



Agri-News

September 13, 2010

Late Blight of Potatoes and Tomatoes

Late blight has been reported in many areas across southern and central Alberta, with indications that it has been found in some commercial potato fields.

“The largest number of reports has been from urban residential plantings of potatoes and tomatoes,” says Robert Spencer, commercial horticulture specialist, Alberta Agriculture and Rural Development. “Due to late identification, limited control options and excellent conditions for disease development, the disease has been largely unchecked in residential locations and has spread rapidly. There is the potential for continued spread of the disease, due to air-borne spores that are being produced. There is also a risk of spread into greenhouse tomato operations.”

Late blight is a serious plant disease caused by the fungus *Phytophthora infestans* and is found in most potato and vegetable-growing areas of Canada, although it does not occur every year on the Prairies. It affects potatoes, tomatoes, eggplants and related weeds. Late blight is an aggressive disease that, if left unchecked, can cause significant and rapid crop losses, both in the field and in storage.

“Initial symptoms are typically noted on older leaves, appearing as dark, water-soaked areas (lesions) that move in from leaf tips/margins, becoming brown and brittle within a couple of days,” says Spencer. “Late blight lesions are not contained by the leaf veins as they are with another common foliar disease called early blight. Lesions may also develop on plant stems and on potato tubers and tomato fruit.”

Late blight develops most quickly in warm and wet/humid conditions and can spread very rapidly through a planting. Plants may be rapidly defoliated and die. Potato tubers may be infected by spores produced on the foliage. Infected tubers may have irregular, sunken lesions that are often around the eyes

with the rot penetrating deeply into the potato. The rot has a reddish-brown colour and the disease can spread from diseased to healthy tubers in storage.

“On the Prairies, late blight does not form an overwintering spore type,” says Spencer. “Instead, the pathogen overwinters on living tissues and the disease is carried forward from one

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season to another on infected seed potatoes, cull piles and volunteer potatoes. In-season spread is by spores produced on infected tissues and diseased crop debris. Spores can move considerable distances on the wind or will move within the fields by rain or water splash.”

Late blight can be managed in commercial fields by using protective fungicidal sprays applied when conditions favour disease development.

In home gardens, infected plant materials should be disposed of as soon as possible after detection, either by burying or freezing. Leaving cull piles or diseased materials in the open can lead to infection of healthy plants. Volunteer potato plants and solanaceous weeds, such as nightshade and wild tomato, should be controlled in all situations.

If infected crop debris is composted, it should be covered with a tarp or soil until it has frozen to minimize spore distribution. Killing potato tops can help to minimize tuber infection, as this encourages tuber skin set and stops top growth. Tubers can be harvested a couple of weeks after the tops are killed.

“Only harvest from healthy stands, do not keep any infected plant material, and tubers should be heavily graded before storage in an attempt to prevent entry of the disease into storage. Dispose of infected tubers appropriately,” notes Spencer. “It’s always recommended that growers and gardeners purchase clean, certified seed potatoes each season, rather than keeping their own tubers over for seed.”

Once the tops of plants are dead or have been removed, the potential for continued infection is reduced or eliminated

“As the season progresses into fall, the risk of late blight infection should decrease dramatically,” adds Spencer. “Potato and tomato vines will stop growing and begin to dieback naturally, thus reducing the amount of living tissue available for infection and reproduction of the pathogen.”

By carefully managing any infected plant debris, people can help to prevent late blight from overwintering and avoid a potential repeat infection of susceptible crops and weeds in future years.

Contact: *Ag-Info Centre*
310-FARM (3276)

Alberta Greenhouse Industry Profile 2010

A recently completed study of the Alberta greenhouse crops industry shows that the industry has grown by 10.5 per cent during the past decade.

“The present size of the industry stands at 113.055 million square feet (1.213 million square meters), or 300 acres (121.4 hectares) under cover,” says Dr. Mohyuddin Mirza, greenhouse consultant, Edmonton. “This translates to

approximately \$150 million gross revenue per annum and an investment of over \$270 million in the provincial economy.”

Major growth took place in the vegetable sector in Medicine Hat region registering a growth of 41 per cent in the last decade.

“As well, there seems to have been a major shift in the average size of the greenhouse,” says Mirza. “Greenhouses under 10,000 square feet dropped from 42 per cent in 2001 to 24 per cent in 2010, while greenhouses with an area over 40,000 square feet increased to 36 per cent from 18 per cent in 2001.

