight ounces of salt per quart. The amount of salt can be adjusted to suit your taste. This cheese is great eaten fresh with a slice of tomato, a basil leaf and olive oil drizzled over the cheese.
Microwave Method

Break up a cupful of curds into a microwave-safe plate or bowl. Add salt to taste. I like about 1/2 teaspoon of salt per pound of cheese, which equals 1/4 teaspoon per cup.

Place the curds into the microwave and heat on high for 50 seconds. Take out and work the cheese with the back of a spoon, much like kneading the cheese. Place the cheese back into the microwave and heat on high or another 25 seconds. Remove from microwave and again work with a spoon to stretch and shape the cheese. Work into a soft ball with your hands and allow to cool. It will become opaque and shiny. Wrap in plastic or freeze for later use. It will keep about two weeks in the refrigerator.

Stovetop Method

You can use either hot water or whey saved from draining the curds. Use a double boiler method, or you'll scorch the whey. You will need enough hot water to cover the curds and whey.

Heat the water or whey to 150°-155°F, then place the curds (which by now have formed into a mass) back into the hot liquid. Work quickly, as it doesn’t take long in the hot liquid before the curds melt together and become stretchy. This is an amazing process that happens very quickly.

Use a large slotted and large regular spoon and bring the curd up out of the liquid, pulling and stretching it like taffy. You can use your hands or the spoons to stretch the cheese. Shape into balls and place into a brine solution for 10 to 30 minutes, depending on how salty you like your cheese. Remove from brine and pat dry or air dry. Refrigerate cheese for up to two weeks. Freeze for longer storage.
Cottage Cheese: What went wrong?

Sour acid flavor:
1. Too much acid developed before and during cooking the curd;
2. Too much whey was retained in the curd, or;
3. The curd was insufficiently washed and drained.

Yeasty, sweet or unclean flavors:
1. Unclean utensils or an impure starter introduced yeasts, molds or bacteria into your cheese, or;
2. The milk was not completely pasteurized.

Soft, wet curd:
1. Too much moisture in the cheese;
2. Development of too much acid while cutting the curd;
3. Heating the cut curd at too high or too low a temperature, or;
4. Allowing too-large curd particles to form.

Tough, dry curd:
1. Insufficient acid development in the curd before it is cut;
2. Cutting the curd too fine;
3. Too high a heating temperature, or;
4. Too long a holding time after cooking and before dipping off the whey.

Cheesemaking Supply Sources

- Caprine Supply, PO Box Y, De Soto, KS 66018; 800-646-7736; www.caprinesupply.com
- Hamby Dairy Supply, 2402 SW Water St., Maysville, MO 64469-9102; 800-306-8937; www.hambydairysupply.com
- Hoeger Supply Co., 200 Providence Rd., Fayetteville, GA 30215; 1-800-221-4628; www.hoegerfarmyard.com
- New England Cheesemaking Supply Co., 54 Whately Road Suite B, South Deerfield, MA 01373; 413-397-2012; www.cheesemaking.com

About the Author:
Mary Jane Toth has been raising goats in Michigan for 17 years. Like most goat owners, she faced the problem of “too much milk,” which lead to making cheese. However, Mary Jane went much further than most. She went from operating a small catering business, and a cookie and fudge venture, to developing cheese recipes that work...and writing books (A Cheesemaker’s Journey is her latest) and articles about dairy products. She conducts cheesemaking workshops throughout the country...and makes dairy products from her herd of Alpine goats.
When most people think of milk, they automatically think of cow milk, as if cows alone possess the ability to create milk. Is cow milk really the healthiest for human consumption, or is it just more cost-effective to mass-produce? Many people in North America think cow milk is the only type of milk consumed by humans, but in reality, worldwide, more people consume goat milk than any other type.

One reason goat milk is consumed more often worldwide, is that goats are more cost-effective than a cow. A goat eats a smaller amount of food, and could actually live in a typical backyard, as long as it has a shelter. A single milk goat could supply a typical five-person family with enough milk, as a good producing goat has the ability to produce a gallon or more a day. The idea of maintaining a cow in a backyard is almost absurd. Maintaining a cow is usually more than a homeowner is willing to, or even capable of handling.

I believe people in the United States are becoming more educated in the benefits of using goat milk, and thus they are giving it a try. With increased consumption, comes increased demand. Many immigrants from Third World countries now make the United States their home and many are used to drinking goat milk on a regular basis, so the demand for goat milk is increasing from this area as well. It is important that the dairy goat industry continue to “Promote the Goat,” and educate the public about our wonderful animals and the benefits they offer.

Goat milk has been proven to have medicinal value for those who consume it, especially those who are lactose intolerant. One of the largest differences between cow milk and goat milk is found in the composition and structure of fat in the two milks. The average size of fat globules in goat milk is one and a half micrometers—smaller than the fat globules in cow milk. The smaller fat globules in goat milk make it easier to digest. Ease of digestion creates relief for those who might otherwise not be able to consume any dairy products.

Goat milk may have a direct benefit for infants/toddlers with allergic reactions to regular cow milk or formula. Some of the sudden deaths of infants are related to allergic-type responses. The result is anaphylactic shock. Many infants are allergic to various components of cow milk and could also be allergic to dairy products that are made with cow milk. Other types of digestive problems can result from milk due to a lack of the lactose-digesting enzyme. The presence of this enzyme is found in infants (up to three years old); the presence of this enzyme in adults is quite irregular and genetically determined.

