



Egg drop syndrome

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Egg drop syndrome is a disease caused by an Adeno virus that causes heavy production drop in commercial and breeder hens. EDS 76 virus or Adeno 127 virus affects the egg laying system in chickens which causes egg production problems.

Incidence

Egg drop syndrome in mature flocks occurs in Europe, Asia, Africa and Latin America. This has not been diagnosed in USA and Canada.

Transmission

All Adeno viruses are potentially transmitted by vertical route. Under commercial conditions direct transmission occurs from fecal shedders to susceptible flocks. Indirect infection is possible by contaminated personal, equipment and housing.

Symptoms

Other than acute drop in egg production in mature flocks, no specific clinical abnormalities can

be detected following lateral exposure to EDS virus. Failure to attain peak production may be associated with latent infection or lateral introduction of infection at onset sexual maturity. The decrease in egg production could become apparent before the birds reach forty weeks of age, but it usually happens during the egg production peak and lasts for eight to twelve weeks. The decrease in egg production could be greater than forty per cent. Brown and tinted-shelled strains show lack of pigmentation. During egg drop hens will lay egg with very thin shells, no shells or wind eggs. Eggs may have a chalky appearance. The albumen of the egg is watery, the dense part could be muddy. Hatchability is diminished in breeder hens. There might be light diarrhoea and pale combs.

Lesions

Examination of sacrificed clinically unaffected birds will show regression of the ovary. Histological changes in the ovary occur after infection.

Diagnosis

By isolation of the virus in duck eggs or on live cell tissue culture. Diagnostic confirmation is possible by demonstrating a rise in antibody titre in paired sera using VN or ELISA procedures.

Prevention

By vaccinating the immature breeding and laying flock with an activated oil emulsion vaccine before onset of production. Vaccination is successful in preventing vertical transmission to chicks which otherwise may remain latently infected until they themselves get to peak lay. Vaccination is also effective in preventing horizontal transmission where EDS is endemic.

It has been suggested to vaccinate chicks from unvaccinated parent flocks as early as 7 days. In the case of progeny from vaccinated flocks, immunization can be delayed up to 2 - 3 weeks. Unfortunately, the more virulent forms of the virus break through the maternal immunity much earlier so the chicks may have to be protected from an earlier age by a stronger vaccine. It is also recommended to revaccinate the chicks at suitable intervals so that antibody

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Immunization of Chicks

The major problem here is determining proper time of vaccination. In general, it is suggested to avoid vaccination on day one, as immune system of chicks is not ma-

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