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## Dietary Potassium Diformate in Sows during Pre-Farrowing Till Weaning: Effects on Piglet Performance in Thailand

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### Abstract

Potassium diformate (KDF) has been shown in numerous trials to improve health and performance in piglets, growing-finishing pigs and sows. It is furthermore the only zootechnical additive with EU-approval for use throughout the whole pig production chain. The effects of potassium diformate are often described as strong antimicrobial and digestibility enhancing. Most of the data available on the use of KDF in sows are from trials performed at universities and research institutes in Europe. The objective of the present study was to assess the subsequent effects of KDF, fed to sows, on their piglets under practical conditions in Asia.

The study was carried out with 49 sows during late gestation. The experiment was conducted on a commercial farm in Bureerum province in Thailand. The sows were randomly allotted to 2 treatment groups. Group 1 served as a control in which sows were fed a complete diet, mainly based on corn, rice bran, soybean meal and fishmeal without supplemented antimicrobial agents. Sows in group 2 were fed the complete diet containing 2 kg t<sup>-1</sup> KDF. The experimental feeding of sows started 5 days before farrowing and finished at weaning (26 days after farrowing). Feed was available in mash form, while water was available ad libitum. Data on weight and number of piglets (born and “born alive”) were recorded and analysed using the t-test. The results are given as mean ± SD and a confidence level of 95 % was defined for these analyses.

Feeding KDF to sows did have significant effects on the new-born piglets. There was a numerical ( $p = 0.11$ ) increase in the number of piglets born alive. The number of weaned piglets however, as well as the total weight of weaned piglets per sow were significantly increased ( $p < 0.05$ ). Losses during weaning were therefore reduced.

These results show that the inclusion of KDF into the diet of sows can enhance performance in piglets. This is in general agreement with observations made in Europe. It can be therefore concluded that the use of KDF in sow diets under Asian conditions will be able to improve pig production.

**Keywords:** Piglet performance, potassium diformate, sows