

Vaccination against Avian Paramyxovirus

George Arzey

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Handout prepared for industry on the availability of vaccines with a potential to protect pigeons against infection with Avian Paramyxovirus following the outbreak of infection in Victoria in September 2011.

Can pigeons be vaccinated against Avian Paramyxovirus?

Several Newcastle Disease (ND) vaccines are registered for use in chickens and are available in Australia.

There is no data on the use of the Australian chicken ND vaccines to show that they are safe to use in pigeons or will protect pigeons against infection with Avian Paramyxovirus.

There are differences between the chicken ND virus and pigeon-specific Avian Paramyxovirus strains. These differences may result in a failure to protect pigeons, partial protection or a much shorter duration of protection.

You should discuss all the potential risks and benefits of vaccination with your veterinarian.

Can I vaccinate if my birds are sick?

The vaccine should only be used in flocks that are healthy.

If you think your birds may have Avian Paramyxovirus contact your veterinarian immediately.

Can vaccinated birds spread infection?

Yes, vaccine may mask the clinical signs of infection in a bird. Vaccine may protect against clinical signs but it would not entirely prevent the virus from entering the body, multiplying, being excreted and infecting other in contact birds.

It is vital to maintain good biosecurity rather than relying on vaccine alone to protect from infection.

Can I use vaccine if I want to export my birds overseas?

Some countries will only accept birds that have not been vaccinated. Check import requirements carefully before you vaccinate if you may export birds.

Vaccine use

The available poultry vaccines are either live or inactivated (killed) vaccines.

In chickens, in order to get the best immune response both live and killed are administered. The live vaccine is administered first and following with a killed vaccine 4-6 weeks later. However either of the vaccines may be used on its own.

As the Australian vaccines are only registered for use in chickens your veterinarian will provide you with written instructions for the off label use of the vaccine. This will include the dose, route of administration and details of birds to be vaccinated.

Inactivated or 'killed' vaccines

A 'killed' vaccine is a vaccine contains a virus that has been killed. Chemicals mixed with the dead virus strengthen and prolong the ability of the virus to produce immunity.

In poultry the immunity is stronger and last longer than immunity from live vaccine.

This vaccine has to be injected into the bird. In chickens it is injected into the breast muscle but

this may not be a suitable site in pigeons. Other injection sites in pigeons are the neck and the loose skin between the leg and the body.

The killed vaccine **must not be frozen** it should be kept at the manufacturer's recommended temperature (usually between 4°C-8°C).

Inactivated vaccines should be available as a 250 or 1000 chicken dose bottle.

Live vaccines

A live vaccine contains a live virus with a reduced or no ability to cause disease but still generates immunity although usually of short duration. The live ND chicken vaccines available in Australia contain a very mild virus that is known as V4.

Live vaccines are easy to administer via mass application.

It usually comes in a freeze dried tablet form and must be kept frozen until used. It must be mixed with a diluent and well shaken to completely dissolve the tablet before administration.

It can be given either by eye drop or by mouth. If given in drinking water, it must be properly mixed in the water and consumed within 2-3 hours.

Live V4 vaccines should be available in 1000, 2000, 300, 4000 and 5000 dose vials.

Will vaccinated birds need a booster?

As there is no data on the use of Australian vaccines except in chickens, it is not known how long vaccinated birds will be protected against infection.

Inactivated or 'killed' vaccines will give longer protection than live vaccines.

How does my veterinarian obtain a vaccine permit?

Your veterinarian should contact George Arzey, Technical Specialist Poultry on 02 46406402 or by fax to 0246406300 or electronically at george.arzey@industry.nsw.gov.au.

They must provide relevant flock details including the:

- owners name and address,
- number and type of birds to be vaccinated
- number of vaccine doses ordered and
- anticipated vaccination date.

Summary data on vaccines available in Australia

Manufacturer	Product Name	Live or Inactivated
Bioproperties	Vaxsafe ND vaccine (living)	Live
MSD Australia (Intervet)	Intervet Nobilis live Newcastle vaccine V4	Live
Pfizer Animal Health	Poulvac Newcastle v4	Live
MSD Australia (Intervet)	Nobilis Newcavac vaccine against Newcastle disease in poultry (no stock due in Australia until 2012)	Inactivated
Pfizer Animal Health	Poulvac Newcastle IK vaccine (inactivated)	Inactivated

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