



**Investment
Agriculture
Foundation**
of British Columbia



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GROWING TOMORROW

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The latest from the Investment Agriculture Foundation of British Columbia

The Results of Working Together

“There is nothing more energizing than entering a room full of people discussing how to make things better for their industry.”

This is the philosophy of committed cattlemen who brought forward-thinking workshops and seminars to the northern interior during the summer of 2010.

For Clint and Karen Thompson of the San Jose Cattle Company in 150 Mile House, it began in February 2010 when Clint drove all the way to Russell, Manitoba to participate in the Canadian Holistic Ranch Management conference.

Three years prior, the Thompsons had begun their involvement in a similar Ranching for Profit program in Alberta. Essential to the success of both curriculums is meeting regularly to brainstorm ideas while becoming accountable to make changes. The Thompsons were so inspired that they became determined to spread this message to other ranchers in BC.

With additional support from IAF, Ducks Unlimited and Powerflex Canada, the Cariboo Holistic Ranch Management Workshop was held in May 2010. Welcoming 72 ranchers, the feedback was overwhelmingly positive.

“My phone started ringing immediately,” remarks King Campbell, head of BC agriculture programs for Ducks Unlimited Canada. Campbell assists ranchers to source funds from the Environmental Farm Plan Program and Ducks Unlimited to encourage conservation, while making their operations easier to run. “This seminar was an ideal opportunity to talk about the support available for investments that will have both long-term economic and environmental benefits.”

What’s next for cattlemen in the Cariboo? With 86 per cent of the attendees indicating interest in it, a longer five-day Holistic Management course is on the horizon.

Further north, cattlemen in Vanderhoof eagerly participated in a field day featuring internationally recognized animal expert, Temple Grandin. Topics discussed include stress and meat quality, behaviour of cattle during transport and the optimal designs of handling and loading facilities.

“We looked at photos of some local systems and discussed improvements” remarks David Wruth, president of the Nechako Valley Regional Cattlemen Association. “Dr. Grandin targeted her presentation to the needs of our region.”

Grandin is a professor of animal science at Colorado State University and a consultant to the livestock industry. As a child, she was diagnosed with severe autism. Her high level of functioning with this spectrum disorder has earned her prominent distinction amongst autism groups.

But how did a celebrity like Grandin come to Vanderhoof in the first place?

“Bringing her to speak to 35 ranchers was cost prohibitive at first, but then the HBO documentary came out,” admits Wruth, referring to the timely release of the biopic, *Temple Grandin*.

So moved by what they saw on television, the Skeena Regional Cattlemen Association, the Farm and Ranch Safety and Health Association and Northern Health pledged



[Above] Temple Grandin's innovative livestock handling techniques – such as this curved corral, intended to reduce stress in animals going to slaughter – have made her a leader in animal care.

their support to add three more seminars in Prince George in June 2010. In total, Grandin presented to more than 700 participants during her visit to northern BC.

Looking back, Wruth is stunned how the project scope expanded to include such a broad audience. Clint Thompson, however, is not surprised. “When people work together with a positive mindset, the possibilities are limitless, even in challenging times.”

Funding: up to \$4,250 (Temple Grandin) and \$2,000 (Holistic Management) through the former federal-provincial Safety Nets framework. (SP150, SP152)

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National Poultry Cluster Hatches

Agriculture and Agri-Food Canada (AAFC) recently announced an investment of \$1.8 million to bring together the best and brightest poultry scientists to boost the competitiveness and sustainability of poultry farming.

This funding will support the Canadian Poultry Research Council (CPRC) and other industry partner contributions of over \$759,000 for the cluster.

Producers are always looking for ways to make their operations more sustainable, and enhanced farming practices are important to the future success of the industry. They and, ultimately, consumers will benefit from this investment aimed at helping the industry become more competitive in markets here and abroad.

