

Kootenay Alpine Cheese

Old-Fashioned Tradition Meets Modern Consumer Demand

by Pamela Irving

The Alpine raw organic cheeses made on-farm by the Kootenay Alpine Cheese Company — at Mountain Valley Dairy in British Columbia — are handcrafted using traditional methods and fetch a broad range of clients, as far west as fine cheese stores such as Les Amis du Fromage and farmers markets in Vancouver, to local farmers markets, restaurants, retail and the on-farm shop, to their newest markets east such as Planet Organic in Calgary. The dairy farm, nestled in the shadow of the Skimmerhorn mountains, shows commitment and dedication to quality, sustainability and viability and is a stellar example of the future of small dairies.

Denise and Wayne Harris bought the dairy farm, near Creston, 15 years ago, when Wayne decided to leave the lumber company he was working for in Regina, Saskatchewan.

“Passion for farming drove me back home,” he says.

The couple studied agriculture at Olds College in the 1980s, and Wayne’s grandparents were dairy farmers in Creston, where he spent summers working on his uncle’s hay farm.

It has been a premeditated long journey to processing their cheese.

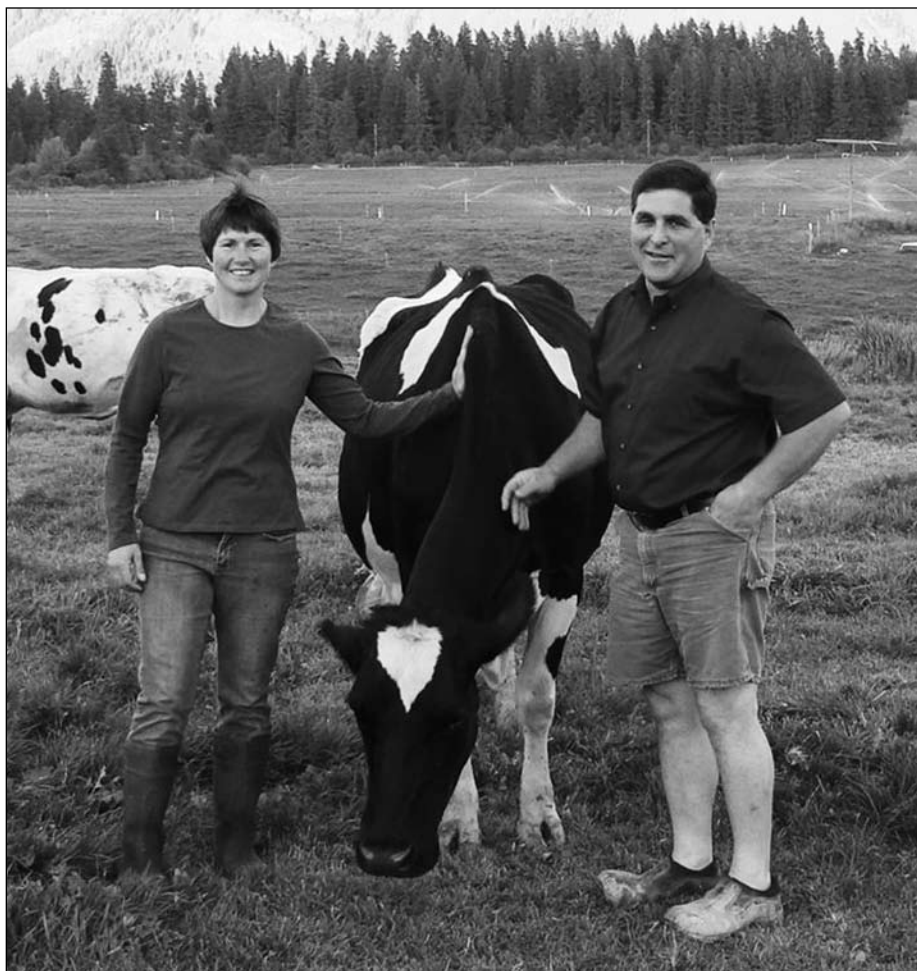
“It wasn’t until 2008 that we were financially stable enough to build the cheesemaking facility (*fromagerie*), but planning and taking courses started in 2004,” says Wayne.

