

Merino Carranza, Beatriz; Gómez Rosales, Sergio; Cuarón Ibarquengoytia, José Antonio
Requerimientos de lisina digestible de cerdos de 14 a 50 kg de peso corporal sujetos a
diferentes condiciones de manejo y alojamiento

Técnica Pecuaria en México, vol. 43, núm. 2, mayo-agosto, 2005, pp. 139-153

Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias
Mérida, México

Available in: <http://www.redalyc.org/articulo.oa?id=61343201>

Abstract

A study was followed to determine of the true ileal digestible lysine (TIDL) requirements for pigs from 45 to 101 d of age. A total of 144 pigs (45 d initial age; 14.1 ± 3.32 kg initial weight) were used in two consecutive experiments. In Experiment 1, measurements were taken of animal response after 35 d receiving diets with four TIDL levels: 1.1, 1.2, 1.3 and 1.4 % of diet. Diets were 3.3 Mcal of ME/kg, and Thr, Trp and Met levels were kept at a constant ratio to TIDL. Each TIDL level had six replicates of six pigs each, in three random blocks based on initial weight. In Experiment 2, two dietary TIDL levels (0.9 and 1.1%) were tested for 21 d in the pigs from Exp 1. Pigs wererandomized to 48 placed in individual pens to determine any possible interaction between the new and previous TIDL levels, and the remaining animals placed in 12 collective pens (eight pigs per pen) to determine any difference in TIDL requirements due to interaction with housing. Response to TIDL in Exp 1 was quadratic ($P < 0.02$) for average daily weight gain $= -4.4563 + (7.9564X)(3.1132X^2)$, and feed efficiency $= 2.4339 + (4.5201X)(1.7486X^2)$. Dietary TIDL requirements, established by the sum of effects, for pigs from 14 to 35 d of age, were between 1.278 and 1.294 % of the diet. No differences ($P > 0.10$) were observed in Exp 2 between the previous and new TIDL levels, however the stress suffered by the collectively-housed pigs caused them to have lower ($P < 0.001$) feed intake (1.7 vs 2 kg) and weight gain (0.58 vs 0.76 kg) than the individually-housed pigs.

Keywords

Lysine requirement, Growing pigs, Management, Housing.