

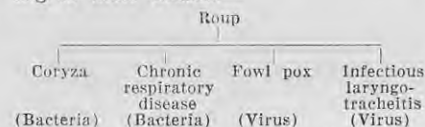
Infectious Laryngotracheitis of Poultry

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INFECTIOUS laryngotracheitis (I.L.T.), a virus disease of fowls and pheasants, has been diagnosed in New Zealand for the first time. This article informs poultry farmers of the nature of the disease and the methods which may be adopted in its control.

THOUGH I.L.T. has just been proven to be present in New Zealand, there is little doubt that it has been here for a considerable time and may have been the cause of many of the so-called "colds" in pullets in autumn. These colds, commonly referred to by farmers as "roup", have been a problem on many farms and an endeavour has been made to classify them according to their causes:—



It will be seen from this that roup is a complex disease of which I.L.T. is only a member of the group; farmers must not therefore presume that if colds appear in the pullets they must have I.L.T.

Forms of the Disease Overseas

In other countries I.L.T. has been recognised to occur in five forms:—

1. **Peracute form:** This is marked by high incidence and rapid spread within a flock and accompanied by many deaths, up to 80 per cent. Affected birds gasp for air and cough frequently and there is a bloodstained discharge from the beak and nostrils.

2. **Acute type:** The percentage of affected birds in a flock is high, but the death-rate is slower and much reduced (usually 10 to 15 per cent., but it may be up to 40 per cent.). Affected birds have difficulty in breathing and cough frequently because there is an accumulation of mucus in the nasal passages. In birds which survive for a few days there may be a swelling around the eyes and a discharge from the nose.

3. **Sub-acute form:** The incidence is fairly high in affected houses, but the spread from house to house may be very limited. Affected birds have difficulty in breathing and frequently cough in an attempt to remove the caseous plugs which form at the top of the windpipe. Odd birds show a discharge from the nose and swelling around the eyes. Birds which die early in the course of the disease are usually in good condition. The death-rate is not usually very high, but the recovery rate may be slow.

4. **Chronic or mild form:** The incidence is fairly low within a flock and the birds show a swelling around the eyes and a discharge from the nose; the death-rate is usually low and those birds which die do so in poor condition.

5. **Asymptomatic type:** These birds show no symptoms whatsoever and can be recognised only by their immunity to infection when affected birds are introduced among them.

After recovery from an outbreak of I.L.T. a percentage of birds remain "carriers" of the virus and these birds are the means by which the virus survives on a farm from one season to the next.

Nature of the Disease in N.Z.

I.L.T. has been recognised here in a sub-acute form only and the spread within a flock has not been great nor has the mortality rate been particularly high. The failure to spread rapidly has probably been due to a high percentage of immune birds being present as a result of a previous infection. The incidence has been highest in the pullets and it seems that Australorps are more susceptible than White Leghorns.

The main symptom has been a gasping for air; the bird stretches its neck and opens its mouth when breathing. Affected birds often give a sharp squawk and shake their heads apparently in an attempt to remove the cheese-like plugs which form in the windpipe and obstruct the free flow of air. In the odd birds there may be some nasal discharge and a swelling of the area surrounding the eye. Death has been fairly rapid without much loss of condition.

The presence of the disease was first confirmed in birds from the Auckland area, but since then evidence has been obtained that I.L.T. has been present in most poultry keeping areas of both Islands.

Recovered birds show the presence of antibodies to the disease in their blood serum and these antibodies have been present in a high percentage of bloods examined from all districts.

The virus in New Zealand appears to be of a milder type than that which is responsible for the peracute type of disease, but there is no guarantee that it will remain this way. It might be possible at any time for the virus to become highly virulent and cause heavy losses.

The New Zealand virus has been shown to have the power of protecting birds against the more virulent strains present in Australia, and an efficient vaccine has been produced and is available for use on farms on a voluntary basis.

Control

I.L.T. vaccine should be used under the following conditions:—

1. Only on those properties where the disease is known to exist. If this is not known and the farmer has reason to suspect its existence, he should advise his local Poultry Instructor, who will be able to collect the required specimens for testing purposes.

2. When I.L.T. occurs in pullets all stock in contact should be vaccinated to bring the disease under control.

3. The best age at which to vaccinate is 8 to 10 weeks. However, where hatching is spread over 2 to 3 weeks vaccination will have to be delayed until the youngest birds have reached 6 weeks and then all growing stock will have to be vaccinated at the same time. It would be advisable to continue with this policy over the next two rearing seasons, after which there is a reasonable chance that the property will be free of the disease provided no unvaccinated adult stock are introduced, as these may be carrier birds.

4. No vaccinated birds should leave the property for 14 days after vaccination.

Initially vaccination will be carried out by Departmental officers who are familiar with the method of vaccination. The vaccine will be supplied free of cost to the farmer for the first season, but this policy will then be reviewed.

Infectious laryngotracheitis is not infective for man, and eggs from infected birds are safe for human consumption. It is also agreed that day-old chickens do not transmit the disease, so it is safe to buy chickens from properties where I.L.T. has occurred, though sellers would be well advised to use new chick boxes and clean litter in the boxes. With older birds, however, poultry farmers are strongly recommended to buy only vaccinated stock.

Poultry farmers should not be alarmed about the presence of infectious laryngotracheitis. It has undoubtedly been here for some time. Now that the condition has been recognised steps can be taken to combat it by vaccination procedures. Though no guarantee can be given at this stage that vaccination with I.L.T. vaccine will solve all the difficulties with regard to autumn colds, it is a fair assumption that if vaccination is carried out on those farms where I.L.T. exists, the incidence will be greatly reduced if not eliminated.

This is the first time any method of combating colds has been available; the use of the vaccine is recommended so that its importance can be assessed.