

Update 17th January – Melbourne Bird Vet Clinic – Dr. Colin Walker AgriBio and Intervet meetings

Yesterday was a day of meetings. In the afternoon I met with Dr Grant Rawlin and Dr Christina McCowan at AgriBio. Essentially the meeting was to bring me up to speed with all the various diagnostic endeavours that are proceeding at AgriBio and AAHL regarding Reovirus. A trial is being set in place to see what effect (if any) the virus has on chickens. There are also plans to investigate whether the virus can be carried by other species of bird that may in turn pass the virus to pigeons. The virus cultures have generated good amounts of virus (not an easy thing) for further testing, such as electron microscopy and gene sequencing. This work is not only being done by AgriBio but is being repeated by AAHL and the University of Melbourne to back up the first set of results. AgriBio staff are well aware of the need for urgency in this diagnostic work and are proceeding as quickly as possible. The sequencing will take a bit longer with results now expected next week. They will be forwarded to me as soon as they are available.

Later in the day, I had a phone hook up with Dr Tom Grimes of Intervet. In order to spend the short period waiting for the Reo sequencing results productively, we are preparing to begin the vaccine sequence comparison as soon as the results are available. We are informing the experts at Intervet now so that they are expecting the sequencing results and are able to make their recommendations on likely cross-immunity as quickly as possible. On Friday I am having a combined hook up with Dr Tom Grimes and Robin Anderson, both of Intervet. Robin is Poultry National Sales Manager. I have been advised that gene sequencing comparisons usually take 2 to 3 days. If it appears that cross-immunity is likely from one of the overseas vaccines, it will then be a matter of getting our import approval submissions to the APVMA and Biosecurity Risk Assessment as quickly as possible. I have already spoken at length to both of these departments and will fly to Canberra once the submissions have been made in an effort to expedite their processing.

As explained in previous posts, if it appears that the available overseas vaccines are unlikely to offer any cross-immunity, then a vaccine will need to be made here. I have made enquiries with 5 companies that may be able to do this work for us. For now though, it is a matter of waiting for the sequencing results and completing the comparisons with the vaccines as promptly as is practicable.

Viruses all the same

To date, all completed testing done at AgriBio and AAHL in Victoria has confirmed that the disease that affected pigeons in WA in May/June and in the eastern states since December is the same.

WA Report

The Department of Agriculture and Food Western Australia (DAFWA) has advised that their report on the pigeon disease outbreak that occurred in Western Australia in May has passed to the next regulatory level for approval prior to release! They are unable to give a time when the report will be available. However with Victoria essentially having diagnosed the cause of the disease and with all results indicating that the disease in WA, NSW, SA and Victoria is the same, this report has probably become irrelevant to the diagnostic and disease management processes. Some fanciers will be surprised to learn that this report is still not available, with some suggesting that the delay in diagnosis and failure to close the WA border contributed to the spread of the disease to the rest of the country. The cause for the delay is unclear.

Reo Virus overseas and its implications for Australia

I have had some correspondence from two of my European veterinary colleagues, Dr Pascal Lanneau from Belgium and Dr Dennis Rubbenstroth from Germany. They have advised that they have information on Reovirus infection in 2 unrelated pigeon flocks suffering from disease.

In the first case

- Reoviruses from pigeons were isolated mainly from juvenile birds suffering from diarrhea (McFerran, 1976).
 - Serological tests suggested a wide distribution in racing pigeon flocks in Germany (Heffels, 1981).
 - The authors sequenced an isolate from a racing pigeon flock with mortality of juvenile birds.
 - The virus was isolated in cell culture and sequenced.
 - There is apparently only minimal cross-reactivity with chicken reoviruses.
 - The sequence belonged to an independent clade (taxonomic group). The next relative originated from a sea lion (70% amino acid identity). (I have no information which segment(s) was/were tested.)
- In this case it was unknown, whether Reoviruses in pigeons were species-specific or the result of spill-over infection from other species (e.g. poultry).

In the second case

- a Reovirus was suspected in a squab with diarrhea, which originated from a flock with losses of juvenile birds. A virus was isolated in cell culture and provisionally identified as Reovirus by electron microscopy.

This is obviously a very different pattern of disease from what we are seeing in Australia. Dr Rubbenstroth feels (like me) that the virus we are currently dealing with has probably originated in Australia after a genetic shift in a Reo virus already present altered that virus's ability to cause disease. This raises further questions for Australian fanciers. If this virus has originated here, it has the potential, in theory, to infect the world's

pigeons. There may be some hesitation by some overseas countries to accept for import pigeons coming from Australia, including those being entered in 'one loft' races. I have been advised that the Victorian authorities have an obligation to advise the Australian national authorities, who in turn have an international obligation to notify other countries of a potential animal health threat.

AgriBio assisting fanciers to get an accurate diagnosis.

AgriBio has advised that they are once again prepared to back up Victorian veterinarians by covering the cost of diagnostic work on suspect Reo birds. Fanciers who suspect that their birds may be infected are strongly advised to contact their veterinarian and seek an accurate diagnosis. Not every bird that becomes unwell in Victoria over the next few months will have Reo virus and fanciers should not assume that their birds have the disease based simply on the symptoms that they are showing. Fanciers should take an unwell live bird to their veterinarian, who will be able to collect the samples necessary for diagnosis and forward these to AgriBio. There will be charges from your local veterinarian but all costs directly associated with diagnostic testing will be covered by AgriBio. This is a generous offer and is an example of a government body working directly with fanciers to help solve a problem. Fanciers should avail themselves of this service.