International Poultry Production

Poultryhealth BYTES

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Defining diseases

Acute vs. chronic

An acute disease is typically one with a sudden onset of severe clinical signs and death, whereas a chronic disease is the opposite and, as such, can be lingering.

Infectious vs. non-infectious

An infectious disease is one caused by a living agent such as bacteria, viruses, mycoplasma, fungi and parasites, whereas a non-infectious disease is one that is caused by a non-living agency such as a poison, mycotoxins or physiological effects. A good example of the last type is ascites.

Contagious vs. non-contagious

A contagious disease is one which spreads easily, whereas a non-contagious disease is the converse. Thus, we can describe H5N1 HPAI avian influenza as an acute, infectious, highly contagious disease.

Mortality vs. morbidity

Mortality is the number of birds dying and can be a daily or a cumulative figure, whereas morbidity is the number of birds, or proportion of the flock affected.

$$\text{Mortality} = \frac{\text{Number of dead birds} \times 100}{\text{Number of birds in flock}}$$

$$\text{Morbidity} = \frac{\text{Number of affected birds} \times 100}{\text{Number of birds in flock}}$$

Using the example of HPAI H5N1 we can describe this disease as one with a high morbidity and a high mortality, whereas Mycoplasma synoviae infection is typically a high morbidity, low mortality disease in chickens.

Description by pathogenesis

We can also describe diseases by the organs they affect. Good examples here would be the digestive, respiratory, nervous and reproductive systems. Thus, with Newcastle disease the strain of the virus often dictates the organs in the body affected – sometimes it is a respiratory disease, sometimes it is a disease of the digestive tract and on other occasions it can be a nervous disease. If layers are infected it may also be a disease of the reproductive tract typified by egg drop.