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Study on the feeding value of forages mixed grass and concentrated on the Qing Yuan Wuzong geese during fattening

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Key words: Wuzong geese, Brachiaria hybrid, carcass merit, slaughter quality, forages concentrated

Introduction In recent years, with the development of animal husbandry, the change of consumption structure and the market demand, goose production capacity incessantly enlarges in Guangdong. Geese can resist coarse grain, consume little corn and be fed with grass. Feeding geese with Adding grass to feedstuff can not only deduce feeding cost, but also enhance carcass quality, make feather color and meat quality. Brachiaria hybrid (*Mulato*) is the high-quality tropical forages. The objectives of this study were to evaluate the feeding value of forages mixed the grass and concentrated on the Qing Yuan Wuzong geese during fattening by comparing of Broiler geese indexes of Carcass merit and slaughter quality.

Materials and methods One hundred sixty healthy Wuzong geese, with same weight, were randomly allocated into four groups according to the single-factor design, and 40 replications per group. Each group was then fed one of the four kinds of diets designed by different forages [*Pennisetum Purueumer Mett* (Group I), *the Mulato I* (Group II), *the Mulato II* (Group III)], and mixed with concentrated feed in proportions of 2:1, and complete concentrated feed (Group IV). The experimental period lasted 105 days. Indexes from the experiment were determined by ANOVA. The data analyses were done using SPSS and EXCEL software.

Results There were no significant differences among the four groups in initial weight. Group II final weight and average daily gain were significantly higher than for Group I and Group III. The rate of increase of daily gain decreased over time. Although the rate of gain was slowest for Group II, their rate of gain and daily gain were not different from Group IV. Broiler geese Carcass merit (Figure 1) and slaughter quality (Figure 2) indexes were not significantly different among the four treatment groups. The 80-day-old triacylglycerols (TG) and high density lipoprotein (HDL) were also not significantly different among the four treatments. After 80-days-old, the four groups were all fed with concentrated feed for twenty-two days. In this case, TG and HDL still were not significantly different among the four groups. But total cholesterol esters in Group I were significantly higher than Group II, and Group I's low density lipoprotein was significantly higher than Group III. ($p < 0.05$).

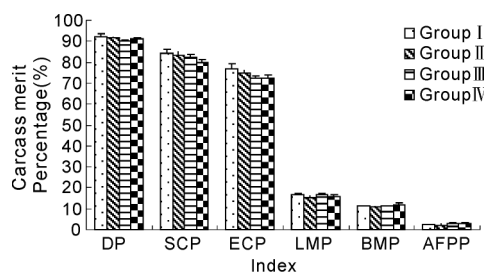


Figure 1 Comparison of Broiler geese Carcass merit indexes in per treatment. (DP: Dressing percentage, SCP: Semi-eviscerated carcass percentage, ECP: Eviscerated carcass percentage, LMP: Leg muscle percentage, BMP: Breast muscle percentage, AFPP: Abdominal fat pad percentage.)

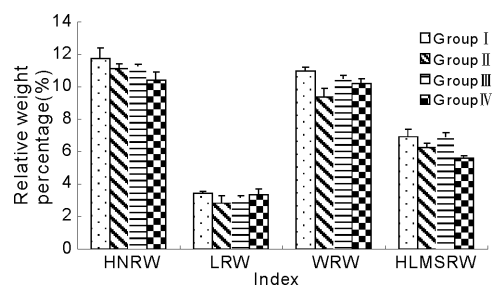


Figure 2 Comparison of Broiler geese slaughter quality indexes in per treatment. (HNRW: Head and neck relative weight, LRW: Leg relative weight, WRW: Wings relative weight, HLMSRW: Heart, liver and muscular stomach relative weight)

Conclusion The *Mulato I* mixed concentrated feed in the ratio of 2:1 feed Wuzong geese did not significantly impact growth, carcass merit, time-to-market of geese, serum fatness, or abdominal fatness.