

Growing Tomorrow

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Open Houses Showcase Agriculture

Canada's agriculture and agri-food research capacity is one of the best in the world. In BC, Agriculture and Agri-Food Canada researchers at the Pacific Agri-Food Research Centre (PARC) are working in partnership with BC industry and research organizations to help overcome challenges and capture new opportunities through science and innovation.

On May 10, PARC-Agassiz celebrated its 120th anniversary by welcoming the public at an open house. Throughout the day, research staff showcased the Centre's history and the latest research in crop production systems, berry breeding, integrated pest management, poultry genetic resources, animal welfare, and soil, water and air quality.

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Heloise Dixon-Warren of Quesnel received IAF's Award of Excellence for Innovation in February for authoring the first-ever birch syrup production manual.

Innovation Award Presented for Birch Syrup Project

On February 15, Heloise Dixon-Warren accepted the 2008 Award of Excellence for Innovation in Agriculture and Agri-Food on behalf of Moose Meadows Farm and the Quesnel Community Economic Development Corporation (QCEDC) at the Pacific Agriculture Show in Abbotsford. The joint award honoured the recipients' roles in the development of the emerging birch sap and syrup industry in BC.

A partnership between the Agri-Food Futures Fund's Agroforestry Initiative and the QCEDC enabled Dixon-Warren to author the first manual on birch syrup production in Canada, "The Birch Syrup Production Manual." Prior to the emergence of this work, support

literature about tree tapping and syrup production was geared toward the sugar maple industry, not the particulars of the birch sap industry.

Dixon-Warren, a registered professional forester and co-owner of Moose Meadows Farm, commented, "I am inspired to see the birch sap production industry starting to receive more and more recognition...the opportunities for the birch sap industry and communities involved with it are vast, and I think there's a bright future for it in BC - and for that matter throughout Canada!"

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Innovation Award

The award recognizes an individual, organization or business that has made a unique and important contribution to BC's agriculture and agri-food industry in the last three years. "It's about recognizing the importance of innovation, particularly in this sector," explains Bert Miles, IAF past chair who presented the award. "Innovation is critical to keep our agriculture and agri-food industries sustainable and globally competitive."

The award is open to individuals who reside in BC and Canadian-based organizations and businesses operating in BC.

Further information about the Agroforestry Initiative can be found at the BC Federation of Woodlot Associations' website at www.woodlot.bc.ca/agroforestry ■

Three Cheers for Cherry Research

In the Spring of 2005, the Okanagan Kootenay Cherry Growers' Association (OKCGA) decided to research the quality of water used in hydrocooling cherries, and the effect of sanitizers on fruit quality and storage life.

With IAF's contribution of \$6,000 through the Safety Net Fund, the group was able to study the water quality in a cross section of packing operations, to provide valuable information to the industry and help to ensure consumer confidence in the safety of BC cherries.

Conducted by the Pacific Agri-Food Research Centre, the project demonstrated that bacterial contamination can occur in hydrocoolers and water transfer systems, but can be controlled by treating the water with sanitizers.

From a series of pilot plant studies on the efficacy of various sanitizers, temperatures, and length of exposure, researchers concluded that maintaining a relatively low level of available chlorine provided effective sanitization of hydro-cooling water, preventing the accumulation of undesirable bacteria without harming the cherries.

Some alternative treatments, while effective sanitizers, were found to significantly increase stem browning, an undesirable appearance for fresh market.

Additional research was conducted in 2006 to identify potential bacterial origins in the cherry production and processing environments. The research has provided the cherry industry with important information regarding sources of bacterial contamination and best practices for control. The full report is posted online at www.bccherry.com, along with other research conducted over the past 12 years.

Past president Christine Dendy says the research conducted by the OKCGA has been a tremendous help for the cherry industry. "By pooling our members' research contributions and partnering with IAF, it is possible to undertake timely and relevant research that none of our growers could dream of doing individually," claims Dendy. "It is really gratifying to see what can be achieved when we take our business seriously and work together to improve the industry." ■

Rutabaga and Turnip Growers Managing Pests

Cabbage root maggot (CRM) is one of the most serious pests threatening root vegetable producers. "They are a particular problem in vegetables such as turnips and rutabagas as there is no tolerance for damage in the market," says Susan Smith, industry specialist for field vegetables and organics with the Ministry of Agriculture and Lands. "The industry's viability continues to be seriously challenged by this pest with potential losses in excess of \$600,000 annually."

