

Title: Efficacy of Combination of Probiotics, Immunomodulators, Vitamins, Minerals and Essential oil Formulation in Disease Prevention

ABSTRACT: Infectious diseases of poultry causing huge economic losses to the industry. Infection with various pathogens causes severe economic loss due to mortality, carcass condemnation, and reduction in the egg production, hatchability, feed efficiency and weight gain. In order to address these problems a variety of intervention strategies has been used in the poultry industry including biosecurity, vaccination and antimicrobial therapy. In the trial we gave the combination of probiotics, immunomodulators, vitamins, minerals and essential oil formulation in 8000 chicks. Mortality and health were observed on 1st, 3rd, 5th, 7th and 10th day. We found that the combination reduces the mortality on 5th day of trial and 10th day no clinical signs were found in poultry farm, which was affected earlier by CRD, CAV and flu.

OBJECTIVES OF STUDY: To evaluate the efficacy of combination of formulation on disease prevention in poultry.

1.1 INTRODUCTION:

Climate is an extremely important environmental factor, which may have serious effects on the occurrence of diseases in poultry. Flu, CAV and CRD are the common diseases found in poultry farms and these are the main cause of mortality in poultry farms.

Avian flu is caused by a type of influenza virus that is hosted by birds. It is caused by a virus that is passed from bird to bird through their saliva, nasal secretions and/or feces. Avian Flu is a dangerous disease since it can kill all poultry on a farm and it can spread rapidly to other farms.

Chicken infectious anaemia (CIA) is a highly contagious disease of young chicken, characterized by severe anaemia, generalized lymphoid atrophy, stunted growth and increased mortality (Todd, 2004; Dhama et al., 2008). The causative agent of the disease is Chicken Anaemia Virus (CAV). It can infect chickens of all ages but disease is only seen in young chickens and is characterised by depression, anaemia, inappetence, haemorrhage and a sudden rise in mortality. CAV depresses the immune system and therefore leaves affected birds more susceptible to other infections and mortality can often be a result of secondary infections.

Chronic Respiratory Disease (CRD) caused by *Mycoplasma gallisepticum* is one of the important infectious diseases of poultry. (Susitha Rajkumar et al 2017). This poultry disease occurs almost everywhere (worldwide), It is transmitted through eggs but organisms can also pass from bird to bird through nasal discharges and through droppings. It can also be transmitted by hands, feet and clothes of attendants of visitors. Signs include: Coughing, Nasal and ocular discharge, Poor productivity, Slow growth, Leg problems, Stunting, Reduced hatchability and chick viability, Occasional encephalopathy and abnormal feathers.

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To prevent huge loss in poultry farming business farmers are advised to thoroughly fortify with knowledge of livestock production and management which involves the steps to preventing dangerous diseases like this.

1.2 TECHNICAL PROGRAMME

MATERIALS AND METHODS

Birds: Broiler Chicks

No. of Birds for trial: 8000 Chicks (1 day old chicks).

Duration: The entire study was carried out for 10 days.

Gutforte - 01 to 10 days

Nomino - 03 to 07 days

Auro RD - 03 to 07 days

Place: Field trial at Narender Sharma poultry farm fatehpur Dhouj road Faridabad,

Supplement: Combination of Gutforte, AuroRD and Nomino

Dosing: 1) Auro RD - 800 ml for 8000 Chicks/day.

2) Nomino – 400 ml /day

3) Gutforte- 40gm/day

Feed type used:

Starter crumble and grower pellets. Starter diet was used as available in the market with standard formulations. Feed was supplemented with Combination of Gutforte, AuroRD and Nomino.

Experimental Trial Design:

In field trial Gutforte supplementation started from 1st day and continued till the end. AuroRD and Nomino started on 3rd day of trial and continued for 5 days. Keeping in view high mortality in the adjoining stocks and the trial stock AuroRD and Nomino administration was started on 3rd day of trial for next 5 days. The observation continued for 10 days. The mortality and health record was taken on 1st, 3rd, 5th, 7th and 10th day.

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1.3 RESULT:

Trial was performed on 8000 chicks. In the past, farm had been affected with CRD, CAV and Flu. Neighbouring poultry farms were also affected with CRD, CAV and flu. Earlier there was 0.7% per day mortality but after giving this supplementation there was reduction in mortality rate i.e. on 5th day mortality was 0.17 % per day and on 10th day no clinical sign of CRD, CAV and flu observed while neighbouring poultry farms were affected with CRD, CAV and flu as show in **fig1**.

Diseases Incidence (Mortality rate)

- After Gutforte, Auro RD and Nomino supplementation Mortality rate reduced from 0.7 % per day to 0.17 % (from 1st day to 5th day).
- No exposure of CRD, CAV and flu, while neighbouring poultry farms were affected with CRD, CAV and flu on the 10th day.

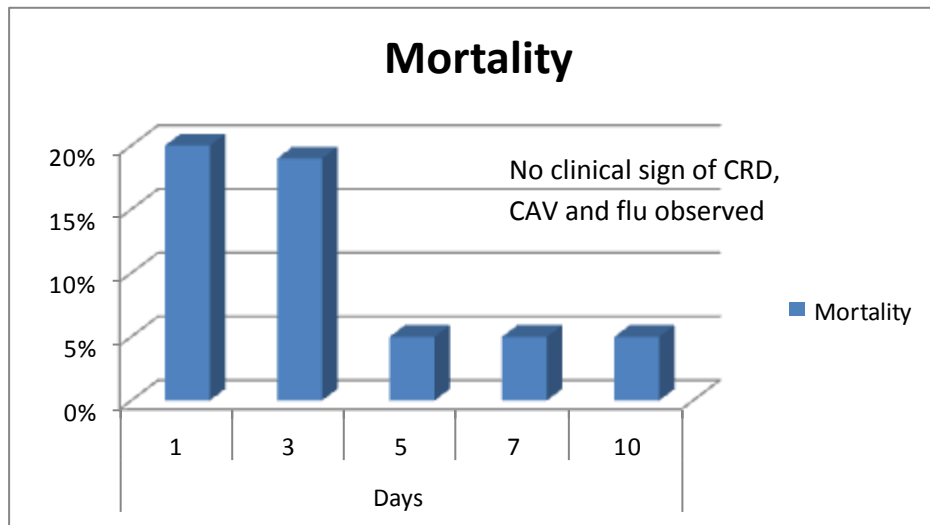


Fig: 1 Effect of supplementation on the mortality rate.

CONCLUSION: The combination of Gutforte, AuroRD and Nomino reduces the mortality rate and increases the immunity and improves over all health in the birds.

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