

## The Effect of Blue Lighting on Feeding Behaviour, Growth, and Corticosterone of Broiler Chickens

**Authors :** Sri Harimurti, Diah Reni Asih

**Abstract :** This study was designated to investigate the effect of intermittent and continuous blue lighting on the feeding behaviour, growth and corticosterone hormone concentration of broiler. Two thousands and seven hundreds unsexed day-old broiler were divided into three groups of lighting treatment. Each treatment consisted of three replicates of 300 birds. The treatments were ordinary lighting (C), intermittent blue lighting (IBL) and continuous blue lighting (CBL). The data were collected in the study were feeding behaviour such as feeding duration and frequency of feeding, growth rate of birds and corticosterone hormone concentration. Results showed that the CBL have significant effect ( $P < 0,05$ ) on duration and frequency of feeding and growth rate of birds. The CBL have the highest feeding duration, the lowest frequency of feeding that those  $290.33 \pm 1.52$  minutes/day,  $35.58 \pm 0.50$  times/day at 15 to 28 days of age. The concentration of corticosterone hormone of IBL and CBL were a significant ( $P < 0.05$ ) decrease. The conclusion of this study indicated that continuous blue lighting may be a good tool for improving welfare management of broiler.

**Keywords :** blue light, broiler chickens, corticosterone hormone, feeding behaviour, growth rate

**Conference Title :** ICPPAH 2017 : International Conference on Poultry Production and Animal Husbandry

**Conference Location :** Istanbul, Türkiye

**Conference Dates :** July 27-28, 2017