

# VAXXON<sup>®</sup> ND-IB3-EDS

**A single shot to enhance protection  
during the laying period**

- **Robust protection against Newcastle Disease and Egg Drop Syndrome**
- **Broad and Strong Protection against Infectious Bronchitis**
- **High stability and homogeneity**



va  inova<sup>®</sup>

Avian diseases like Newcastle Disease (ND), Infectious Bronchitis (IBV), and Egg Drop Syndrome (EDS) pose significant threats to poultry health and production, impacting both the respiratory system and egg quality in flocks worldwide.

**ND** is caused by avian paramyxovirus type 1 (APMV-1) and can infect poultry in all stages, with severity depending on the host and virus strain. Economic consequences caused by Newcastle Disease include decreased egg production, control costs and trade restrictions.

**IBV** is an extremely contagious viral disease that affects chickens of all ages and types. It leads to severe respiratory issues and potentially affecting egg production and quality in laying birds.

**EDS** leads to thin-shelled or shell-less eggs, causing significant losses in egg production. Sporadic outbreaks of EDS occur as a result of infection through contact with infected waterfowl.

**VAXXON® ND-IB3-EDS, a smart combination** of viral antigens tailored to meet the needs of your flock.

Successful vaccination regimes typically begin with early-life immunization using live NDV and IBV vaccines, followed by point-of-lay injections of killed vaccines. This “live and killed” approach offers superior protection against drops in egg production and poor egg quality due to IBV infections, compared to live vaccines alone (Box & Ellis, 1985)<sup>1</sup>.

Vaxxon ND-IB3-EDS delivers robust protection against NDV and EDS, while offering comprehensive, broad-spectrum defense against IBV.

**Enhanced IBV protection** with three targeted antigens: M41, D274, and D1466.

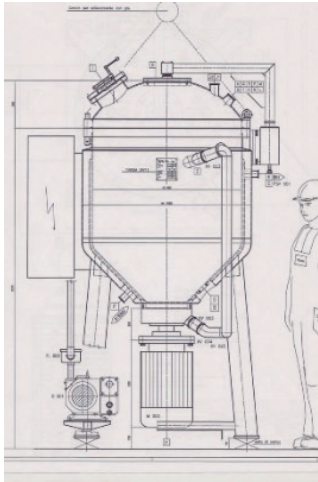
A chicken’s ability to resist Infectious Bronchitis Virus (IBV) depends largely on its antibody titre at the time of infection (Finney et al., 1990)<sup>2</sup>. Studies show that chickens inoculated with two or more different IBV serotypes produce strong virus-neutralizing antibodies, not only against the exposed strains but also against other IBV types (Gelb & Killian, 1987<sup>3</sup>; De Wit et al., 1997)<sup>4</sup>.

Research highlights that combining broad live priming with polyvalent inactivated IBV vaccines significantly strengthens protection against both homologous and heterologous IBV challenges (De Wit et al., 2017<sup>5</sup>; Sorkhabi et al., 2021)<sup>6</sup>.



**Turbo-Emulsion Technology**, used in the production of Vaxxinova inactivated vaccines, is one of the most advanced manufacturing processes available.

Key benefits of this technique are better stability of the homogenous vaccine emulsion and improved syringeability. This results in enhanced absorption at the inoculum site and the birds developing higher levels of immunity faster, ensuring more effective protection.



<sup>1</sup> Box, P.G. and Ellis, K.R. (1985). Infectious bronchitis in laying hens: interference with response to emulsion vaccine by attenuated live vaccine. *Avian Pathology*, 14:9, 9-22

<sup>2</sup> P.M. Finney, P.G. Box & H.C. Holmes (1990) Studies with a bivalent infectious bronchitis killed virus vaccine, *Avian Pathology*, 19:3, 435-450

<sup>3</sup> Gelb, J. & Killian, S.L. (1987). Serum antibody responses of chickens following sequential inoculations with different infectious bronchitis virus serotypes. *Avian Diseases*, 31, 513–522.

<sup>4</sup> De Wit, J.J., Mekkes, D.R., Kouwenhoven, B. & Verheijden, J.H. (1997). Sensitivity and specificity of serological test for infectious bronchitis virus antibodies in broilers. *Avian Pathology*, 26, 105–118.

<sup>5</sup> J. J. de Wit, R. Dijkman, P. Guerrero, J. Calvo, A. Gonzalez & H. Hidalgo (2017) Variability in biological behaviour, pathogenicity, protectotype and induction of virus neutralizing antibodies by different vaccination programmes to infectious bronchitis virus genotype Q1 strains from Chile, *Avian Pathology* 46:6, 666-675

<sup>6</sup> S.B. Sorkhabi, J. Shayegh, H. Hosseini, A. Ghalyanchilangeroudi (2021). Effects of a combination of Mass and Dutch variant as an inactivated vaccine against variant 2 avian infectious bronchitis virus challenge. *Microbial Pathogenesis*, 156, 104937.





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### Indication

Active Immunization against Newcastle Disease, Egg Drop Syndrome (EDS'76) and Avian Infectious Bronchitis, to reduce the decline in eggs cause by adenovirus EDS'76.



### Active Substance

Inactivated Newcastle Disease virus, strain Ulster:

≥ 4.0 log<sub>2</sub> HI units

Inactivated Infectious Bronchitis virus, strain Massachusetts M41:

≥ 6.0 log<sub>2</sub> HI units

Inactivated Infectious Bronchitis virus, strain D274:

≥ 4.0 log<sub>2</sub> HI units

Inactivated Infectious Bronchitis virus, strain D1466:

≥ 4.0 log<sub>2</sub> HI units

Inactivated Egg Drop Syndrom'76, strain Mc Ferran 127:

≥ 7.0 log<sub>2</sub> HI units



### Administration Route

0.5 ml, intramuscular or subcutaneous.



### Poultry Category

Breeders, Layers.



### Age of Vaccination

At 18-20 weeks of age, before the laying period.



### Presentation

Oil emulsion, 500 ml (1000 doses).



### Shelf life

Packaged product: 24 months. After opening: 10 hours.



### Storage conditions

Store in a refrigerator (2°C – 8°C). Do not freeze. Protect from light.



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