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## 饲料中不同水平芝麻油对苏禽青壳蛋鸡产蛋性能、蛋品质、血清脂质指标和蛋黄胆固醇含量的影响

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## Effects of Dietary Different Sesame Oil Levels on Laying Performance, Egg Quality, Serum Lipid Indices and Yolk Cholesterol Content in *Suqin* Green-Shelled Laying Hens

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**摘要** 本试验旨在研究饲料中不同水平芝麻油对蛋鸡产蛋性能、蛋品质、血清脂质指标和蛋黄胆固醇含量的影响。试验选用28周龄体况良好、产蛋率接近的苏禽青壳蛋鸡160只,随机分成4组,每组4个重复,每个重复10只鸡。对照组饲料不含芝麻油,试验组饲料分别含有1%、2%和3%的芝麻油,各组饲料中能量、蛋白质水平相同。试验期为42 d。结果表明:各试验组产蛋率、只总蛋重、只总采食量和料蛋比与对照组相比较差异均不显著( $P>0.05$ )。2%芝麻油组的平均蛋重和蛋形指数显著高于对照组( $P<0.05$ );3%芝麻油组的哈氏单位显著高于对照组和2%芝麻油组( $P<0.05$ );2%和3%芝麻油组的蛋黄颜色显著高于对照组( $P<0.05$ )。2%芝麻油组的血清胆固醇和甘油三酯含量显著低于对照组和3%芝麻油组( $P<0.05$ );3%芝麻油组的蛋黄胆固醇含量显著高于其他各组( $P<0.05$ )。由此可见,饲料中芝麻油添加水平为2%时,能显著提高蛋鸡平均蛋重、蛋形指数、蛋黄颜色和蛋黄重,降低血清胆固醇和甘油三酯含量,对产蛋率、料蛋比和其他蛋品质指标无不良影响。建议饲料中芝麻油的添加水平为2%。

**关键词:** 芝麻油 苏禽青壳蛋鸡 产蛋性能 蛋品质 血清脂质 蛋黄胆固醇

**Abstract:** This experiment was conducted to study the effects of dietary different sesame oil levels on laying performance, egg quality, serum lipid indices, and yolk cholesterol content of laying hens. One hundred and sixty 28-week-old *Suqin* green-shelled laying hens with a similar laying rate were assigned to 4 groups with 4 replicates in each group and 10 laying hens per replicate. The diet of the control group was no sesame oil, while the diets of experimental groups contained 1%, 2% and 3% sesame oil, respectively. The energy and protein levels in all the diets were the same. The experiment lasted for 42 d. The results showed that compared with the control group, there were no significant differences in laying rate, total egg weight, total feed intake, and feed/egg among all the groups ( $P>0.05$ ). The average egg weight and egg shape index in the 2% sesame oil group were significantly higher than those in the control group ( $P<0.05$ ). The Haugh unit in the 3% sesame oil group was significantly higher than that in the control group and 2% sesame oil group ( $P<0.05$ ). The yolk color in the 2% and 3% sesame oil groups was significantly deeper compared with the control group ( $P<0.05$ ). The serum cholesterol and triglyceride contents in the 2% sesame oil group were significantly lower than those in the control group and 3% sesame oil group ( $P<0.05$ ). The yolk cholesterol content in the 3% sesame oil group was significantly higher than that in the other groups ( $P<0.05$ ). In conclusion, adding 2% sesame oil to the diet can increase average egg weight, egg shape index, yolk color, and yolk weight, while reduce the serum cholesterol and triglyceride contents; without harmful effects are found in laying rate, feed/egg, and other egg quality indices. We suggest that the level of dietary sesame oil is 2%.

**Keywords:** sesame oil, *Suqin* green-shelled laying hen, laying performance, egg quality, serum lipids, yolk cholesterol

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