

VICTORIAN ADENOVIRUS OUTBREAK INSTRUCTIONS

Carlingford Animal Hospital - For the Client of Dr Rob Marshall Only

The following plans have been prepared for the current Victorian outbreak but are also intended for use when the disease spreads to other states. The primary aim of these plans is to limit losses. Overseas, many plans have been put forward to achieve this goal. Our programmes focus on boosting immunity, limiting stress and purging the virus through the gut without the immediate use of antibiotics. Many lofts will respond well to this treatment with few losses but others may experience heavier losses.

Three treatment plans are presented here to manage this outbreak. The first plan is the Prevention Plan to Stimulate Immunity (see chart) which is given to all lofts exposed to the disease. The second plan is for lofts that have experienced sudden deaths (over page). The third plan is for lofts experiencing the first obvious symptoms of the disease (dark green droppings and vomiting). In many cases, sudden deaths and dark green, slimy droppings occur together. In these cases, the third plan is followed.

These programmes are preliminary plans based on experience with the WA outbreak and may be changed according to the progress of the disease in Victoria. Each loft may experience different levels of mortality and sickness. Therefore, it is important that when an outbreak is suspected, to contact an avian veterinarian for exact instructions.

The common focus for all programmes is to strengthen the immune system and counteract the harmful effects of stress with the combined use of our prebiotics *Ve8 Powder (see brochure)* and Inca Honey. The key products for all three programmes are KD Powder, *Ve8 Powder* and Inca Honey. Sulfa AVS should also be kept on hand so that is immediately available should symptoms occur. The primary aim of all programmes is to lessen the likelihood of deaths and to allow the disease to pass through the flock as harmlessly as possible.

Plan 1: Prevention Plan to Stimulate Immunity

This programme is for birds that have been exposed to the disease (Kyabram sale birds) but do not show any symptoms of the virus infection. This programme is also used for all flocks in Victoria to prepare the immune system in anticipation of infection which will inevitably spread throughout the state as pigeons become exposed to the disease.

| 1. Prevention Plan to Stimulate Immunity | | |
|--|----------------------------|--|
| Day | In Drinking Water | On Food |
| Day 1 | KD Powder | Turbobooster, <i>Ve8 Powder</i> , E Powder & Bloomford |
| Day 2 | Dufoplus, Ioford & Megamix | Turbobooster, E Powder & Bloomford |
| Day 3 | Inca Honey | Turbobooster, <i>Ve8 Powder</i> , E Powder & Bloomford |
| Day 4 | KD Powder | Turbobooster, E Powder & Bloomford |
| Day 5 | Fresh water or Megamix | Turbobooster, <i>Ve8 Powder</i> , E Powder & Bloomford |
| Day 6 | Fresh water or Megamix | Turbobooster, E Powder & Bloomford |
| Day 7 | Epsom Salts | Turbobooster, <i>Ve8 Powder</i> , E Powder & Bloomford |

Fvite should be made available in a dish each day.

Scrape clean and flame or liquid disinfect loft daily.

Dose Rates
Ve8 Powder: 1tspn/kg
Inca Honey: 2ml/L
Epsom Salts: 1tspn/8L

Plan 2: Treatment Plan Following Deaths

Acute deaths are an indication that the virus has destroyed the liver. Birds that die suddenly are usually those that are under stress which at this time of year is breeding stress. Therefore, most deaths are seen in adult rather than young birds. For this reason it may be advisable to stop breeding to protect the stock birds.

Treatment following the first death has been found to reduce further deaths in many but not all lofts. Prebiotics are used to control the harmful digestive consequences of the disease (vomiting and toxic diarrhoea). Antibiotics are not immediately used but may be required according to the response of birds to treatment (see Plan 3).

If on day 3 no further deaths have occurred, this programme should continue for the rest of the week and then Plan 1 is continued for 6 weeks. If by day 3 or 4, further deaths have occurred and symptoms of vomiting and dark green droppings are seen, go onto Plan 3.

| 2. Treatment Plan Following Deaths (1 week) | | |
|---|----------------------------|--|
| Day | In Drinking Water | On Food |
| Day 1 | KD Powder | Turbobooster, Ve8 Powder, E Powder & Bloomford |
| Day 2 | KD Powder | Turbobooster, Ve8 Powder, E Powder & Bloomford |
| Day 3 | Dufoplus, Ioford & Megamix | Turbobooster, Ve8 Powder, E Powder & Bloomford |
| Day 4 | Epsom Salts | Turbobooster, Inca Honey, E Powder & Bloomford |
| Day 5 | Inca Honey | Turbobooster, E Powder & Bloomford |
| Day 6 | Inca Honey | Turbobooster, E Powder & Bloomford |
| Day 7 | Fresh water or Megamix | Turbobooster, E Powder & Bloomford |

Fvite should be made available in a dish each day.

