

PRE-HATCH SEX DETERMINATION OF BROILER CHICKS

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The superiority of feed conversion efficiency and weight gain of broilers raised as separate sex over straight-run have been well documented, however, the additional cost of sexing chicks, especially those that could neither be colour or feather sexed discourages most commercial hatchery operators from sexing their broiler chicks before it is sold to the farmers. This study aims at using some weight and morphometric measures of the hatchable eggs to determine sex of the chicks *a priori*. The method entails the use of discriminant indices based on the pre-hatch measurements taken on the eggs to predict the sex of the chick. The data for the study came from three different promising strains of broilers that have adapted well to the hot humid environment of South Western Nigeria. The eggs for the study were appropriately marked and tagged and hatched in individual hatching chamber to prevent crossing of the chicks at hatch. Chicks were immediately tagged and sexed by vent inspection by a professional. After building the discriminant function, the data was used to test the reliability of the methods in predicting chick sex. It was observed that the accuracy of the method was higher in detecting male than female chicks across the three strains studied. Also there is considerable difference in the accuracy of the method across the three strains. If the method is further enhanced to include more discriminating measures about the chick, and increase the sample size, it promises to efficiently and effectively classify the chicks based on sex, thereby reducing the cost of manually sexing the chicks.