

Ingestion of Mindi (*Melia azaedarach*) leaves by uninfected and *H. contortus*-infected Kacang goats

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When given choices, sheep infected with internal parasites choose higher protein feeds presumably to compensate for increased protein requirements (Kyriazakis *et al.* 1994; Knox *et al.* 1997) and there is anecdotal evidence that parasitised ruminants show a preference for feeds with anthelmintic properties.

In West Timor and surrounding islands, farmers feed Mindi (a local name for *Melia azaedarach*) leaves to their cattle during the dry season but seldom use it as a dietary supplement for goats. We made a preliminary *in vitro* study that indicated Mindi (*Melia azaedarach*) leaves are relatively high in crude protein (about 21%) and also contain anthelmintic-like substance(s) that killed more than half of the *Haemonchus contortus* in a faecal larval culture.

A further study was then undertaken to explore alternative ways of feeding Mindi leaves (i.e. either fresh, or dried and pelleted) to goats as a strategy for managing *H. contortus* infections. The details are given by Datta *et al.* (2003). In the present paper, we report the patterns of ingestion of fresh Mindi leaves by the goats in the same experiment when infected with 300 *H. contortus* larvae twice weekly for the last 7 weeks of a 10 week experimental period.

We found uninfected goats ingested 300–400 g basal diet per day throughout the experiment, but intakes of infected goats decreased from about day 28 to less

than 50 g/d between days 55 and 70. In contrast, the infected goats ate more ($P < 0.05$) Mindi leaves than their uninfected counterparts from around day 40 (when *H. contortus* infection was well established) with these differences increasing towards the end of the experiment (Figure 1). The higher intake in parasitised goats may indicate that the protein from the Mindi was alleviating a protein deficiency resulting from haemonchosis. Another possibility is that infected goats ingested relatively more Mindi because they were benefiting from the anthelmintic or other pharmacological substances in the leaves. We are currently investigating both possibilities.

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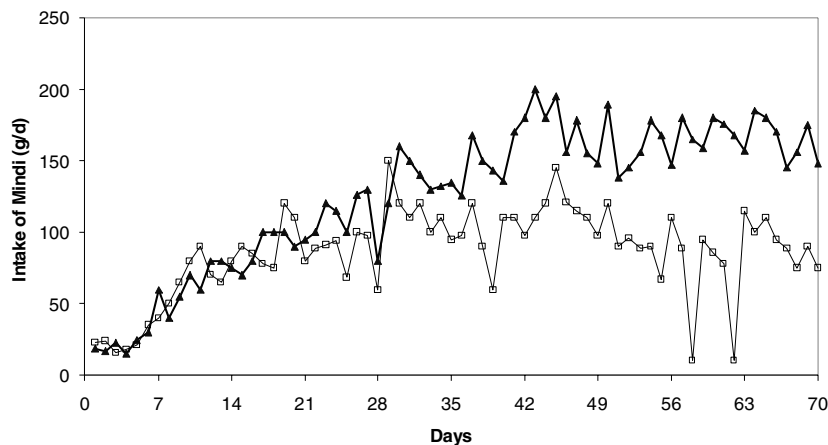


Figure 1 Intake of Mindi leaves by Kacang goats artificially infected from day 21 with *Haemonchus contortus* (▲) in contrast to non-parasitised controls (□). The goats were also offered fresh grass *ad libitum* in an adjacent feed container.