



Efficacy of crude water extracts of selected plants against gastrointestinal helminthes in goats in Uganda 2012

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INTRODUCTION

- Gastrointestinal helminths especially nematodes are important endoparasites causing direct and indirect losses to goat farmers.
- In Uganda, several ethnoveterinary practices including use of plants to treat helminthes in goats have been documented.
- Albendazole 10% had the highest reduction in epg at 88% & 98% in Trial 1 & 2; *V. amygdalina* at 11 and 56%; *T. vogelii* at 49% & 60%.
- Resistance to albendazole detected on institutional farm but not on small holder farms (88% vs 98% respectively).
- Significantly different reductions were recorded for day 8 and day 15 post treatment evaluations (P=0.001)

SPECIFIC OBJECTIVE

To evaluate efficacy of crude water extracts of two farmer selected plants against gastrointestinal helminthes in goats from Mbarara and Rakai districts in Uganda.

RESULTS

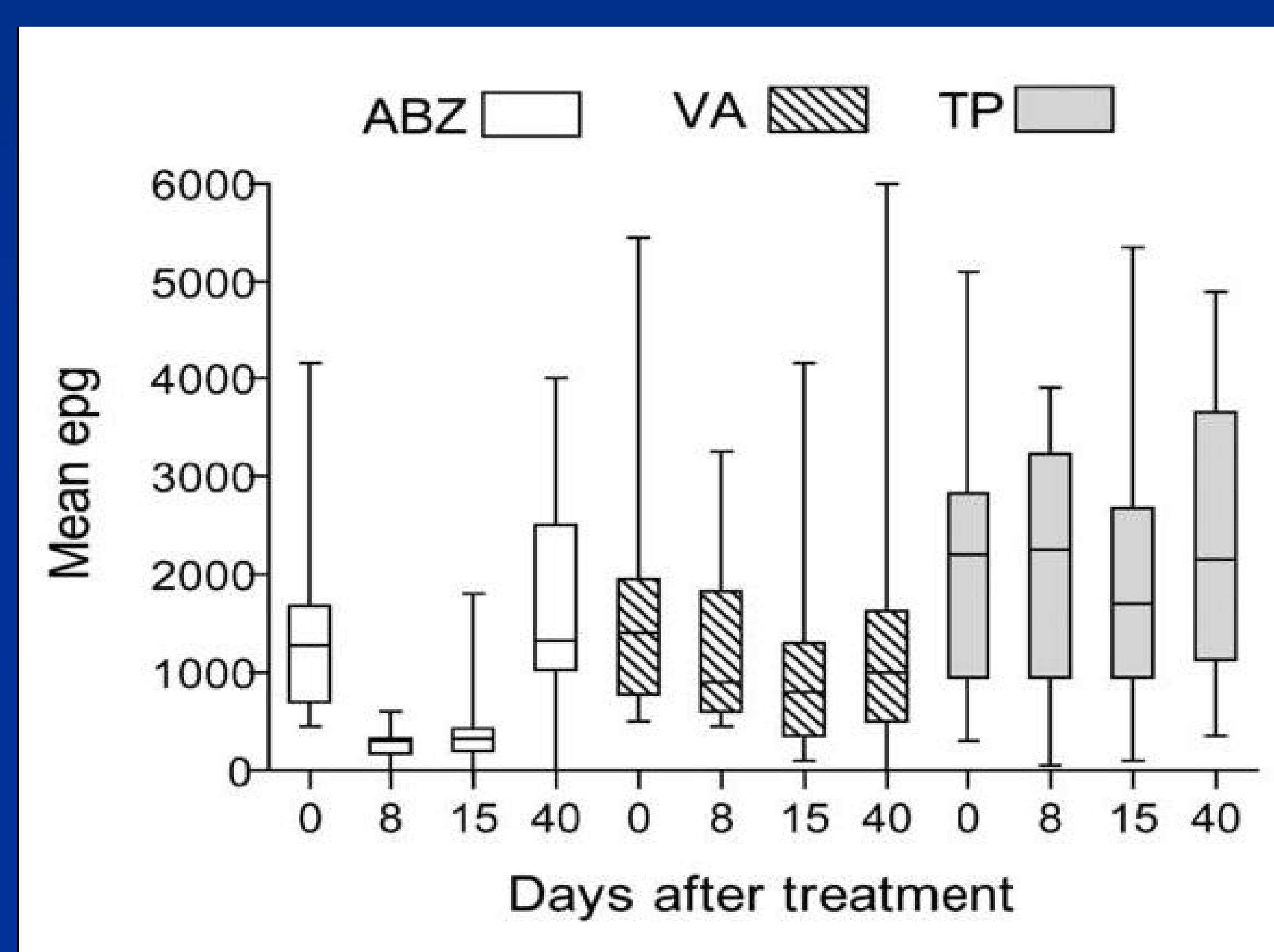


Fig. 1: Mean & 95% CI of epg in Trial 1

