

Effect of *Bacillus coagulans* on the Growth Performance and Intestinal Flora of Weaned Piglets

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Abstract: *Bacillus coagulans* are not only like lactobacillus to produce lactic acids, maintaining intestinal micro ecological balance to promote animals' digestion, but also like Bacillus to resist high temperature, acid, bile and etc., so, it can strongly inhibit intestinal pathogenic bacteria to decrease weaned piglets' diarrhea significantly. 120 weaned piglets (40-day-old) with an average body weight of about 12 kg were selected and divided into 4 groups, respectively including control group (feeding basal diets), trial group I (basal diets + 200 g/t *Bacillus coagulans* preparation), trial group II (basal diets +500 g/t *Bacillus coagulans* preparation), trial group III (basal diets +1000 g/t *Bacillus coagulans* preparation). Each treatment had 3 replicates, each replicate had 10 piglets, and trial period was 27 days. Trial results showed: 1) *Bacillus coagulans* has a tendency to improve weaned piglets' average daily gain and decrease F/G, from this trial, addition of 500 g/T *Bacillus coagulans* can decrease F/G, while addition of 200 g/T *Bacillus coagulans* can decrease diarrhea rate; 2) addition of *Bacillus coagulans* can decrease the number of *E. coli* and increase the number of *Lactobacillus* to decrease the ratio of *E. coli* to *Lactobacillus* and to decrease piglets' diarrhea rate, therefore, addition of 200 g/T *Bacillus coagulans* can decrease the ratio; 3) from this trial results, 200-500 g/T of *Bacillus coagulans* added in weaned piglets' dietary is the proper amount.

Key words: *Bacillus coagulans*; weaned piglets; production performance