Tropentag, September 18-21, 2016, Vienna, Austria

"Solidarity in a competing world — fair use of resources"

Feed Consumption, Carcass Evaluation and Growth Performance of Broiler Rabbits Fed Different Levels and Processing Methods of Milk Thistle (*Silybum marianum*) Supplement

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Abstract

Milk thistle (*Silybum marianum*) belongs to the family *Asteraceae* which are widely spread in arid and semi-arid areas of Mediterranean regions. This annual plant contains silymarin-flavolignans with hepatoprotective and canceroprotective properties which show positive effects on health and performance of animals. The study aimed to investigate the effect of different level and processing methods of milk thistle (*Silybum marianum*) on feed consumption, carcass composition and growth performance of broiler rabbits. A total of 180 HYLA broiler rabbits, 42 days old, were fed with different concentrations of milk thistle supplement - group III (0.5 % of fermented milk thistle) and group II (1 % non-fermented milk thistle) in comparison with control group I (standard feed ration without any supplementation). Feed and water were available *ad libitum*. The experiment started at 42 days of rabbit age and finished by slaughter when rabbits achieved 2.6 kg of live weight. The weight of the body parts, carcass weight, carcass yield, and growth performance were recorded and calculated. Carcass weight and carcass yield in rabbits fed with 0.5 % fermented milk thistle were significantly higher ($p < 0.05$) than in rabbits of other groups. However, there were no significant differences ($p > 0.05$) between control and experimental groups in the growth performance. Furthermore, daily feed consumption was higher in the treatment group II and group III compared to Control I ($p < 0.05$). The results of this experiment therefore indicated that 1 % non-fermented milk thistle extract supplemented in the feed ration for broiler rabbits is not a suitable supplement for improvement of broiler rabbits´ performance. However, 0.5 % fermented milk thistle could be used to improve the carcass performance.

Keywords: Broiler rabbits, fermented feed, milk thistle, performance

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