Furadan, an effective control for CRM in rutabagas, is not a practical long-term solution, so alternative chemistries to be

used in combination with integrated pest management (IPM) are being developed. Thanks to innovative research, the Lower Mainland Horticulture Improvement Association (LMHIA) is now able to provide new information for Lower Mainland rutabaga and turnip growers about how IPM can be used to improve maggot management.

The most promising method evaluated so far is a mesh-style row cover that minimizes maggot damage without insecticides. As this row cover is intended to be kept on from planting to harvest, effective weed control is a major

limitation. Work in 2008 will address this issue. So far, results have been communicated via the LMHIA Growers' Short Course, association meetings and a June 2007 field day at Emma Lea Farms.

IAF contributed \$12,000 to the project through the Safety Net Fund. Other funding partners include the Fraser Valley Cole Growers Association and the Cole Crop Growers Levy Fund (BC Vegetable Marketing Commission). The researchers would like to also acknowledge the contribution of Emma Lea Farms and Wisbey Veggies. ■

Helping Producers Save Strawberries

Every year, the BC strawberry industry generates approximately \$13.5 million in revenue. However, Fraser Valley growers face many diseases which can cause strawberry fields to decline. One of the most serious of these, red stele root rot, can shorten the productive lifespan of plantings, costing producers hundreds of thousands of dollars of lost revenue each year.

IAF contributed \$14,070 through the Safety Net Fund in order to help the Fraser Valley Strawberry Growers' Association improve yield, quality and economic return for producers by optimizing the use of fungicides and fertilizer treatments to control red stele root rot. From 2003-2005, researchers compared the effectiveness of fall versus

spring applications on 'Totem' and 'Rainier' cultivars.

Single applications in the spring and fall were shown to be effective treatments, producing significantly higher yields of variety 'Totem' in low-lying areas of fields susceptible to flooding and root rot. "Starting applications in the first fall after planting is crucial to get the best effect," advises Dr. Janice Elmhirst of Elmhirst Diagnostics & Research, who performed the studies. The treatment did not provide a significant benefit to variety 'Rainier.'

Research findings are included in the 2007/08 Berry Production Guide for Commercial Growers. ■



IAF-funded research helped strawberry farmers combat destructive diseases and produce better crops.

New Developments for Forage Industry



Through research funded by IAF, the BC Forage Council has identified new superior varieties of forage, enabling increased productivity.

With the aid of a \$104,767 contribution from IAF through the Safety Net Fund, the BC Forage Council has been able to identify new, agronomically superior varieties, enabling producers to grow more forage more efficiently, while reducing input costs.

During a series of variety trials in Creston, the Fraser Valley and a Highway 16 site between 2003 and 2007, researchers analyzed harvests for yield and performance factors such as winter hardiness, disease resistance, time to maturity, and speed of establishment. Climatic variations and weather patterns were recorded, especially as they affected

trials, and cultivars that significantly out-yielded check cultivars were identified. Trial results are posted on the Farmwest website at www.farmwest.com.

The discovery of superior alfalfa and grass varieties will help to increase yield or

improve survivability of forage for the hay, pasture and livestock industry. New high yielding oat and barley varieties for grain and forage have also been identified.

According to the forage council's Chris Zabek, this project has produced extremely valuable data currently used by all forage-producing sectors in BC. "No other body in BC is generating this type of information," Zabek declared. ■

HIGHWAY 16

FORAGE & CEREAL VARIETY TRIALS

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THANKS ALSO TO GENEROUS SUPPORT OF LOCAL AGRICULTURE ORGANIZATIONS

Working with the BC Landscape and Nursery Association



The BC Landscape and Nursery Association has recently addressed many issues facing their sector, from adapting to invasive species to developing marketing strategies.

IAF has collaborated with the BC Landscape and Nursery Association (BCLNA) on a variety of projects, providing grants ranging from \$5,000 through the Small Projects Program to more than \$200,000 through the federal Advancing Canadian Agriculture and Agri-Food program.

According to Fred Giesbrecht, BCLNA president, “Keeping our industry competitive and strong is critical to our continuing success. IAF funding enables us to keep moving ahead on several fronts – biocontrols, environmental issues, marketing and other innovations that provide the new options for our industry to continue to grow.”

Through this partnership, many industry priorities have been identified and progress has been made with programs such as the province-wide pest management strategy, designed to reduce risks to human and environmental health, which runs until December 2010.

In 2005 and 2006, IAF granted \$140,000 to help the nursery and landscaping industry adapt to a new invasive species, *P. ramorum* (sudden oak death). This project included the development and implementation of an action plan to manage the implications of *P. ramorum* to the nursery, floriculture and forest seedling industries.

