

Update 5th May 2017

The RSPCA released today a statement on Rota virus and racing for 2117. Please see below

RSPCA NSW WARNING: PROPOSED PIGEON RACING WILL SPREAD DEADLY ROTAVIRUS

RSPCA NSW is issuing a stern warning that those pigeon racing federations who are considering racing in the 2017 season would be acting irresponsibly and adversely affect pigeon welfare, after the highly contagious Pigeon Rotavirus was detected in racing and fancy pigeon lofts on the Australian East Coast with reported mortality rates of up to 30%. RSPCA NSW commends those federations who are acting responsibly and in the interests of pigeon welfare by cancelling their 2017 racing programs. It is difficult to comprehend that a proportion of the pigeon racing fraternity, who profess to care about the health and welfare of their birds, are contemplating racing this season, despite the fact racing pigeons pose a major biosecurity risk in relation to the spread of infectious bird diseases such as Rotavirus. As racing pigeons travel large distances, they may carry the Rotavirus from one geographical region to another, infecting areas currently free from this deadly virus. This is further complicated as pigeons that survive the disease who otherwise appear healthy can be carriers of the disease and shed the virus up to two and a half months after infection and pass the virus onto other pigeons that have not previously been exposed..

Infected birds will show signs of depression, vomiting, diarrhoea, regurgitation and hunched postures. Sick birds usually die within 12 to 24 hours with deaths continuing in infected lofts for approximately 7 days.

Unfortunately at this stage there isn't a vaccine available to protect pigeons against this Rotavirus; however a number of avian veterinarians are collaborating in an effort to develop and manufacture a vaccine that will protect pigeons from the virus which will hopefully be available towards the end of 2017. In the meantime, the RSPCA strongly recommends the adoption of the NSW DPI's Biosecurity Recommendations for the Pigeon Industry in an effort to prevent, or at least limit, the spread of the virus and the resultant suffering, distress and death of pigeons.

"The RSPCA implores those racing pigeon federations who have not yet cancelled pigeon racing for the 2017 season while a vaccine is being developed, to ensure that protecting pigeon welfare is paramount in their considerations and urge them to act responsibly in the interests in bird welfare and postpone racing and any activity which might cause the spread of the virus," comments RSPCA NSW Chief Inspector David OShannessy.

"In addition, individuals and Racing Pigeon Federations should familiarise themselves with the relevant animal cruelty or welfare legislation in their states as any action or activity that intentionally or inadvertently causes the spread of the disease and results in the unreasonable, unnecessary or unjustifiable suffering, distress and death of pigeons may constitute animal welfare or cruelty offences, and RSPCA action may be taken against them."

The NSW DPI's biosecurity recommendations for the pigeon industry in NSW include:

- Avoid mixing pigeons (e.g. racing, shows, sales) from unaffected and affected lofts until there is a suitable rotavirus vaccine available in Australia
- Any pigeon fancier whose loft has been affected by rotavirus infection should maintain strict biosecurity measures, including (but not limited to) not selling pigeons to unaffected lofts, loft hygiene and visitor restrictions to prevent the spread of the rotavirus

Pigeon fanciers in unaffected areas should maintain strict biosecurity measures, including (but not limited to) no pigeon introductions from affected lofts, cleaning and disinfection of second hand equipment, visitor restrictions and cleaning clothing/boots after contact with other pigeons to prevent the entry and spread of the rotavirus.

For more information, or an interview with a RSPCA NSW spokesperson, please contact Stefania Kubowicz Mobile: 0488 905 353 | Email: skubowicz@rspcansw.org.au.

Agribio and Dr Walker's latest information

Carrier State Studies

It appears as if the period that Rota virus is carried by surviving birds after infection is between 9 and 15 weeks. This week we did Rota PCR tests on 2 cloacal swabs and 2 liver swabs from 2 birds culled from a loft that had been infected with Rota virus 15 weeks earlier. All swabs were negative. In earlier testing (as described in previous updates) 4 of 11 birds were positive on cloacal swab 8 weeks post infection, 13 of 14 were positive on cloacal swab 9 weeks post infection and 10 of 10 were negative on cloacal swab 10 weeks post infection. This means that between 9 and 15 weeks the majority of birds cease shedding Rota virus in their droppings and therefore are no longer infectious. Because of the necessity to euthanize birds to collect a liver PCR we have not had the opportunity to test as many birds. However 2 birds tested at 9 weeks post infection with a Rota PCR both were positive while the 2 birds mentioned above, tested at 15 weeks were both negative. Although it is likely that the virus is carried in the liver for a longer period than it is shed in the droppings it appears that the virus is cleared from the liver in the same period i.e. between 9 and 15 weeks. We must be careful in extrapolating results when only a comparatively small number of birds have been tested. There is the potential for a very low number of birds to carry the virus for longer but for the time being it appears that birds from infected lofts are potentially infectious to others for about 2 ½ to 4 months. Fanciers wishing to quarantine their birds post infection should do so for this length of time.

"Brisbane" Rota

The samples from Dr Adrian Gallagher have arrived and testing has begun on birds affected with the Rota virus detected in Brisbane. There has been much talk about this "weaker " strain. No one knows if this is in fact a weaker strain or simply the original Rota whose behaviour has been modified by factors as yet unknown until our testing is complete. Everything at the moment that is being discussed on the internet is just unsubstantiated assertion. The results of our testing will be available next week. I will post them as soon as they are available.

If it does turn out to be a different strain then being infected with either strain is likely to confer immunity to the other and also the vaccine is likely to confer immunity to both. As we learnt earlier in this diagnostic journey when we were comparing genetic sequences between pigeon Rota and chicken Reo and then Calf Rota it is the amount of similarity in the DNA sequences that is a good indicator of cross immunity. For the Brisbane virus to give a positive result to the G18 P Rota PCR there must be considerable parts of the DNA strands that are the same. Cross immunity is therefore likely. Similarly the vaccine is prepared against the highly antigenic (i.e. strong stimulator of immunity) DNA of the VP8 protein which is part of the shell of avian Rota viruses so the vaccine is likely to give immunity to a

range of Type A pigeon Rota viruses. The pattern of disease (the signs shown by the birds and what the fancier sees in the loft) and the pathology (the way the virus affects the birds internally) caused by the "Brisbane" Rota are quite different. The only thing it shares is enough DNA overlap to come up positive on the G18P Rota PCR. It may be that there are a number of Rota's affecting our birds. The sequencing was done on the strain that was killing large numbers at the start of the outbreak which we found out to be the G18P strain. This may explain why some lofts lose 50% and other lose 6%. The variation could be due to loft factors, different strains of the same virus or a combination of these factors. It may be that the test we developed is simply picking up other Rota strains in addition to the nasty G18 P strain

Agribio is examining full sets of tissue samples from the 3 birds from Dr Gallagher as well as cloacal and liver PCRs and bacterial cultures from the upper bowel from all birds. Fanciers are best to wait until these results are available before drawing any conclusions because until they are, anything stated on the internet is not backed by fact