



OPTIMISING WEANER FEED INTAKE

AMINO ACID BALANCE AND APPETITION IN WEANERS

Project Participants

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Problem

It is a common practice for pork producers to include excess levels of the most limiting nutrients for pig growth, such as essential amino acids, in pig diets. While these margins can increase feed costs, they do have advantages in helping to minimise growth variations. However, previous research has demonstrated that an excess of protein and some amino acids in pigs' diets can negatively impact feed intake and growth in pigs.

Project

This project aimed to test the effect of excess dietary levels of amino acids on appetite regulation, feed intake and growth in weaner pigs.

Value for Producers

Feeding an excess of key amino acids, including lysine and leucine, can significantly lower feed intake and reduce average daily weight gain in weaner pigs. By being aware of this, producers can work with their nutritionist to closely monitor and, when possible, avoid feeding an excess of key amino acids.



Recommendations

Excess lysine and leucine significantly lowered feed intake one to two hours post consumption. Lysine also lowered the duration of the first meal and increased the inter-meal interval. Leucine significantly increased the interval between meals and lowered the number of meals within the first two hours post-treatment.

Excess dietary lysine decreased feed intake by 4.1 grams per pig for every one per cent above the recommended requirement levels in the feed, such as those from the National Research Council, in post-weaning pigs over a four-week post-weaning period. As a practical example, a 25 per cent excess margin in dietary lysine will result in lighter pigs – an average of 100 grams per pig – at the end of the post-weaning period.

Producers should work with their nutritionist to closely monitor and, when possible, avoid dietary excess of key amino acids – particularly lysine – to ensure the feed intake and growth of weaner pigs is not impacted post-weaning.

More Information

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