The need to remain competitive in a challenging business environment also led IAF to aid the association in a series of market development efforts, such as the BC Nursery Export Marketing Strategy, which aimed to improve the branding and imaging of BC nursery products. BCLNA will also increase its attendance and participation in BC public and industry shows in order to assist members in marketing their services and products. Communicating key messages to the public, industry and government, such as efforts in promoting environmentally-friendly horticultural practices, will be a priority.

During the last decade, the group has invested much money in projects designed to increased awareness and sales of landscape and nursery products in BC. Given the complexities of public awareness, attitudes and buying behaviours, the impact of these investments is hard to determine. In order to provide immediate guidance for projects (such as Communities in Bloom, the GardenWise website and Healthy Garden Directory) and to assist in future planning and activities, BCLNA will establish an informational baseline and resurvey and evaluate this information every five years.

In an effort to be more responsive to the public demand for sustainable landscape practices, a feasibility study was carried out between 2006-2007 which developed standards to assist both the industry and municipalities to meet this demand. ■

New FADES Training Improves Disease Coordination

The Foreign Animal Disease Emergency Support Plan (FADES) was first developed for British Columbia in 2002 to encourage a coordinated response among federal and provincial agencies in the event of an infectious disease outbreak. In 2005, following an outbreak of Avian influenza in Abbotsford, the planning process continued, resulting in substantial revision of the FADES agreement in BC.

Beginning in November 2007 and continuing into 2008, the FADES steering committee and IAF are collaborating to advance the former’s planning efforts by offering more in-depth training to Canadian Food Inspection Agency and Ministry of Agriculture and Lands staff.

With a \$34,216 grant from IAF through the Livestock Waste Tissue Initiative, phase three of the project will include engaging in a detailed examination of emergency plans, using a highly contagious disease

as a scenario in order to identify necessary improvements. The project will also include facilitating a meeting with members of the foreign animal disease central coordination group to resolve outstanding issues.

It is anticipated that all improvements in response coordination will be documented in an updated FADES plan for 2008.

More information about the Livestock Waste Tissue Initiative can be found at www.iafbc.ca/livestock.htm ■

Lending a Hand to the Dairy Industry

IAF is pleased to be cooperating with dairy scientists on a number of current challenges.

In 2006, IAF contributed \$60,640 to the Abbotsford Veterinary Clinic Ltd. Researchers undertook three superovulation field trials in order to find the volume of sex selected semen required to achieve acceptable fertility in commercial embryo transfer collections. In conventional embryo transfer, the



With grants from IAF, the BC dairy industry has benefited from innovative research, creating science-based solutions to challenges and problems. Credit: Walter Goerzen

use of sex selected semen has been limited because of the low success rate in producing viable embryos leading to pregnancies. This represented an economic loss for farmers. With the study (the results of which were presented at an international conference), researchers proved the viability of this technology in specific cows using twice the number of semen straws.

The Foundation has enjoyed a strong partnership with the University of British Columbia Animal Welfare Program since 2005, providing funds for a number of different projects aimed at helping dairy producers and their cows. The dairy cattle industries have long recognized that better care practices lead to healthier and more productive animals. IAF's contributions have enabled Drs. Dan Weary and Marina von Keyserlingk to undertake research

into the complex issues surrounding animal welfare and to provide, as Dr. von Keyserlingk puts it, "science-based solutions to problems and challenges faced by the dairy industry."

With a \$43,000 grant through the Advancing Canadian Agriculture and Agri-Food (ACAAF) program, UBC's Animal Welfare Program conducted research between 2005 and 2007 that helped determine changes in feeding and standing behaviours around the calving period that can identify cows at risk for lameness later on in lactation. Research conducted by the UBC Animal Welfare Program helped to inform "Firm Steps: Identifying Lameness in Dairy Cattle," a CD-ROM aimed at producers, educators and veterinarians and produced by Alberta Agriculture and Food. More information and a

CD order form is available at [www1.agric.gov.ab.ca/\\$Department/deptdocs.nsf/all/ipc6837](http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/ipc6837)

Prediction and prevention of illness in group-housed dairy calves is another critical issue as average mortality rates of milk-fed calves on farms remains high at 8-10%. This concern prompted IAF to lead other councils in contributing \$69,750 for research in 2006 and 2007 that now offers new information on improving the health and welfare of pre-weaned, group-housed dairy calves.

