Agri-News

August 20, 2007

Protect yourself against West Nile virus

Twenty-nine human cases of West Nile virus (WNv) have been confirmed in Alberta as of August 15, 2007. The province's first human case this year was recorded on July 30, 2007. This case was confirmed just one week after positive mosquito pools were reported in southern Alberta.

Health experts say that these cases of WNv are not unexpected, especially given the warmer than normal weather conditions experienced across Alberta this year. Albertans, especially those who spend considerable time out-of-doors, are encouraged to take precautions to protect themselves from West Nile virus infection for the rest of the summer.

The best protection against WNv is still simple personal protection. Two of the most important actions are to use mosquito repellents containing DEET, and wear loose-fitting, long-sleeved, light-coloured shirts, pants and socks, especially at dawn and dusk, the peak time for mosquito activity.

Most people who contract WNv show no symptoms at all and the virus runs its course. Fifteen to 20 per cent of cases suffer flu-like symptoms of West Nile non-neurological syndrome: headache, fever, sore muscles and fatigue. In less than one per cent of cases, West Nile neurological syndrome can develop. Symptoms can include more severe headache, neck stiffness, vomiting, muscle weakness, tremors, paralysis and even coma.

"While the risk of infection with West Nile virus is low, the effects of the infection can be very serious," says Dr. Shainoor Virani, Acting Deputy Chief Medical Officer of Health. "Taking precautions to avoid mosquito bites will reduce the risk of infection."

The total number of cases reported in Alberta last year was 40 – one case of neurological syndrome, 38 cases of non-neurological syndrome, and one case with no symptoms. Twenty-eight of the cases were reported in the Palliser Health Region. In 2003, Alberta's first year with West Nile virus, Palliser recorded 129 cases, nearly half the provincial total of 275 that year. Further evidence of the virus in Alberta during the 2007 summer season will be posted weekly to the Alberta Health and Wellness website at www.health.alberta.ca.

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This Week

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Alberta AGRICULTURE, FOOD AND RURAL DEVELOPMENT

For more information on WNv, visit the Alberta Health and Wellness website or the ***Fight The Bite*** website at www.fightthebite.info. These websites include:

- Tips on Protecting Yourself
- Tips for House and Garden
- Tips for Children
- Insect Repellents
- Tips for Seniors
- Tips for Outdoor Enthusiasts
- Tips for Outdoor Workers
- Tips for Animal Health

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Alberta Government numbers are toll-free within Alberta by dialling 310-0000

Alberta winter kill: nature buzzes bees

In spring 2007, beekeepers in Alberta reported high losses of over wintered bee colonies. In order to find out the extent of winterkill damage to the beekeeping industry in the province, Alberta Agriculture and Food conducted a survey of beekeepers who owned 400 or more colonies. Beekeepers were asked to report the percentage of bee colonies that did and did not survive.

"Preliminary results showed that 30 per cent of Alberta bees died during the 2006-2007 winter," says Dr. Medhat Nasr, provincial apiculturist with Alberta Agriculture and Food, Edmonton. "The reported winterkill appears to be twice the long-term average over wintering loss in Alberta. It has also been reported that 15 per cent of the survived colonies were weakened considerably. The recovery of these weak colonies was hindered by the late cold spring and the production of these colonies in 2007 is questionable."

The survey included a detailed list of questions about management practices conducted during 2006 and the spring of 2007. Questions were asked concerning management practices, bee health and environmental conditions. The purpose of these questions was to determine any common possible factors that could explain the causes of the high winterkill.

"In addition to the questionnaire, hundreds of the affected bee colonies were examined and sampled in the field," says Nasr. "Preliminary results of examined colonies revealed that symptoms of the colony collapse disorder (CCD) as described from the USA have not been found in Alberta. Data collected in the survey and winter killed bee colony samples are under analyses. Once these analyses are completed, a full report will be released."

Wintering losses have plagued beekeepers for decades, but the losses experienced this year are substantially higher across various regions in Alberta. Even within individual bee operations, one side of the operation may have suffered heavy losses, but on the other side the winter mortality were considered average.

"This year, losses may be attributed to one or a combination of several potential causes," says Nasr. "There were several unusual weather conditions that affected the 2006 bee season and the production of winter bees. Some regions of Alberta suffered from lack of rain in the early summer, which affected the canola honey crop and the bee biological cycle. Then in mid- to late-summer, good rainfall was reported in several regions which prolonged the nectar flow of clover, particularly the second cut. Beekeepers in the regions of late nectar flow were able to make an above average honey crop. However, these bees were not able to produce winter bees because brood chambers were plugged with honey. This resulted in queens not having room to lay eggs.