Scrape clean and flame or liquid disinfect loft daily.

Dose Rates
 Ve8 Powder: 1tspn/kg
 Inca Honey: 2ml/kg/L
 Epsom Salts: 1tspn/8L

Plan 3: Treatment Plan Following Vomiting & Dark Green Slimy Droppings

Vomiting and dark green, slimy droppings indicate severe damage to the gut. The resulting sluggish digestion and intestinal damage causes sudden toxic growth of extremely harmful bacteria that require immediate antibiotic treatment. Prebiotics (Ve8 Powder and Inca Honey) are used at the same time to re-establish gut flora. Early treatment will prevent most but not all deaths in young birds. Those that fail to respond to this treatment require further treatment in isolation that may include a cocktail of medicines under veterinary instruction.

| 3. Treatment Plan Following Vomiting and Dark Green Slimy Droppings | | |
|---|---------------------|--|
| Day | In Drinking Water | On Food |
| Day 1 | Sulfa AVS & Megamix | Turbobooster, Ve8 Powder, E Powder & Bloomford |
| Day 2 | Sulfa AVS & Megamix | Turbobooster, Ve8 Powder, E Powder & Bloomford |
| Day 3 | Sulfa AVS & Megamix | Turbobooster, Inca Honey E Powder & Bloomford |
| Day 4 | Sulfa AVS & Megamix | Turbobooster, Inca Honey, E Powder & Bloomford |
| Day 5 | Sulfa AVS & Megamix | Turbobooster, Ve8 Powder, E Powder & Bloomford |
| Day 6 | Epsom Salts | Turbobooster, Inca Honey, E Powder & Bloomford |
| Day 7 | KD Powder | Turbobooster, Inca Honey, E Powder & Bloomford |

Fvite should be made available in a dish each day.

Scrape clean and flame or liquid disinfect loft daily.

Dose Rates
 Ve8 Powder: 1tspn/kg
 Inca Honey: 2ml/L
 Epsom Salts: 1tspn/8L

Ve8 Powder - Prebiotic & Herbal Remedy for Pigeons

Prebiotic Function

Prebiotics work differently from probiotics. Unlike probiotics, prebiotics do not consist of bacteria, but instead are non-digestible fibre-like substances that are food for friendly bacteria present in the gastro-intestinal tract. These friendly bacteria act in a way that keeps the bowel healthy and free of other bacteria that cause disease. *Lactobacillus* and *Bifido*-bacteria are considered the most significant "friendly" bacteria in birds. Ve8 Powder includes 2 prebiotics (MOS and FOS) that promote the proliferation of these beneficial bacteria.

MOS is a prebiotic derived from the cell wall of fermented yeast. This yeast by-product is included in Ve8 Powder for its role in acidifying the bowel. Most digestive disorders decrease the acidity of the stomach and intestines, which predisposes to the sudden overgrowth with harmful bacteria. Physiological stress associated with changing weather conditions, the exertions of feeding babies, hawk attack, physical overexertion from a toss or race etc. is the underlying cause of this digestive disturbance. The role of MOS is to stimulate the growth of *Lactobacillus* in the intestinal tract to produce lactic acid. It is the acidifying effect of this bacterial proliferation that inhibits the growth of disease-forming *E.coli* and toxic gas-forming clostridia-type infection. FOS is a prebiotic specifically selected for its ability to naturally control and prevent gas forming bacterial infections associated with sluggish digestion or ingestion of contaminated food or water.

The combined effect of MOS and FOS is to restore the normal rate of digestion by increasing the acidity of the bowel and preventing fermentation by disease forming bacteria. Significantly, prebiotics offer the best opportunity to maintain perfect droppings, which are the window to health digestion.

