**LIVACOX Q**

**LIVACOX**® Q is a quadrivalent live attenuated coccidiosis vaccine for breeders and layers. It contains attenuated lines of the economically important species in breeders and layers, namely: *Eimeria acervulina, E. maxima, E. tenella* and *E. necatrix*.

**Composition**
1 dose (0.01 ml) of **LIVACOX**® Q provides 300 – 500 live sporulated oocysts of each attenuated line of *E. acervulina*, *E. maxima*, *E. tenella* and 100 live sporulated oocysts of the attenuated line of *E. necatrix* in a 1% w/v aqueous solution of Chloramine B.

**Indication**
Immunization of breeders and commercial layers against coccidiosis caused by *E. acervulina, E. maxima, E. tenella* and *E. necatrix*. Immunity develops 14 days after vaccination and remains active during the bird’s whole life.

**Contraindications**
Do not use with food and water that contain anticoccidials, sulphonamides or any other agent having anticoccidial activity. Feed and water provided to birds at least 2 days prior to and 14 days after vaccination must be free of the aforementioned substances.

**Dosage**
1 dose per chicken (0.01 ml)
1 ml = 100 doses

**Administration route**
Oral to chickens 1 – 10 days old, either via drinking water or by coarse spray on 1-day-old chicks. Applicable to chickens raised on litter and in cages.

**Coarse Spray:**
Shake vaccine bottle well, add vaccine to water and rinse in medicated water to ensure all vaccine is added.
For every 100 chickens: 1 ml vaccine to be diluted with 19 ml drinking water (total volume of medicated water = 20 ml)
Max 100 chickens in chick-box; each 100-chicken crate must get full amount (=100 doses) of the vaccine regardless eventual lower number of chickens in it.
Add few drops of approved food colourant to medicated water. Ensure correct dosage and homogenous (stirred) vaccine suspension prior to vaccination.
Leave chicks in chick-box 2-3 hours (sufficient time for full preening).

Please consult your spray-box manufacturer whether the machine can be used for coccidiosis vaccination (pay attention to droplet size).

**Via Drinking Water:**
Shake vaccine bottle well, add vaccine to water and rinse in medicated water to ensure all vaccine is added.
Dilution of vaccine is to be adjusted to actual water-consumption of birds (according to age, sex, temperature & breed).
Ensure correct dosage and homogenous (stirred) vaccine suspension prior to vaccination.

Use formula: \( \text{Number of chickens} \times \text{Age in days} = \text{Amount of Water (ml)} \)
E.g. For 10 000 chickens (4-days old)
Amount of Water = 10 000 \times 4 = 40 000 ml
10 000 doses (100 ml vaccine)
Mix 100 ml of vaccine with 39 900 ml of potable water
Total volume of medicated water should be 40 L

Using Dosing Equipment (vaccine must be pre-diluted)
1:100 vaccine to water ratio
Pre-dilution = 100 ml vaccine with 300 ml water = 400 ml vaccine solution
Final mixing = 400 ml vaccine solution added to dosing equipment 1:100 water = 40 L vaccine solution

Stimulate thirst in birds prior to vaccination (~2 hours)
Medicated water should be drunk within 2 hours and not less than 1 hour

**Storage**

Do not freeze!
The vaccine must be stored in a dark and dry place between +2 oC and +8 oC.
Temperature of vaccine during transport should be maintained within +2 oC and +8 oC.
Do not allow contact with freezing unit of refrigerator.
Keep out of reach of children.
Used or partially used containers should be disposed of as per local laws and regulations.

**Expiry time**

9 months from the date of manufacture (see Expiry Date on bottle).

**Withdrawal period**

Zero days

**Precautions**

Vaccinate only healthy chicks kept under good management conditions.
Dilute the vaccines only in fresh drinking water.
Shake bottle thoroughly before opening and mixing with water.
To generate a booster antigen, birds must have access to litter for a minimum of 10 days after vaccination. The droppings of the birds serve as a reservoir of attenuated coccidian oocysts for automatic ‘revaccination’.
In the case of any mortality, samples of droppings, intestine sections and/or complete dead birds sent to the diagnostic laboratory for post-mortem must be marked ‘LIVACOX vaccinated’.

**Warnings**

For oral use only
For animal use only
Avoid using the vaccine after the expiry date marked on the bottle.