“This is an indication that the average size of a greenhouse has increased considerably during the last decade. The study shows that an increase in the number of vegetable greenhouses likely contributed to this trend.”

Natural gas continues to be the fuel of choice for heating greenhouses and no major shift occurred in the use of alternate fuel like coal, wood and others.

“Growers were very aware of environmentally friendly crop management practices, and 97 per cent rated their practices in that category,” adds Mirza. “Forty percent of growers practice On Farm Food Safety and 36 per cent have taken Environmental Farm Plan courses.”

A total of 328 growers contributed towards the study. Major funding for this initiative was provided by Agriculture and Food Council (AFC) through Canadian Agriculture Adaptability Program (CAAP) and the Alberta Greenhouse Growers Association. Nabi Chaudhary from the economics branch of Alberta Agriculture and Rural Development was involved in preparing the project proposal and overseeing its completion.

Copies of the 94 page survey are available from the Alberta Greenhouse Growers Association office at #200, 10331-178th Street, Edmonton, AB, T5S 1R5, by phone at 780-489-1991, fax at 780-444-2152 or email at admin@landscape-alberta.com. There is a \$10.00 shipping and handling fee for the book.

Contact: *Mohyuddin Mirza*
780-463-0652
mohyuddinmirza @ gmail.com

G. Nabi Chaudabry
Senior Crops Economist
Alberta Agriculture and Rural Development
780-422-4051
nabi.chaudbary@gov.ab.ca

Banff to Host International Greenhouse Gases and Animal Agriculture Conference

The 4th International Conference on Greenhouse Gases and Animal Agriculture will take place October 3 to 8, 2010, at the Banff Park Lodge.

“Progress on greenhouse gas mitigation is critical for sustainable animal agriculture worldwide,” says Dr. Sean McGinn, conference chair, Agriculture and Agri-Food Canada, Lethbridge. “This conference is an opportunity for the leading scientists in this area globally to present the latest advances and knowledge, to provide information that industry and governments need to achieve practical and cost-effective solutions.”

While the conference participants are drawn primarily from the scientific community, the content is very relevant for producers, industry and policy developers involved with animal agriculture.

The Greenhouse Gases and Animal Agriculture conferences have established a successful track record with previous conferences in Japan, Switzerland and New Zealand.

“Registrations and representation have been strong again this year and we anticipate another strong event,” says McGinn. “Over 350 delegates are expected from more than 39 different countries. Most of the delegates are active scientists in this field, with about 10 percent involved with industry and government policy.”

The program for the Greenhouse Gases and Animal Agriculture conference opens Sunday, October 3, 2010, with a series of workshops related to measuring and modeling greenhouse gas emissions from livestock. The main program begins the next day with “big picture” perspectives on the role of livestock production in greenhouse gas issues, the implications of emissions from livestock manure and the opportunity for biogas capture.

The remainder of the week includes a range of high profile topics on the issue, including discussion of specific measurement and mitigation strategies that show promise to help industry and government set benchmarks and tackle emissions challenges.

“As a wrap-up session on Friday, the Global Research Alliance (GRA Livestock) will hold an open session to allow conference delegates to get first-hand information on this innovative global initiative,” adds McGinn. “This initiative aims to bring countries together to find ways of growing more food without growing greenhouse gas emissions.”

The 4th International Greenhouse Gases and Animal Agriculture Conference is sponsored by Agriculture and Agri-Food Canada, Ministry of Agriculture and Forestry (New

Zealand), the Livestock Emissions and Abatement Research Network, the New Zealand Agricultural Greenhouse Gas Research Centre, Climate Change Central, Alberta Livestock and Meat Agency, Dairy Farmers of Canada, Dairy Australia, Meat & Livestock Australia, the Canadian Cattlemen’s Association and the Canadian Pork Council.

More information on the conference is available at www.ggaa2010.org.

Contact: *Dr. Sean McGinn*
403-317-2225
info@ggaa2010.org

4-H Summer Camping Programs

It’s been another successful summer camp season for Alberta 4-H.

“Whether it was junior, intermediate or a combined camp, there were lots of things to learn and do,” says Mark Shand, programs specialist, Alberta Agriculture and Rural Development, Edmonton. “And this summer was no different. These summer programs are a great way for members to develop skills while making lasting friendships.”

