

## Effects of Garlic Extract on Selected Fecal Characteristics and Health of Neonatal Saanen Kids

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### **Abstract:**

Antibiotics play an important role in pathogen control. However, antibiotic residues in animal-sourced feeds are a concern. Also, pathogen resistance is being said to be enhanced, and alternative eco-friendly strategies are thought to be needed. Garlic utilizes the treatment of coliform and growth performance in animals, especially kids. Twenty-seven kids were used to investigate the effects of garlic supplementation with distilled water in oral with oral injection after suckling milk on growth performance, fecal score, fecal pH, blood parameters, selected fecal bacterial populations, and health during the preweaning period. Each group consisted of 9 kids. Each kid in experimental groups G1 and G2 was supplemented with 50 mg/kg BW/day 100 mg/kg BW/day of a garlic powder product from 3 to 28 days of age while C was not supplemented with garlic. The body weight at 28 days, average daily gain (ADG), and 75th day of body weight were statistically similar in each group. There were no significant differences in the incidence of diarrhea and treatment days for diarrhea between groups. There were no significant differences in fecal pH at 3 and 21 days of age between the groups while stool pH was lower for G1 compared to C at 7 days of age and C and G1 had lower stool pH than G2 at 28 days of age. Moreover, there were no differences in coliform counts in infected untreated and infected treated neonatal kids with garlic. Also, there are no differences in blood parameters except basophil concentration within each treatment and control group. Based on the stool pH results, garlic product supplementation is reported to have no steady effect on stool pH. Due to both the average reduction in the number of days with diarrhea in G1 and the lower incidence of diarrhea in G1 compared to C, it can be concluded that 50 mg/kg BW/day of garlic product assists in reducing the occurrence of diarrhea in newborn kids.

### **Keywords:**

Saanen Kids, Garlic, Fecal Characteristics, Health.