



Infectious Laryngotracheitis (ILT) Fact Sheet

Small Poultry Flocks

November, 2015

- *Only take birds to the fair that you are prepared to euthanize if they were to become infected with ILT.*
- *Only use Tissue Culture Origin ILT or recombinant ILT vaccines (**do NOT use CEO ILT vaccine**).*
- *Keep birds returning from fairs separate for 30 days.*

Introduction

Infectious laryngotracheitis (ILT) is a highly contagious, respiratory disease of chickens caused by a herpesvirus.

History

Natural occurring (field strain) ILT in chickens was first described in 1925. In Washington State, a vaccine-like strain of ILT was diagnosed in 2 commercial and one backyard facility in 2009. ILT has been diagnosed in a backyard flocks and small producers in Washington State in July 2014.

Species Affected

While chickens are the main host for ILT, laryngotracheitis has also been reported in pheasants, peafowl and turkeys. **Humans cannot get ILT.**

Symptoms

Clinical signs occur in chickens, 6 to 14 days after exposure. Signs of respiratory disease due to ILT can range from severe to mild.

Some of the symptoms of ILT in chickens include:

1. A mild drop in egg production
2. A slight increase in mortality, 1 to 2% (mortalities may reach 50%)
3. Difficulty breathing
4. Coughing (snicking) or sneezing
5. Watery eyes
6. Swollen sinuses
7. Nasal discharge
8. Blood-tinged mucus

Chickens that have recovered from ILT carry the virus and can shed the virus when the birds are stressed. Outbreaks of ILT cause increased death rate in chickens that is usually mild (1 to 20%) but can be severe (90 to 100%).

Transmission

ILT is spread from infected birds to the upper respiratory system and eyes of other birds. **Gaps in the biosecurity program are responsible for most ILT outbreaks.** Contaminated clothing, shoes, equipment or manure can spread the ILT virus to other birds. Also, ILT can be airborne for up to 500 meters (~0.3 miles).

Fair, Show, Exhibition Poultry

Only take birds to the fair that you are prepared to euthanize if they were to become infected with ILT. Keep birds returning from fairs separate for 30 days. If you have sick birds after returning from the fair or other questions, please contact Dr. Lyndon Badcoe at (360)725-5763 or lbadcoe@agr.wa.gov, or contact your local veterinarian.

Treatment

Currently, there are no drugs that reduce clinical signs.

Vaccination

Three types of ILT vaccines are used:

1. Tissue culture origin (TCO) vaccines have a relatively low level of infectiousness and are administered by an eye drop. A disadvantage of TCO vaccines is that the level of immunity is limited; the advantage of this is that it causes a less severe reaction.
2. Recombinant ILT vaccines have been developed. These recombinant ILT vaccines can be administered as a single dose, by subcutaneous injection, on day 1 or in older bird. It is reported to provide ILT immunity for up to 60 weeks. The recombinant vaccine does not cause shedding of the virus; therefore unvaccinated birds are not placed at risk. It has also limited level of immunity and birds may develop mild clinical signs of ILT. These vaccines are also more expensive.
3. Chicken embryo origin (CEO) vaccines can be administered through an eye drop or mass vaccination, such as spray or water. While these CEO vaccines result in a better immunity, it can cause severe clinical signs and disease due to the increased level of infectiousness. Also, chickens treated with CEO vaccine can become carriers of the virus, putting unvaccinated flocks at risk. In Washington, chick embryo origin vaccine is only for sale at the discretion of the State Veterinarian.
4. Recombinant viral vector vaccines (HVT-ILT and FPV-ILT) can be administered to eggs at a hatchery or by subcutaneous injection to chickens.

Dead Bird Disposal

Mortalities due to ILT are a potential source of infection. Because, airborne infections have been reported, it is imperative that proper dead bird disposal occurs at all times.

Composting

1. Follow guidelines in the **WSDA Livestock Disposal Manual**
<http://agr.wa.gov/FoodAnimal/AnimalHealth/docs/LivestockDisposalManual10709.pdf>

2. Ag Bags are an acceptable mechanism for animal composting on site that reduces disease transmission associated with long distance transport of poultry.
<http://www.ag-bag.com/pdf/COMPOST.pdf>

Manure Management

It is best not to move manure from farms where ILT has been confirmed. Manure should be covered if it must leave the farm. Enhanced biosecurity must be used to prevent the spread of infection.

Cleaning and Disinfection of Poultry Houses

The ILT virus is sensitive to high temperatures. After emptying a poultry barn, turn off the fans and heat to 100⁰ F for 3 days to kill the ILT virus. Thorough cleaning and disinfection are important steps to eliminate the ILT virus. Wait at least 3 weeks after heating, cleaning, and disinfection before putting birds back in the poultry house. The infectious laryngotracheitis virus is susceptible to disinfectants containing chlorine releasing agents (such as household bleach contain sodium hypochlorite), iodophors and quaternary ammonium compounds.

What to do if you suspect ILT in your flock?

1. Contact your veterinarians, WSDA Avian Health Program (1-800-606-3056), or Washington State University, Avian Health and Food Safety Laboratory (1-253-445-4537).
2. Notify all poultry producers who visited your farm in the 14 days before an outbreak.
3. Change clothing and footwear, and wash your hands when travelling between barns or coops.
4. Limit the number of people who visit the infected coop or barn.
5. Do not wear farm clothing or footwear off the farm.
6. Avoid visiting other poultry farms.

Conclusion

Control of ILT requires early recognition, enhanced biosecurity, cleaning and disinfection of affected coops. Reduction in the impact of ILT on the poultry producers, requires a collaborative effort by poultry owners, veterinarians, diagnostic laboratories, fairs, allied industries and government agencies.

Additional Resources

WSDA Avian Health Program: Avian Disease left column drop down menu
<http://agr.wa.gov/FoodAnimal/AvianHealth/>

ILT Recommendations to Fairs
<http://agr.wa.gov/FoodAnimal/AvianHealth/Fairs.aspx>

USDA Biosecurity for Birds
http://www.aphis.usda.gov/animal_health/birdbiosecurity/

Washington State University, Avian Health & Food Safety Laboratory
Vaccine-Animal Health Resources
<https://www.facebook.com/notes/avian-health-food-safety-laboratory-waddl-wsu/vaccine-animal-health-resources/249242545249593>

<http://www.merckvetmanual.com/mvm/index.jsp?cfile=htm/bc/206700.htm>
http://www.ces.ncsu.edu/depts/poulsoci/tech_manuals/laryngotracheitis.pdf
<http://partnersah.vet.cornell.edu/avian-atlas/search/disease/499>

<http://partnersah.vet.cornell.edu/avian-atlas/node/599>
http://extension.umd.edu/sites/default/files/_docs/articles/FS-966%20Infectious%20Laryngotracheitis%20%28ITL%29.pdf