

**EVALUATION OF PERFORMANCES OF
DIFFERENT BROILER STRAIN UNDER THE
ENVORINMENTALLY CONTROLLED BROILER
HOUSES**

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by

ABIRAMY SIVASOTHY

**Animal Science Degree Programme
Faculty of Animal Science and Export Agriculture
Uva Wellassa University**

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Abstract

The aim of the study was conducted to evaluate the performance and carcass quality of Hubbard Flex and F15 commercial broiler strain under environmentally controlled broiler house in Sri Lanka to find the best strain among them. Five hundred day old broiler chicks of two strains were obtained from hatchery and reared for 6 weeks of age. Each strain consisted of 250 birds and each sub group divided in to 5 replicates of 50 birds per each group. From day old to seven days, chicks were kept in the brooding section. All the conditions were same to the each treatment. The birds were fed with *adlibitum* feeding throughout the rearing period. Same amount of feed was given to the each treatment separately. Feed intake of the bird was calculated by measuring remain feed in the bucket. Data were recorded week wise throughout the rearing period and analysed by using statistical software. Data were obtained on growth performance (body weight, daily gain, feed intake, feed conversion ratio and mortality) and carcass quality. Data was statistically analysed by using two sample t test and General Regression Analysis in Minitab 16 software. There were significant ($P < 0.05$) difference among two strain on body weight, daily gain, feed conversion ratio and mortality and also there were significant differences among the coefficients for growth performance for strains except feed intake. Strains of the bird were shown highly significant ($P < 0.05$) and positive correlation for body weight, daily gain and feed conversion ratio. According to the result of carcass quality there were not significant ($P > 0.05$) difference most of the organs weight and dressing percentage but significant in the weight of breast, liver and drumstick. According to the result of the data it can be recommended that F15 commercial broiler strain is the best for poultry farmers in Sri Lanka which is given economically profit rather than flex commercial broiler chicken.

Key words: Environmentally control house, *adlibitum* feeding, body weight, weight gain, feed conversion ratio, carcass quality.