

Research Update:

Nutrition innovations to combat heat stress in finishing pigs



With the warm summer months comes an increase in the temperature within pig barns. Trouw Nutrition can help pig producers prepare for the summer heat with research-based innovations to ensure animal performance and productivity.

What is heat stress?

When the barn environment reaches a certain combination of temperature and humidity, it can cause heat stress; generally, this begins at 25°C. Under heat stress, pigs have reduced feed intake, reduced growth, and reduced feed efficiency. Heat stress can also disturb the antioxidant status and cell function of the body.

What can we do to help fattening pigs through heat stress?

Management strategies to mitigate heat stress include reducing stocking density, increasing ventilation, spraying fine water drops, and ensuring unlimited access to drinking water. Nutritional strategies can include reducing the dietary protein and/or fibre, using feed-grade amino acids, or increasing dietary sources of antioxidants; your nutritionist can make these modifications.

Nutrition innovations to combat heat stress

Trouw Nutrition recently completed a research trial at one of our commercial validation research facilities in Quebec. The trial investigated the combined effects of an osmolarity regulator encompassing natural betaine (Selko® betain) and a flavouring agent containing a blend of polyphenols with high antioxidant properties (Selko® POMix) as nutritional solutions for heat stress in fattening pigs.

During the study, 836 pigs experienced two chronic heat stress periods of 29°C for 8 hours per day, on days 10-42 and 85-106 of the trial. Pigs were fed one of two diets from 22 kg of live weight until slaughter at 135 kg:

1. A four-phase commercial grow-finish diet;
2. A similar diet with 1 kg/MT each of Selko betain 96 and Selko POMix 2%.

The results showed that Selko betain and POMix improve feed efficiency without negatively impacting adjusted cost of gain. Therefore, the combination of Selko betain and POMix is a practical proactive solution for the hot summer months. Using these nutritional solutions will help ensure that fattening pigs are well-prepared to cope with the challenges of heat stress.

	Control	Selko betain + POMix
FCR, kg/kg	2.53 ^a	2.48 ^b
Adjusted cost of gain, \$/kg	Baseline	No change
Adjusted margin over feed cost (MOFC), \$/pig ¹	Baseline	+0.83

¹Differences were not statistically significant (P>0.10)

To learn more about how you can help your pigs through heat stress, and explore how you can benefit from nutritional solutions, please contact your local Trouw Nutrition advisor.



For more information, contact us:
www.trouwnutrition.ca