The Harrises’ entire operation is certified organic — the herd, feed, fromagerie and crops, meaning that the operation must use inputs approved by their certifying body, Pacific Agricultural Certification Society.

The 80-cow closed milking herd is made up of Holsteins, with a few Guernseys and crosses with Normandy, Guernsey, and Swedish Reds. The heifers calve year round and are 25-26 months old when they calve. The farm uses artificial



Kootenay Alpine Cheese Company uses recipes and labor-intensive methods carefully modeled after the tradition of French and Italian cheesemakers.



Denise and Wayne Harris of Kootenay Alpine Cheese Company, Creston, B.C., Canada.

insemination and a clean up Angus bull. The young bull calves are sold in Alberta for meat.

FEED & GRAZING

All cows, young stock and milking cows, are intensively grazed during summer on pasture located on the farm, and fed in the barn in winter. Most of the feed is produced on-farm, where they grow hay for forage and some grain, with off-farm sourcing when needed, such as flax.

Flax balances the cows' reproductive efficiency, resulting in fewer embryo losses, according to anecdotal and controlled research studies (cited in Ameriflax newsletter, see www.ameriflax.com).

"Overall, ruminants are not designed to digest most grains," explains Wayne, "We have found that our cattle develop subclinical acidosis caused by too much grain consumption, leading to a lowered immune system. When we feed them less grain, many disease issues fade away. Conventional dairy farmers always ask 'What do you do for mastitis?' I tell them, 'We feed less grain.'"

Wayne believes that even mainstream dairy will eventually move to forage feeds versus grain because grain prices are so high.

Utilizing nutrition for herd health is key, and they work closely with nutritionist Annette Suomin of Unifeed in Ponoka, Alberta, who understands the dairy's goals. Many studies, as reported in *Acres U.S.A.* and many other sources, suggest considerable human health benefits from consuming dairy products from grass-fed herds. There are more beneficial fatty acids such as conjugated linoleic acid in grass-fed dairy products, but flavor is the chief reason consumers choose grass-fed dairy products, as well as texture and other characteristics.

At Mountain Valley Dairy, cows are fed eight pounds of grain per day in summer and 12 pounds per day in winter. The feed is composed of mixed barley, oats, peas and flax, plus a mineral mix. They start with a small premix of micronutrients, but 70 percent of the minerals are their own blend, combining products such as kelp, a natural form of chelated minerals with about 60 different trace minerals, and garlic, an immune-system



booster. Cows also get probiotics and yeast, which helps maintain a healthy rumen and microflora in the rumen.

The Harrises intercrop grain with peas and swath at the correct stage of maturity. Wayne says that cows get enough protein from forages of alfalfa and grass if the crops are harvested correctly. The non-structural carbohydrates (sugars) are higher in the afternoon, so they try to swath in the afternoon when the sugars are photosynthetically peaked, about 3 p.m.

The heifers are rotated onto fresh paddocks every 24 hours, and cows every 12 hours.

"We always give them a fresh paddock in afternoon, because they graze more in the evenings," explains Wayne. They are pastured on perennial rye grass and clover.

LEASED LAND

The Harrises own 100 acres and lease another 400 through six-year leases in the area from 20 different parcels and 19 different landlords. The 100 owned acres at the dairy are in pasture, with the hay of alfalfa and grass grown on the leased land.

"It's a patchwork, but it is the only way to get the landbase we need," says Wayne about an area where good farmland is in small parcels of about 20 acres,

and prices average over \$8,000 U.S. per acre, with speculative real estate markets squeezing the prices of farm land.

They do not make or use silage, because silage is an issue with the kind of hard, aged Alpine cheese they are making. Silage can contain clostridia bacteria that are detrimental to the cheesemaking process. It can cause late blowing, that is, gas bubbles in the cheese wheels, which is not obvious until near the end of the aging process.

"This is bad for the kind of cheese we make," explains Denise, the lead cheese maker. "I understand that in some countries in the EU, farmers are paid not to use silage if their milk goes to making these kinds of cheeses."

