

DUCK VIRAL ENTERITIS UPDATE

IN late April to May last year colleagues may have been consulted regarding significant die-offs of waterfowl (ducks, geese and swans) from private or municipal collections, or wildlife populations.

Being presented with a disease outside our area of expertise can be challenging. Duck viral enteritis (DVE) is extremely seasonal and disease outbreaks are very predictable. Clinical management of outbreaks is always the same and prevention is readily achieved, but it does require annual, seasonal advance planning and action.

DVE is a contagious disease of ducks, geese and swans caused by a herpesvirus. In the UK, Europe and US, clinical manifestation occurs each year in late April, May or June,

although it can occasionally occur at other times of year. Birds may be found weak and collapsed, but more typically are found dead. On occasions there may be per cloacal haemorrhage evident on a carcase. Veterinary surgeons are most commonly consulted after a major die-off in a group of waterfowl.

The disease most commonly results in internal bleeding, diarrhoea and death. Often, 80 per cent to 90 per cent of birds in a group will be affected. Any surviving birds will have been exposed to virus, and are

highly likely to become carriers and future shedders of the virus, intermittently excreting virus in spring, for a number of years. Disease appears to vary according to factors including age, management practices and the presence of concurrent disease agents.

Only ducks, geese, and swans are susceptible and species vary in their susceptibility to infection. Lists of birds with high susceptibility (for example, mallard, muscovy ducks, white winged wood ducks), medium (for example, mute and bewick swans) and low susceptibility (for example, European eider, magpie goose) are listed at www.gwexotics.com/library/7-poultry/

During a disease outbreak, DVE may be suspected, based on time of year and the fact of no mortality in other shorebirds or water birds as it does not affect these

species. DVE has not been reported in mammals, humans or other avian species.

DVE has been recorded in North America, Asia – including India and China – and several countries in Europe.

The disease is not vector borne, but is spread by contact between birds (a survivor of a previous outbreak) or from exposure to contaminated objects. Infected waterfowl shed and spread the virus in their faeces. The virus can persist in polluted and stagnant water and slow moving pools, waterways and ponds. Swimming in and/or drinking infected water, or eating contaminated food, may infect susceptible birds as the virus may enter through breaks in the skin, the mouth, nose or cloaca.

DVE in susceptible birds is thought to be linked to weather extremes and factors such as stress during breeding seasons.

Postmortem examination should be carried out to confirm diagnosis. The classical finding is haemorrhage in the gastrointestinal tract, in particular in the gut lumen, at the junction between the proventriculus and ventriculus. In the



Above: per cloacal haemorrhage in a DVE clinical case.



Left: haemorrhagic enteritis found at postmortem.

Right: haemorrhage in the distal oesophagus of a postmortem examination.



event of an outbreak, actions include confirmation of diagnosis, then either waiting for nature to take its course, euthanising live birds with clinical signs, or euthanising all members of the infected group.

If surviving birds are kept, but vaccination of all in-contact birds is not carried out, there will be a mortality

storm the following spring. If vaccination is conducted then removal of surviving birds is not mandatory.

There is no UK-licensed DVE vaccine, but Merial has a licensed product (Vaxiduk), which it has been granted a licence to import and sell to UK vets with a current special import certificate. Stock is now available.

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