SUMMARY

A study was conducted in Florestal, Minas Gerais, Brazil, to investigate the efficacy of doramectin administered subcutaneously at a dose rate of 200 mcg/kg of bodyweight for the treatment and control of field infestations of *Dermatobia hominis*. Forty (40) male cross-breed Holstein by Zebu cattle were allocated to two treatment groups of 20 animals each, on the basis of the number of *D. hominis* nodules present 24 hours before treatment. On the day of treatment, animals of T1 received an injection of doramectin at a dose rate of 200 mcg/kg and animals of group T2 received an injection of saline solution at 1 ml/50 kg. All injections were given subcutaneously in the lateral midline of the neck. After treatment, animals were returned to the original paddock, subdivided in two equal pastures where they were maintained separately until the end of the experiment.

Animals were examined the day before treatment and at 2, 7, 15 and 30 days post-treatment (p.t.). At each observation day, nodules with live *D. hominis* larvae were counted on each animal and recorded. Doramectin was 100% effective in removing *D. hominis* larvae during 30 days p.t. under conditions of continuous field exposure. During the first 48 hours p.t., many dead larvae were found outside the nodules in doramectin-treated animals. From day 2 to day 30 p.t., no live larvae were found inside existing nodules nor did new nodules developed in doramectin-treated animals. When compared with the number of nodules present in the animals of control group on the same observation day or with the number of nodules found on the same animal before treatment, doramectin-treated cattle began to eliminate nodules at 48 hours p.t.

Efficacy reached 100% at 7 days p.t. and remained at 100% on all subsequent observation days (p<0.05). No clinical signs of adverse reactions to the drug were observed in any of the medicated animal.

KEY WORDS: Doramectin, efficacy, *Dermatobia hominis*, cattle.