

# Effect of dietary supplementation of *Bacillus coagulans* on growth performance, blood biochemical parameters and diarrhea incidence of weaning pigs <sup>(1)</sup>

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## Abstract

In this experiment, *Bacillus coagulans* powder was yielded in a small-scale fermentor with fermentation process including induction of sporulation, separation of BC pellet from the cultures and lyophilization. The viability of BC powder products could reach  $1 \times 10^{11}$  cfu/kg. A total of 48 head LD crossbred weaning piglets at age of 26-30 days were used in the study, with experimental design as 4 piglets per pen and 4 pen (repeats) per each treatment (group) including the blank group (basal diet as; as a control), commercial *Bacillus coagulans* group (with supplemental commercial *Bacillus coagulans*; CBC) and *Bacillus coagulans* group (with supplemental *Bacillus coagulans*; BC), *Bacillus* were supplemented at  $1 \times 10^8$  cfu/kg feed for 4 weeks. The results showed that those with the BC diet had a better body weight gain at the 3rd and 4th week and improved feed conversion rate at the 3rd week than those with the control or CBC diet. There were no significant differences among the 3 groups control in blood biochemical parameters; leukocyte counts and proportion at the beginning and the end day. In the incidence of diarrhea, BC supplementation reduced the incidence by 19% and 6.2% when compared with the control and CBC group, respectively. In conclusion, the present results showed that dietary supplementation with BC effectively improved weight gain and relieved diarrhea in weaning pigs.

Key words: *Bacillus coagulans*, Diarrhea incidence, Feed additives, Weaning pigs, Growth performance.

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