Research will focus on strategies to enhance poultry health and welfare, new production practices, and innovative products including new vaccines to protect birds and people from diseases such as clostridia, salmonella, and avian influenza.

The CPRC will manage the cluster, which is one of several formed through AAFC's Agri-Innovations program, a \$158 million five-year program that supports industry-led science and technology projects under Growing Forward. Previously announced clusters include pork, dairy, beef, grains, oil seeds, pulses, horticulture and organics.

To learn more about AAFC's research initiatives, visit: www.agr.gc.ca/science



Photo: Melissa A. Cook



SFU student, Dan Peach, takes photos of parasitoids of cranberry tipworm.



"Tipworm damage is substantial and it's on the rise," says Todd May of Maybog Farms in Richmond, who adds that monitoring is labour intensive and costly. "We'd like more tools to help with control."

With funding from IAF and the BC Cranberry Marketing Commission, researchers at Simon Fraser University and the Pacific Agri-Food Research Centre in Agassiz have tentatively identified a pheromone secreted by female tipworms. (They also discovered two species of tiny parasitoid wasps that are natural predators, but that's another story.)

Work is now underway to synthesize the pheromone and test it in fields. The idea is simple. Males are attracted by the pheromone and end up on sticky cards placed nearby. Growers check the cards and apply insecticides as warranted. How effective is it? That's what the next steps will determine.

"The pheromone research is very exciting," adds May. "If we can shorten the window between tipworm sighting and control, we can take a softer approach in our treatment."

Results from the first study on the reproductive behavior of tipworm are available on the commission's website: www.bccranberries.com

Funding: \$217,695.69 through former federal adaptation programming.* (A0538)



Protecting Cranberries

Cranberry tipworms (*Dasineura oxycoccana*) may be tiny, but they create big problems for BC cranberry growers.

The insects don't live long, but several generations develop during each growing season. The larvae love the tips of cranberry plants where flowers appear, meaning those tips won't yield berries in subsequent years.

Monitoring for tipworm in the field is difficult because they are hard to detect, so most growers send clippings for screening under microscope.

Working with the Horse Industry

BC's horse industry is complex and unique and faces a variety of challenges.

With support from IAF, Horse Council BC recently conducted a survey to measure the status and impact of the BC equine industry. A previous survey was conducted in 1998 and the 2010 study provides new data to monitor the industry's growth, as well as information that will help the industry shape its priorities and future strategic direction.

The survey results indicate that the sector generates an estimated \$740 million in economic activity for BC. There are around 100,000 horses on nearly 14,000 farms and the industry creates some 7,200 full-time jobs. Moreover, according to survey respondents, more than 90 per cent of horse owners will be maintaining or increasing their involvement in the industry in the next five years, despite the current economic climate.

"The survey results show the value of the horse industry to BC. Horse owners are optimistic about the future of their industry and are committed to their horses' well being," states Lisa Laycock,

executive director of the council. "We are looking forward to developing programs that address issues important for today's horseman."

The study – conducted in partnership with the BC Ministry of Agriculture – is available on the Horse Council's website at: www.hcbc.ca

Other projects are addressing specific issues facing the horse industry, such as proper manure management. The Langley Environmental Partners Society's composting program educates and provides assistance to equestrian landowners and small-lot farmers to understand and deal with the problems caused by excess horse manure.

The program offers manure composting workshops and on-site consultations. It also includes the ManureLink website – an online directory that connects horse owners with gardeners, landscapers and growers who would like a source of beneficial compost – and the "Put A Lid On It" campaign, which encourages landowners to comply with agricultural waste regulations and cover their manure piles appropriately.

More information can be found online at: www.manuremaiden.com

Funding: \$38,255.64 (Equine Study) through the Canadian Agricultural Adaptation Program.* (A0601) \$38,700 (Manure Composting) through the Agri-Food Futures Fund, Agriculture Environment and Wildlife Fund. (AF018 09-001)

Controlling Wasps in Sweet Cherries

Within the last five years, wasps have caused significant damage to cherry orchards in the Creston Valley and Okanagan, at times even resulting in the total abandonment of crops.

