Prince Edward Island ADAPT Council

Telephone: (902) 368-2005
Fax: (902) 368-1570
Email: adapt@pei.aibn.com

Farm Centre
420 University Avenue Room 103
Charlottetown, Prince Edward Island C1A 7Z5

PEI ADAPT Council Agri-Newsletter

Agriculture and Agri-Food Canada Agriculture et Agroalimentaire Canada

Canada

Vol. IX; No. 10; July 27, 2010

In This Issue:

Labour Market Information
From: Canadian Agriculture Human Resource Council CAHRC

There is widespread recognition that traditional Canadian sources for agriculture labour are proving inadequate. **CAHRC's Labour Market Information on Recruitment and Retention Report** reveals that Canada's primary agricultural producers expect to require an additional 50,000 non-seasonal and 38,000 seasonal workers by the year 2013. The research also suggests that future employment needs will vary by geographic region, by commodity and by occupation. The report is based on statistical analysis from Canada's Labour Force Survey, in addition to surveys of more than 550 farm employers with annual receipts of more than $100,000 about their current and future human resource requirements.

A **presentation** of the research findings has been created for use by the Council's agriculture and education partners. An **LMI Factsheet** and **Executive Summary** of the final report have also been prepared to serve as quick reference guides on the research findings and recommendations.

Following the LMI research, thirteen farm operations were interviewed to profile the HR strategies that these employers have found to be successful when attracting and retaining workers, and explain their ongoing HR challenges. A summary of these interviews, as well as the resulting **individual profiles**, (including PEI's Brookfield Gardens) are outlined in the **Farm Profile Summative Report**.

Gathering labour market information helps CAHRC understand and explain the nature and scope

of the HR challenges being faced by agriculture today—and the issues that are anticipated in the near future. Research results also provide valuable baseline data that will be used by the Council and its partners to develop a better way to collect, survey, and track the ongoing employment needs of farmers, and develop tools and resources to meet those needs.

Labour Market Information Research on Canada's smaller farms

The Council is now collecting labour market information on human resource issues and skills requirements from smaller operations with annual revenues under $100,000. These farms number in the thousands and represent more than 65% of Canada's agriculture operations.

Data will be gathered from October 2009 through October 2010 through statistical review and analysis, consultations with farmers, and their farm organizations. The results will augment the information gathered in the 2008 labour market information study. Details of this new project have been explained in a project backgrounder.

How, Why Food Shapes the World
Empires of Food: Feast, Famine, and the Rise and Fall of Civilizations

New Book by University of Guelph Professor Evan Fraser

Empires of Food: Feast, Famine and the Rise and Fall of Civilization.

Author and journalist, Andrew Rimas, looks at how and why human culture depends on food, what happens when a culture runs out of it and what can be expected in years to come. For example, Fraser says the U.S. president's plan and others focus on struggling countries reliance on crop specialization and exportation. "It's a dangerous strategy," he said, adding that over-specialization damages land, producing less bountiful harvests.

The Biochar Solution
By Lisa Abend, for Time Magazine; Thursday, Dec. 04, 2008

(Edited for Space. To read the complete story go to: **Time Magazine**)

On his farm in the hills of west Virginia, Josh Frye is transforming waste into a charcoal-like substance called biochar. "It might look like this is just a poultry farm," says Frye. "But it's a char farm too."

Burn almost any kind of organic material — corn husks, hazelnut shells, bamboo, hay or wood in an oxygen-depleted process called pyrolysis, and you generate gases and heat that can be used as energy. What remains is a solid — biochar — when added to thin and acidic soil, char produces higher agricultural yields and lets farmers cut down on costly, petroleum-heavy fertilizers. Subsistence farmers seeking better soil have traditionally relied on slash-and-burn

agriculture, which generates greenhouse gases and decimates forests. If instead those farmers slow-smoldered their agricultural waste to produce charcoal — in effect, slash-and-char agriculture — they could fertilize existing plots instead of clearing more land. This in turn would reduce emissions in the atmosphere, and so on in a virtuous circle of environmental renewal.

In the 16th century, Spanish explorer Francisco de Orellana wrote home describing the remarkably fertile lands he had discovered there. In the 19th century, American and Canadian geologists uncovered the reason: bands of terra preta (dark earth), which locals continued to cultivate successfully. Research revealed that the original inhabitants of the region had added charred wood and leaves — biochar — to their lands.

Centuries later, it was still there, enriching the soil. "You couldn't help but notice it. There would be all this poor, grayish soil, and then, right next to it, a tract of black that was several meters deep," says Johannes Lehmann, a soil scientist who worked in Manaus, Brazil, in the late 1990s. After he left the Amazon in 2000 for a job at Cornell University, N.Y., Lehmann started wondering what would happen if farmers today could make their own terra preta. He has found one answer in a field trial in Kenya, where 45 farmers achieved twice the yield in their corn crops with biochar than with conventional fertilizers.

