

Dachpathorn Wongdachkajorn 2007: Efficacy of Condensed Tannin from *Leucaena leucocephala* On Gastrointestinal Nematodes and Growth Performance of Goats. Master of Science (Agriculture), Major Field: Animal Science, Department of Animal Science. Thesis Advisor: Assistant Professor Somkiert Prasanpanich, Ph.D. 90 pages.

The investigation of condensed tannin from *Leucaena leucocephala* on gastrointestinal nematodes and growth performance of goats consisted of 3 experiments. The first experiment was to compare 3 varieties of *Leucaena leucocephala*, Ivory Coast, Salvador and Cunningham, on nutritive values and condensed tannin content. Each variety was sorted into 3 parts: leaf, leaf with young stem and leaf with old stem. The outcomes were that protein, Neutral Detergent fibre, Acid Detergent Fibre and condensed tannin contents were significantly different among varieties and all parts of each variety ($p<0.05$). The second one was to study anthelmintic activities of crude phenol extracts from *Leucaena leucocephala* at levels of 0, 75, 150, and 300 mg/ml on mortality rate of the third stage larvae of strongylids using larval culture used test tube cultivation technique. The results of larval dead and migration inhibition rate after 3, 6, 12 and 24 hour incubation were highly statistical higher than those among all treatments ($p<0.01$) which was affected by the interaction of crude phenol extracts concentration and time the third stage larvae contacted crude phenol extracts.

The third experiment was carried out to study the efficacy of condensed tannin from *Leucaena leucocephala* on strongylids egg in goat faeces (egg per gram, EPG) and daily growth rate using 24 Anglo-Nubian and Native crossbred goats, aged 1 and 2 years old, under a Complete Randomised Block Design. Goats were divided into 4 treatment groups where Treatment 1 was received only roughage and meal concentrate, Treatment 2 was fed no *Leucaena leucocephala* and albendazole, Treatments 3 and 4 were fed 50% and 100% of *Leucaena leucocephala*, respectively. EPG in the 1 year old goats was lower in Treatments 3 and 4 which were statistical different among treatments ($p<0.05$) but daily growth rate was highest in Treatment 4 which were statistical different among treatments ($p<0.05$). Blood glucose concentration in all treatments of the 1 and 2 year old goats was non-significantly different while blood urea nitrogen content was highest in Treatment 4 which was statistical different among treatments ($p<0.05$).

In conclusion, *Leucaena leucocephala* can be an alternative method to control gastrointestinal nematodes and is also able to improve daily growth rate in goat.