



## Investigation of pigeon mortalities in Western Australia

### Update for pigeon owners

29 March 2017

In 2016/2017, mortalities occurred in a number of pigeon lofts across Australia and the Department of Agriculture and Food, Western Australia (DAFWA) investigated [pigeon deaths in WA in May and June 2016](#).

A reovirus was determined to be the likely cause of these pigeon deaths in WA. Despite intensive molecular and virological investigation by DAFWA in 2016, definitive identification of the virus was not able to be made.

On 24 March 2017, a pigeon owner in peri-urban Perth reported signs of vomiting and mortality in their loft to a DAFWA Veterinary Officer. Birds were submitted to DDLS and tested negative for the [reportable diseases](#) avian influenza, pigeon paramyxovirus type 1 and Newcastle disease.

Electron microscopy revealed viral particles in the liver of these birds consistent with a reovirus. DAFWA DDLS carried out a polymerase chain reaction (PCR) test and diagnosed **pigeon rotavirus serotype G18P** on tracheal and cloacal swabs.

This diagnosis is consistent with results reported from other Australian jurisdictions.

### What is rotavirus?

Rotaviruses are a genus of viruses in the reovirus family. Rotaviruses are usually associated with intestinal infection and diarrhoea and are typically spread in faeces. Infection of organs other than the intestine occurs with some types of rotavirus but is less common. This pigeon rotavirus infects the liver and spleen as well as the intestine.

Clinical signs in affected birds have included depression, vomiting, diarrhoea, regurgitation and hunched postures. Sick birds usually die within 12 to 24 hours, with deaths in affected lofts continuing for approximately 7 days.

If you see signs of disease that could be due to rotavirus infection, contact your private veterinarian or your [local Department of Agriculture and Food, Western Australia \(DAFWA\) Field Veterinary Officer](#).

## Previous WA cases also caused by rotavirus

Electron microscopy on similar cases submitted to DAFWA in 2016 also showed evidence of virus particles consistent with a reovirus. Subsequent PCR testing in 2017 by the Australian Animal Health Laboratory (AAHL) and DAFWA DDLS of a selection of WA cases from 2016 confirmed the virus to be pigeon rotavirus serotype G18P. It is considered highly likely that all similar cases of pigeon deaths in WA in 2016 where DAFWA DDLS identified reovirus particles were caused by this rotavirus.

## Biosecurity reminder

As this is the first case reported to DAFWA in several months, and as apparently healthy birds from affected lofts appear to be capable of shedding virus for a prolonged period of time, bird owners are reminded to continue to implement good biosecurity practices:

- Avoid mixing pigeons, such as at races, shows and sales, from unaffected and affected lofts.
- Pigeon owners with affected lofts should maintain strict biosecurity measures including but not limited to: not selling pigeons to unaffected lofts, cleaning and disinfection of equipment, visitor restrictions and cleaning clothing and boots after contact with pigeons to prevent the spread of the disease.
- Pigeon owners with unaffected lofts should also maintain strict biosecurity measures including but not limited to: no pigeon introductions from affected lofts, cleaning and disinfection of equipment, visitor restrictions and cleaning clothing and boots after contact with pigeons to prevent the introduction disease.

Further biosecurity advice for pigeon lofts and for show and event biosecurity is available on the [Department of Agriculture and Water Resources website](#).

Report any unusual illness or mortalities immediately to your private veterinarian, the Emergency Animal Disease hotline on 1800 675 888, or to Dr Emily Glass, DAFWA, on (08) 9368 3360 or [Emily.Glass@agric.wa.gov.au](mailto:Emily.Glass@agric.wa.gov.au).

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