

INACTI/VAC® BD3-ND-IB2-REO

Introduction: Inacti/Vac BD3-ND-IB2-REO has been developed for use in breeder hens and replacement pullets to give broad protection against Newcastle disease, and infectious bronchitis (Mass. & Ark. types) and to provide maternal antibodies for the early protection of progeny against reovirus related malabsorption syndrome and tenosynovitis and to type 1, infectious bursal disease (Gumboro disease), standard and variant strains. When injected, the vaccine produces high levels of circulating antibodies, which is maintained throughout the production cycle. This provides high levels of parental immunity in the progeny. This is the only way to provide protection during the critical first few days of life. Infection with IBD (Gumboro) at that time causes permanent damage to the immune system and leaves the flock susceptible to many other diseases. Early infection with reovirus is responsible for tenosynovitis and malabsorption syndrome with all of its various disease conditions (pale bird syndrome, femoral head necrosis, stunting disease, helicopter disease, etc.).

Inacti/Vac BD3-ND-IB2-REO is produced with a high titering strain of LaSota Newcastle disease virus, and the Massachusetts and Arkansas strains of IB virus. This combination of IB virus provides a broader range of protection than other commercial vaccines. Inacti/Vac BD3-ND-IB2-REO contains two reovirus strains, the S1133 strain (a tenosynovitis pathotype) and the 1733 strain (a malabsorption syndrome pathotype). It also contains four IBD strains, the standard Type 1 strain and the Delaware variant A and E (BTO) and Maryland strains, the last three of which are variant IBD strains. By using virus concentration, large amounts of all antigens are provided in a ½ ml. dose. When injected, the oil emulsion controls the absorption of the virus, and greatly enhances the development of high levels of immunity.

To help demonstrate how Inacti/Vac BD3-ND-IB2-REO performs in the field, trials have been conducted to evaluate the immune response to vaccination. The following trial compares Inacti/Vac BD3-ND-IB2-REO to a competitor's 4-way product.

Trial: Two breeder flocks were raised on the same farm in separate houses. Both flocks received the same priming vaccinations. At 12 and 18 weeks of age, the flocks received either Inacti/Vac BD3-ND-IB2-REO or Company X's 4-way product. Serum was collected at 25, 29 and 35 weeks of age for ELISA and virus neutralization (VN) testing. Coded serum samples were sent to LAHI. At the trial's completion, the identities of the coded samples were released to LAHI. Table A shows the serology results from the trial.

Table A

Vaccine Used	Age In Weeks	ELISA Results				Reovirus
		NDV	IBV	IBD	REO	VN
Inacti/Vac BD3	25	16,277	5,462	7,840	5,472	452
Company X	25	11,559	7,028	6,899	2,835	223
Inacti/Vac BD3	29	14,673	6,845	4,513	3,653	485
Company X	29	8,167	9,800	3,759	1,882	232
Inacti/Vac BD3	35	17,523	8,320	4,156	2,613	203
Company X	35	7,159	6,570	3,446	1,137	100

Discussion: At each age, Inacti/Vac BD3-ND-IB2-REO produced a higher immune response to

Newcastle, IBD and reovirus. Furthermore, reovirus VN titers were also greater in the MBL group at each age. Infectious bronchitis results varied through the different ages.

Conclusion: The results of this trial help demonstrate the immune response Inacti/Vac BD3-ND-IB2-REO can produce compared to a competitor's product. Immune response will vary with different vaccination schedules. To see how LAHI products can improve your performance, we will help evaluate your current program, set up a comparison with our products, and run serology tests on coded samples provided by the producer. For more information on Inacti/Vac BD3-ND-IB2-REO or other quality LAHI products, please contact us your area manager.