Epidra, a private firm in Athens, Ga., is exploring larger-scale applications, such as pyrolysis systems that can produce both enough energy to power a tractor and a biochar tailored to improve particular soils. "If you're going to grow food, you have to do it responsibly," says Bob Hawkins, Eprida's project manager. "And one way of doing that is to use it to generate sustainable energy." A prototype can turn a ton of ground peanut shells into 600 lb. (270 kg) of biochar, with energy as the bonus.

Frye, with his small biochar operation, can create 3-4 tons of biochar a day, he generates enough energy to heat his hen houses; and he sells the char as fertilizer for $600 a ton.

New Farm - ‘Handmade Produce’

The farmers at New Farm produce over 150 varieties of vegetables on Ontario’s Niagra Escarpment. They call their produce ‘handmade.’ because it is crafted using hand tools, sustainable techniques and lots of hard work. They only sell what they produce and have a social commitment to enhancing the environment and their community. To fulfill this commitment they have developed an interesting relationship with, ‘The Stop,’ a community run organization committed to end hunger and food insecurity. For more information see: New Farm

Henry Ford's Dream for Agriculture

By Stewart Truelsen; Focus on Agriculture; for the week of June 14, 2010

The locavore movement, urban farms and green products all seem like relatively new ideas, but they are reminiscent of Henry Ford's grand design for agriculture nearly a century ago.

Ford transformed American life and the workplace with the Model T automobile and the factory assembly line. He was a proponent of farm mechanization, but a number of his ideas for agriculture never took hold during his lifetime. In fact, he felt so stymied by politicians and critics in America that he took his plans to Brazil instead.

Ford was among the first to see the agriculture potential in the Amazon jungle where he cleared land for a rubber tree plantation. Unfortunately, he didn't see the ecological problems and dangers lurking in the rain forest. His farm managers and workers were bitten by pit vipers, chased by crocodiles, swarmed by insects and contracted tropical diseases.

The account of Ford's misadventures in South America is captured in a new book, Fordlandia, by Greg Grandin. It chronicles the rise and fall of Henry Ford's forgotten jungle city named Fordlandia.

The story picks up in the 1920s after the American Farm Bureau Federation supported Ford in his efforts to acquire the World War I nitrate munitions plant at Muscle Shoals, Ala. Ford wanted the unfinished defense project on the Tennessee River in order to produce fertilizer and hydroelectric power. As his offer to buy dragged on in Congress, Ford became frustrated and abruptly dropped out. Farm Bureau persisted until Muscle Shoals emerged as part of the Tennessee Valley Authority under President Roosevelt.

Author Grandin reported that Ford spent tens of millions of dollars and two decades in building two American-style towns and a rubber plantation in Brazil, remnants of which still exist. Walt Disney visited Fordlandia in 1941 and released a documentary about it. Later he would develop plans for his own namesake towns.

Ford's great vision was to meld agriculture and industry. He believed the factory worker should have a few acres of land to grow fruit and vegetables for his family and market the rest nearby. Instead of residing in a circular metropolis, workers would live in long, thin cities alongside farms.

Ford was an advocate of small hydroelectric projects to loosen the grip of the energy trust – similar to the renewable fuels push today to lessen dependence on oil. His scientists experimented with new uses for soybeans and even built a car body out of plastic made from soybeans. The project was scrapped because the process required formaldehyde – not a desirable new car smell.

"With one foot in agriculture and the other in industry, America is safe," said Ford. No doubt he would embrace mainstream agriculture, city farmers, gardeners and locavores today, not just for the food, but the lessons he thought farming taught people. Fordlandia was a bust, but Henry Ford's firm belief in agriculture was not.

Stewart Truelsen is a regular contributor to the Focus on Agriculture series and is author of Forward Farm Bureau, a book marking the American Farm Bureau Federation's 90th anniversary. See: Voice of Agriculture

Business of Sustainable Agriculture - Six Essential Elements

During the week of July 19-23, The Graduate MBA Program at the University of Prince Edward Island hosted a new course titled, 'The Business of Sustainable Agriculture.' Visiting guest professor Dr. Nels Hansen from Ohio State University was the instructor.

Dr. Hansen Outlined the Six Essential Elements of Sustainable Business/Agriculture

1. Business must pay equal attention to the, 'Triple Bottom Line' - Social, Environmental and Economic;
2. Rather than trying to dominate, nature, farms and businesses must mimic nature with nature-based knowledge and technology;
3. All services and products should be ecologically based - biodegradable, reusable and recyclable;
4. Use sustainable forms of energy - i.e. solar, bio-based, decentralized, renewable;
5. Focus on local organizations and economics - community and regional markets first and exports of surplus only.
6. Continual improvement- 'Sustainability,' is a process not an end point. To be sustainable a manager must constantly seek self-improvement.