"On top of these problems, the fall season was very short and was followed by an early winter. The unusual climate conditions caused the bees' cycle to be out of sync with the season. Consequently, summer bees remained for wintering, and not enough bees developed for winter."

Winter bees, reared from August into October, do not immediately begin hive work. They are physiologically adapted to survive winter and they have a life expectancy of about six months.

"If the colony population that survives winter is comprised of summer bees, the result is that as the summer bees get older, they die and leave only a small cluster of bees. When this happens, the bees loose their ability to thermo-regulate their cluster and the colony dies. In addition, the prolonged winter, with no break in the cold weather through to late March and early April, has aggravated the problem in northern and central regions of Alberta."

Another contributing factor to the decline in bee populations is the reported failure of chemical control of Varroa mites. In the fall of 2006, in some beekeeping operations, Alberta bee inspectors, examining bees to issue health certificates, reported this failure of chemical control of Varroa mites. Varroa mites unexpectedly developed resistance to applied miticides. Consequently, mite populations were higher than normal in bee colonies and these mites had enough time to damage the winter bees.

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"When doing inspections, bee inspectors found that in some operations mites were resistant to Apistan and CheckMite," says Nasr. "This has made it very difficult to treat Varroa in an acceptable time to protect the winter bees. These damaged bees could not withstand the winter and this resulted in an increased rate of viral infections in the bee colonies."

Nosema is another factor that is often responsible for winter loss, late winter and early spring dwindling and supercedure. In the spring of 2007, beekeepers reported higher than normal colonies with Nosema-like symptoms. In some of the operations, though beekeepers feed medicated sugar syrup in the fall to control Nosema, the chemotherapy did not work. The failure of this treatment is under investigation. In addition, the prolonged, cold winter also contributed to the increased the incidences of Nosema in the northern and central regions of Alberta.

"Viruses and other secondary infection pathogens, such as sac brood and chalk brood were found in weak colonies that survived winter," says Nasr. "These colonies could not withstand the cold 2007 spring. The population of bees in a large percentage of these colonies continued to decline, queens superseded and eventually died."

All of these factors are being examined. Data collected in Alberta Agriculture and Food survey along with the provincial apiculturist's investigation and analyses of collected samples will be used to shed more light on the causes of the high winterkill.

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Winter wheat time in the Peace

Producers in the Peace region may find that winter wheat is an attractive option this year, even more so than in most years. The number of unseeded acres last spring and the current favourable prices are factors that could tip the scales, but the decision to seed must be made soon.

"August is the time to get organized for seeding winter wheat and providing the necessary fertility," says Nick Underwood, Reduced Tillage Linkages agronomist, Peace Region. "Winter wheat is seeded and harvested at different times than spring crops. While that helps spread the workload, it also means that a little planning is warranted."

In the Peace, winter wheat should be seeded by the end of August so that the crop shows at least three leaves at freeze-up and is covered by a blanket of snow that either closely followed or preceded the freeze-up.

"Timing of the winter wheat seeding operation can clash with harvest work, and this is where advanced planning comes in to play," says Underwood. "This overlap need not be too serious if the winter wheat seed is ready to go and not 200 kilometres away. Seeding can be done in the mornings while there is dew on the ripe grain. This year, I don't anticipate a lot of August combining in the Peace, other than fescue."

It takes very little moisture to germinate the seed so seeding should be shallow. Deep seeded winter wheat does not survive the winter well. When seeding, phosphate can be added with the seed as normal, but nitrogen fertilizer should be banded away from the seed. Alternatively, urea can be broadcast just before the first snowfall and can be combined with Agrotain if there is a concern about losing N to the atmosphere. Broadcasting urea in the spring is not recommended.

"Ensure that the field is as weed free as possible," says Underwood. "A pre-seed burn-off is desirable and don't skimp on the rate of glyphosate if there are perennial weeds. If the winter wheat comes through the winter well, it will compete strongly with any spring germinating weeds including wild oats. If planning to spray in the spring, be prepared to do it in the first half of May or the crop will be too far advanced."

Perhaps the most important thing when seeding winter wheat is to direct seed into standing stubble. This method of seeding improves winter survival. Chemical fallow can greatly reduce stubble, but even if there isn't a lot of straw or canola stubble left, there may still be some dead weeds to help catch snow and slow the wind.

"When it comes to how many bushels should be seeded, my advice is to aim for 20 plants per square foot next spring," says Underwood. "Plan ahead, do a 1000 kernel weight and calculate. To ensure about 20 plants per square foot in the spring, seed about 30 viable seeds per square foot in August. The seeding rate calculation will vary with different seed and must be worked out based on a 1000 kernel weight."

More information on winter wheat is available on the Reduced Tillage Linkages website at www.reducedtillage.ca, scroll down to the Winter Wheat Resource Centre.