According to Duane Holder of the Okanagan Kootenay Cherry Growers' Association, wasp damage urgently requires a solution.

"When you get to the point of orchard removal, you realize this is a very serious problem," says Holder. "However, there are no totally effective methods to control wasps currently in use."

In order to alleviate this threat, the cherry growers evaluated the effectiveness of various integrated pest management strategies over the last three years.

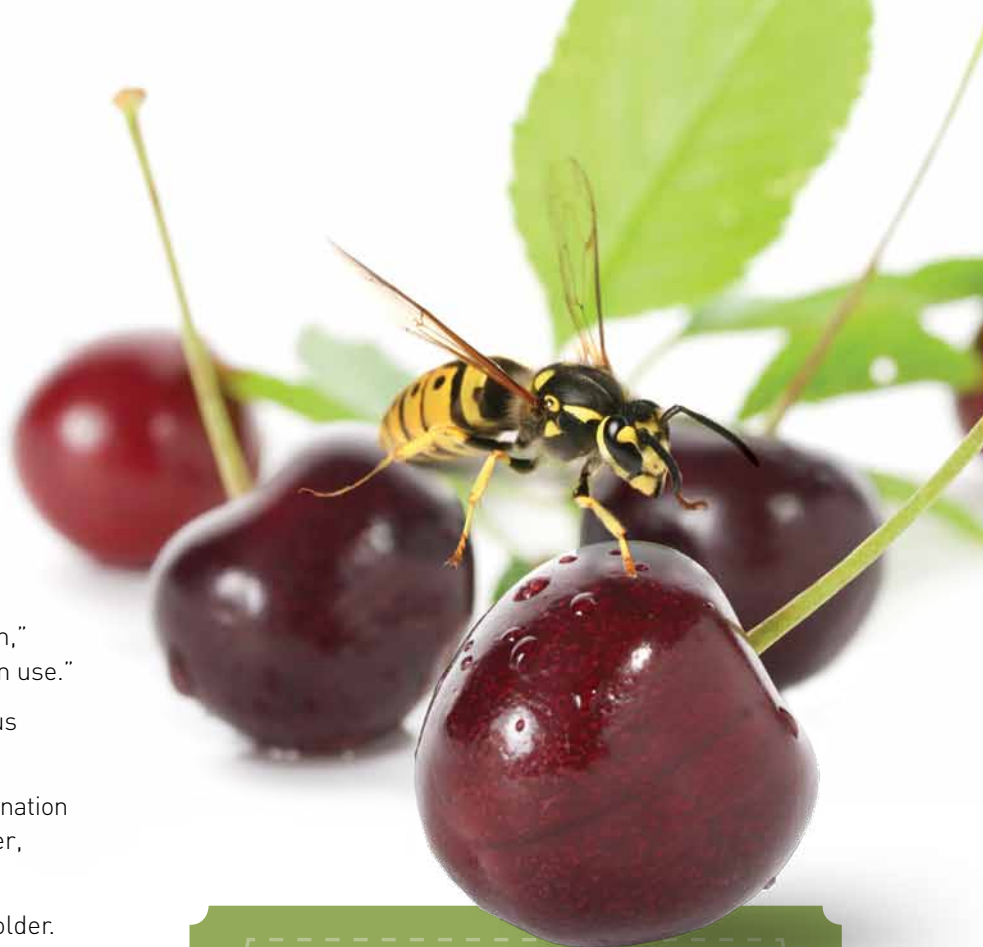
Although it has been challenging to find a solution, growers have had success with a combination of trapping over-wintering queens and physically removing or spraying nests. However, trapping proved less successful on wasp worker populations in summer orchards.

"This research has been very beneficial, given the seriousness of the problem," says Holder. "Most growers are willing to try whatever methods they can and there is a lot of interest to continue to look for a solution."

