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POLYHERBAL ADDITIVE PROVES EFFECTIVE AGAINST VERTICAL TRANSMISSION OF IBD

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ABSTRACT

Poultry Industry worldwide growing day by day. There are various new technologies coming which are helping in achieving performance parameters which were hard to believe probably a few years back. With improved management practices, there is advancement in performance but still there are few challenges which prove a nightmare for a poultry farmer such as viral outbreaks. Infectious bursal disease is one key viral outbreak, which is responsible for losses of Million of $ worldwide throughout the year. Researchers throughout the world are working on various ingredients to find out some strategy to control these viral outbreaks. On similar line there is one product produced by Alphafacts Health solution BVBA named ALPHAIMMUNE which is claimed to be very effective against viral outbreak. To prove this a study planned at Alphasan India, Veterinary research center in 8777 broiler breeder birds about 44 weeks of age. Birds are divided into three groups and treatment group 1 supplemented with 2 Kg/MT of ALPHAIMMUNE in diet while group 2 was given 20 gm per 100 bird of Alphaimmune for 30 days. The third group was a control group without any supplementation. At the end of trial it was observed that there is more production in Group I & II. Also the rejection percentage of egg reduced drastically while hatchability increased in group I & II. Also Titer results show better immunity in birds from Group I & II. Hence, it's appropriate to say that ALPHAIMMUNE has significant effect in controlling viral outbreaks in poultry.

KEYWORDS: Alphafacts, Health Solution, Veterinary Research

INTRODUCTION

In recent years, the Indian poultry industry has suffered a great deal from infectious bursa disease (IBD). This disease is known to cause enormous damage to layers, breeders and broilers, so a lot improves control and reduce negative effects of the disease. A polyherbal feed additive has proved to support the immune system of both breeders and their offspring.

Disease challenges by viruses, bacteria, parasites and toxic compounds are a common form of stress in poultry. Although the outright clinical disease may not occur, the immune system is disturbed and growth is impaired. Generally poultry is vaccinated to elicit immunity against disease. Yet often in spite of administering potent vaccines, disease outbreaks still occur due to poor development of an immune system,. So, it is imperative to check whether vaccine administered, has initiated the designed immune response or not. Modulation of the immune response to adequately counteract the disease agents is therefore of considerable interest in poultry farming.

The Belgian company ALPHAFCATS HEALTH SOLUTION BVBA recently developed a product which claims to improve health and productivity in birds. The product has a potent immune-stimulating and rejuvenating effect, helping fight stress and thereby leading to better adopting and productivity. To determine whether its claims were valid, the veterinary Research Centre, Alphasan India Pvt. Ltd. in Ghaziabad in India studied the use of the polyherbal premix "ALPHAIMMUNE".

MATERIAL & METHOD

The study was conducted on 8777 broiler breeders, at the age of 44 weeks. The flock was divided into three almost equally sized groups (1 male/11 females). The group I was given ALPHAIMMUNE premix at 0.2%, i.e. 2 kg per MT of feed, daily for a period of thirty days. Groups II bird received ALPHAIMMUNE Premix at 20 gm per 100 birds daily for a period of thirty days, and Group III birds were kept as an untreated control group.

RESULT & DISCUSSIONS

As broiler breeders age increases their productivity drops. However, birds in Group I and II maintained their production at 78.2% and 78%, respectively, even at the age of 48 weeks, i.e. 30 days after the supplementation period, compared to 76% and 74% production for the breed standard and control groups respectively (Table 1). Interestingly, there was a significant improvement in the percentage of rejected hatching eggs in Groups I and II. Rejection prior to treatment was 3.4% and 3.9% in Groups I and II, respectively, and this dropped to 0.72 and 0.81% following treatment. As expected, there was no improvement in control group III, the percentage of rejected hatching eggs, even went up from 3.4% to 4.5%. Both the treated groups also showed improvements in hatchability.

After an eight week period of supplementation, the treated groups showed better average egg production compared to both the control and the breed standard (table 2). Rejection improved in Groups I and II to 5.3% in the control group (Table 3). Also, there was a significant difference in hatchability between the treated and untreated groups, i.e. 3% and 5.4% improvement in groups I and II respectively compared to the control group.

CONCLUSIONS

The results of the study show a very encouraging development of immunity in broiler breeders. The significantly higher responses in the ALPHAIMMUNE treated groups indicate the immune-modulating action of the product 9Table 4). In the case of T-dependent antigens of IBD, specific T-helper cells recognize the processed antigen on the surface APC (Antigen Processing Cell) in association with MCH-11 antigen plus IL-1. In turn, T-helper cells were stimulated to produce a wide spectrum of lymphokines. Of these lymphocytes, some will stimulate a corresponding clone of B-cells to produce specific antibodies by B-lymphocytes, thus both cellular and humoral response was activated through immunomodulation by ALPHAIMMUNE. Thus, it can be concluded that the addition of substances to feed or water, which exert immuno-modulatory, antistress or adaptogenic actions can be of immense value in enhancing the success and profitability in broiler breeding.

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APPENDICES

Table 1: Performace of the Groups Prior and During the Supplementation of ALPHAIMMUNE

Parameters	15 Days Prior to the Addition Group I, II &III	During Supplementation Period		
		Group I	Group II	Group III
Average egg production (%)	78.2	78.2	78	74
Egg quality	Good	Good	Good	Good
Rejection (%)	3.4	0.72	0.81	4.5
Hatchability (%)	84.0	85.6	84.6	80.2

Table 2: Average Egg Production

Groups	Age of the Flock (in Weeks)							
	49	50	51	52	53	54	55	56
Standard egg production of the breed (%)	74	74	73	72	72	70	68	63
Group I(%)	77.4	77.4	76.4	76.2	76.2	76	76	75.2
Group II(%)	77	77	75.6	75	74.6	74	73	72.4
Group III(%)	72	71	70.3	69.5	69	68	65	62

Table 3: Rejection and Hatchability %

Parameter	Group I	Group II	Group III
Egg quality	Good	Good	Good
Rejection (%)	0.79	0.90	5.3
Hatchability (%)	83.5	81.6	76.2

Table 4: Serum Antibody Titres of the Different Groups on Day '0' (Before Vaccination) and 21 Days after Vaccination: (I.E. ELISA, Idex Kits)

Parameter	Group I	Group II	Group III
IBD titre on day (Before vaccination)	6,840	6,820	6,815
IBD titres on day 21 (After vaccination)	14,420	13,980	12,240