poultry focus
business news for the poultry industry
intervet

Water authorities across the country chorinate the water they supply to customers, typically at a level of around 5mg/l. There are many health benefits for this practice, but for poultry producers there's one major drawback. The nature of poultry vaccines means they are very sensitive, and chlorine in drinking water can kill a proportion of them and hence reduce their efficacy. A chlorine level in water as low as one part per million can inactivate some vaccines, totally removing any effect they may have on their targeted recipients. This fact has long been recognised and most producers will have at some time in the past been faced with the task of dissolving skimmed milk powder in the water used for drinking water vaccination to neutralise the effects of the chlorine.

Two in one water treatment option assists vaccination process

To assist poultry producers to optimise the results of vaccination through drinking water, Intervet has launched a two-in-one effervescent tablet. Vac-Safe neutralises the effect of the chlorine in drinking water supplies and produces a deep blue dye that makes it possible to monitor vaccine distribution and bird uptake. This makes Vac-Safe the ideal water treatment product for vaccines that are administered through drinking water systems – such as the company's Nobilis Gumboro D78 and Nobilis Gumboro 228E vaccines.

FREE OFFER

Intervet is offering Vac-Safe tablets free of charge to users of its Nobilis Gumboro D78 and Nobilis Gumboro 228E vaccines.
Orders of either or both vaccines that meet or exceed a total of 500,000 doses will receive one free tub of 100 Vac-Safe tablets per 500,000 doses.

How to use Vac-Safe

Vac-Safe is very easy to use and overcomes the shortcomings of skimmed milk powder and granular water neutralizers.

1. Determine the water volume used in your drinking water vaccination
2. Dissolve one Vac-Safe tablet per 100 litres of water
3. Wait 10 minutes after adding the tablet so it can dissolve completely and neutralize the chlorine
4. Stir gently to mix the solution
5. Follow recommendations for application of the vaccine
6. Add the vaccine and mix properly
7. Even distribution of the vaccine solution in the drinking water is indicated by the blue dye.

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“Vac-Safe neutralises the effect of chlorine in drinking water”

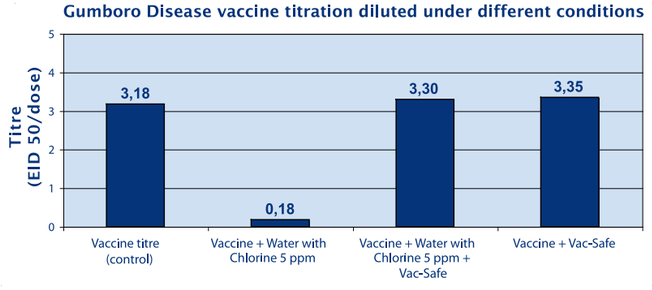
Vac-Safe’s formulation delivers some major benefits over existing methods of drinking water preparation:

- Vac-Safe does away completely with the need to use skimmed milk powder, which can be messy, can cause blockages and has the potential to introduce bacterial contamination.
- Individually wrapped Vac-Safe tablets remove the need to measure out granular formulations, which may be dusty, and each tablet is sufficient to treat 100 litres making dose rate calculations very easy.
- Vac-Safe is presented as effervescent tablets which dissolve completely, reducing any problems associated with residues, such as blockages.
- The tablets neutralise the chlorine and acts as a buffer to keep the pH close to a neutral level and maintain the efficacy of vaccines.
- The blue dye in Vac-Safe tablets does not contain any products of animal origin, nor does it affect water intake of treated birds.
- Vac-Safe gives a very distinct blue colouration of the tongue and crop of treated birds making it ideal for assessing vaccine uptake

Tested Formulation

Trials of Vac-Safe have demonstrated its ability to maintain vaccine efficacy in water with a chlorine content of 5ppm – the level at which most supply companies chlorinate their water.

The following graph demonstrates the effect chlorine has on a Gumboro disease vaccine titre.



“ Vac-Safe treatment overcomes the effect of chlorine in drinking water ”

Where water is left untreated, the chlorine reduces the titre of the vaccine to almost zero, meaning if it were to be used t vaccinate birds it would ha e virtually no effect. When this is compared to the Vac-Safe treated wat ed at all showing that the vaccine remains active and able to deliver its effect t

Drinking water vaccination SOP

Delivery systems vary from farm to farm but the following guidelines will help to develop a SOP (Standard Operating Procedure) for administering a vaccine through drinking water.

One or two days before vaccination

- Keep vaccine refrigerated.
- Observe expiry date, batch number and type of vaccine and record them.
- Read manufacturer’s recommendations on the insert label.
- Check the health status of birds and only vaccinate healthy birds.
- Make sure there are no sanitisers or acidifier in the water system. Remove all medications, acidifiers and sanitisers at least 48 hours before vaccination.
- Calculate the dead space in the system and include extra vaccine and water to accommodate for this.
- If you use header tanks for vaccination clean them if needed and check water levels.
- Record water meter readings for the time period you intend to vaccinate.
- If in doubt do a trial vaccination using Vac-Safe as an indicator.
- Prepare clean utensils (measuring jug, stirrer, bucket, watering can, scales etc.).
- Wash troughs or bell drinkers with clear water without any disinfectant or sanitisers.
- Test run submersible pumps if you intend to use them.
- If you do not use a header tank, fill up plastic bins/ containers with the required amount of water the evening before vaccination.
- Ensure you have sufficient Vac-Safe for the volumes of water involved.
- If you use a proportioner, a separate proportioner should be used for vaccination only. Vac-Safe is safe to use in stock solutions when administering vaccine though a proportioner.
- Plan timing and other details to avoid failure on “Vaccination-day”.

These steps and principles can be adapted for any drinker system. Careful planning and testing will enable the establishment of a farm specific vaccination protocol that can be adhered to by existing and future farm staff.

Day of vaccination (for vaccination of broilers on nipple system with header tank)

- Turn off the main tap to the drinker lines, let the birds ‘drink the lines dry’ and then raise the drinkers. Fill up the header tank with the volume of water required for two hours’ consumption. Shut down water supply to the header tank. If header tanks contain too much water for the vaccination drain the tanks till the required volume is reached.
- Add the required number of Vac-Safe tablets to the header tank at 1 tablet per 100 litres of water.
- Dim the light and drain the water lines to get rid of residual water in the system.
- Prepare the right type and amount of vaccine for vaccination on a clean surface, free of residues of sanitisers or disinfectants.
- Mix the vaccine in a jug or bucket of Vac-Safe treated water by opening the vials under the water. Rinse the vials of vaccine several times to ensure there is no vaccine left in the vials.
- Pour the made-up vaccine solution into the header tank and mix it thoroughly.
- Prime the drinker lines with vaccinated water and let the blue Vac-Safe-stained water reach the far end of each line.
- Close the end valves of the lines and lower the drinkers to bird level.
- Increase light intensity and activate feeders.
- Walk along the drinkers and encourage birds to go to the feeders and drinkers.
- Check drinkers for any blockage or leakage.
- Ensure the main tap of the water system is reopened just before the header tank runs dry to prevent air locks.
- Rinse utensils used for preparation and administration with plenty of water. Do not use any sanitiser or disinfectant for this job!
- Dispose of vaccine vials following waste disposal guidelines.
- Store dry utensils in sealed plastic bags in a clean area of the farm.

Intervet offers a comprehensive vaccination auditing system for its customers. Call the poultry unit on 01908 685249 for more information..