

Effects of *Bacillus Coagulans* Replacing Dietary Antibiotics on Growth Performance , Serum Biochemical Parameters of Weaned Piglets

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Abstract : This study was designed to investigate the *Bacillus coagulans* replacing dietary antibiotics on growth performance, serum biochemical parameters and fecal bacterial flora of weaned piglets. Ninety 32-day-old Duroc x Landrance x Yorkshire weaned piglets were divided into three treatments with 5 replicates and 6 piglets in each replicate. Control group was fed antibiotic diet(containing Olaquinox 150 mg/kg, 50% Kitasamycin 100 mg/kg and 10% Colistin sulfate 200 mg/kg), group I was fed *Bacillus coagulans* diet(containing *Bacillus coagulans* 800 mg/kg, 50% Kitasamycin 50 mg/kg and 10% Colistin sulfate 100 mg/kg), group II was fed *Bacillus coagulans* diet(containing *Bacillus coagulans* 1500 mg/kg and 10% Colistin sulfate 100 mg/kg), lasted for 35 days. The results showed that the daily weight gain, daily feed intake and feed/gain of group I and group II were no significant differences compared with control group($P>0.05$), diarrhea rate of group II were seriously than control group and group I but the difference was not significant($P>0.05$). The level of TP of group II was higher than that of control group($P<0.05$). It was concluded that using 800 mg/kg *Bacillus coagulans* instead of 150 mg/kg olaquinox, 50 mg/kg 50% Kitasamycin and 10% 100 mg/kg Colistin sulfate was more suitable for the actual production in currently.

Key words: *Bacillus coagulans*, antibiotics, growth performance, serum biochemical parameters, fecal bacterial flora, weaned piglets