

EFFECTS OF STOCKING DENSITY, GENOTYPE AND SEX ON THE
GROWTH PERFORMANCE AND CARCASS CHARACTERISTICS OF ROSS
AND COBB BROILER CHICKENS

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ABSTRACT

A total of 1386 male and female broiler chicks comprising 684 Ross 308 and 702 Cobb Avian48 day-old chicks were assessed for growth performance and carcass characteristics to 42 days of age. The broilers were raised at stocking densities of 30, 35, and 40 kg BW/m² during a 42-day production period. The effects of genotype, sex and stocking density were investigated. Cobb consumed less feed, gained more weight and was heavier than Ross at slaughter age (42days). Males consumed more feed, gained more weight and had a lower feed conversion ratio than females. Broilers raised at the stocking density of 30 kg BW/m² gained more body weight and were heavier at 42 days than those raised at 35 and 40 kg BW/m². There was a progressive reduction in feed intake with increasing stocking density. Sex significantly affected back and thigh weights as well as carcass, wing, drumstick, neck and shank weights, with higher means in males than females. There was also a progressive reduction in the weights and relative weights of carcass parts as stocking density increased. There were genotype x stocking density interaction effects on body weight gain during grower period and feed consumption during the entire study period.

Key words: Broiler chickens · Density · Genotype · Sex · Performance.