



Martime Certified Organic Growers

~ Organic Farm Profiles ~

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Organic Dairying

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This profile is part of a project coordinated by the Maritime Certified Organic Growers Cooperative (MCOG), with financial assistance from Agriculture and Agri-food Canada's CARD program. The information contained in this profile was obtained from interviews with regional organic producers over the past two years, and from the author's personal experience.

Regional Situation

Presently within the Maritimes there are no certified organic dairy farms with the exception of a single dairy goat farm. There are, however, several dairy farms in the region which are close to being certified or have plans to become certified. Though it is not produced here, organic milk is on the shelves and available in the region. The major centers such as Halifax are becoming sizable markets for organic dairy products. Many Maritime supermarkets carry at least some organic dairy products and some stores carry a complete line. These products are all imported into the region, mostly from Quebec and Ontario where there

are several dairies processing organic milk. Some organic dairies specialize in one product such as yogurt while others have a complete line of products. The Ontar-Bio Cooperative in Ontario offers a complete line of dairy products as well as cereals and eggs under the "Organic Meadows" label. Organic Meadows dairy products and eggs are sold from coast to coast in Canada and can be found on supermarket shelves in the Maritimes.

Organic Milk Potential

Organic milk receives a significant price premium when produced in the Canadian system. Producers in central Canada are receiving a 20-25% premium for the organic milk they produce. The Maritimes now has a small but growing demand for organic milk and dairy products. This region needs dairy farmers to rise and accept the challenge to produce organic milk or potentially miss this opportunity. Once the local stores have sources from outside the region, Maritime product will have to compete head to head with imported product and the consumer loyalty to that imported product. Organic dairying can be a viable option for anyone now producing milk and interested in the whole concept of organic production and the potential for this industry to grow. In Europe there are countries where organic milk is as high as 20% of total production. When organic production reaches these levels it is no longer considered a niche market but a significant component of the dairy industry.

Quota System

The production of milk in Canada is controlled under a supply management system, which means there is a limit or quota of milk and cream produced in this country. The total quota for Canada is divided up between the provinces and administered within each province by a local board. Each farm has a quota allotment in kilograms of butterfat



Conversion to organic methods has increased the milking life of Steve MacKinnon's herd.

which allows them to produce a specified amount of milk or cream at a price set by the board. The quota system makes it difficult to enter the dairy industry in Canada as one has to have quota before they can produce milk, but the price paid for the milk is also regulated and is set to include a profit margin for the producer. This makes the industry stable and strong as compared to a country such as the US where there is no quota. The quota has become very expensive and will range from \$15,000 to over \$20,000+ per cow for the right to sell the milk from that cow.

Land Base

Organic dairy farmers require a sufficient land base to produce all their own forage; they may or may not grow the grain ration required. The dairy farm will be more profitable if the cereals are grown as certified feeds are quite expensive in this region at present.

Production Systems

The trend in the dairy industry is to become more intensive, feed the cattle a total mixed ration (TMR), confine the cattle to an exercise yard with limited or no access to pasture, and have a milking parlour with loose housing. This system concentrates on continually increasing the amount of milk produced per cow. The increase often occurs without consideration of the actual cost of that increase in production. This intensive system pushes cows to their limit. One of the side effects of such a system is the shortened lifespan of the dairy cow. It is now much shorter, in some cases down to 3 or 4 lactations. An eight- or ten-year-old cow is rare on many modern dairy farms. This type of system also relies on significant support from the feed and veterinary industries. This intensive type of production system is very difficult to operate organically for several reasons: (1) it is difficult to find an organic replacement for all the feed and veterinary inputs required to keep the lactating cow healthy, (2) the high energy/protein ration fed will be quite expensive when made with purchased certified feeds, and (3) the management level required is not commonplace in our present population.

An alternative, which will work well conventionally or organically, is to focus on reducing the costs of producing the milk. This usually means a more pasture-based system which focuses on maximizing the production of grass, and having the cattle harvest the grass themselves. This system typically has a more diversified crop rotation and its management works to maximize the use of nutrient cycling on the farm. A case study in Nova Scotia has shown such a system can



Keefe is excellent feed for young calves.

reduce the cost of producing the milk by 30%, without a drop in production.

