Interaction of feeding time and temperature and their relationship to performance of the broiler breeder hen.

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Author information

Abstract

Experiments with broiler breeder hens were undertaken to determine effect of feeding time and environmental temperature on various production variables, body weight, and feed consumption. Two temperature treatments were used: low cyclic temperature (10 to 25 C), and high cyclic temperature (21 to 39 C). The three feeding treatments were: fed one daily meal either at 0700 h (Treatment 1) or 1800 h (Treatment 2), or one-half the daily amount at 0700 h and the other half at 1800 h (Treatment 3). In another experiment, hens were assigned to feeding times of either 0700 or 1800 h. Feeding time and temperature did not markedly affect rate of egg production; however, hens at high temperature fed two meals per day produced the fewest eggs. High temperature caused significant reductions in egg weight, specific gravity, and shell thickness. Feeding time and temperature had no effect on time of oviposition, ovulation, or the transit time of the egg through the oviduct. Significant body weight loss occurred in hens at high temperature and fed at 0700 h. Both high temperature and feeding one-half of the daily feed at 0700 and the other half at 1800 h caused a reduction in feed consumption.