A summary of the research findings is available online at: www.bccherry.com

Funding: \$47,200 through the Agri-Food Futures Fund, Agriculture Environment and Wildlife Fund.

(AF018 08-006, 09-007, 10-003)



Pilot Turns Waste into Worth

Milk permeate is customarily a byproduct of dairy processing that has minimal value. In the past, it has been disposed of in city sewage systems.

But that is now changing thanks to an innovative pilot project led by Vitalus Nutrition Inc. of Abbotsford with funding from IAF.

"The project evolved thanks to Vitalus' strategic direction not to let any product leave the plant without some value being added to it," declares Alistair Johnston, director of operations at Vitalus.

Liquid milk permeate has a high nutritional content, but in order for it to be used effectively by other manufacturers, it needed to be dried. Drying permeate is not easy, so traditionally it was used as a liquid animal feed or else disposed of in the sewer.

A pilot plant was developed and built in a separate building on the Vitalus site in 2008 with the main goal of transforming dairy permeate to something valuable while creating a public benefit by reducing the amount of effluent.

Two years later, the goals have been surpassed. The finished feed ingredient is now undergoing trials by animal science researchers at the University of Alberta. According to preliminary results, piglets are thriving on it. Effluent outflows into municipal sewers have decreased by 50 per cent with no dairy permeate being disposed. Lastly, the project boasts a bonus outcome of facilitating a significant reduction of water consumption.

With the pilot completed, Vitalus is taking this successful project forward to commercialization – exhibiting how innovative thinking, combined with perseverance, can transform products from waste to worth.

Funding: \$217,695.69 through former federal adaptation programming.* (A0538)

[From left] Rick Cline, Phil Vanderpol, and Alistair Johnston with the pilot drying plant at Vitalus Nutrition.



FOOD FOR THOUGHT

BC 4-H's new Food for Thought program brought together 43 teens from around the province for five days in July 2010 to discover agriculture in the Fraser Valley.



[From left] Keana Velsen, Vancouver Island region, Kayla Shallard and Tory Kershaw, Central Interior region, at Hopcott Farms in Pitt Meadows, BC.

Tours, presentations by agricultural leaders, group discussions and debates focused on some of the big issues facing today's producers. Topics included water resources, the Agricultural Land Reserve, profitability, sustainable agriculture and urban/rural issues. There was also time for fun and everyone's farming skills were put to the test during the Agriculture Olympics.

Providing agricultural experiences for young adults is an IAF priority. Judging by the responses from those who participated, they learned a lot and had a blast. Camille R. from the central interior enjoyed learning more about BC agriculture. "We are now aware of the importance of buying food from local farmers and conserving land for agriculture," she stated.

On returning to their respective communities, each participant shared their new-found knowledge with their local 4-H clubs, family and friends.

Funding: \$8,195.46 through former federal adaptation programming.* (SP156)

* An Agriculture and Agri-Food Canada Program. Pour la version française veuillez consulter: www.iafbc.ca/français.htm

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Improving BC's Lavender Industry

BC is well suited for lavender production. Our cool nights and warm days allow many lavender species to thrive.



Lavender is hardy, requires little irrigation and does not attract many pests or pathogens. As a perennial plant, lavender can be planted once and harvested for many subsequent years, making it an economical choice for growers.

Most BC lavender growers produce small quantities of high-quality oil that is used in a variety of aromatherapeutic products, often sold on the farm. Though the industry is currently small, there is high demand for quality lavender essential oil.

"If we were going to continue farming, we had to be able to sell a finished product and not go through a packinghouse or middleman. We ultimately chose lavender," says Andrea McFadden of Okanagan Lavender Herb Farm, a Kelowna farm that produces about 50 locally-made lavender products.

Building off the success of a previous IAF-funded project, researchers at the University of British Columbia Okanagan have been analyzing and authenticating the quality of essential oils from lavender plants propagated in BC to determine which plants can produce the best quality oil.

