

**AN ANALYSIS ON INTENSIVE REARING OF NATIVE
BREEDER CHICKEN IN WESTERN TAMIL NADU**

P. BALAMURUGAN

I.D.No. MVM 12024 (PSC)

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DEPARTMENT OF POULTRY SCIENCE
MADRAS VETERINARY COLLEGE, CHENNAI - 600 007**

CERTIFICATE

This is to certify that the thesis entitled “AN ANALYSIS ON INTENSIVE REARING OF NATIVE BREEDER CHICKEN IN WESTERN TAMIL NADU” submitted in partial fulfillment of the requirements for the degree of **MASTER OF VETERINARY SCIENCE** in the discipline of **POULTRY SCIENCE** to the TAMIL NADU VETERINARY AND ANIMAL SCIENCES UNIVERSITY, CHENNAI - 600 051, is a record of bonafide research work carried out by **P. BALAMURUGAN**, under my supervision and guidance and that no part of this thesis has been submitted for the award of any other degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journal or magazine.

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(Dr. S. EZHIL VALAVAN)
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Chairman

:

Dr. S. EZHIL VALAVAN

Members

:

1. Dr. R. ASHA RAJINI

Date:

Place: Chennai - 7

2. Dr. N. K. SUDEEP KUMAR

ABSTRACT

Title	: AN ANALYSIS ON INTENSIVE REARING OF NATIVE BREEDER CHICKEN IN WESTERN TAMIL NADU
Name of the student	: P. BALAMURUGAN
I.D.No.	: MVM 12024 (PSC)
Degree for which thesis submitted	: M.V.Sc., in Poultry Science
Chairman	: Dr. S. EZHIL VALAVAN, Ph.D., Associate Professor, Poultry Research Station, Directorate of Centre for Animal Production Studies, Chennai-600 051
Department	: Department of Poultry Science
College	: Madras Veterinary College, Chennai - 600 007.
University	: Tamil Nadu Veterinary and Animal Sciences University, Chennai - 600 051.
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A study was undertaken to survey the practices of intensive rearing of native breeder chicken and socio-economic status of the farmers involved, to document management practices adopted, assess production performance of native breeder chicken (male and female) under intensive management system and to make economic appraisal of the growing enterprise and constraints faced by the native breeder chicken farmers in western districts of Tamil Nadu. The study was conducted in 45 farms, 15 farms each in three western districts of Tamil Nadu *viz.*, Erode, Tirupur and Coimbatore. The farms were identified by simple random sampling and data collected through a semi-structured interview schedule.

The study revealed that farmers rearing native breeder chicken intensively were mostly graduates, predominantly middle aged males who owned the farms. Native breeder chicken farmers had more than two hectares of land, low level of

experience (< 5 years) and used their own land for native breeder chicken farming in the study area. Multiple batch system was mostly followed, the sheds were pucca with asbestos and cement flooring. Deep litter system of rearing was followed. Farmers used bore well water and sanitized the water. Brooding with charcoal was carried out for 14 days. All the farmers practised debeaking twice viz., 13th and 95th days of its age before spiking the flock.

The mean age and body weight of male at the time of initial breeding was 192 days and 2.57 kg respectively. The mean age and body weight at sexual maturity of female parent was 170 days and 1.83 kg. The daily feed consumption of male and female parent breeder was 124.27 and 117.59 gm per bird respectively. Flock mating was practised with a sex ratio of 1:8 and the mean semen volume produced by the male parent maintained in cage was 0.54 ml. The feed efficiency to produce a dozen egg and one kg egg mass in native breeder chicken was 5.44 and of 9.10 kg respectively. The average egg weight was 46.51 gm and the average annual egg production was 101.83. Average number of settable egg was 97.65 and average total hatchability was 73.16 per cent.

Mostly own farm chicks were used as replacement of parent stock, the average chick weight was significantly ($P \leq 0.05$) lower in small farms than large farms, with an average chick weight of 35.62 gm and the average cost of chick was ₹. 32.73, significantly ($P \leq 0.01$) higher in small farms (₹. 35.06). Native chicks were medicated and survival rate was significantly ($P \leq 0.05$) higher in small farms than medium and large farmers with the average livability of 96.19 and 94.09 per cent during brooding and growing respectively. Proper disinfection and vaccination were carried out as in commercial breeder farms.

Total cost of production per hatching egg and per chick worked out to be ₹ 17.98 and ₹ 28.33, ₹ 16.78 and ₹ 26.99, ₹ 15.25 and ₹ 24.89 in small, medium and large farms respectively. The net profit per breeder bird worked out to be ₹ 688.31, ₹ 793.56 and ₹ 834.08 yielding a benefit-cost ratio of 1.38, 1.44 and 1.46 respectively in small, medium and large farms.