

## ABSTRACT

To investigate the efficacy of Ivermectin against intestinal nematodes in naturally infected lambs in Trinidad using faecal egg count reduction test and percentage efficacy.

Jeanette Browne

An efficacy trial was conducted to determine the efficacy of Ivermectin anthelmintic (Ivomec<sup>®</sup>) against intestinal nematodes on sheep farms in Trinidad using the faecal egg count reduction test. Twenty six naturally nematode infected lambs, within a faecal egg count range of 500-1000 eggs per gram, were randomly selected from sheep rearing regions of the country. The faecal egg counts were natural logarithm transformed and analysed using the Generalised Linear Mixed Model procedure.

The results of the study Ivomec<sup>®</sup> at a dose of 200 $\mu$ g/kg at Day 13 after treatment had an efficacy rating of Class D, insufficiently active or inactive, Ivermectin resistance was declared when the percentage reduction estimates and the 95% confidence interval levels derived from arithmetic mean were less than 95% and 90% respectively. Ivermectin resistance was suspected when the percentage reduction estimate derived from geometric mean was less than 95% .

The nematode species recovered from the small intestines and the large intestines after necropsies were the *Bunsotomum* sp and the *Trichuris* sp respectively. The

control group maintained significantly ( $p = 0.0000264$ ) higher average nematode counts after necropsy than the ivermectin treated group.

**Keywords:** lambs; ivermectin; resistance; the faecal egg count reduction test; *Bunsotomum* sp., *Trichuris* sp.