The cows are pastured out until the beginning of November, when it becomes too wet and cold.

"We usually run out of weather before we run out of grass," says Wayne about the pastures, grown on alluvial heavy clay soil.

The barn is an open style, with straw and shavings for bedding and open individual sleeping stalls — the cattle choose where they want to sleep. The manure, straw and shavings are cleared with a scraper on a small tractor, and composted as per organic requirements. The

compost is spread on fields that need fertilizer, based on their soil test results.

MILKING & BREEDING

They use a double-six milking parlor, where cows are milked twice per day — producing up to 30 liters (8 gallons) per day.

The Harrises are breeding cattle to manipulate the protein components for the cheese. Wayne notes that the Swedish Red produces higher components than Holstein, as do Normandy. Ultimately, they are trying to create cattle that are disposed to produce milk from less grain, do better on forage, and are heat tolerant.

They need a cow that is better than Holstein in dealing with heat stress, in pastures with no shade in an area where the summer temperatures can reach over 35 C (95 F). Holsteins have low heat tolerance, but Wayne finds that when they get less grain, they are less heat stressed. Through natural selection, the herd as a whole is less heat stressed than it was 15 years ago. The herd size remains static, as it is a good size for organic production, which requires that cows be pastured out.

CHALLENGES

Wayne says that going organic requires a change in mentality and creates new challenges. Switching from commodity milk production, where all the milk is produced and picked up in a milk truck, to producing, processing, and marketing value-added products on farm is the biggest part of the curve, a curve the Harrises have yet to complete. Supplying and sourcing markets is a constant challenge and is time consuming.

Creston is quite remote from large urban markets, so wholesale marketing is their mainstay. The whole, firm, aged wheels pack and ship well. The Kootenay region has a high population of Europeans and food conscious consumers who embrace the opportunity to buy local organic artisan cheese.

Wayne and Denise rely on their two full-time employees, Trish Woodall and Jeff Van Rootselaar, who share the farm's vision. The Harris children have also played an integral role in improving the farm and developing the fromagerie. Nadine, Foster and Erin are attending university, but have a strong bond to the farm. Nadine is the keenest on cheese-making and marketing, but loves the "farm side" as well. Foster has had a hand in every aspect of the farm and fromagerie construction and helps when needed at markets. Erin's main focus is improving the farm from the soil up. She is studying organic agriculture at the University of Guelph and as an exchange student at the Royal Agricultural College in Cirencester, England.

MARKETS & PRODUCTS

Before embarking on making cheese, the Harrises did their market research. They talked to other B.C. cheese makers to insure that they would not infringe on markets, and discovered that there is a lot of room in the marketplace for Alpine cheeses.

Much of the cheese is made in summer when the cows are on pasture, following the European tradition of making cheese when the flavors are most robust.

"Summer cheeses produce the best flavor attributes," explains Wayne.

The cheese is handcrafted following the tradition of artisan cheesemakers, and made using only the raw milk from the certified organic herd. The Harrises prefer raw milk for flavor.

"Pasteurization decreases flavor and destroys a lot of natural enzymes," says Wayne.

Each cheese is carefully aged in order to develop rich, complex flavors that are unique to their milk, farm and region. The Harrises do not use plastic for aging. Cheeses are aged naturally in an aging cave. The Alpendon is smeared with bacterial linen, which develops the rind and imparts flavor on the cheese.

VARIETIES

Alpendon, made only during the summer, is similar to a Beaufort, a firm French cave-aged, flavorful alpine cheese. The cheese is delicious with red wine and rye krisp — simple is best for the full flavor to percolate on the palate.

Mountain Grana, made year-round, is an aged Italian hard cheese with a sweet, lingering taste.

Nostrala, made year-round, is a mild firm cheese with a subtle creamy flavour similar to a Gruyere. This cheese is good with apples and grapes.

In winter the Harrises process two vats of milk per week, and in summer, they process between six and eight vats.

For more information on the Kootenay Alpine Cheese Company, visit www.kootenayalpinecheese.com.



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