Add a milk cow to your collection of backyard critters

The Francisco family grazes their cows on pasture and feeds them hay throughout the year. All extra milk is used by the family and sold within the community. Photo courtesy of the Francisco family.

Many Wyoming people are self-sufficient and enjoy producing their own food. While large-scale dairies in Wyoming are mostly a thing of the past, it is becoming more and more popular for Wyomingites to own a family milk cow and produce their own fresh milk. This article outlines considerations for folks who are on the fence about owning their own milk cow.

Breed selection

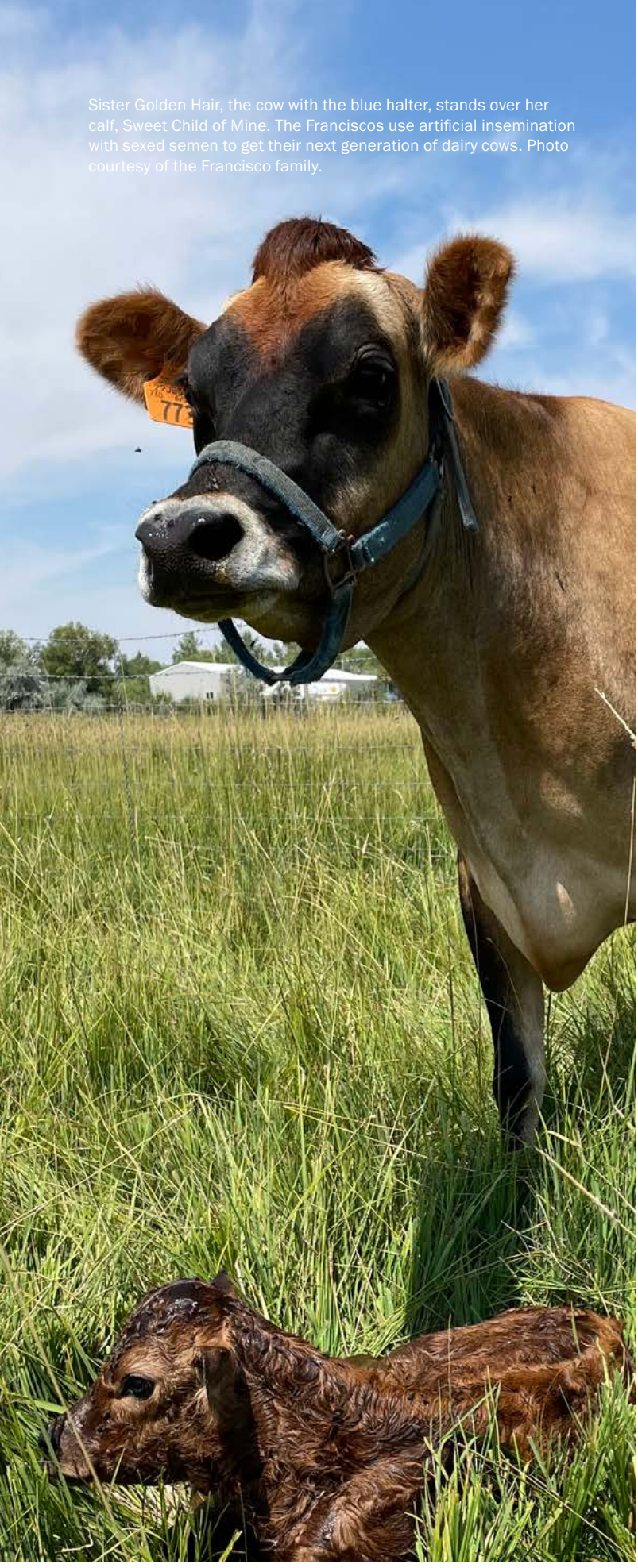
When thinking of a dairy cow, usually a black-and-white **Holstein** comes to mind. The Holstein breed comprises most of the cows in the commercial dairy industry because they produce large quantities of milk needed to meet consumer demand. However, Holsteins are large critters that require a lot of space and feed inputs. Other smaller breeds are easier to manage and are more common in backyard operations.

In addition to space requirements, nutrient profile, flavor, and consistency of milk can differ between breeds and should be considered during the breed selection process.

The **Jersey** breed is the most common family milk cow breed that I have encountered in Wyoming. Jerseys are small but mighty, as they produce an impressive amount of milk for their size. Jerseys are also known for being very docile and easy to manage. Milk from Jersey cows is rich, creamy, and high in butter fat, which is great for making butter, yogurt, and ice cream!

Guernseys also produce great nutrient-dense milk (higher amounts of vitamin D and calcium compared to other breeds). Instead of bright white milk, Guernseys tend to produce milk that is darker and more golden in color. This is because Guernseys don't break down beta-carotene as efficiently as other dairy cows, which means more of its orange pigment is retained in their milk. The off-color can be concerning for some consumers, so prospective producers should be aware of it.

