Sustainable Farming Profile

Marketing organic vegetables completes production achievements

The Pfenning family is no newcomer to organic and biodynamic vegetable farming. Using these farming methods since 1981, they helped to develop standards for the Ontario Crop Improvement Association (OCIA). The Pfenning's farming practices have aroused the attention of curious farmers and researchers; equally as important, local consumers interested in changing their diet to include more organically-grown produce are also finding appeal.

by David Jones

It's not always easy to please these new consumers, says Wolfgang Pfenning; "The consumer in a way wants to be alternative, but in another way we have to feed them hybrids because they think if it looks good, then it is good." Wolfgang operates the Pfenning family farm with his parents, Wilhelm and Barndile, in Baden, near Stratford, Ontario. They pride themselves in growing quality produce that looks and tastes good - without the use of synthetic fertilizer, pesticides or herbicides.

About 125 people came to see the Pfenning farm first hand at an Ecological Farmers' Association of Ontario (of which they are members) farm tour in August of 1991 to learn more about their organic production and marketing success.

Crops

The Pfenning farm is 300 acres of well drained, sandy-clay soil located alongside the Nith River. Their crops include wheat, rye, oats, barley, spelt, which are sold as well utilized for green manures, and 30 acres of market vegetables - their mainstay crop. They have become well-known in the Kitchener-Waterloo and Toronto areas for their wide selection of organic vegetables, including spinach, lettuce, beets, broccoli, carrots, potatoes, parsley, green onions, leeks, snow peas, basil, turnips and cabbage.

A storage facility allows for the sale of carrots, beets and potatoes through the winter months. Other ventures include making and selling sauerkraut, soy patŽ as well as distributing kitchen-model grain mills.

Planting and Weed Control

Planting in the spring is done by direct seeding using five different sized drills spaced for 50 cm rows. Most plants are grown in strips of 4 rows (i.e. lettuce) to improve crop competitiveness and weed control, while other plants such as snow peas are planted in 2 rows. In order to minimize weeding requirements in the spring when weed pressure is highest, only enough vegetables are planted to meet the initial spring demand. Batches of vegetables are then grown every couple of weeks in the late spring and summer when weed pressure is not as great. "By late summer, large weeds are not much of a problem," remarks Wilhelm.

All thinning, and much of the weeding, is done by hand (a group of four or five people work diligently throughout the summer to keep the weeds at bay). Scuffling equipment (harrow, rotary hoe) is used for mechanical weeding, supplemented by propane burners to suppress weeds.

By eliminating the use of synthetic herbicides, the Pfennings have possessed OCIA organic certification since 1984, a useful marketing emblem. Although Wolfgang says that he respects ecologically-minded farmers who use low application rates of herbicides, he added that "I can't dance in two weddings at the same time," a colourful way of expressing his philosophical preference for avoiding them altogether.

Pests and Nutrient Cycling

The Pfennings also utilize a biodynamic approach to farming that emphasizes the importance of herbs in breaking down soil organic matter, which increases the availability of nutrients. Preparations (a mixture of herbs such as dandelion and yarrow) are added with cow manure, composted and sprayed on crops. Indications are that these preparations trigger microbial processes in the soil that release nutrients for plant consumption. Weeds are regarded by the Pfennings as important indicators of soil health and nutrient availability, and so great care is taken to examine the nutrient cycling processes that give rise to abundant weeds.

Rotenone (a root derived from a Peruvian tree and a pesticide permitted under most organic certification standards) is used to kill cabbage worms, but Wolfgang says this has not been very effective. They are

experimenting with boiled tobacco leaves, a much more potent substance, as a localized pest inhibitor.

One of the questions posed during the tour was whether nutrients were being "robbed" from the soil after years of plant biomass production with no addition of commercial fertilizer? Wolfgang Pfenning responded that it is not the quantity of nutrients in a soil that is critical, but rather, their availability that allows or prevents abundant crop production.

The Pfennings believe that the biodynamic preparations used on their farm increase the availability of nutrients. Wolfgang pointed to the farms consistently high yields to suggest that their soil is not being mined, and referred to experiments done 25 years ago on biodynamic farms where "output was higher than input."

The Pfenning farm does not have any livestock; however, they receive manure from a neighbouring farmer in exchange for carrots.

Marketing and Distribution

The biggest reason for the Pfenning's success is the effective marketing and distribution of their organic vegetables. They are well known in the Kitchener market for their diverse selection of organic vegetables and even more popular in the Toronto health food market. Distribution to nearby cities is complemented by their on-farm fresh produce store which operates year-round.

Hopeful sign

The Pfenning's offer a sign of hope for the family farm at a time when many agricultural economists bemoan the institution as an inefficient and non-competitive unit. They are a thriving example that quality vegetables can be grown economically and in a manner that doesn't adversely affect the environment. Their use of biodynamic preparations demonstrate the effectiveness of on-farm inputs in improving nutrient availability.

Best of all, their well-attended farm tour in the summer shows the Pfenning's are not guarding their production "secrets," but are willing and happy to share their successful experiences with others.