

动物科学

回归法测定生长猪内源钙排泄量及钙真消化率的研究*

王顺祥^{1,2}, 印遇龙^{1**}, 李铁军¹, 黄瑞林¹, 孔祥锋¹, 范明哲¹

1. 中国科学院亚热带农业生态研究所, 湖南 长沙 410125; 2. 中国科学院研究生院, 北京 100039

收稿日期 2006-12-15 修回日期 2007-1-25

摘要 采用多重线性回归法测定生长猪内源钙排泄量及菜粕和豆粕钙的真消化率。试验选用5头健康大白×长白阉公猪为试验动物, 平均体重为(21.6±1.43) kg。试验采用5×5拉丁方设计, 设5个钙水平(0.10%, 0.15%, 0.20%, 0.25%和 0.25%)。日粮以豆粕、葡萄糖、玉米淀粉等为基础, 以菜粕为待测植物性饲料, 配制半纯合试验日粮, 菜粕和豆粕为钙唯一来源。结果表明, 生长猪采食豆粕加菜粕日粮的内源钙的排泄量为(0.61±0.18) g/kg DMI, 对菜粕钙真消化率为(48.72±24.04)%, 对豆粕钙真消化率为(67.80±7.12)%。相对于表观消化率, 日粮钙真消化率更稳定(表观消化率为7.85%~48.37%; 真消化率为59.63%~66.78%)。豆粕和菜粕钙表观消化率可加性差, 而真消化率配制日粮具有很好的可加性。

关键词 [生长猪](#); [菜粕](#); [豆粕](#); [钙](#); [真消化率](#)

分类号 [S 828.1](#)

Endogenous Outputs and True Digestibility of Calcium Associated with Rapeseed Meal and Soybean in Growing Pigs by Multiple Linear Regression Analysis Technique

WANG Sun-xiang^{1,2}, YIN Yu-long¹, LI Tie-jun¹, HUANG Rui-lin¹, KONG Xiang-fu¹, FAN Min-zhe¹

1. Institute of Subtropical Agriculture, ISA, the Chinese Academy of Sciences, Changsha 410025, China;

2. Graduate School of the Chinese Academy of Sciences, Beijing 100094, China

Abstract

Multiple Regression analysis technique was used to measure the fecal calcium (Ca) endogenous outputs and true Ca digestibility values with rapeseed meal and soybean meal in this study with growing pigs. 5 Yorkshire × Landrace barrows, with average initial body weight of (21.6±1.43) kg, were allocated to one of five experimental diets, according to a 5×5 Latin square design. The 5 experimental diets were formulated to contain 5 Ca level (0.10%, 0.15%, 0.20%, 0.25% and 0.25%), with the rapeseed meal and soybean meal as the sole Ca source. The results showed that the Ca endogenous output of growing pigs was (0.61±0.18) g/kg DMI, true Ca digestibility of rapeseed meal was (48.72±24.04)%, and true Ca digestibility of soybean was (67.80±7.12)%. True Ca digestibility rather than apparent digestibility, showed a perfect additivity associated with rapeseed meal and soybean meal when used in diet formulation for swine.

Key words [growing pigs](#) [rapeseed meal](#) [soybean meal](#) [calcium](#) [true digestibility](#)

DOI:

通讯作者 印遇龙 yulong@hotmail.com

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(380KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“生长猪; 菜粕; 豆粕; 钙; 真消化率”的 相关文章](#)

▶ 本文作者相关文章

· [王顺祥](#)

· [印遇龙](#)

· [李铁军](#)

· [黄瑞林](#)

· [孔祥锋](#)

· [范明哲](#)