

EFFECT OF GENOTYPE AND MATURE WEIGHT PERCENTAGES ON CARCASS YIELD, PHYSICAL COMPOSITION, JOINTS AND CHEMICAL COMPOSITION OF CROSSBRED GOATS

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ABSTRACT

Seventy two goat kids, represented four genetic groups each consisted of 18 animals {1/4Damascus (D), 3/4Barki (B)} (1/2D*1/2B), (3/4D*1/4B) and (7/8D*1/8B)} each group of kids was divided into three equal subgroup of similar average body weight, they were slaughtered at 50%, 65% and 85% of the mature weight respectively. The (7/8D*1/8B) genotype and 85% mature weight showed heaviest slaughter weight, hot carcass weight, gut content weight, total offal's weight, edible offal parts weight and offal's fat weight, while the (1/4D*3/4B) genotype and 50% mature weight were lighter for the same traits. In the left side, (7/8D*1/8B) genotype had the heaviest lean weight, the genotype (7/8D*1/8B) exceed the genotype (1/4D*3/4B) in lean weight by 39%, while the differences between genotype (1/4D*3/4B) and genotype (1/2D*1/2B) was 0.08% only. When carcass weight was expressed as percentage of live body weight genotypes appeared to differ significantly with (7/8D*1/8B) having higher dressing percentage followed by the (1/4D*3/4B), (3/4D*1/4B) and then the genotype (1/2D*1/2B). While when carcass weight was expressed as percentage of empty body weight genotypes appeared to differ highly significantly with (7/8D*1/8B) having higher dressing percentage followed by the (3/4D*1/4B), (1/2D*1/2B) and then by the (1/4D*3/4B). Lean percentage were higher in (7/8D*1/8B) genotype was followed by (3/4D*1/4B), (1/2D*1/2B) and then by (1/4D*3/4B). Lean percentage in genotypes carcass ranged between 61% and 65%. The genotype effect on the bone percentage in (leg, shoulder and best end of neck) joints was significant but the bone percentage differences in Middle neck and breast joints were insignificant, while the bone percentage differences in loin and scrag were significant. On the other hand, the effect of mature weight on bone percentage in joints of leg, shoulder and loin were highly significant but the bone percentage differences in best end of neck and breast joints were insignificant, while the bone percentage differences in middle neck and scrag were significant. Total fat weight in left side was heavier in genotype (7/8D*1/8B) than other genotypes followed by (3/4D*1/4B), (1/2D*1/2B) and then genotype (1/4D*3/4B). The differences among genotypes were highly significant effect on Total fat weight in left side and on Total fat percentage. Total fat percentage was higher in genotype (1/4D*3/4B) followed by (1/2D*1/2B), (3/4D*1/4B) and then genotype (7/8D*1/8B). Results concluded that crossing D with B resulted in improving carcass characteristics, also, slaughtering at 85% mature weight improved all studied traits.