There are several vitamin differences between goat milk and cow milk as well. Goat milk has greater amounts of vitamin A than cow milk. Also, goats convert all carotenes into vitamin A, creating whiter milk than cows. Goat milk is also higher in vitamin B, especially riboflavin, but vitamin B6 and B12 are higher in cow milk. The milk levels of vitamins C and D are low and about the same for cows and goats.

People of all ages may prefer goat milk to cow milk. The distinctive qualities of goat milk make it particularly suitable for young children and elderly people. The ability of goat milk to be easily digested is beneficial to these two groups in particular.

Allergies and lactose intolerance are two very different problems. In an allergic type reaction, the symptoms are produced by histamines, which are stored in cells throughout the body. Histamines are released when triggered by a stimulus. People who display an allergic reaction are usually more sensitive to the release of a set amount of histamine.
and also tend to produce greater amounts of antibodies to certain proteins. Goat milk is an easy choice for an alternative to cow milk, especially for those who are intolerant to cow milk. Lactose intolerance results from an inability to digest lactose. Especially in the first year of life, infants can be susceptible to cow milk protein intolerance. While many infants are able to overcome this allergy, it continues into the later years for some children. Swedish studies have proven that cow milk was a major cause of colic, sometimes fatally, in 12 to 30 percent of younger than three-month-old infants. In breast fed infants, colic has shown to be related to the mother’s consumption of cow milk. In older infants, the presence of cow milk protein intolerance is about 20 percent. About 40 percent of all patients sensitive to cow milk proteins tolerate goat milk proteins.

Elderly people are another group who benefit from the use of goat milk just as often as infants and children. As a person grows older, difficulties with the digestive system and dermatological problems can become worse. The softer curd in goat milk can be applicable in this situation. Goat milk can also lower the probability of producing dermatological reactions.

Typically the type of symptoms which goat milk can be helpful in overcoming can be categorized into three groups: gastrointestinal, respiratory, and dermatological. Gastrointestinal problems include vomiting, diarrhea, abdominal discomfort, colic, and constipation. Respiratory problems include asthma, inflammation of the nose, and bronchitis. Finally, dermatological problems include eczema, dermatitis, and rashes. While it is not a cure for all of these, drinking goat milk may help relieve the symptoms.

Goat milk is used in many of the same products that cow milk is used; it even surpasses cow milk in some products. Large amounts of goat milk are processed each year into dried milk, evaporated milk, cheese and yogurt, as well as being sold as bottled whole milk. The use of goat milk to produce cheese has become widespread around the world, especially in France.

One of the largest difficulties that must be faced by many small dairymen and women in the United States is meeting government standards or rules for the production and sales of a commercial product. Many small dairymen have been forced out of the business due to the expense and time commitment involved in satisfying health standards or out-dated rulings. In many states it has become illegal to sell cow or goat milk off the farm (or in stores), unless great financial investment in equipment and production facilities has been made. The small family farm, the backbone of free enterprise in America, has all but become a thing of the past.

It is my opinion that the dairy goat could bring back free enterprise and the dreams of the small farmer, if governmental regulation is held at bay, or at least tailored to make sense for the industry it is supposed to uphold. Goat dairying is less intense in its energy and land requirements. These characteristics make goat dairying more appealing for many individuals who wish to become involved with dairying. Individuals who wish to start a commercial dairy don’t always have the time or the space to raise cows, causing them to look more closely at goats.

For those considering an investment in dairy goats, there are many choices in breed and type to consider. There are nine breeds of dairy goats recognized by the American Dairy Goat Association and each breed has its advantages and disadvantages, based on the particular needs and likes/dislikes of the owner. Some dairy goats are chosen for their aesthetically pleasing look, while others are chosen to produce lots of milk. Still others are chosen for butterfat content or for physical size. The breeds of goats proven to have the highest production qualities, pound for pound, include the Saanen or Alpine. However, if milk with a higher fat content is preferred, the choice might be narrowed to the Nigerian Dwarf or the Nubian. The Sable, Toggenburg, LaMancha, and Oberhasli are breeds which fall somewhere in between, and each has its own unique contribution to the world of dairy goats.

My aim within this research paper is not to say which breed of goat would be better than another, but rather to emphasize that goat milk is a wonderful product with many benefits to humankind. It is my hope that consumers wishing to reap the benefits of buying fresh goat milk for their families could do so, whether by being allowed to purchase goat milk on the farm or in the local grocery store. For too long, the government has slowly eroded away the choice of producers and consumers in the United States with a lot of red tape and legal restrictions when it comes to producing, buying, and selling goat milk. As more and more people realize the benefits that drinking goat milk has to offer, more demands will be made to increase the supply. With continued support and promotional efforts from dairy goat associations and clubs, as well as pride of producers, I think the dream of making the benefits of goat milk readily available to anyone who wants them, will become a reality. Someday, when people are asked if they “Got milk?” they will readily respond with “Yes, I just picked up my goat milk this morning, and I wouldn’t like to live without it.”
To order visit: iamcountryside.com/shop/backyard-homesteading
Or call: 970-392-4419