With an overall summer program theme of “Setting Sail,” the summer camping program season started off with an “All Aboard” themed junior camp.

“At the junior camp, members between the ages of 9-12 learned how to have fun in a safe and structured setting,” says Shand. “Through different skills sessions, such as archery, canoeing and dance, and peer interaction, members who may have come to camp as shy and timid delegates left with a whole new sense of confidence, and a whole new set of memories.”

This year’s combined camp was aptly themed “Casting Off.” Delegates, aged 10-13, who had previously attended junior camping programs, attended the combined camp to take the self-awareness, learning and skill development that they had acquired through Junior camp to the next level.

“And for members who were hungry for more summer programming, Intermediate camp was the place to be,” says Shand. The camp’s “Raising the Sails” program gave attendees the opportunity to increase their knowledge of different issues during the appreciation sessions held throughout the week. Attendees also spent one night in a tepee.

“Summer programs are touted as one of the top events that members remember the most about their time in 4-H, and from the amount of fun, learning and exciting events that happened at all of these programs this summer, it’s easy to see why,” adds Shand.

Presenting partners for the annual 4-H Camping Program are Cenovus Energy and PennWest energy, while partner supporters are Canadian Natural Resource Limited, Government of Alberta and Peavey Mart. Partner hosts are the Alberta 4-H Centre and Regional 4-H Councils.

*Contact: Mark Shand
4-H Specialist
403-948-8508*

FCC Ag Safety Fund Applications Open September 13

Charitable or not-for-profit organizations in Canada providing safety training related to agriculture may qualify for funding from the new \$100,000 FCC Ag Safety Fund.

Farm Credit Canada (FCC) and the Canadian Agricultural Safety Association (CASA) are partnering to provide support for safety training programs aimed at keeping farmers, agribusiness operations and employees safe at work.

Applications will be accepted September 13 through October 27, 2010.

"I'm looking forward to offering organizations the opportunity to present training courses to help producers manage risks in their business or workplace," says Marcel Hacault, CASA's executive director.

"Producers have told us that they value farm safety. They're looking for strategies to keep themselves, their families and

employees' safe," says Rémi Lemoine, FCC Executive Vice President and COO. "We're proud to sponsor this fund, which will enhance safety on farm operations."

The fund is intended to help groups deliver agriculture safety training to producers in Canada or provide training for those who'll train others in safe agricultural practices.

The amount of funding will be awarded based on the budgeted actual costs of the project or program. Applicants proposing programs or projects with a local or provincial scope may be awarded funding up to a maximum of \$10,000. Applicants proposing programs or projects with a national scope may be awarded funding up to a maximum of \$25,000.

To receive funding, the selected organizations must meet criteria prior to the implementation of their program. The program must be completed by December 2012.

Only online applications will be accepted. Successful applicants will be notified in early 2011.

FCC Ag Safety Fund details and a sample application form are online at www.planfarmsafety.ca.

*Contact: Diane Wreford
Director of Communications
CASA
204-275-8874
dwreford@casa-acsa.ca
Aliya Ladba
Communication Consultant
Farm Credit Canada
306-780-5635
Aliya.Ladba@fcc-fac.ca*

Agri-News Briefs

Farm Labour Requirements Survey

Whether you're farming full-time or part-time, alone or with help, the Canadian Agricultural Human Resource Council (CAHRC) wants to hear from you! The CAHRC is conducting research about the labour requirements of small-scale farm operations in Alberta and across Canada. The information will be used to better understand the labour needs on farms with annual gross receipts of less than \$100,000 and to develop tools and resources to meet those needs. Farm operators who complete the survey can enter a draw for a chance to win \$100. The on-line survey closes on September 30, 2010, and responses to the survey are strictly confidential. Visit www.cahrc-ccrha.ca or call 1-866-430-7457 ext. 228 to participate.

Local Food Events Workshop – A Menu of Ideas

Local Food Events Workshop - A Menu of Ideas is a one day workshop taking place September 28, 2010, at the Red Feather Ridge in Vermilion. This full day session includes details of different types of local food events, an opportunity to initiate your own local food event, a locally sourced lunch and networking. Start time is 10 a.m. To register call Jolene or Kevin at 780-632-6191 or email ideas@tourismsolutions.ca