Poster Session II

Moderator - Phillip Jardon, DVM

A summary of four studies evaluating Doramectin compared to Ivermectin for gastrintestinal parasite control in grazing stocker beef cattle including effects on weight gain

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Four studies were conducted to evaluate the effectiveness of doramectin injectable administered to grazing yearling stocker cattle in the control of gastrointestinal nematodiasis over the subsequent summer or winter grazing period. Doramectin was compared with ivermectin injectable and/or ivermectin pour-on. At each study site, an area of permanent pasture previously grazed by parasitized animals was subdivided by fencing into equal pasture units each with its own water supply. A treatment designation was randomly assigned to each pasture unit. Weaned beef calves with confirmed gastrointestinal nematode infections were randomly allotted to a pasture unit and corresponding treatment group. Depending on the study, each treatment group contained three or five replicates of between four and twelve animals per pasture unit. Treatments were 1% doramectin injectable solution, 1% ivermectin injectable solution, 0.5% ivermectin pour-on solution or non-medicated controls. The injectables were administered at a dose of 1 ml/50 kg body weight (200 g doramectin or ivermectin/kg) by subcutaneous injection in the neck. Ivermectin pour-on solution was administered topically at a dose of 1 ml/10 kg body weight (500 g ivermectin/kg). Following treatment, animals were placed on their designated pasture unit where they remained for the entire grazing period. Fecal nematode egg counts and body weights were monitored at appropriate intervals throughout each study. Doramectin reduced initial pre-treatment fecal egg counts by between 95 and 100% by 21 days post-treatment and delayed acquisition of new infection from pasture by between two and four weeks. The overall reduction in parasite load through the grazing season resulted in substantial weight gain advantages (37-51 lb) for doramectin compared to non-medicated controls. Advantages were statistically significant ($P < 0.05$) in three of the four studies. Doramectin consistently produced higher weight gains than either ivermectin injectable or ivermectin pour-on (4-11 lb) though none of the differences reached statistical significance ($P > 0.05$). Doramectin was not approved for use in food animals in the US when this abstract was submitted.