



猪源罗伊氏乳酸杆菌对断奶仔猪生长性能和血清指标的影响

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Effect of Dietary *Lactobacillus reuteri* from Swine on Growth Performance and Serum Indices of Weaned Piglets

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- 摘要
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摘要 本研究旨在探讨在饲料中添加猪源罗伊氏乳酸杆菌 (*Lactobacillus reuteri*) 对断奶仔猪生长性能和血清指标的影响。选用平均体重为 (16.57±0.23) kg 的断奶仔猪 (杜洛克×长白×大白三元杂交) 64头, 随机分成4组, 每组4个重复, 每个重复4头。对照组饲喂基础饲料, 试验组饲料分别在基础饲料中添加0.25%、0.50%、0.75%的猪源罗伊氏乳酸杆菌, 试验期为30 d。结果表明: 1) 添加0.50%和0.75%猪源罗伊氏乳酸杆菌组断奶仔猪平均日增重分别比对照组提高了7.56% (P<0.05) 和20.07% (P<0.05), 料重比分别比对照组降低了1.96% (P>0.05) 和14.90% (P<0.05); 2) 饲料中添加猪源罗伊氏乳酸杆菌能够极显著降低断奶仔猪血清中白蛋白与球蛋白比值 (P<0.01), 并极显著增加血清中干扰素 γ 含量 (P<0.01); 3) 添加0.50%和0.75%猪源罗伊氏乳酸杆菌组断奶仔猪血清中结合珠蛋白含量分别比对照组降低了8.79% (P<0.05) 和9.34% (P<0.05)。结果提示, 饲料中添加猪源罗伊氏乳酸杆菌能够提高断奶仔猪机体免疫能力, 而当其达到一定添加剂量时, 对于提高断奶仔猪生长性能的效果表现明显。

关键词: 猪源罗伊氏乳酸杆菌 断奶仔猪 生长性能 血清指标

Abstract: The objective of this study was to evaluate the effects of supplementation of freeze-dried *Lactobacillus reuteri* on growth performance and serum indices of weaned piglets. Sixty-four crossbred (Duroc×Landrace×Large White) weaned piglets with average body weight of (16.57±0.23) kg were selected and randomly distributed into four groups with four replicates per group and four pigs per replicate comprising of control (basal diet), and 0.25%, 0.50%, and 0.75% freeze-dried *Lactobacillus reuteri* supplementation groups. The experiment lasted for 30 d. The results showed that: 1) compared with the control group, the average daily gain in 0.50% and 0.75% *Lactobacillus reuteri* groups were significantly increased by 7.56% (P<0.05) and 20.07% (P<0.05), respectively, and the feed/gain were decreased by 1.96% (P>0.05) and 14.90% (P<0.05), respectively; 2) the *Lactobacillus reuteri* supplementation could significantly decrease the albumin/globulin (P<0.01) in serum compared with the control group, and also significantly increase the serum IFN- γ content (P<0.01); 3) compared with the control group, the haptoglobin contents in 0.50% and 0.75% *Lactobacillus reuteri* groups were significantly decreased by 8.79% (P<0.05) and 9.34% (P<0.05), respectively. In conclusion, *Lactobacillus reuteri* supplementation could improve the immune ability of weaned piglets, and the obvious promotion on growth performance could be obtained in adequate amounts of supplementation. [Chinese Journal of Animal Nutrition, 2011, 23 (9) : 1553 - 1559]

Keywords: *Lactobacillus reuteri* from swine, weaned piglets, growth performance, serum indices

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