



ONTARIO SOIL AND CROP IMPROVEMENT ASSOCIATION

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MEDIA RELEASE

E.D. Smith Cherry Farm - Balancing Economics and the Environment

For Immediate Release
August 9, 2006

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Both small and large farm operations can benefit from the principles of environmental farm planning. E. D. Smith Cherry Farm of Winona is just such an example of a larger operation.

"Environmental stewardship is very important to us," says Norm Herbert, E.D. Smith's Agricultural Manager. "As farmers we have the responsibility of conserving and improving soil resources, protecting the quality and supply of water, using hazardous materials wisely and safely, and respecting the diversity of nature."

E. D. Smith Cherry Farm is a pick-your-own operation nestled at the base of the Niagara Escarpment. Established in 2000, their orchards offer 70 acres of sweet cherries and 0.7 acres of sour cherries. Orchard management recognizes the sensitivity of the Escarpment both as a natural feature and a World Biosphere Reserve.

During winter 2006, E.D. Smith Cherry Farm participated in an Environmental Farm Plan (EFP) workshop and developed an EFP for their operation. To the farm's credit, many of the recommended Best Management Practices were already in place. Completing their EFP was a proactive step to make sure they weren't missing anything, helping them fine-tune their approach and supporting what they were already doing.

The Environmental Farm Plan, administered by the Ontario Soil and Crop Improvement Association on behalf of the Ontario Farm Environmental Coalition, is a voluntary program that helps farmers prepare environmental risk assessments and action plans for their farms. Action plans approved through peer-review are then eligible for cost-shared funding to help with implementation.

Funding sources include the Canada-Ontario Farm Stewardship Program, Greencover Canada, and Tier 1 of the Canada-Ontario Water Supply Expansion Program. Agriculture and Agri-Food Canada and the Ontario Ministry of Agriculture, Food and Rural Affairs support these programs under the Agricultural Policy Framework (APF).

Eighty percent of the farm's clientele comes from the GTA and neighbouring areas. Offering a rural change of pace, the farm is also an opportunity to educate the general public about the value of locally grown produce, as well as the responsibilities and challenges of production. With this in mind, E. D. Smith Cherry Farm is now the host site for the Niagara Fruit Institute and their educational unit, the Niagara Fruit Education Centre.

Officially opened in 2004 and housed within the orchards on E. D. Smith property, the Centre serves to promote a better understanding of fruit farming in Niagara from both economic and environmental perspectives.

Economics, as always, is a strong driver in the management and operation of any farm. But as Herbert has found, there are strong economic incentives to conserve their soil and water resources that benefit the environment as well.

"To produce quality fruit you need the right balance of nutrients," Herbert emphasizes. "To do that, we test soil samples in each field annually for nitrogen, phosphorus, potash and minerals." They already know the ideal concentrations needed for quality fruit production. When analyses show levels other than required, they adjust their inputs accordingly, minimizing the costs of excess—both economic and environmental.

Initial soil tests in 2000 showed potash and phosphorus at considerably higher levels than needed for cherry production. Five years later, levels are still slightly above ideal, so they haven't had to add either. A mixture of fish by-products, seaweed, molasses and humic acid sprayed spring and fall on strips under the trees provides organic nitrogen. Inorganic nitrogen is applied sparingly, about 80 lb/acre, in spring only.

Organic matter is critical for healthy and productive soil. Current average organic matter in the orchard's soil is 2.8 per cent, with 4-5 per cent being ideal. "We use mulch generously to build soil organic matter—400 large round bales are spread under the trees each year," Herbert explains. "We prefer hay mulch as it breaks down faster and adds more quickly to the organic matter. Mulch also conserves water and moderates temperatures."

Plant analyses, based on 100-leaf samples from trees in each field unit, either confirm the balance of nutrients in the soil, or indicate the need for measures to improve uptake. For example, while higher than required potash levels exist in the soil, plant analyses show inadequate concentrations in the leaves. Mulch, and hence higher soil organic matter, helps improve conditions. Organic matter stimulates microbial activity, increasing nutrient availability for uptake by the trees.

Part of the orchard relies on city water, creating another economic incentive to conserve. Two storage lagoons at the base of the escarpment provide a pumped water source for the rest of the orchard. Using a soil moisture meter and testing again on a field by field basis, they water only as required, using drip irrigation as a further conservation measure. Allowing the land around the lagoons to grow naturally provides a continuity of habitat with the adjacent Escarpment.

Pesticide use also follows the minimal mantra. Traps monitor for plum curculio and cherry fruit fly. They spray only as necessary.

Being so close to an expanse of natural habitat, contact with wildlife is inevitable. While the aesthetics and natural significance of the Niagara Escarpment are assets to the farm operation, damage by wildlife is a force to contend with. "We spent \$70,000 on fencing in 2001 to keep the deer out", says Herbert. "If it weren't for fencing, we wouldn't be in cherries."

Coyotes chew the drip irrigation pipes, necessitating burial of the pipes underground. Then there are the birds, primarily starlings and gulls. Herbert explains, "Gulls in particular can strip the cherries out of a treetop in no time. We deter the birds with raptor kites, yellow balls with large black eyes, bangers and distress signals. The birds get used to these, so we're always moving things around. Living beside a piece of nature like this, we know these are things we have to do. We have to share."

"Soil testing, mulch, plant analyses, soil moisture metering and wildlife control—these are the essential components of keeping our orchards healthy and productive," says Herbert. They're also methods endorsed by EFP, making it yet another tool for E.D. Smith Cherry Farm to ensure, in Herbert's words, "the careful use of all our resources".

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For further information contact the Ontario Soil and Crop Improvement Association at 1-800-265-9751 or www.ontariosoilcrop.org; your local OSCIA Program Representative; E.D. Smith Cherry Farm at www.edsmithcherryfarm.com; Niagara Fruit Institute at www@niagarafruitinstitute.ca. For more information about environment programs offered through the APF, please visit www.agr.gc.ca/environment.