



FIFTH TOWN
ARTISAN CHEESE CO

Continuous Sustainable Practices Make Green Cheese

Overview

The Fifth Town Artisan Cheese Company is a privately owned producer of fine handmade cheeses using fresh, locally

produced goat and sheep milk. The 4,800-square-foot dairy processing, retail, and educational facility combines artisan cheese making with advanced sustainable design. Its goal is to successfully demonstrate the possibilities of small-scale dairying in Ontario as well as sustainable enterprise management.

Social Responsibility Challenge

Making its signature lemon thyme and cracked black pepper chevre is a relatively clean process, but it produces a great deal of whey, the liquid left after cheese is made. Whey is made up of 97 percent water, plus small amounts of lactose, whey proteins, and ash, which need to be digested before they are added to the waste stream. And that can cause waste management issues. Some large dairies use expensive drying equipment to extract the whey proteins, dry it, or use it to create energy. But the yields from the drying process are incredibly low. To harvest whey proteins or to even use it in a bio-digester, you have to be producing significant amounts of whey to make processing it worthwhile. Fifth Town does not produce enough whey to make this an economical choice.

Solutions

The solution was to create a bio-wetland located on the dairy property. The whey effluent is pumped through a three-cell filtering system. Each pond is filled with alternating layers of gravel, clear stone, recycled wood chips, and peat moss. The ponds are then planted with cattails, grasses, and wild flowers. The resulting physical, chemical, and biological processes combine in the wetland to remove contaminants and digest the whey. The system uses less than 20 cents of electricity per day and operates year-round.

“In deciding on the most [ecological] approach to disposing of whey byproduct, dairies really only have three options to consider and selection depends on location and commitment to environmentally friendly solutions. To us, none of these options were ideal. Finding a way to treat it on-site, in a cost-effective way, was very important to us,” says founder and CEO Petra Cooper.

The project was part of Fifth Town’s sustainable operations plan, which achieved Platinum LEED® certification—the highest level possible—in March 2009. It is Canada’s only LEED certified dairy and was the first Platinum LEED manufacturing facility in Canada across all industries.

Measurement/Results

- Ninety-three percent of supplies used are local.
- Emissions were reduced by 29 tons per year.
- LEED Platinum building uses 67 percent less energy than a similar building.
- A wind turbine and solar panel array generates 800-1200 kWh of power per month.

Other SR Involvement

Fifth Town uses geothermal pumps to help heat and cool its facilities, packaging is made from recycled water bottles, and environmentally friendly diesel trucks transport products and supplies. The company is committed to building and fostering local sustainable food systems by certifying farmers and processors through Local Food Plus, an organization that brings farmers and consumers to the table to share in the benefits of environmentally and socially responsible food production.

Fifth Town has won numerous awards for its leadership in sustainability including the 2009 Premier’s Agri-Food Innovation Award and the recent Guelph Food & Technology Centre’s Leadership in Sustainability award.



Organization: Fifth Town Artisan Cheese Co.

Location: Ontario, Canada

Website: www.fifthtown.ca

Founded: 2003

Employees: 11-19

Photos: Fifth Town Artisan Cheese Co. produces handmade cheeses from fresh, locally made goat and sheep milk. The company’s created a bio-wetland as an eco-friendly solution to the digestion of whey, a byproduct in cheese production.