

Piyawadee Klanliang 2012: Effect of Lighting Period Reduction on Performance and Behavior of Broiler. Master of Science (Animal Production), Major Field: Animal Production, Department of Animal Science. Thesis Advisor: Assistant Professor Ornprapun Songserm, Ph.D. 75 pages.

This study was aimed to investigate the effect of different lighting periods on performance and behavior of broiler. One thousand day-old Ross 308 chicks were assigned to rear under two different lighting programs; treatment 1 (control): 23 hours of light per day from 0-42 days and treatment 2: reduced lighting period to 16 hours of light per day during 8-21 days and 18 hours of light per day during 22-35 days. The randomized complete block design (RCBD) was used with 10 replications of each gender. The birds were fed by commercial broiler diets in two periods (starting period; 0-21 days and finishing period; 22-42 days). The results showed that different lighting period had no significant effects on mortality, carcass yields, foot pad and hock burn ($P > 0.05$). However reducing of lighting period was significantly reduced total feed intake ($P < 0.01$) and had a tendency to increase body weight at 42 days of age ($P = 0.0605$). Feed conversion ratio, body weight gain, body weight uniformity, behavior of sleep, immune response against Newcastle disease vaccine and quality of litter in reduced lighting period group were also found to be better than those in the control group ($P < 0.05$)

Student's signature

Thesis Advisor's signature