

Relationship between Hatchling Length and Weight on Later Productive Performance in Broilers

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Hatchling length and weight are used as tools to measure hatchling quality. However, the relationship between these parameters and later performance are not well known. This review evaluates the relationship between hatchling length or weight and slaughter weight, breast meat yield and feed conversion ratio (FCR) in both male and female broilers.

Datasets from two trials were compared. In the first, hatchling length and weight of 100 male and 100 female broilers were measured and body weight and breast meat yield were determined at 38 days of age. In experiment 2, hatchling length of 187 female and 230 male broilers was measured and body weight was determined at 21 and 42 days of age. Feed intake was determined between 21 and 42 days of age.

In both experiments, male broilers showed a positive relationship between hatchling length and slaughter weight or breast meat yield, but no relationship was found with hatchling weight. The relationship between hatchling length and performance in female broilers dif-

fered between the two experiments. In female broilers, a negative relationship between hatchling weight and breast meat yield was found. No relationship between hatchling length and FCR in both male and female broilers was found. From this limited dataset, it can be concluded that hatchling length seems to be a better parameter to predict subsequent chick performance, excluding FCR, than hatchling weight, but gender needs to be taken into account.

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