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饲料策略对不同遗传品系二郎山山地鸡生产性能和屠宰性能的影响

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Effects of Dietary Strategy on Performance and Carcass Traits of Erlang Mountain Chickens from Different Genetic Strains

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摘要 本试验旨在研究饲料策略对不同遗传品系和性别的二郎山山地鸡生产性能和屠宰性能的影响。试验采用4×2×2因子设计,4个二郎山山地鸡遗传品系、2个饲料策略、公母2个性别。每个处理公母各4个重复,每个重复30只鸡,共计1 920只。试验考察了山地鸡各阶段的生产性能、28 d血清生化指标及67 d屠宰性能。结果表明:饲料策略对各阶段二郎山山地鸡采食量无显著影响($P>0.05$),高赖氨酸饲料显著提高了山地鸡1~67 d死亡率($P<0.05$),极显著提高了山地鸡67 d体重、1~67 d体增重($P<0.01$),显著降低了1~49 d($P<0.05$)和1~67 d料重比($P<0.01$),但对山地鸡屠宰率、半净膛率、全净膛率、左胸肌率、左腿肌率无显著影响($P>0.05$),对67 d胸肌肉色及屠宰后45 min pH也无显著影响($P>0.05$)。品系SD02的28、67 d体重和1~28 d、1~49 d和1~67 d体增重在各品系中均最高,且遗传品系均极显著影响以上指标($P<0.01$);品系SD0302的49 d体重最高,品系SD02次之,均极显著高于品系SD0203($P<0.01$);品系SD0302和SD02的1~28 d采食量显著高于其他2个品系($P<0.05$);品系SD02的屠宰率、腹脂率均显著低于另外3个品系($P<0.05$)。饲料策略、性别和遗传品系之间在山地鸡67 d体重、1~67 d体增重上表现了极显著的交互效应($P<0.01$)。综上所述,高赖氨酸饲料策略可显著改善二郎山山地鸡67 d体重、1~67 d体增重、1~49 d和1~67 d料重比;对生产性能和屠宰性能综合评估可知,4个遗传品系优劣顺序为:品系SD0302、SD02>品系SD03>品系SD0203;各遗传品系公鸡的生产性能均优于母鸡;饲料策略、性别和遗传品系之间在体增重上表现了显著的互作效应,应区别饲养。

关键词: 二郎山山地鸡 遗传品系 饲料策略 生产性能 屠宰性能

Abstract: This study was designed to investigate the effects of dietary strategy on performance and carcass traits of Erlang mountain chickens from different genetic strains and sexes. The experimental design was a 4×2×2 factorial arrangement with four genetic strains, two dietary strategies and two sexes (male and female). One thousand and nine hundred twenty 1-day-old Erlang mountain chickens were randomly divided into 8 treatments with 8 replicates (4 male replicates, 4 female replicates) and 30 chickens in each replicate. The performance during the three stages, serum biochemical parameters on 28 d and carcass traits on 67 d of Erlang mountain chickens were investigated. The results showed that there was no significant difference in feed intake (FI) between the two diet strategies ($P>0.05$). But body weight (BW) on 67 d ($P<0.01$) and body weight gain (BWG) ($P<0.01$) and mortality at 1 to 67 d ($P<0.05$) in high lysine diet group were significantly higher and feed to gain ratio (F/G) at 1 to 49 d and 1 to 67 d was significantly lower than that in low lysine diet group ($P<0.01$). The dietary strategy had no significant effects on slaughter rate, eviscerated yield with giblet rate, eviscerated yield, left breast rate, left thigh rate, breast color and pH 45 min after slaughter on 67 d ($P>0.05$). The genetic strains had significant effects on BW on 28 and 67 d, and BWG at 1 to 28 d, 1 to 49 d and 1 to 67 d ($P<0.01$), and SD02 had the highest values on above indices among all genetic strains. SD0302 had the highest BW on 49 d, and followed by SD02, and they were higher than SD0203 ($P<0.05$). SD0302 and SD02 had higher FI at 1 to 28 d than the other two genetic strains ($P<0.05$). Slaughter rate and abdominal fat rate of SD02 were significantly higher than those of the other three genetic strains ($P<0.05$). The interaction of dietary strategy, sex and genetic strain was significant in BW on 67 d and BWG at 1 to 67 d ($P<0.01$). In conclusion, the high lysine diet can significantly affect BW on 67 d, BWG at 1 to 67 d, F/G at 1 to 49 d and 1 to 67 d of Erlang mountain chickens, and by comprehensive evaluation of performance and carcass traits, it can be concluded as follows: strains SD0302 and SD02>SD0203>SD03, and the performance of

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male is better than that of female, and because the interaction of dietary strategy, sex and genetic strain is significant in body weight gain, *Erlang* mountain chickens should be separately raised.

Keywords: *Erlang* mountain chickens, genetic strain, dietary strategy, performance, carcass traits

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