The collaboration between the UBC Animal Welfare Program and IAF continues with a \$16,600 ACAAF grant providing funds that enable program researchers to undertake a number of studies aimed at providing more information on how and why dairy cattle sort their feed. ■

Future Prospects for Plastic Recycling

The BC agricultural community has identified agricultural plastic recycling as a high priority, cross-commodity issue. With support from the Agri-Food Futures Fund Agriculture Environment Partnership Initiative, the BC Agriculture Council hosted a workshop on agricultural plastic recycling in November 2007. 45 participants from BC, Ontario, Washington and Oregon met in Abbotsford to discuss initiatives in Europe, the US and Canada, the global plastics recycling industry and current pilot projects within BC.

Among the themes discussed were the economics and logistics of implementing efficient recycling programs. Collaboration between producers, governments and the recycling industry, the importance of long-term commitment and the opportunities to reduce fossil fuel consumption and stimulate economic development provided the discussion framework.

More information about the workshop can be found at the BC Agriculture Council's website (www.bcac.bc.ca). ■



Credit: Jill Ackerman, Vancouver Island Twine and Agricultural Plastic Recycling Pilot Project

Agri-Food Futures Fund News

- The Islands Agri-Food Initiative's strategic plan has been extended for another three years, until the end of 2011. Currently boasting a surplus of \$1 million, this initiative has recently expanded to include Powell River. Visit www.iafbc.ca/iafi for more information.
- IAF recently approved a \$75,000 funding boost for the Agroforestry Initiative, to enable the initiative to finish implementation of its strategic plan. Contact the BC Federation of Woodlot Associations at www.woodlot.bc.ca for more information.
- At the request of the BC Honey Producers' Association, IAF has stepped in to oversee the administration of the Beekeeping Industry Development Initiative. With this new addition, IAF now administers seven initiatives in total. Visit www.iafbc.ca/beekeeping for more information.
- While the Women in Agriculture program has come to a close, funding for projects that fit within the strategic priorities of this initiative can now be accessed through IAF's Small Projects Program or the regular application process. ■

Planning Progress in Spallumcheen

In October 2006, the Township of Spallumcheen completed an Agricultural Area Plan with the help of \$10,000 from IAF through the Advancing Canadian Agriculture and Agri-Food program.

The new document is designed to complement Spallumcheen's Official Community Plan in considering and implementing agricultural goals. Developed in consultation with stakeholders and the township's Agricultural Advisory Committee, these policies are aimed at protecting and preserving the agricultural land base while at the same time ensuring sustainability in farming.

"The municipality is very appreciative of the funding from IAF," says municipal administrator Lynda Shykora. "The resulting plan serves as a tool for both our elected politicians and technical staff in terms of existing and long-term land-use planning."

Since its completion, the document has been integrated into township decision making and is a guiding document for the consideration of future land use decisions. So far, progress has been made towards the original goals identified, such as strengthening farming, decreasing community conflicts, and retaining good agricultural land. Through continued use, the Agricultural Area Plan will support other significant objectives such as furthering economic viability, creating employment, and maintaining the rural character of the community.

"This plan enforces what most people treasure about Spallumcheen, which is its rural character," says Shykora. "It emphasizes that agriculture is the back-bone of the township."

For more information on IAF's Local Government Agricultural Planning Program, visit www.iafbc.ca/funding_available/programs/local-govt-ag-planning/ag_planning.htm ■



A new agricultural area plan will enable the Township of Spallumcheen to preserve its rural character and plan for future opportunities.

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Open Houses Showcase Agriculture

PARC-Summerland will open their doors to the public on September 20, 2008. Industry and the public will be invited to tour the centre and learn about the latest research in grapes, plant virology, apple and cherry varieties, functional foods and nutraceuticals, food safety, and soil science.

The Summerland open house will feature interactive displays, guided field tours of the orchards, and access to the ornamental gardens. Research staff will also present a lecture series about how AAFC, in partnership with industry and research organizations, seeks to understand the relationships between food, nutrition and health, and balance food production with a sustainable environment.

For more information about AAFC's Science and Innovation Strategy or research at the Pacific Agri-Food Research Centre visit www.agr.gc.ca/science. ■

IAF Welcomes New Directors

Two new directors, Irmi Critcher and Ernie Willis, joined IAF's board in 2008. "The caliber of nominees put forward by the B.C. agriculture industry is exceptionally high," said outgoing IAF board chair Bert Miles.

"We have full confidence in this complement of directors to provide strong input, expertise and representation to the board," said Rhonda Driediger, chair of the members' group that makes appointments to the IAF board on behalf of the industry.