Research undertaken between 2005 and 2008 produced 65 new lavender species through tissue cultures. Researchers have been testing the yield and quality of the essential oils produced by these plants. They are also testing lavender plants currently being used by BC farmers such as the Okanagan Lavender Herb Farm, in order to determine which plants are most suitable for commercial propagation.

According to McFadden, "The information generated by this research is an important resource for growers getting into the business. Those currently growing lavender could also benefit from higher-yielding plants."

In addition, researchers are also looking at potential applications for lavender oil beyond aromatherapy, such as insect repellents for organic farmers.

Soheil Mahmoud, lead researcher at UBCO, notes that this project would not have happened without IAF's help. "Now we are engaged in research that is impacting plant science as a whole, looking at how plants actually make essential oils."

Funding: \$144,400 through the former federal Safety Nets framework and \$42,000 through former federal adaptation programming.* (A0471, A0594)

* An Agriculture and Agri-Food Canada Program. Pour la version française veuillez consulter: www.iafbc.ca/francais.htm



Westbank Youth Grow Native Plants

Big sagebrush (*Artemisia tridentata*), bitterroot (*Lewisia rediviva*) and soapberry (*Shepherdia canadensis*) are three of the native plants you'll find in the new greenhouse and wheelchair accessible raised beds at the Westbank First Nation's Pine Acres Care Facility. These demonstration facilities are used by the Whispering Plants Garden Society to teach youth about plants native to the Central Okanagan. In the first year, 30 youth participated in workshops on soil science, wild stock collection and propagation. The value of conservation and management of native flora are shared using a combination of traditional aboriginal perspectives and the latest scientific methods. "We hope we've sparked a passion amongst the youth that will last into their education and careers," says Joel Liman, society president. In 2010, the garden won the Westbank Communities in Bloom Most Beautiful Open Category Garden. What's next? The community now hopes to add a cultural component to the site, complete with a traditional pit house.

Funding: \$8,906 through the Agri-Food Futures Fund, Aboriginal Agriculture Initiative. (AF007-069)

Kent Supports Agriculture

IAF's agricultural area planning program provides up to \$45,000 in funding for communities to develop agriculture area plans. Ideally, we'd like to see these plans adopted by local authorities. In June 2010, the District of Kent council did just that and formally adopted a bylaw that amends its Official Community Plan and inserts its newly-developed agricultural area plan. The bylaw states: "The policies in this plan extend beyond preserving farmland to an active support of agriculture and existing farms in the district." Mayor Lorne Fisher says they are providing economic substance to the plan by supporting events such as the Circle Farm Tours, Vancouver's Slow Food tour and the Taste of Agassiz. "Bylaws have been restructured to encourage farmers to market and profit from value-added products, thereby making traditional farming practices more profitable and the family farm more sustainable," adds Fisher.

Funding: \$30,000 through former federal adaptation programming.* (B0016.14)

Finding New Options for Small Processors

Producers and processors in the Fraser Valley may soon have access to an affordable processing facility, thanks to the efforts of a local consortium. The Campbell Valley Food Group recently produced a business plan for a flexible, food-safe compliant facility to accommodate product development, production and storage for a variety of small BC processors. "Completion of a small scale food processing facility to handle the needs of various producers will be a huge win for BC consumers, retail and distribution partners, and participating organizations," says Barb Beaton of Fields and Flowers Foods, a member of the consortium. "Without the assistance and guidance provided by IAF, we would likely not have been able to complete a business plan of this scope." The plan provides an evaluation of local industry support, information on equipment, an environmental assessment and energy efficiency study, and a marketing plan. Currently, the group is working to secure financing for construction, researching the available equipment options and working with food processors to confirm their production needs.

Funding: \$30,000 through the Agri-Food Futures Fund, Food and Beverage Processing Initiative. (AF014-A129)