Contact: Nick Underwood
(780)539-4498

Farm to Fork – organics in Alberta

"A research project, *Farm to Fork* was recently undertaken to get a better picture of the organic industry in Alberta and Canada," says Rosalie Cunningham, market research analyst with Alberta Agriculture and Food, Edmonton. "Three areas were considered: the producers/processors in Alberta, the Canadian organic consumer, and a Canadian retail grocery snapshot."

As part of the project, a written survey was sent to all the certified organic producers and processors in Alberta. The response rate from the 240 producers and 42 processors was high.

Findings include:

- in Alberta, main organic products are field crops and livestock
- Alberta has the highest number of organic beef cattle in Canada with 10,288 head (source – Canadian Organic Growers)
- while only 14 per cent of the producers sold value added products, these products contributed 30 per cent to the total cash receipts
- 26 per cent of producers sold directly to a processor (most likely field crops), 23 per cent sold directly to the consumer (most likely meat and vegetables)
- 40 per cent of Alberta grown/raised product is sold in Alberta
- processing in the province consists mainly of meat processing and seed/grain cleaning

"Polling was used to assess the organic consumer," says Cunningham. "The research results show growth of five per cent for both categories of heavy (23 per cent) and light (27 per cent) buyers of organic food over five years. Children are a factor in organic purchasing. Heavy and light organic buyers are both more likely to have children at home. Both buyer categories are more likely to be female; however, males age 34 to 54 years are also driving some of the growth."

The average Canadian organic consumer is secure, settled and in the prime-of-life, probably with children – not that different from mainstream consumers. Health issues continue to be a major driver and are seen as more important than environmental ones. When respondents were asked where they purchased most of their organic food, the results showed that 47 per cent of purchases are made at a big grocery venue and 30 per cent are made at a small venue including on-farm.

"Another area that this research project considered was a retail snapshot," says Cunningham. "This is the first time that a market figure has been derived from Canadian data. From this AC Nielsen data, we learned that the value of organic food being purchased at grocery stores in Canada in 2006 was about $412 million. This represents a 28 per cent growth rate over 2005 statistics. Alberta, alone, accounted for $48 million in organic purchases and had the highest growth rate in the country at 44 per cent. The total value of the Canadian market for organic food through all channels is estimated to be about $1 billion."

A full report is available online at www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/sis11562 or by contacting Magda Beranek at (780) 422-7101, e-mail magda.beranek@gov.ab.ca.

Some of the information used in this research project is posted to www.cog.ca/OrganicStatistics.htm.

Contact: Rosalie Cunningham
(780) 415-9013

Dutch Elm Disease – still a threat to Alberta elm trees

The Society to Prevent Dutch Elm Disease (STOPDED) is asking the public to help prevent Dutch elm disease (DED) in Alberta by checking their elm trees for DED symptoms, by not transporting elm firewood and by observing the elm pruning ban that is in effect from April 1 to September 30.

"Dutch elm disease is caused by a fungus that clogs the tree's water conducting system and results in the tree's death," says Janet Feddes-Calpas, Provincial Dutch Elm Disease program coordinator. "All trees that are showing DED symptoms must be reported to the DED hotline immediately. At this time of year, if a tree is infected with DED the leaves will appear wilted and will soon curl up, turn yellow and then brown. This is also referred to as flagging. Leaves on trees infected later in the season usually turn yellow and drop prematurely. Leaf symptoms are accompanied by brown staining under the bark. All suspicious elms must be tested in a lab for the presence of the fungus. STOPDED covers all lab costs. A confirmed DED tree must be removed immediately to prevent further spread."

This fungus affects all species of elm and is primarily spread from one tree to another by two species of insect vectors, the smaller European elm bark beetle (SEEBB), and the native elm bark beetle (NEBB). The beetles are attracted to weak and dying trees, which serve as breeding sites for the beetles. When the beetles mature and have pupated, they fly from the brood gallery to feed on healthy elms, taking the fungus with them on their bodies, thus transporting the fungus from one tree to the next.

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Because of its potential to harbour these fungus infested bark beetles, it is illegal to store or transport elm firewood unless it is to the nearest land fill. All elm wood must be disposed of immediately by either burning or burying. Elm firewood is confiscated from travelers at all the Alberta-Montana border crossings. It is also illegal to prune elm trees between April 1 and September 30 since the beetles are active during this time and are attracted to fresh cuts.

"Manitoba has suffered substantial loses to DED as has Saskatchewan," says Feddes-Calpas. "So far, Alberta has stayed free of the disease. STOPDED has been hard at work monitoring for the beetles throughout the province, surveying elm trees for symptoms and educating the public on how DED can be prevented."