This system can be set up at various levels of management. For example one can set up a rotational grazing system (Voisin system) which requires moving the cattle every day—or every few days—to a fresh paddock. Another variation has to do with the amount and type of concentrate fed to the lactating cow. Some organic farmers prefer to milk more cows, feed low levels of concentrates, and enjoy the freedom of a system requiring a lower level of management. Others will feed higher levels of concentrate, produce more milk per cow and operate at a higher management system. Generally, the higher the amount of concentrate fed the higher the level of health management required by the herd. There is a minimum and a maximum amount of concentrate that each lactating cow can consume and stay healthy, but a production system based on cost of production will allow for a range of management styles. In this region the pasture based system does offer the potential for reducing the costs of production and varying the level of management one wants to put into the dairy farm. Basically, the producer decides what level of management suits their style and works best for them. This is quite a contrast to the present day intensive system found on most dairy farmers.

Animal Health

Before we discuss this topic, let us consider the philosophy outlined by the OATI Ecological Training Manual on animal health. This manual teaches:

(1) Health is normal. We should expect our animal when fed and cared for properly to be healthy. It is abnormal for them to be sick.

(2) Disease is preventable. Proper care and management of livestock will prevent most diseases from occurring.

(3) The farmer is responsible. We confine the animals and control what they eat and where they rest so we are responsible for their welfare. "Most of the disease comes from our failure to provide for the animal's basic needs."

Animal health is one of the big concerns to those considering converting any animal system to an organic production system. The keys to good animal health in any system are adequate housing, feed and health care. If one of these needs falls below the animal's minimal requirement, a window for disease has been created. If the situation is not corrected immediately it is likely the animal will become ill. Dairy housing needs to be clean, dry, draft-free with good air quality, and offer adequate protection from the elements. One should feed dairy cows in an organic system for good health, with the assumption that a healthy cow will produce to her normal potential. Such dairy men/women often consider the feeding of grain to be a compromise. The dairy cow is a ruminant and as such should be fed large quantities of high-quality roughage. The feeding of large amounts of grain is a compromise to the ruminant. This compromise, if pushed, often results in the cow developing abscesses on their hooves and becoming lame. It is important to know your animals, since the better you know them the more quickly you will notice something abnormal and can catch any sickness that develops. The appearance of the manure is an excellent indicator of health. It is also important to monitor a dairy cow. How many times does she chew her cud? What does the manure look like? Is she displaying any abnormal behaviour when out for exercise? The answers to these questions are indicators of the health of the dairy cow and herd.

If we provide proper housing and feed the animals for health, a side benefit is the overall reduction in sickness and disease in the herd. Steve MacKinnon, a PEI dairy farmer who milks 28 head, switched to an organic system in the late 1980's. He spends \$200/yr or less on veterinary services. He has only used antibiotics to treat mastitis twice since 1990. Since the switch his herd health has improved, veterinary services fees have been reduced 10 fold, and the cows live longer. He presently has several cows over 12 years of age.

The organic farmer does have some health care aids to turn to, including immune stimulants, probiotics, and homeopathic remedies. One can use antibiotics and other chemical treatments, but this causes the milk from the treated cow(s) to lose certification for a period of time. Organic standards forbid the withholding of antibiotics from an animal if it is the only viable treatment. The European community is much

further ahead of North America in the use of alternatives to antibiotics for the treatment of animal health. This field is growing and more products are coming on the market all the time. Homeopathic medicines are now being imported into Canada and are available in the Maritimes. There is now a veterinarian practicing homeopathy in the Halifax area, and several farmers in each Maritime province who are treating their livestock successfully without the use of antibiotics. Remember, good health is normal.

