Drinking Lines

Eimeriavax Coccidiosis vaccines

Recommendation for vaccine preparation when
administration via drinking lines is applied

For application of the vaccine in the drinking water it is preferred to use a sufficient number of single drinkers. However, in some practical situations, no drinkers are available and application of the vaccine is only practically feasible through the drinking lines.
Since water line systems vary between different farms only a general instruction can be given. It is most important to make sure that each bird has the **opportunity to drink** during the vaccination within a **reasonably short time** (approx 2 hours), that there are **enough drinking spaces** for the amount of birds and that the **correct number of doses are mixed into the water**.

Step 1: Calculation of the volumes needed for vaccination

The amount of water needed for the vaccination should be calculated for **each individual situation** taking into account the **amount of water that the birds will drink in 2 hours** and the **number of birds in the house**.
Measure the drinking water consumption one day before and calculate how much the birds drink in 2 hours. Taking 14 day old breeders into consideration, the amount of drinking water consumed by 1000 birds in 2 hours is for instance around 8 litres.
Make sure that the amount of water that was calculated is sufficient to have enough flow in the waterlines. If the amount of calculated water is lower than the volume needed for a good flow, the amount of water should be increased.

Step 2: Preparation of the vaccine solution

Shake the vaccine vial thoroughly before opening to re-suspend the oocysts. Open the vial and pour the whole contents in clean drinking water.
Rinse the vaccine vial at least 2-3 times with water to ensure all oocysts are removed from the vial. The number of doses used should correspond with the number of birds in the house. Apply a colour agent* to colour the water. The amount of colour agent will depend upon the volume of water calculated; in general it will correspond with the doses indicated on the label of the colour agent.

Step 3: Application of the vaccine in the drinking lines

Make sure no fine meshed sieves in your system which could block the flow of the oocysts. Withhold the water for 2-4 hours before vaccination to ensure that birds are thirsty and will take up the vaccine as quick as possible. Even though sporulated oocysts are very resistant, it is advised to use clean drinking lines and to make sure that no disinfectant is present in the waterlines during the vaccination. Flush the water lines till the vaccine (with the colour agent) is at the end of the line. For dosing through the proportioner an uptake of 1% or 5% can be used. With 5% a higher flow will be achieved, this might be advisable for younger aged chickens or when only a limited amount of birds are present in the farm. When bringing the water into the waterlines (by means of a proportioner or a water tank) it is advised to stir the water regularly during vaccination in order to avoid the oocysts sinking. After the vaccination, check if the regular water supply is working again normally.

* For example CEVAMUNE® (CEVA) or VAC-SAFE™ (MSD) blue colourants or any other food dye (such as Brilliant Blue).

Application recommendation

Key points for a successful coccidiosis vaccination

The vaccine contains **live coccidian oocysts** and is dependent upon replication of the vaccinal lines within the chickens for building up of immunity.

To reduce the chance of coccidial challenge before the onset of immunity, litter should be removed and chicken housing should be **thoroughly cleaned** between rearing cycles. Make sure all rests of feed were removed from the previous cycle and that the feed lines were cleaned with a non-medicated feed if necessary. All drinker and drinker lines should be cleaned properly to avoid persistence from rest medication in the drinking water.

Recycling of oocysts is necessary for the development of immunity and for continued protection. Contact between the excreted vaccine and the birds after vaccination is guaranteed when birds are floor reared and housed at normal commercial density (the higher the density, the higher the possibility for recycling). In case of rearing on slatted floors care should be taken that recycling is guaranteed for minimum 3 weeks after vaccine application.

To guarantee an **optimal sporulation** of the excreted vaccine a minimum relative humidity of 60% in the poultry house, a dry matter content in the litter of maximum 80% and a litter temperature of minimum 25°C is advisable.

Do **not use products** with **anti-coccidial activity** at any time following vaccination since they will affect the live vaccine and will adversely affect the development of immunity.

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