Herbs

St Robert's Wort & Crane's Bill herbal extracts are included in Ve8 Powder for their soothing action on inflamed bowels. These herbs contain tannins, which have antibacterial action. St Robert's Wort is a source of germanium, which is a valuable element of the body involved with oxygen production in the cells. This function enhances immunity, which gives the body the opportunity to fight disease by its own powers. In this way it complements the actions of the above mentioned prebiotics.

Ve8 Treatment Options

Ve8 powder can be used in several ways. It can be given for 2 consecutive days as part of an ongoing programme (eg breeding, young bird or race programme) or given for 2-3 days as part of the Dropping Health Plan when droppings ("go off").

Ve8 for Young Birds

It is impossible to expect the droppings of young birds to be as well-formed as those of race teams in top form. The regular worming and coccidiosis treatment plans for young birds will help keep their droppings well-formed. However, there are times, especially following wet weather and when conditions in the loft become overcrowded that the droppings of young birds will "go off". The most obvious sign of a dropping problem is green discolouration and the lack of white capping. Ve8 Powder is given for 2 days whenever these dropping changes appear. For best effect, Ve8 is mixed into the food with Turbobooster, E-powder & Bloomford. QuickGel & Ioford is given in the drinking water for 2 days followed by KD for 1 day. This dropping health plan will bring about well-formed droppings within 48 hours when used at the first sign of poor droppings and in doing so protect health & strengthen immunity. Ve8 Powder may simply be given for 2 days each week as part of the Young Bird Programme.

Ve8 for Breeding Birds

Ve8 Powder is given at the first sign of watery droppings in the nest. For best effect, Ve8 is mixed into the food with Turbobooster, E-powder & Bloomford. QuickGel & Ioford is given in the drinking water for 2 days followed by KD for 1 day. There will be a return to healthy small, round, beautiful brown hued and white capped baby droppings by the second afternoon or third morning when Ve8 is started at the first sight of altered droppings. Ve8 Powder may simply be given for 2 days each week as part of the Breeding Programme. The effect of this weekly treatment plan is to produce robust strong healthy babies. Dry nests, perfect droppings and vibrant breeding pairs will be seen for all 3 rounds of the breeding season.

NEW PIGEON BOOK OUT EARLY 2017 - Full details of Ve8 powder is found in this "Orange Pigeon Book"

Preliminary Report for Victorian Outbreak of Suspected Adenovirus

By Dr Rob Marshall

15th December 2016

In early December 2016, the first cases of suspected Adenovirus were detected in Victoria. The symptoms of this disease were the same that were seen in the June 2016 outbreak of Adenovirus infection in Perth, WA. The spread of this disease to Victoria is of great concern for all Australian pigeon fanciers. While the exact strain of the virus is yet to be identified, our primary focus at this time is to implement an immediate prevention and treatment plan to protect exposed lofts and stop the spread of the disease to other states.

It is thought that the Victorian outbreak originated from a recent Kyabram stock bird sale held on the 4th December. All birds from this sale should be considered as potentially infected and lofts with these birds are at considerable risk of disease. It may be that birds from this sale have been taken interstate. This virus is highly contagious and causes rapid death. The mortality rate varies from loft to loft and is not exactly known in the Victorian outbreak at the moment. However, we can predict from the experience in WA that mortality levels will vary from loft to loft. Although there is no potential for future protection from vaccination, this disease moves through lofts within 3-4 weeks of exposure. On the positive side, the birds are resistant to the disease after infection.

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These programmes are preliminary plans based on experience with the WA outbreak and may be changed according to the progress of the disease in Victoria. Each loft may experience different levels of mortality and sickness. Therefore, it is important that when an outbreak is suspected, to contact an avian veterinarian for exact instructions.

The common focus for all programmes is to strengthen the immune system and counteract the harmful effects of stress with the use of the combined prebiotics found in Ve8 Powder and Inca Honey.

The primary aim of all programmes is to lessen the likelihood of deaths and to allow the disease to pass through the flock as harmlessly as possible.

Plan 1: Immune Stimulating Programme

This programme is for birds that have been exposed to the disease (Kyabram sale birds) but do not show any symptoms of the virus infection. This programme is also used for all flocks in Victoria to prepare the immune system in anticipation of infection which will inevitably spread throughout the state as pigeons become exposed to the disease.

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Plan 3: Treatment Plan Following Vomiting and Dark Green Slimy Droppings

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* For a complete explanation of this disease, refer to the WA Adenovirus Report.

* For a complete explanation of each programme refer to the charts over the page.

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