Irmi Critcher

Irmi Critcher is the new representative of the grains, oilseeds and forage sector and continues to serve as president of the BC Grain Producers' Association and on the Management Committee of the Agriculture and Environment Partnership Initiative. Irmi has been on the BCGPA board for ten years, during which time she was active on numerous committees. Prior to these involvements, she served as director of the BC Grain Industry Development Council and was a member of the Peace River Regional District's Wildlife Committee. Irmi and her husband Barry have been farming for more than 20 years and currently own and operate a 3,000-acre grain and oilseed farm near Taylor.



Ernie Willis

Ernie Willis joins the IAF board as a third generation rancher from the Princeton area, representing the beef cattle sector. Recently Ernie served as chair of the Domestic Agriculture Committee for the Canadian Cattlemen's Association, president of the British Columbia Cattlemen's Association, and director of the British Columbia Agriculture Council. Ernie also spent four years as chair of the Regional District of Okanagan Similkameen, and was president of the Princeton Chamber of Commerce. Ernie and his wife Lynne have three grown daughters.

While welcoming these new members, IAF and its partners wish the best for its departing directors Garnet Berge, Jens Larsen and Bert Miles. ■



In Memoriam

This spring, newly appointed director Marcel Cloutier passed away due to complications from cancer. Marcel had been recently appointed to the IAF board, representing emerging sectors. Born in 1953 in McLennan, Alberta, Marcel (a part-time cattle rancher since 1996) was the first cattleman in BC to introduce hormone-free beef for domestic consumption. He was actively

involved in First Nations issues, serving as president of the First Nations Association Kamloops Region, as director of the First Nations Agriculture Lending Association, and as vice president of the Two River Métis Association. Marcel will be remembered for his integrity and commitment and will be missed by his family, friends and colleagues.

IAF News Briefs

Still Focused on the Future

"Focus on the Future," an exhaustive study concentrating on the overall long-term success of the BC agri-food industry, produced five near-term priorities on which significant progress has now been made. Consultants have concluded a survey of industry organizations, which will anchor recommendations to help organizations build their capacity to provide streamlined, cost-effective services to members. Work also continues on value chain awareness, education and training, the development of a Human Resource Action Plan, a feasibility study for a BC Technology Innovation Hub and the development of a branding strategy for BC agri-food products. Watch for future updates on these initiatives.

New to IAF

Andrea McGavin joins IAF as a permanent staff member after a successful co-op term in the summer of 2007, during which she coordinated Food For Thought, a photographic collection created by youth featuring local agriculture and agri-food enterprises. Andrea recently graduated from the University of Victoria with a bachelor's degree in English and environmental studies and will be assisting with IAF's communications and public affairs activities.



New Online

IAF's new Corporate Plan for 2008-2009 is now available online at www.iafbc.ca. It identifies six strategic priorities that will guide the Foundation's activities over the next two years.

Connecting Curriculum with Agriculture

During a time of increasing consumer awareness over the importance of choosing healthy, local food products, the BC Agriculture in the Classroom Foundation has introduced an exciting new project with the help of a \$72,168 IAF grant funded through the Canadian Adaptation and Rural Development program.

“Making the Connection” offers BC teachers access to innovative new resources for educating their students about agriculture and nutrition, while strengthening other initiatives such as school efforts to eradicate junk food from campuses and campaigns to eat locally.

With the variety of material available to them – from posters sporting the “Take a Bite of BC!” slogan, to a music CD “Close to Home,” to themed playing cards featuring agricultural information – students were provided with the



“Making the Connection” offers BC teachers innovative tools to foster a critical awareness of agriculture in their students.

tools to understand and critically evaluate the impact of food on resources, the environment and people. These informative new resources are available at www.aitc.ca/bc.

“Healthy eating, healthy living and the impact personal choices have on the environment is becoming a huge focus in BC schools,” commented the organization’s executive director, Lindsay Babineau. “Thanks to the ‘Making the Connection’ project, Ag in the Classroom can now provide new and exciting resources that allow teachers and their students to discover the value of choosing food products that have been produced right here in their own province.” ■

Sheep Farmers Share Skills

The Canadian Organic Growers, a national organization dedicated to organic agriculture advocacy and education, has launched a Practical Skills Handbook series. In the first of the series, entitled *Living With Worms in Organic Sheep Production*, Dr. Peter Stockdale recommends management methods that mimic the host-parasite relationship in wild sheep, in order to build protective immunity without the use of anti-parasitic drugs. Production of this handbook was made possible with \$17,000 from the Agri-Food Futures Fund Organic Sector Development Program.

Living With Worms is available through the COG’s website at www.cog.ca, by phone at 1-888-375-7383 or through select sheep and wool growers’ associations. ■



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