

# CARIBBEAN EPIDEMIOLOGY CENTRE ( CAREC )



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**CAREC Alert**

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## **Poultry Disease – Infectious laryngotracheitis (ILT)**

In response to queries from member countries regarding media reports about the “chicken flu” in Trinidad, on February, 26<sup>th</sup> 2004, press release from the Ministry of Agriculture, Land and Marine Resources informed that Post mortem examinations on birds from a particular farm showed lesions suggestive of Infectious Laryngotracheitis (ILT). There were no lesions suggestive of Avian Influenza (Bird Flu). Samples were sent to the Veterinary Laboratories Agency in England from where telephone reports in mid-February eliminated Avian Influenza, and at a later date, ILT was confirmed. This is the first time that the disease has been found in Trinidad & Tobago and there is now officially an outbreak of ILT on the said farm. Specific conditions and procedures are enforced and the section of the Legislation which provided for a police presence to ensure compliance has been invoked. According to the Ontario Ministry of Agriculture and Food, ILT is usually considered to be a backyard flock problem and continues to plague the poultry industry with sporadic episodes across that province. A brief on the disease is provided for your information.

Infectious laryngotracheitis (**ILT**) is a contagious respiratory disease which is characterized by gasping, neck extension and conjunctivitis (inflammation of the membrane around the eye).

**Cause:** It is caused by a virus (herpes virus specie) which may live for 8 to 10 days in droppings, up to 70 days in carcasses, and may survive for up to 80 days in throat exudates if not disturbed. The disease often persists for as long as two to six weeks in the flock, a course longer than that of most respiratory viral diseases of chickens.

ILT is of particular importance to the poultry industry because it 1) can cause severe illness and death in a large proportion of a flock, 2) can cause a severe economic loss in commercial flocks through death, disease and decreased production, 3) cannot be treated, 4) remains in a carrier state in the flock after recovery, and most importantly, 5) is preventable.

**Species susceptibility:** The ILT virus does not cause infection in humans. The disease is most frequently associated with chickens, but can also cause disease in related birds such as the pheasants, fowls and turkeys. Wild birds may act as carriers.

**Transmission:** The ILT virus is released from the respiratory tract and there is rapid airborne transmission among birds in close contact such as cage or pen mates. The virus enters the bird through the eye, the nose or the mouth. The coughed – up mucus and blood contains virus and is another means of quick spread of the disease. Incubation time is from 6 to 12 days.

Most outbreaks in the past have been traced to movement of poultry, people and equipment, however, if environmental conditions are suitable windborne spread must be considered.

The virus depends on a transporting agent to get around so that a major means of disease spread is by introduction of affected birds and latent carrier usually defined as recovered birds or vaccinated chickens, become carriers and can shed the virus for long periods of time, thus exposing other susceptible birds.

People in contact with infected birds and on the same day contacting susceptible flocks may transfer the disease if suitable precautions are not taken. Contaminated crates and feed trucks are known sources of infection.

ILT airborne spread is rapid among birds in close contact. Small feathers and shed dust as well as litter and manure are ideal transporting agents. Under conditions of cloud cover, humidity or showers and gusting winds, the virus can easily cover 500 meters and possibly much further. It is also recognized that birds in sheds which are close to roads, may become infected by diseased birds being transported.

The virus is not transmitted through the egg so chickens are not affected at the time of hatching.

**Infectious period:** Birds usually start to show signs on days 3 to 5 and will normally finish shedding virus by days 11 to 12. The period of shedding for wild or field strains will be longer than for vaccine strains.

The virus can survive for 10 days or more in droppings and up to 70 days in carcasses. It appears that the virus may survive up to 80 days in tracheal mucus or non-conductive material as wood.

Sunlight, heat and desiccation (drying) appear to be the natural enemies of the ILT virus. One percent Lysol or three percent cresol will inactivate ILT virus in less than a minute.

**Signs and symptoms:** Classical signs are gasping, coughing and sticking the neck forwards and upwards with each breath in an effort to clear mucus which builds up in the trachea (windpipe), coughing may be followed by bloody exudates. Early symptoms include bouts of hard swallowing, ruffled feathers on the back of the head, squinting, nasal and/or ocular discharge. In some cases only mild respiratory signs are seen but one eye may be completely closed.

There is a marked variation in the pathogenicity of various strains of the virus. Three major forms - the peracute, the subacute and the mild or chronic forms are known.

**Diagnosis:** Laboratory diagnosis will always be necessary to determine whether ILT virus is present. Isolation in CE CAMs, histology, IFA, PCR. Differentiate from Newcastle disease, severe bronchitis. Sera may be examined by VN or Elisa.

**Treatment:** None. Antibiotics to control secondary infection if this is marked.

**Prevention and control:** Quarantine, vaccination (this is controversial), if enzootic or epizootic in an area, after 4 weeks of age. Effective control requires the full co-operation of all segments of the industry. Farm bio-security is a MUST. Keep susceptible stock separate from vaccinated or recovered birds. The industry must communicate at all levels of the poultry cycle. Producers, after suspecting an ILT infection must contact the veterinary profession, inform contact persons such as processors, catching crews, feed companies, dead bird disposal renderers, neighbors, service personal. Once the disease is in a country, it will not likely disappear; each individual farm must take those measures which will help to reduce this threat. Vaccination is an option but it accepts that we will live with the disease.

**Sources:**

<http://www.gov.nf.ca/agric/infectio.htm>

<http://www.thepoultrysite.com/diseaseinfo/Default.asp?Display=83>

<http://www.canadianpoultry.ca/ilt.htm>

<http://www.gov.on.ca/OMAFRA/english/livestock/ceptor/2001/jun01a15.htm>