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Fair Trade for the PEI Farm Industry

Fair trade is a concept more and more consumers are embracing. Now, farmers on Prince Edward Island want to get involved as well.

Although the “fair trade” concept most often refers to products originating in the developing world, members of the National Farmer’s Union, District 1, Region 1, want to develop a domestic version of fair trade that could help producers reach the promise land of profitability.

The “fair trade” seal assures the end consumer that the product is produced in a sustainable manner and the producer has received a fair price for his or her efforts. It also ensures Canadians a supply of food grown in an economically and socially sustainable manner.

With funding help from the P.E.I. ADAPT Council, the NFU has hired education and community development centre, Cooper Institute, to co-ordinate the fair trade effort. The institute’s Ann Wheatley has worked extensively on the project for the last year. She said the first step was to hold a series of province-wide consultations involving both farmers and non-farmers.

These consultations looked at successful case studies from around the world, focusing on domestic markets rather than the international marketplace. There were also workshops dealing with standards and certification, labeling, price-setting and marketing.

Renwick Rose, chief negotiator for the Windward Islands Farmers Association, was a guest at one of the sessions and talked about how banana farmers in the Caribbean established a fair trade system there. Stewart Wells, a former national president of the National Farmers Union, also took part in the marketing discussions.

As a result, a draft plan was developed that has received the seal of approval from NFU members in P.E.I. That plan promotes co-operation rather than competition among producers and the right of all consumers to safe, good quality food.

The draft plan stresses participation by both producers and consumers at all levels, and a pricing system that is fair to both groups. It also stresses food sovereignty, meaning the needs of the Canadian market would be taken care of before food was destined for export.

Although the development of the plan brings the ADAPT funded project to a conclusion, Wheatley said the work of promoting a domestic fair trade system is just beginning.

“Right now, we are trying to increase public understanding of what we mean by domestic fair trade, and we will be holding a number of events over the next several months. We are concentrating on P.E.I. in the beginning but this will need nation-wide support in order to become a reality,” she said.

“Biochar is the only possible viable carbon capture and storage technology that has the opportunity to both reduce greenhouse gas in the atmosphere, and enhance the productivity of our soils.” (See related article below)

- Gord Miller, Environmental Commissioner of Ontario
at the Globe 2010 conference in Vancouver , Canada

A Sense of Humus: The environmental benefits of good soil

Environmental Commissioner of Ontario; January 11, 2010 in ECO Commentary

Most people have some sense of “humus” — the rich, dark, earthy-smelling material found in most top soils and in all well-aged compost piles. Few of us, however, have a real appreciation of its full range of environmental benefits. Even the people whose job it is to find solutions to climate change and other environmental problems often overlook the potentially huge role of soil in general, and soil organic matter (SOM) in particular, in addressing these issues. Soil scientists have had to fight hard to get decision-makers to even consider creating a major role for soil solutions in on-going climate negotiations.

In fact, soils are enormous carbon “sinks”; that is, they are capable of holding large amounts of carbon indefinitely (most of it as humus), reducing atmospheric carbon and mitigating climate change. There is more carbon held in soils worldwide than there is in either the vegetation above ground or in the atmosphere. Furthermore, most agricultural and pasture soils have lost about half of their SOM over the past few decades, so there is ample scope for improvement. Another benefit conferred by organic matter is an increased capacity for holding water, reducing the need for irrigation and preventing flooding and erosion. In fact, the more carbon sequestered in soil, the more water it can hold – a win-win-win scenario for agriculture, the environment, and the economy.

To get an idea of the potential benefits of raising the levels of soil organic matter, let’s consider two close-to-home examples: a football field; and an average urban lawn.

A typical CFL football field has an area of about 4645 m², which is just a bit less than half of one hectare. Assuming a topsoil depth of 30 cm, there are about 1400 cubic meters of topsoil, which weigh about 1700 tonnes. If the folks who manage the field were to add just 17 tonnes of well-made compost (about one large truck load) as a top-dressing to the surface of the football field each year (preferably right after aerating), they would increase the carbon level of the soil by 1% (total dry weight of soil) over a period of 10 years. What does this mean for the environment?

