INTRODUCTION
CHAPTER-I

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The term poultry is used collectively to designate those species of birds that have been domesticated to reproduce and grow in captivity and that render product of economic value such as meat, eggs, fertilizer and animal food.

It appears that people probably domesticated chickens over 4000 years ago, after centuries of hunting the wild jungle fowl for food. The early domesticated fowl were also used in religious ceremonies dedicated to the sun. In ancient India these chickens were scarified to the sun god.

Poultry and especially chickens are now found in almost all part of the world, regardless of climate. As nearly as can be estimated, there is now about one domestic chicken for every human being in the world and the chicken population explosion continues to gain on the human explosion. Poultry can survive under very extreme temperature.

Poultry enterprises, when compared with other livestock ventures, are easy and economical to establish, within 7 weeks of hatching, 4 lb broilers can be processed for a meat supply and eggs can be produced in as little as 6 months. Broilers require a high protein ration and utilize some of the same food which could be use to feed humans.

The products of the poultry industry provide high quality human food. Poultry meat and eggs are important as protective food in human nutrition. Eggs are a good source of proteins, minerals and Vitamins. They constitute an ideal diet because of their low sugar
and availability of iron for the formation of haemoglobin. Poultry meat is one of the most palatable of all meat and is easily digestible. Poultry is very efficient biological machine, which converts food wastes and food by products into the human food of high biological value. Poultry has several other advantages also. It can play a very important role in the economy of the country. Poultry can be maintained by the poor people and can be multiplied to a great extent in a very short time. It can germinate employment to the educated unemployed youth and can be a source of additional income for the backyard poultry keepers and farmers. It provide valuable manure also, which can boost our agricultural production. Like any other industry, poultry industry can not be a successful venture, unless and until it is economically viable. But profit very much depend upon the cost of production, which itself depends upon the productivity of the stock.

Poultry contributes about Rs. 7500 crores to the gross national product (GNP) of India. India ranks fifth in the world’s egg production. The average per capita consumption is about 32 eggs and 600 grams of poultry meat in a year. However, the quantity recommended by the national institute of nutrition is 180 eggs per capita and 11 kg of all meat (440 gram poultry meat).

To meet the optimum requirement of poultry meat and egg in our country are to increase the share of calories from animal product at least to the level of world average, it is must prudent to increase the number of eggs and broiler product on along with the harvest per birds. From time to time various feed additive like Liv-52, Livol, Nitrovin, Verginiamycin, Flavomycin, Liv fit Vet premix, Shatavari and Ashwagandha have already been tried by Devegowsa et al., 1990, 1996.
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Stressroak Liquid is an extract of herbal ingredients like *Withania sonnifera*, *Ocimum santum*, *Mangifera indica* and *Phyllanthus amblica* of M/S Dabur Ayurved Limited Ghaziabad. It effectively combats stress and helps in restoration of normal body function for better productivity. Stressroak control different stress conditions of poultry birds (Anon, 1997).

Limited information is available in respect of feeding stressroak on nutrient utilization, egg production and blood metabolities in poultry birds (Anon, 1997). Therefore, this study was undertaken with the following objectives:

1. To study the feeding stressroak on feed consumption, nutrient utilization and egg production in the White plymouth rock birds.

2. To observe the effect of feeding stressroak on mortality rate.

3. To study the effect of feeding stressroak on internal and external egg quality of White plymouth rock birds.

4. To observe the effect of stressroak on vital organs weight, number of mature ova in ovary and any pathological change in the body.

5. To observe the effect of stressroak on haematological and certain biochemical constituents of blood.