

# Amino acids in a yeast-derived protein source (NuPro<sup>®</sup>) are highly digestible for 3- to 4-wk-old pigs

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NuPro<sup>®</sup>, a yeast-derived protein source, is an alternative to spray-dried plasma in diets for newly weaned pigs. There is no information about the amino acid digestibility in NuPro<sup>®</sup> during the immediate post-weaning period. The objective of this experiment was to determine the ileal digestibility of amino acids in a yeast-derived protein (NuPro<sup>®</sup>, Alltech Inc.) in 4-wk old piglets.

Fifty piglets were weaned at 18 and 19 d of age, from which 30 piglets with the greatest weight gains were selected after 2 d of exposure to a control diet. Piglets were allocated to 5 diets: a control diet based on wheat, soybean meal, casein and whey powder; and the control diet with inclusion of 3%, 6% or 9% NuPro<sup>®</sup>, and a protein-free diet. Piglets were housed individually in raised pens in a temperature-controlled room, and offered the diets for 9 d. The protein-free group was fed the control diet for 7 d and the protein-free diet for 3 d. Pigs were euthanized on d 10 and the contents of terminal ileum collected. Body weight, weight gain and feed intake before and after allocation to dietary treatments did not differ ( $P>0.1$ ) between groups. Inclusion of NuPro<sup>®</sup> increased daily gain and feed intake by 8.3% over the control. Inclusion of NuPro<sup>®</sup> numerically increased the apparent and standardized ileal digestibility of amino acids, except for valine. Mean apparent and standardized ileal digestibility values for amino acids were 75.7% and 84.5%, respectively. Overall, the amino acid digestibility in NuPro<sup>®</sup> was slightly greater than in the control, which contained high-quality protein. The apparent and standardized digestibility values for amino acids in NuPro<sup>®</sup> were similar to those previously reported for pigs 6 to 8 wk of age.

**Implications.** NuPro<sup>®</sup> is a source of highly digestible amino acids for newly weaned pigs. These data on standardized and apparent ileal digestibility values for NuPro<sup>®</sup> may be used in diet formulation for pigs between 20 and 30 d of age. Financial support for this research was provided by Alltech USA.