First of all, it means that each year the field would sequester about 6 tonnes of CO₂ (enough to offset the annual CO₂ emissions produced by four average passenger cars). Secondly, each year the field’s soil will have increased its water-holding capacity by about 7 cubic meters, or the amount held by 42 barrels (the big ones they use to ship oil). This is water that does not have to be added to the field via irrigation to keep the turf healthy and green in dry periods. After ten years, when the extra 1% of organic matter has been sequestered, the amount of water-holding capacity will have increased by about 70 cubic meters (imagine a very large tractor-trailer full of water sitting in the middle of the field!). In addition, about 60 tonnes of CO₂ will have been permanently sequestered. These benefits could be realized for at least 50 years for most

agricultural fields, parks, recreational fields, and gardens, before maximum organic-matter content would be attained (after which, of course, the benefits can be retained, but not increased).

To accomplish the equivalent soil-carbon increase on your 90 m² (1000 ft²) lawn, you would need to add only 1/50 of 17 tonnes, or 340 kgs (a pick-up truck load). Your lawn would then be able to hold about 4/5 of a barrel more water in its upper 30 cm than it did before. You would also be off-setting about 1/12 of the CO₂ produced by your vehicle, if it is a standard one and you drive as much as the average North American. Since this is so easy to do, you might want to increase your soil's C-content by twice that rate, so that the percentage goes up 1 point over five years and two points over 10 years. With this simple act, you would be offsetting 1/6 of your car's emissions (or somebody else, if you don't drive) and increasing the water-holding capacity by 1 and 3/5 barrels each year.

The benefits don't stop there. If the turf (football field or lawn) is managed properly, the addition of the compost will preclude the need for commercial fertilizer and pesticides, further reducing the turf's carbon footprint and eliminating the potential risks associated with pesticide use. Moreover, by supporting the composting industry, you will be helping to create local jobs, boost the economy, and provide stable, long-term markets for the compost produced from your own organic residuals.

All of these benefits, simply by developing a better sense of humus.

Compost and Compost Tea Boost Soil Vitality

by Cindy Salter

Just about everyone knows something about compost: how rich it looks and smells; how it replenishes the soil with organic matter, which is so essential to plant health; how it is teeming with beneficial microorganisms; how it helps conserve moisture and moderate soil temperature extremes; and how fun it is to make!

Long before the advent of synthetic fertilizers and pesticides, farmers and gardeners relied on compost and other sources of organic matter such as animal manure or cover crops for plant nutrition. Now as then, many organic growers rely on compost as an integral part of their fertility program.

A relatively new twist on the use of compost is compost tea—a liquid extract of compost produced by "brewing" compost in water under controlled environmental conditions. The process consists of suspending compost in a vessel of water (70–75°F), adding a microbial food source, and aerating the solution continuously for up to 24 hours or more.

These conditions represent an ideal environment for extracting and growing beneficial microorganisms and for extracting the nutrients, micronutrients, and other plant-beneficial organic compounds present in compost. The finished compost tea is a rich, dark-brown liquid that has a pleasant earthy smell.

Compost tea should be used soon after it is made, since it is teeming with live microorganisms. Ideally, the tea should be applied within four hours of removing it from the brewer. Any tea that is not used immediately should be kept reasonably cool and out of direct sunlight in an open-top container. Periodic stirring or continued aeration will prolong its life even further.

Compost tea can be applied to the soil as a drench or directly to the plant as a foliar spray. When it is used as a foliar application, it is best to strive for thorough leaf coverage using a fine mist. Foliar applications are best done early morning or pre-dusk to minimize the effects of UV rays.

Although it does contain some nutrients and micronutrients, and may improve a plant's natural ability to resist pests and diseases, compost tea should not be thought of as a fertilizer or pesticide. Compost tea is more accurately described as a soil or foliar inoculant to be used in combination with other good organic practices and inputs. Its inherent value is in providing the microorganisms and organic compounds that support biological nutrient cycling. This kind of "biofertility" is very effective at providing plants the nutrients that they need in the right amount and form, often reducing the need for supplemental inputs of fertilizer.

Compost tea can be applied as a soil drench after transplanting in the spring, and then as a foliar spray on crops several times throughout the summer. "We are less concerned with effects of the tea on foliar diseases, says Emily Gatch, Greenhouse and Pathology Coordinator for the Research Farm. "We are primarily interested in the beneficial effects of the tea on soil microbial communities—the humic acids, micronutrients, and growth-promoting compounds, in addition to the beneficial microbes, that improve vigor and yields of crops."

Compost has become a mainstay in organic farming and gardening, and compost tea is rapidly gaining similar status. Together, they represent a vital biological force of nature that is available to all of us in the pursuit of healthy and bountiful soils.

Cindy Salter, is the Compost Consultant to Seeds of Change and Research Director for Growing Solutions.