To report symptoms, call the toll free provincial DED hotline by dialling 310-0000 and asking for (403) 782-8613 or visit the STOPDED website at www.stopded.org.

Contact: Janet Feddes-Calpas
(403) 782-8613

New Alberta Grain Commission members appointed

Two new members, Dennis Nanninga and Carol Bettac were recently appointed to the Alberta Grain Commission (AGC) by Alberta Agriculture and Food Minister, George Groeneveld.

Nanninga farms in the Barrhead area where he grows wheat, barley, canola and peas and raises cattle. He has served on many boards and committees, including Alberta Wheat Pool, and served as director and a second vice president of Agricore. Nanninga was also a board member on the Canola Council of Canada, the Rural Education Development Association and the Goldeye Foundation.

Bettac is the director of the agricultural stewardship division with Alberta Agriculture and Food. Prior to this she served an 18-month secondment as the technical director of the Prairies West Region with Prairie Farm Rehabilitation Administration (PFRA), a branch of Agriculture and Agri-Food Canada. In previous roles, Bettac served as a senior manager with the Alberta Environmentally Sustainable Agriculture program (AESA), as a regional conservation coordinator with Alberta Agriculture, and as an agricultural fieldman with the County of Beaver #9 Agricultural Service Board.

"Dennis and Carol bring a wide breadth of industry knowledge and experience to the AGC table," says Eugene Dextrase, chairman of the AGC.

The mission of the Alberta Grain Commission is to provide advice to the Minister and appropriate groups to enable a prosperous, sustainable and market driven farm and agri-sector. More information on the AGC can be found on their website at www.agric.gov.ab.ca/agc.

Other AGC members are:

- Eugene Dextrase – High Level – Farmer (Chairman)
- Doug Griffiths – Battle River-Wainwright – MLA (Vice Chairman)
- John Brown – Edmonton – Department Member
- Henry Dechant – Fairview – Farmer
- Dan Greene – Carmangay – Farmer
- Bob Hymas – Strathmore – Farmer
- Greg Porozni – Vegreville – Farmer
- John Richter – Beiseker – Farmer
- Terry Young – Lacombe – Farmer

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Agri-News Briefs

Plant floor supervisory course

A five-day *Plant Floor Supervisory Training* course is being held in four locations in Alberta in the fall of 2007. The course is a practical knowledge and skill-based learning opportunity to help lead hands and front-line supervisory work more effectively in their roles. The course features:

- key competencies required for the food processing industry
- other relevant essential skills and important concepts that are needed by supervisors
- case studies used are specific to the industry
- facilitators that are experienced educators who designed and developed the course and are familiar with the industry

Schedule:

Calgary	September 11, 18, 25, October 2 and 9, 2007
Red Deer	October 4, 11, 18, 25 and November 1, 2007
Lethbridge	October 16, 23, 30, November 6 and 13, 2007
Leduc	November 8, 15, 22, 29 and December 6, 2007

Industry price for registration is $595 plus GST per person. Lunch, training binders and nutrition breaks are supplied. For more information or to register, contact the Alberta Food Processors Association at (403) 201-3657, ext 25 or e-mail admin@afpa.com.

Ag biotechnology conference

Agricultural Biotechnology International Conference (ABIC) 2007 is being held in Calgary on September 23 to 26, 2007. The theme of the conference is Harnessing Science for the Evolving consumer: The Fit of Agricultural Biotechnology. The conference agenda features authoritative and forward-looking presentations on a number of ag biotech topics:

- food preservation, storage, processing and development technologies
- consumer choices and perceptions
- pharmaceuticals, nutraceuticals and cosmetics
- livestock genomics
- zoonotics
- rural development and enhancement
- industrial bioproducts

For further information on speakers, program highlights, registration and accommodation, visit the conference website at www.abic.ca/abic2007/html/program.html. For further information or to register, contact Iris Meck Communications Inc., Calgary, (403) 686-8407.

Alberta company offers ag safety training

SafeCom Training Services Inc, an Alberta company, offers safety training programs to the agricultural community that are specifically designed for farmers and their families.

The health and safety courses offered include:

- H2S Alive
- Confined Space Entry
- Construction Safety Training System
- Traffic Flagperson
- Asbestos Awareness
- Respiratory Protection
- Standard First Aid
- Hantavirus Awareness
- Fall Protection
- Fire Extinguisher training

SafeCom Training Services Inc. is headquartered in Edmonton and has a branch office in Grande Prairie. For further information, a course schedule, or to register for a safety course, contact Chris Schaefer, president, SafeCom Training Services Inc., (780) 455-5090, e-mail: chris.schaefer@safecom-inc.com or visit the website at www.safecom-inc.com.