Transition

The transition to organic production is complex on a dairy operation and one which should be developed over time. The transition will require one to convert the feed production, animal health aids and equipment cleaning to organically acceptable standards. The dairy cattle will be required to be fed organically for a period of time (3-12 months depending on certification body) before the milk can be certified. The entire process can easily take four years or more to complete. Successful conversions usually are done in steps, so try not to be in a rush. Each farm will have different systems to change and develop to reach certification. I recommend gradually working on all areas of the system at the same time.

Organic Feeds - Begin by following advice from peers, and switching one or two fields to organic production techniques. Follow this throughout the season and monitor the results.

Animal Health Aids - Purchase an acceptable organic teat dip and try it. Many organic farmers are having excellent success using their own teat dip. Monitor the udder and teat health to ensure you have not made a compromise. Generally the organic teat dip will be gentler on the teats than iodine based dips.

Cleaning - There are organic cleaning systems that work. Try a replacement for one component in the cleaning system. Monitor the results and ensure you are getting things as clean as before; if not, continue to ask questions until you do. When successful, replace a second component of the system. There are various recipes and systems used; one good mixture is hydrogen peroxide (33%), vinegar and Basic H soap. For an actual recipe and method of use one should talk directly to someone who is successfully cleaning their system organically.

If you convert the farm a piece at a time you are better able to monitor the individual successes and failures, as well as learn how most things on a farm are interrelated and

dependant on each other. Successful transition requires information, support, and a huge learning curve for the owner. Mistakes will be made but persevere—the final result is very rewarding.

Challenges

Drought

Until recently drought was uncommon in the Maritime region. The marine areas of the Maritimes were noted for regular showers, which resulted in sufficient rains throughout the season to produce ample quantities of stored forage and pasture. The recent dry seasons have changed this. It is now more important to have a reserve of stored feed for extended dry periods. This means one has to have more acres of feed, or farm/pasture the land more intensively and be ready to maximize all moisture the land receives. An example of maximizing moisture is the planting of fall grazing crops. In the summer of 2001 virtually no rain fell from mid-June to Sept. on PEI. The fall stayed very warm but had regular showers. A crop of oats/barley, winter cereal or oil radish planted in early Sept. produced as much as 2 tonnes of dry matter per acre by mid to late November. The fall stayed warm until January, allowing for the harvesting or grazing of that forage.

Finding Alternatives

It is Steve MacKinnon's opinion that, "One of the biggest challenges is finding workable alternatives to the things you have done in the past and want or need to change for organic certification." Often it is best to try and understand the living system on your farm, how it works and how you can make it work for you. This involves a different approach to problem solving. Ask yourself, "Why is this happening" or "What can I do to change the balance in favor of the thing I want to promote?" Here's a simple example of changing things for the better: lambsquarters grow best in areas of high fertility. Applications of liquid or other manure sources just prior to planting a crop tends to promote fertility-loving weeds, so try applying your fertility in the fall to a cover crop; the cover crop takes up the fertility, dies in winter and releases the fertility back to the soil system and the growing crop in the spring. This fertility is available more slowly and does not tend to promote weed growth in the spring.

Producer Clubs

A successful dairy operation requires continual sources of information and consultation by knowledgeable dairy

people. This is even more important for organic dairy farmers as the standard sources of information will not be able to provide an organic farmer with the information required. The farmers who convert to organic production and remain viable are usually members of an organic dairy farmers group or club. The most effective groups meet regularly at a member's farm. When at the farm the members discuss among themselves the problems, challenges and success they have with their own farm and provide advice for those with problems. Becoming a member of an organic producer club is the best support you can get.

Recommended Reading/References

Grass Productivity by Andre Voisin (Island Press, Washington DC). The original classic by the man who designed the rotational grazing system. This book is very informative but quite technical in content.

Greener Pastures Your Side of the Fence by Bill Murphy (Arriba Publishing, VT). An excellent, easy-to-read manual on how to set up the Voisin rotational grazing system.

Organic Farming by Nicolas Lampkin (Farming Press Books, UK). A comprehensive book for large scale organic farming. Excellent reference whether one has animals or not on the farm.

Ontario Agricultural Training Institute's Training Manual; self published, 1998

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