

# **Lighting for Broilers**

## **(Abstract)**

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The modern broiler is a product of genetic selection for a large bird and improved nutrition which has offered the serviceperson a challenge at times. One management tool available to maximize performance for a long time has been the altering of lighting programs. Lighting for poultry production is normally thought of in terms of specific recommendations for wavelengths of lamps, intensity of the lighting system and duration of the light during the day. All of these impact production of the broiler, however specific recommendations may not be as necessary now as they were several years ago. What can help a person implement a light program on a particular farm is an understanding of a farm's situation and a understanding as to how the lighting programs can modify behavior and/or the physiology of the growing bird. Then the bird should be able to respond to the nutrition and the other factors of the environment and management that is imposed upon the bird.

The impact of altering behavior or physiology of the bird through light can be seen in pattern of light duration which influences feed consumption activity which alters growth pattern, thus capable of altering the incidence of metabolic disorders and thus mortality. Changes in the amount of activity can be influenced by intensity which again can modify the skeletal and muscular systems which impact leg strength. The duration and intensity utilized in the light program can also impact the immune system and the ability of the bird to survive to processing time.

Processing plant efficiencies are influenced if feed is retained in the crop at the time of processing. The lighting program imposed upon the bird prior to transport can impact carcass contamination.

The tools we have available today are much improved from both the ability to deliver a specific program and the ability to conserve energy in the broiler house.