Investigation of pigeon mortalities in Western Australia

Update for pigeon owners

13 January 2017

The Department of Agriculture and Food, Western Australia (DAFWA) has concluded their investigation into the cause of mortalities in racing pigeons during May and June 2016 in the Perth metropolitan area.

The outbreak, in May and June 2016 involved several lofts with infected birds showing diarrhoea, regurgitation and death. Mortalities were variable, but were up to 20% in some lofts. Birds were submitted to DAFWA Diagnostic Laboratory Services - Animal pathology unit, which carried out full post-mortem examination and sampling. Laboratory testing was also performed at other laboratories including the CSIRO Australian Animal Health Laboratories (AAHL) and Charles Sturt University.

All birds tested negative for the reportable diseases avian influenza, pigeon paramyxovirus type 1 and Newcastle disease. Initial laboratory tests at DAFWA and an epidemiological assessment suggested that the cause of mortality was due to a viral hepatitis, possibly an adenovirus, however all samples were negative for adenovirus on testing at Charles Sturt University.

Subsequent electron microscopy was performed at DAFWA, which showed virus particles in affected birds consistent with a reovirus. Reovirus was considered a strong possibility as a cause of the pigeon mortalities however they are widely distributed in healthy bird populations and in most cases do not cause clinical disease.

Throughout the remainder of 2016 DAFWA applied considerable resources to undertake further intensive molecular and virological investigation using a wide array of available technology. Despite this, no further evidence supporting reovirus as the cause of the outbreak was obtained.

In summary, while a reovirus is believed to be the cause of the outbreak, this has not been definitively confirmed. The pigeon industry is advised that irrespective of which virus caused the outbreak, biosecurity measures are essential to help protect their birds from disease. Biosecurity advice is available on the Department of Agriculture and Water Resources website.

Any unusual illness or mortalities should be reported immediately to your private veterinarian, the Emergency Animal Disease hotline on 1800 675 888, or to Dr Emily Glass, DAFWA, on +61 (0)8 9368 3360 or Emily.Glass@agric.wa.gov.au.

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