Elanco

AviBlue™

OPTIMISING VACCINE APPLICATION FOR SUCCESSFUL FLOCK PROTECTION

AviBlue, fundamental in the protection of the vaccine

Optimising vaccine application via the drinking water is critical for successful protection of flocks. Water quality and water distribution is so often overlooked and may play a major part in failed vaccine responses.

AviBlue™ was developed to protect 'In Water' vaccines during the vulnerable period of administration. It contains a combination of neutralising agents that buffer the effects of contaminates found in both tap and bore-hole water.

A specialised colorant helps identify water flow during the priming of the drinker system.

Optimising vaccine survival during administration

Critical to any on-farm vaccine application is ensuring the vaccine safely reaches the bird by the recommended route. For drinking water, it is important to follow the manufacturer's recommendations on storage, handling and administration which is set out in the product insert supplied with the vaccine. Part of this process is to ensure that the birds have sufficient time to access the vaccine to receive an effective dose.

Most live vaccines are re-suspended into drinking water, the antigen count (titre) may inevitably reduce over time. This is due to the natural survival rate of the micro-organism in water suspension. The survival rate of the antigen is radically reduced in water of sub-optimal quality.[1]

AviBlue plays a fundamental part in the effective delivery of vaccines to the bird and must not be viewed simply as a dye for visualising within the drinker system.

What is sub-optimal water quality?

Water that contains chlorine, heavy metals, acidifiers and disinfectants that will reduce or destroy the vaccine antigen.

Efficacious vaccination under sub-optimal water conditions[1]

AviBlue, an effervescent granule, buffers the harmful effects of sub-optimal water. Any water source can potentially have a harmful effect on vaccine survival with mains water containing chlorine and borehole containing harmful heavy metals. On-farm use of acids, antibiotics and various sanitisers pose a risk if residues are not flushed from the lines.

The optimum pH of the water for the survival of the vaccine antigen is 7 (pH neutral). AviBlue was tested against all the available stabilisers in an independent laboratory at 100% concentration (commonly used as a stock solution when using a dosing pump).

during administration via the drinking water

Stability at high concentrations

Trials have been carried out at 100 & 1000 times the recommended dose. Results show AviBlue maintains pH at high concentrations (figs 1 & 2).

Figure 1: Comparison of pH of various stabilisers at 100 x concentration in 5ppm of Chlorine[1]

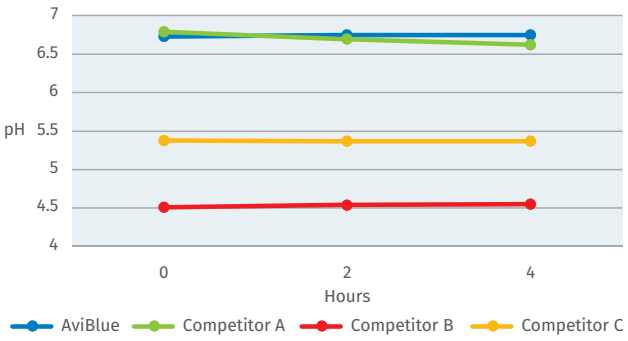
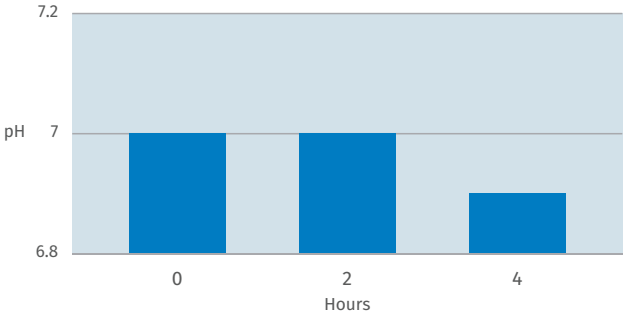
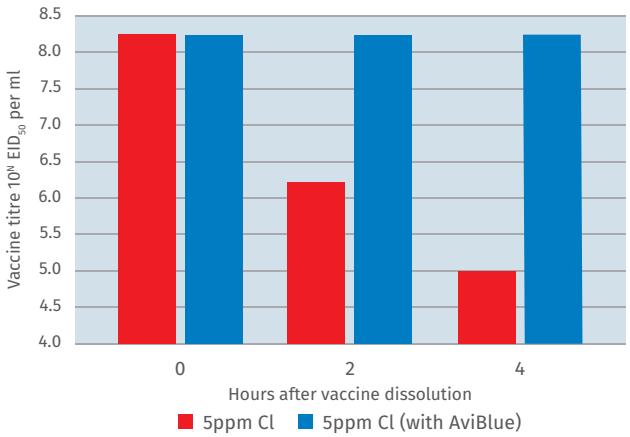


Figure 2: pH stability of AviBlue at 1000 fold concentration[1]

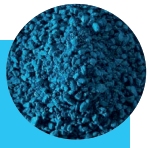


Laboratory trials were carried out to simulate the buffering effects of AviBlue in water with 5ppm of chlorine. These demonstrated the results of *Salmonella* Enteriditis titres after being re-suspended in a solution of sub-optimal water (tap water spiked with 5 ppm of active chlorine, used by poultry farms for sanitisation of drinking water lines). Reduction of titres was dramatically minimised with the use of AviBlue.[1]

Figure 3: Neutralising effect of AviBlue on sub-optimal water - Dissolution of a *Salmonella* Enteritidis live vaccine[1]



Instant protection



The specialised make up of AviBlue as an effervescent granule accelerates up the time required to dissolve and offers immediate protection.

Monitoring uniform distribution and vaccine-take

- The intense colour of AviBlue helps with the identification of the water flow during priming of the drinker system.
- Allows administrator to detect when the vaccine solution is present at the end of the drinker line during the priming process. This ensures the precise control and uniform vaccine distribution throughout the flock.
- Vaccination duration can be monitored as the coloured water continues to flow through the drinker system.
- Vaccine uptake can be verified by an increased concentration of AviBlue. Temporary staining of the tongue or crop can be used to observe vaccine take.

Elanco™

AviBlue™

Visible protection

- **Stabilises the water when applying vaccines via the drinking water**
- **Protects the vaccine under sub-optimal water conditions**
- **Visualises water flow in the drinker line**
- **Resealable packaging with measuring cap, reducing wastage**

Assured quality and safety

All ingredients used in AviBlue are of human food grade quality.

Easy to use packaging

AviBlue is packed in a 375 g resealable bottle with a simple measuring cap attached as the lid. The benefit of this type of packaging is that it safeguards the contents and reduces any wastage or write-off.

375 g will stabilise 3,000 litres of water. One level capful will stabilise 200 litres of water.

Directions for use

Add AviBlue to the drinking water at a concentration of one level capful for every 200 litres of water. **It is important to ensure when using dosing pumps that the total amount of water to be consumed is calculated and the equivalent quantity of AviBlue is used.**

For example, to treat 1,000 litres of drinking water at a dose rate of 2% add 5 capfuls of AviBlue to the 20 litres of stock solution.

Intensive staining

To carry out intensive crop or tongue staining use AviBlue at a concentration of 125 g per 100 litres of water.

Visit ***myelanco.co.uk***

Scan to view videos on live vaccine application via the drinking water

1. Dye Trial 2009-1. Lab no: 09-2473. Elanco data on file.

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Date of preparation: 02/2020 PM-UK-20-0109