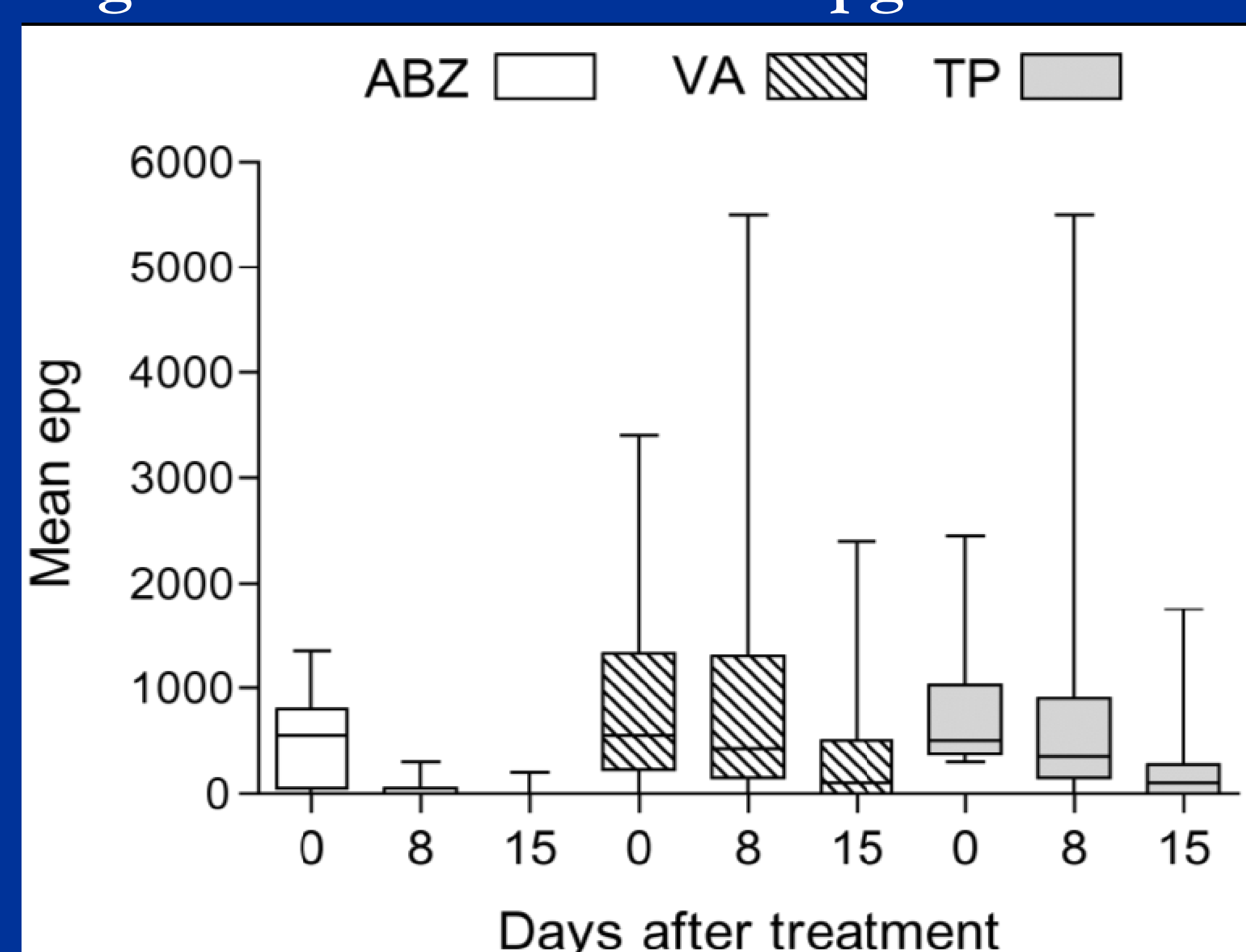


Fig. 2: Mean & 95% CI of epg in Trial 2

METHODS

- Following the farmers' advice, we constituted crude water extracts at 65 mg/ml of *Tephrosia vogelii* and *Vernonia amygdalina* administered at 50 ml once to all 40 goats in Trial one (institutional farm). Albendazole 10% was by body weight at manufacturer's doses.
- In Trial two (individual farms), we used 115 mg/ml crude extracts; administered at 50 ml daily over three days to 20 goats per group with Albendazole 10% as control.
- Fecal egg count reduction test was used to assess the efficacy with pre and post treatment egg counts at day 0, 8 and 15.

CONCLUSIONS & RECOMMENDATION

- Tephrosia* and *Vernonia* show considerable anthelmintic activity.
- A dose response bio-activity observed in Trial 2 where we doubled the farmer recommended doses and treated the animals three consecutive days compared to Trial 1.
- Further evaluation of albendazole resistance and anthelmintic efficacy of the two plants *in vitro* & *in vivo*

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