

Number: 282

Avian paramyxoviruses









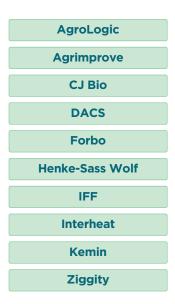












Introduction

Other than avian paramyxovirus 1 (Newcastle disease) there are at least eight other paramyxoviruses (PMVs) named PMV 2-9. Other than PMV3, which causes an economic egg drop in turkey breeders that warrants vaccination with a killed vaccine, most of the other PMVs are of little or historic interest. However, they can exacerbate concurrent viral, mycoplasmal or bacterial infections.

PMV2 (Yucaipa)

This virus was isolated at Yucaipa, California, USA, from a chicken with laryngotracheitis. Subsequent serological surveys in the USA and globally showed the virus to be present in other flocks, especially turkey flocks. PMV2 has been widespread in Israeli turkey flocks.

PMV2 viruses are often isolated from exotic birds in quarantine and this virus can infect wild birds associated with poultry houses.

Typically severe respiratory signs are seen and PMV2 infection can complicate other respiratory diseases.

PMV3

This PMV was first isolated from turkeys in North America in the late 1960s and is now also seen in Europe. PMV3 viruses are often isolated from exotic birds in quarantine.

PMV3 is restricted to poultry and the main problems are those associated with egg production. These are often preceded by mild respiratory symptoms. In PMV3 infections egg production drops rapidly and many white shelled eggs are seen. Fertility and hatchability are not significantly affected.

Blood testing is based on the detection of HI (haemagglutination inhibiting) antibodies and egg drops can be prevented by the use of a killed oil adjuvanted vaccine.

PMV6

This PMV has also been isolated from turkeys with respiratory disease and egg production problems. Apathogenic strains of PMV6 are found in ducks.

PMV7

This PMV has been isolated from turkeys suffering from respiratory disease and experiencing low (1.0%) mortality. There is no effect on egg production, although sometimes there is an increase in the number of white shelled eggs.