

Sexing on a Day-old Chick of Gold Arabic chicken (*Gallus turcicus*) using Feather Sexing Method

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1 ABSTRACT

Gold Arabic Chickens (*Gallus turcicus*) are local laying chicken developed in Indonesia. Early chick sexing is important in production management since it is laying hens needed as the egg breeders. The most common manual sexing method is vent sexing with high accuracy, despite its various requirements and weaknesses. It is found that in Arabic chickens, no sexing method is applicable because vent sexing method is very difficult and feather sexing method has never been tested. This study aimed to estimate a *Day-old Chick* (DOC) sexing of gold Arabic chickens using feather sexing method (wing feathers and plumage colour), and to determine its accuracy as an alternative method without using special tools and can be done visually. This research was conducted on 128 DOC of Gold Arabic chickens, which were sexed using three different feather-sexing methods, such as (1) length difference on primary and secondary feathers, (2) length difference on primary and covert feathers, (3) the difference in Plumage colour pattern from the dorsal of the head to the back. The data collected were analysed descriptively. Sex identification was proven using gonad observation through necropsy. The findings (percentage of accuracy) are method (1) 80.47%; method (2) 64.84%; method (3) 61.72%. This indicates that the differences in primary and secondary feather growth have the highest accuracy for sex prediction; however, development is needed to improve its accuracy.