



Spray on Birds

Eimeriavax Coccidiosis vaccines

Recommendation for vaccine preparation when **spray on birds is applied in the poultry house**

Step 1: Calculation of the volumes needed for vaccination

Prepare for **each 1000 doses** a volume of **240 ml** coarse spray solution. Include colourant agent*.

Number of birds to vaccinate	Vaccine**	Volume of clean drinking water
1,000 birds	1,000 doses	240 ml
10,000 birds	10,000 doses	2.4 litres
20,000 birds	20,000 doses	4.8 litres
30,000 birds	30,000 doses	7.2 litres
40,000 birds	40,000 doses	9.6 litres

** Vaccine is available in vials (25ml fill volume) containing 1000 or 5000 doses.

Step 2: Preparation of the vaccine solution

Shake the vaccine vial thoroughly to re-suspend the oocysts. Open the vial and pour the entire contents into clean drinking water. Rinse the vaccine vial at least 2-3 times with water to ensure all oocysts are removed from the vial. Add the colour agent to the vaccine solution and mix thoroughly.

Step 3: Preparation of the spraying device

Use a clean spraying vaccine device which provides a **droplet size of $\geq 100 \mu\text{m}$** . Before vaccination rinse the spraying device with water and spray at a light source to observe droplet size and pattern. In spraying devices containing a filter it is advised to remove the filter during vaccination. **Determine the flow rate of the spraying device per minute.** This can be done by measuring the volume of water when filling a recipient during one minute at 3 bars. Taking into account the dosage (24 ml of coarse spray volume/100 birds), the flow rate and the number of birds in the boxes, the time to spray over one box can be calculated.

Fill the vaccine reservoir of the spraying device with the prepared vaccine volume. The **pressure** of the spraying device should be at **3 bars**, **droplet size** for coarse spray should be **at least $100 \mu\text{m}$** .

Step 4: Spraying the vaccine solution on the birds

Turn off fans during vaccination. Preferably **spray the birds at arrival in the poultry house**, when they are still in the boxes. Make sure there is enough light so that the chickens are awake and preen themselves and each other.

Spray the vaccine solution homogeneously over the birds. Continuously maintain homogeneity of the vaccine suspension by shaking the spray device gently during vaccination.

Maintain the chicks inside the chick box for at least one hour in order to **let them ingest all the vaccine droplets**.

* 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.



Eimeria Pty Ltd



Bioproperties Pty Ltd
36 Charter Street
Ringwood VIC 3134
Australia
Ph: +61 3 9871 2000
bioinfo@bioproperties.com.au
www.bioproperties.com.au



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