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## 不同限饲水平对产蛋期肉种鸭生产性能的影响

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## Different Restricted Feeding Amounts Affect Performance of Meat-Type Breeder Ducks during the Laying Period

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**摘要** 本研究旨在探讨不同限饲水平对产蛋期肉种鸭生产性能和孵化指标的影响。试验选取40周龄父母代SM3樱桃谷种鸭3 200只(母鸭2 600只,公鸭600只),随机分成4组,每组5个重复,每个重复160只鸭(母鸭130只,公鸭30只)。以玉米-豆粕-小麦型配合饲料(代谢能11.50 MJ/kg,粗蛋白质18.00%)为基础饲粮。T1组日饲喂料量最大,为每只鸭225 g,其他组依次降低15 g,分别为210(T2组)、195(T3组)和180 g(T4组),试验期35 d。结果表明:1)当日饲喂料量由225 g下降到210 g时,公、母鸭的体增重均显著下降( $P<0.05$ ),产蛋率略有上升,蛋重略有下降,但二者变化均不显著( $P>0.05$ ),当日饲喂料量继续下降到195和180 g时,与日饲喂料量225 g时相比,公、母鸭体增重、产蛋率和蛋重均显著下降( $P<0.05$ );2)经回归分析,公、母鸭体增重、产蛋率、蛋重与日饲喂料量有显著的直线或二次曲线关系( $P<0.05$ ),产蛋率与蛋重之间也有显著的二次曲线关系( $P<0.05$ );3)日饲喂料量对种鸭死淘率及种蛋合格率、受精率、健雏率、入孵蛋孵化率和受精蛋孵化率均无显著影响( $P>0.05$ )。结果提示,适当限制饲喂料量可降低体增重,提高产蛋率,但过度限饲会影响生产性能。

**关键词:** 限饲 生产性能 孵化指标 SM3樱桃谷种鸭

**Abstract:** This study was conducted to research the effects of different restricted feeding amounts on the performance and hatching indices in meat-type breeder ducks during the laying period. A total of 3 200 SM3 Cherry Valley breeder ducks (female 2 600, male 600) aged 40 weeks were randomly divided into four treatments with five replicates per treatment and 160 ducks (female 130, male 30) per replicate. A corn-soybean meal-wheat feed (ME 11.5 MJ/kg, CP 18%) was used as a basal diet. The largest daily feeding amount per duck (225 g) was given to the ducks of treatment 1 (T1), and the daily feeding amounts per duck of the other treatments were decreased 15 g in turn and were 210 (T2), 195 (T3) and 180 g (T4), respectively. The study lasted for 35 days. The results showed as follows: 1) when daily feeding amount per duck was decreased from 225 to 210 g, the body weight gain (BWG) of male and female ducks was decreased significantly ( $P<0.05$ ), the laying rate had a slight rise ( $P>0.05$ ), and the egg weight had a slight drop ( $P>0.05$ ). When daily feeding amount per duck was constantly decreased to 195 or 180 g, not only BWG of male and female ducks, but also laying rate and egg weight were significantly decreased ( $P<0.05$ ). 2) Regression analysis showed that the BWG of male and female ducks, laying rate and egg weight had the linear or the quadratic relationship with the daily feeding amount per duck ( $P<0.05$ ), and the laying rate had a significant quadratic relationship with egg weight, too ( $P<0.05$ ). 3) The daily feeding amounts per duck had no significant effects on the mortality, qualified rate of hatching eggs, fertility rate, rate of healthy duckling, hatchability of hatching eggs and hatchability of fertile eggs of ducks ( $P>0.05$ ). These results indicate that suitable quantitative feed restriction can decrease the BWG of ducks, and increase the laying rate, but excessive restricted feeding can negatively affect the performance of ducks.

**Keywords:** restricted feeding, performance, hatching indices, SM3 Cherry Valley breeder ducks

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