



Spray on Feed

Eimeriavax Coccidiosis vaccines

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

Step 1: Calculation of the volumes needed for vaccination

The recommended volume of water for spraying depends on the chicken breed. Use 0.2 ml/dose for layers and 0.6 ml/dose for broilers.

Number of birds to vaccinate	Vaccine*	Volume of clean drinking water for layers	Volume of clean drinking water for broilers
1,000 birds	1,000 doses	0.2 litre	0.6 litre
5,000 birds	5,000 doses	1 litre	3 litres
10,000 birds	10,000 doses	2 litres	6 litres
20,000 birds	20,000 doses	4 litres	12 litres
30,000 birds	30,000 doses	6 litres	18 litres
40,000 birds	40,000 doses	8 litres	24 litres

*vaccine is available in 30ml vials containing 1000 or 5000 doses.

Step 2: Preparation of the vaccine solution

Shake the vaccine vial thoroughly before to re-suspend the oocysts. Open the vial and pour the whole content in clean drinking water. Rinse the vaccine vial at least 2-3 times with water to ensure that all oocysts are removed from the vial.

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 flow rate and the length of the provided feed strips (or the length of the house), the time needed to spray the accurate volume over one feed strip distance 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 feed

Turn off fans during vaccination. A sufficient amount of starter feed for the chicks should be laid out on paper or plastic along the floor of the poultry house. Feed should be spread out on either strip paper or pans in layers no thicker than 3 cm. Application of the vaccine on the feed should occur **maximum 2 hours before the birds** will get access to the vaccinated feed. Spray the vaccine solution homogeneously over the feed and make sure that all feed is treated.

Make sure there is a sufficient amount of light when birds are placed in the house and that all birds have access to the vaccinated feed. If possible illuminate especially the areas with the feed in order to attract the birds to the vaccinated feed.

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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