Brown Swiss cows are another larger docile breed. Brown Swiss milk is known to have a high protein-to-fat ratio, which is perfect for making cheese. Dexters and Milking Shorthorns can also make good family milk cows.



Sister Golden Hair, the cow with the blue halter, stands over her calf, Sweet Child of Mine. The Franciscos use artificial insemination with sexed semen to get their next generation of dairy cows. Photo courtesy of the Francisco family.

Breeding considerations

Your cow will need to have a calf to produce milk. Typically, cows are bred every year to take advantage of a fresh lactation cycle, but a single lactation cycle can last for years as long as you're milking the cow.

For someone with only one or two cows, access to bulls can be a challenge. Often, cow owners can lease the services of a bull. The bull can be brought to your place or you can drop your cow off to get bred. In Wyoming, the bulls available are usually beef bulls, such as a Black Angus or Hereford. Dairy bulls are less common in our part of the world, as there is less need for them and they can be a hassle to own.

Another route for breeding the family dairy cow is via artificial insemination (AI). There are many benefits of opting for AI instead of natural breeding. First, using AI allows you to select the sire and genetics that you want to combine with your cow. Second, you can make sure that your cow is bred to a sire that will likely result in a safe calving scenario with low chances of complications. If you plan to sell the calf or raise it for beef, you can utilize beef sires that are proven for calving ease and/or meat quality.

If you plan on retaining the calf as a future milk cow, you can use AI to select a dairy sire with genetic traits for desired milk characteristics (i.e., cream content and A2/A2 beta-casein protein). Additionally, through AI, sexed semen can be used to increase the likelihood that the resulting calf will be female.

Nutrition and pasture

Feed costs are a substantial part of owning a dairy cow. Ensuring that her nutritional needs are met is essential to consistently getting good-quality milk. Having pasture resources and space improves the cow's quality of life and can minimize how much hay and feed has to be purchased. In general, it is a good idea to have at least 2–5 acres per cow for grazing. Intensive grazing strategies can help maximize pasture resources during the warm months, but good- to premium-quality hay will still need to be fed and supplemented during portions of the year in Wyoming.

Lactation is the most nutrient-demanding time of a cow's life. The cow's diet directly affects her milk quality and quantity. Ensuring that she is fed ample protein, energy, vitamins, and minerals is essential to keeping her healthy, fleshy, and productive.

High-quality hay (usually grass-alfalfa mix) is needed, especially during the winter months. Grain supplementation may also be necessary depending on the quality of the forage used and body condition of the cow. Lastly, forage and grain alone may not contain all the vitamins and minerals needed for normal bodily functions and pregnancy. Vitamins and mineral supplementation should also be included.

Milking

A cow in lactation will need to be milked at least once per day. Milking multiple times per day may be needed and can increase yields. Milking usually takes 20–40 minutes per session.

Milking can be done by hand or with a milking machine. Some docile cows can be tied up with a halter during milking without issues, but others will need a head catch or stanchion.

Clean rags are useful in making sure the teats are clean before milking. Stainless steel milking buckets with lids are ideal because they can be cleaned easily. An iodine teat dip applied after milking is helpful in preventing mastitis. To make sure things are kept clean, it's also a good idea to keep fly spray, scissors, a manure shovel, and a brush on hand.

Milk should be filtered with a strainer to ensure it is clean and free of debris. Jars and a refrigerator are needed for storage. Having access to a stove for pasteurization is an additional step for those who don't want to consume raw milk.

The shelf life for raw milk stored properly in the fridge is around 7–10 days. Pasteurizing milk can extend the shelf life up to 12–14 days.

What to do with the milk

Most people own a milk cow for their own consumption or production of homemade dairy products such as cheese, ice cream, butter, whipped cream, and yogurt. However, there is often a surplus of milk as a single cow will produce 2–4 gallons per day. Excess milk can be a good source of milk for other animals, like bum calves.

In Wyoming, extra milk can also be given away or sold to other people legally. The Wyoming Food Freedom Act allows for the sale of raw milk or dairy products between people or at farmers' markets. The Wyoming Food Freedom Act does not allow for sale of raw milk products to grocery stores or restaurants.

Owning a family milk cow can be a rewarding and fun way to produce your own milk and dairy products. However, it is important to understand the commitment and process that goes into it before you safely fill up that first jar of fresh milk.

Do I have time?

Owning a milk cow is a significant time commitment. In addition to daily milking, there are additional time requirements throughout the year for feeding, maintaining health, trimming hooves, and assisting with calving.

Like other cows owned by the Francisco family, Eleanor (cow 351) is a registered A2/A2 Jersey cow. Photo courtesy of the Francisco family.

It's possible that **Chance Marshall**'s interest in livestock systems has something to do with his interest in ice cream. A UW Extension agriculture and natural resources educator based in Fremont County, he can be reached at cmarsha1@uwyo.edu or (307) 332-2363.