Regulation on Reporting of Hazards in Ontario

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Proposed Reporting and Compensation Regulations under the Animal Health Act, 2009

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Introduction

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is seeking input on two regulatory proposals under the Animal Health Act, 2009 (AHA).

The AHA came into force in early 2010. The legislation contributes to the protection of animal and human health and also enhances food safety and the safety of other animal products that humans may consume or use. The AHA can be used to control the spread of diseases and other hazards through:

- inspections of animals and premises;
- quarantine orders (including movement restrictions, treatment of animals and cleaning and disinfection);
- destruction and disposal orders (for animals, animal products and other things such as vehicles and equipment); and
- making information available when it is in the public interest to do so.

Mandatory reporting is a key part of a strong animal health system. Reports of diseases and other threats are needed to monitor the health of animals, to develop targeted programming and to be able to address significant risks to human health, animal health and food safety more quickly and effectively. Mandatory reporting is not a prerequisite to using
Guidelines for Laboratories and Veterinarians
Concerning the Regulation for the Reporting of Hazards and Findings
Under the Animal Health Act, 2009 (Ontario)

The Ontario Animal Health Act, 2009 (AHA) came into force in January of 2010. It gives the Ministry of Agriculture, Food and Rural Affairs (OMAFRA), important tools to detect and respond to findings of significant animal health hazards or animal related threats to public health in Ontario. This legislation helps keep animals healthy and the agri-food industry strong, which in turn protects Ontario families and strengthens Ontario’s economy.

New regulation requires laboratories and veterinarians to report certain hazards and findings
On January 1, 2013, a new regulation comes into force under the Animal Health Act, 2009 that helps OMAFRA to better detect and monitor serious and emerging animal health hazards. Under the Regulation for the Reporting of Hazards and Findings (O. Reg. 277/12), veterinary diagnostic laboratories operating in Ontario must report certain laboratory test results, and veterinarians licensed in Ontario must report certain findings to the Chief Veterinarian for Ontario at OMAFRA. See: www.e-laws.gov.on.ca/html/source/regs/english/2012/elaws_src_regs_r12277_e.htm.

Reporting requirements
Animal owners, veterinarians and laboratories continue to be responsible for reporting some diseases to the Canadian Food Inspection Agency (CFIA) as they have been in the past.
See the CFIA website at:
www.inspection.gc.ca/animals/terrestrialanimals/diseases/eng/1300386389234/1300386449143

Now, in addition to responsibilities for reporting to the CFIA, effective January 1, 2013, laboratories and veterinarians must report the situations described below to the Office of the Chief Veterinarian for Ontario (OCVO) at OMAFRA.

- Laboratories operating in Ontario must report information related to laboratory test positive results for hazards listed in the regulation as Immediately Notifiable Hazards and Periodically Notifiable Hazards (see Table 1 for a list of hazards in each category). If an Ontario veterinarian or their client submits samples to a laboratory in Ontario that subsequently test positive for any of the Immediately Notifiable Hazards listed, it is the responsibility of the laboratory (not the submitting veterinarian), to notify the OCVO of those results immediately. However, if an Ontario veterinarian submits samples to a laboratory outside of Ontario that subsequently test positive for an Immediately Notifiable Hazard, the Ontario veterinarian is responsible for notifying the OCVO of those results immediately upon receipt from the non-Ontario laboratory. (see also below for annual reporting required from laboratories for Periodically Notifiable Hazards). Only positive laboratory tests for listed hazards are to be reported by labs or veterinarians as above.
AHL-OMAFRA-CFIA Animal Health Reporting Protocol


If you suspect a reportable disease, or have a reportable disease as a plausible rule-out:
1. Report your suspicion to the CFIA District Office – phone numbers below; use the Hotline after-hours.
2. Determine appropriate samples – from CFIA list available in PM suites.
   - Two categories can be used when submitting samples to CFIA for reportable disease testing:
     1. **High risk**: Use when there is a serious concern for the presence of an FAD.
     2. **Confirmatory negative**: Use to rule out an FAD in a differential diagnosis.
3. **AHL vets - email CFIA and OMAFRA** – reportable disease (suspect), immediately notifiable disease (when confirmed):
   - send a joint email to “CFIA reportable-notifiable diseases” and “OCVO reportable-notifiable@ontario.ca” lists in Lab Services Contacts, with an attached PDF of the AHL report.

