

Newcastle Disease



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Newcastle disease is caused by a virus which usually affects the nervous system and respiratory system of poultry. It is also called avian pneumoencephalitis or "P-E" disease. It may affect chickens, turkeys, pheasants, and pigeons. It was first diagnosed in Texas in 1946. Since then it has been reported in practically all parts of Texas.

SPREADING OF THE DISEASE

The virus is directly transmissible by contact, feed, water, air, and probably through the egg. Recovered birds may be carriers. Lice and mites may also carry the disease.

SYMPTOMS

The disease occurs most often in young chicks and the first symptom noted is a respiratory disturbance resembling bronchitis. After a period of 2 to 5 days the nervous symptoms appear. In some cases the respiratory involvement passes unnoticed or is absent. The nervous reaction consists of paralysis of the legs, wings, or neck as well as complete paralysis. When the necks are affected they may show a twisting or corkscrew appearance, resulting in the head being turned upward or twisted down between the legs.

Turkeys do not seem to be as seriously affected as chickens, and the course of the disease is milder.

DIAGNOSIS

A tentative diagnosis can be made by close observance of clinical symptoms and history, but a laboratory diagnosis is often necessary for complete confirmation.

In the field, a tentative diagnosis can be made by observing the presence of both the respiratory and nervous symptoms. When both symptoms are present it practically eliminates the possibility of other disease. Autopsy lesions are not constant. The presence of cloudy or yellowish air sacs seem to be a lesion of some value in diagnosis.

MORTALITY

The death losses from this disease are not constant. The information on hand indicates a death loss of 20 percent in affected groups of chicks 4 to 5 weeks of age. In younger birds, the death rate is usually higher and in older birds considerably less. In laying flocks the losses may be of no importance, but a severe drop in egg production is noticed for 3 or 4 weeks.

PREVENTION AND CONTROL

Vaccines at present are still somewhat in the experimental stage. The dead virus vaccine does not seem to produce a constant immunity. The modified vaccine cannot be bought without a permit from the State Veterinarian at Fort Worth.

At present, when the modified vaccine is wanted, a written request is sent to the Chief Veterinarian, Livestock Sanitary Commission, Fort Worth, Texas. He will authorize a permit to purchase the vaccine. This is done so a record can be kept of the distribution of this vaccine in Texas.

Quarantine of affected houses and brooders should be practiced to help prevent the spread of the disease to other houses and birds. On some affected farms it may be necessary to remove all poultry from the premises for 60 to 90 days and disinfect equipment and houses.

Disinfectants recommended are either—

2% lye solution (1 pound of lye to 6 or 7 gallons of water). Hot water will be more effective.

or

1-2% of liquor cresolis saponatus (lysol)—1 pint to 10 gallons of water.

THINGS TO DO WITH AFFECTED FLOCK

The flock, either young or old, that is affected with Newcastle disease will have a better chance of surviving if the following things are done: properly ventilate house to make birds comfortable; lower the feed troughs and watering devices; keep the house clean; supply plenty of cool clean water; and feed a complete ration.

CONCLUSION

Almost daily, more information is being gathered about this disease in Texas. Some of the above, in all probability, will be modified as more is learned about Newcastle disease.

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