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**Animal Health Laboratory (AHL)**
Laboratory Services Division, University of Guelph
Telephone 519 824-4120 ext. 54530, Fax 519 821-8072
Dr. Grant Maxie, ext. 54544, cell 519 835-3481
  - gmaxie@uoguelph.ca
Dr. Beverly McEwen, ext. 54537
  - bmcewen@uoguelph.ca
Dr. Andrew Brooks, Kv, ext 61656, or 613 258-8320
  - osbrooks@uoguelph.ca

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**Office of the Chief Veterinarian for Ontario (OCVO)**
Animal Health and Welfare Branch, OMAFRA
Dr. Greg Douglas, Director
Tel: 519 826-3577, Cell: 519-766-2072
Fax: 519 826-4375
  - OCVO-reportable-notifiable@ontario.ca (rotation: Drs. Greg Douglas, David Alves, Bruce McNab, Robert Vanderwoude, Paul Innes)

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**Canadian Food Inspection Agency (CFIA)**
District Veterinarian, Guelph – Dr. Charanjit Talwar, phone: 519 837-5817, Charanjit.Talwar@inspection.qc.ca
District Veterinarian, Brockville – Dr. Shannon Howe, phone 613-342-3682, Shannon.Howe@inspection.qc.ca
District Veterinarian, Ottawa – Dr. Erica Wylie, phone 613 274-7374 x 250, Erica.Wylie@inspection.qc.ca
Ontario FAD Specialist, Guelph – Dr. Robyn Budgeon, phone 226-217-8307, 226 -979-9105, Robyn.Budgeon@inspection.qc.ca
CFIA FAD Hotline 1-877-814-2342 (rotation: Drs. Ed Creighton, John Churchill; Claudine Sequin)

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Legend. AHL & OMAFRA reporting:
- Reportable disease
- Immediately notifiable disease
- Other significant disease information or data as appropriate

February 7, 2013
Lead Toxicity in Cattle —
Determining When Meat and Milk are Safe

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Lead toxicity is the most common heavy metal toxicosis diagnosed in cattle. Affected cattle are often found dead or with neurological clinical signs, including depression, ataxia, blindness and seizures. According to the Animal Health Laboratory (AHL) at the University of Guelph, there have been ten cases of bovine lead toxicity in the past five years, one of which is from 2012. Cases were confirmed by testing tissues following post-mortem of mortalities.

In investigations where lead toxicity is suspected, the source of lead is often difficult to identify. Potential sources include batteries, motor oil from engines burning leaded gas, lead-based paints and old shingles. Other cattle in the herd or group may also have been exposed and have high lead levels without clinical signs. Exposure to lead can result in elevated lead levels in meat or milk. Prolonged elevated lead levels will occur when fragments of lead are retained in the gastrointestinal tract, especially the reticulum or rumen.

Practitioners have questioned when it is safe to consume milk and meat from animals where lead toxicity has occurred. Currently, there is no defined safe level for meat or milk in Canadian legislation, although the Food and Drugs Reguliation limits the amount of lead in edible bone meal to 10 parts per million (ppm) (3). A review of current research and cases in other jurisdictions showed that lead blood levels are a good indicator of recent lead exposure and that < 0.11 ppm can be used as the cut-off for a safe level of lead in blood (2).

In a recent case in Ontario, in May 2012 several head of cattle were found dead in the pasture on one farm with an otherwise healthy herd. Post-mortem examination and testing at the AHL confirmed lead toxicity as the cause. OMAFRA staff detained the cattle under the Animal Health Act, tested the cattle to ensure animal health and food safety and performed a field investigation in July 2012 to determine the source of the lead. Out of 51 cattle tested, 50 tested below 0.11 ppm and were released from detention. One animal had slightly elevated blood lead levels and was retested three months later. At that time, the animal’s lead blood level was below 0.11 ppm and all animals were released from detention.

During the on-farm investigation, several materials were collected from the pasture and tested for lead. Paint chips from a water tank were found to contain high levels of lead, although an additional source could have been old shingles that were not available for sampling at the time of the visit. Some studies have demonstrated that the half-life of lead ranges from 70 to 90 days in cases of short-term exposure (2, 3), to more than 200 days in animals retaining lead in their gastrointestinal tract (2). Another study determined that the half-life of lead in blood is highly variable, ranging from 48 to 2,507 days (4).

Lead toxicity in cattle causes economic losses for producers and the risk of lead residues in food is serious. Producers should be advised of the importance of eliminating sources of lead exposure, and, in cases of lead toxicity, all animals in the herd must be tested before they enter the food chain.

(Continued on page 17)
Confirmed Case of Bovine Anaplasmosis in Eastern Ontario

The Ontario Ministry of Agriculture and Food (OMAF) has been notified of a confirmed case of anaplasmosis, caused by *Anaplasma marginale*, in the United Counties of Stormont, Dundas and Glengarry.

In late July, a blood smear collected by the herd veterinarian from a Holstein cow with decreased milk output looked suspicious for anaplasmosis on examination at the Animal Health Laboratory, University of Guelph. CFIA conducted additional testing and confirmed the disease. The affected cow is under veterinary treatment and is reported to be recovering.

Anaplasmosis has only been diagnosed once previously in Ontario, in 1996.

Anaplasmosis is a federally reportable disease and a provincially (Ontario) immediately notifiable disease. CFIA has placed the farm under quarantine, will be testing all cattle on the premises, and will be carrying out an epidemiological investigation to determine the source of the infection. All animals found to be infected will be culled according to CFIA protocol. Owners of all contiguous (within 2 km) herds, and all herds that have purchased animals from the affected farm, will receive a letter from the CFIA recommending they consider having their herds tested for anaplasmosis by their herd veterinarian.

Effective April 1, 2014, anaplasmosis will be removed from the list of federally reportable diseases and placed on the list of immediately notifiable diseases. This change will mean that only laboratories (and not producers or veterinarians) will be required to report suspected or confirmed cases, the CFIA will no longer respond to anaplasmosis cases, and the CFIA will no longer conduct surveillance for anaplasmosis to verify Canada’s status for the disease.

According to the CFIA, the decision to remove anaplasmosis from the federally reportable disease list was based on the fact that anaplasmosis is established in the U.S. and that there is a strong probability that anaplasmosis will enter Canada from the U.S. The CFIA feels that continued attempts to eradicate the disease within Canada may not be feasible. An interim approach consisting of scaled back disease response activities has been put in place in preparation for the program’s termination. This means the CFIA no longer tests susceptible animals in the areas surrounding an infected herd, nor tests susceptible animals that may have come into contact with the infected herd.
CFIA reporting

http://www.inspection.gc.ca/animals/eng/1299155513713/1299155693492
OMAFRA reporting

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1 A copy of the Animal Health Act, 2009 can be accessed online at the following website: [http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_09a31_e.htm](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_09a31_e.htm)
Accidental Consumption of Decoquinate Medicated Feed by a Michigan Dairy Herd: Case Report

By: John Buchweitz, Jordan Robinson, Margaret Johnson, Susan Stahl, Andreas Lehner

Decoquinate is a quinolone feed additive intended for the control of coccidiosis, a common protozoan infection in farm animals that predominantly affects young animals. The premix is not intended for use in lactating dairy cattle, sheep, or goats, or laying chickens. It is labeled for use in ruminating and non-ruminating calves (including veal calves) and cattle, broiler chickens, and young sheep and goats. To ensure food consumers are not exposed to drug residues at potentially harmful concentrations, maximum residue limits (MRLs) for veterinary drugs in food animal tissues and products have been established. However, in the United States, no MRL has been established for decoquinate in milk; therefore, any amount detected constitutes a residue violation.

In May 2012, the Michigan Department of Agriculture and Rural Development (MDARD) was notified that dairy cattle at one farm strayed away from their paddocks and consumed approximately 300 pounds of calf feed containing decoquinate (Decox). The farmer did not realize the cattle had accessed the feed until after they had been milked and the tanker loaded. The contaminated tanker held about 30,000 pounds of milk, of which 4,000 pounds came from this farm.

Decoquinate comes with the Warning Statement: Do Not Feed to Animals Producing Milk for Food. Therefore, this load of milk posed a potential risk to human health. In lieu of human consumption, the milk cooperative requested to convert the contaminated load of milk from a food to a feed, intending to ship the milk to a veal farmer. The cooperative, which also had a current Commercial Feed License, was asked to produce a "medicated feed label." Due to the urgency of getting the milk tested for levels of decoquinate, the firm couldn't produce a label so that the feed could be properly fed to the veal calves (22.7 mg/100 pounds of bodyweight/head per day). Accordingly, the firm opted to have the milk land applied, generally the last resort for any milk producer.

As a result of these events, MDARD suspended the dairy farm permit until the milk was tested and found to be free of decoquinate. In the absence of having a validated method for the matrix of concern (e.g. milk), state and other diagnostic laboratories must validate tests for the analyte (drug) in milk. To the chagrin of the producer and regulatory officials, this process could take several weeks, if not longer to establish.

The Michigan State University Diagnostic Center for Population and Animal Health (MSU DCPAH) was contacted to provide assistance. In response, an emergency method was developed and validated for a quantitative assay by LC-ESI/MS/MS (liquid chromatography electrospray ionization tandem mass spectrometry). This was done, in part, by following guidance documents available from the U.S. Food and Drug Administration (FDA) that define minimum requirements for method validation in case of such emergencies. The milk sample taken from the dairy cows only five days post-exposure was negative.

In this instance, the milk producer and MDARD took the necessary steps to ensure that the milk supply remained wholesome and free of veterinary drug residues. The lack of validated methods for drugs not intended for use by dairy animals creates a quandary for regulatory officials seeking to assist the producer in a timely manner and for diagnostic laboratories, such as MSU DCPAH, attempting to ensure quality results that meet regulatory criteria. Ad hoc methods are valuable in the event of emergencies, but do not provide a long-term solution for diagnostic centers attempting to rapidly respond to the needs of the animal industry.
The end!