IVOMEC® (ivermectin) SR Bolus - An Overview of Efficacy, Safety and Effects on Bovine Productivity

Jorge Guerrero
Merck AgVet, Rahway, NJ

The IVOMEC SR Bolus is a novel formulation of ivermectin designed to deliver a sustained release of 12 mg ivermectin per day for 135 days. The IVOMEC SR Bolus contains 1.72 gm of ivermectin in a multicrystalline wax and is administered by oral route for lodging in the reticulorumen. It is highly effective against existing infections of gastrointestinal roundworms, lungworms, mange mites, sucking lice, cattle grubs and the tick, *Amblyomma americanum*. In addition, the bolus provides grazing cattle with 135 days of protection from reinfection with gastrointestinal roundworms and lungworms, as well as certain arthropod parasites. The IVOMEC SR Bolus is recommended for use in ruminating calves, older than 12 weeks of age that weigh between 275-660 lbs.

The high level of parasite control provided by the IVOMEC SR Bolus prevents clinical disease due to gastrointestinal nematodes, lungworms and external parasites, minimizing productivity losses associated with these parasites. Ten studies were conducted to compare performance of stocker cattle treated with the bolus against untreated controls. In five of the studies, the treatment groups grazed together and in the other five, they grazed separately. Overall, cattle treated with the IVOMEC SR Bolus demonstrated significant ($p<0.01$) average weight gain advantages ranging from 41 to 111 pounds. Five trials conducted in the northern United States and in Canada also showed that treated dairy replacement heifers had a significant ($p<0.05$) average weight gain increase of 32 pounds when compared with untreated controls. Another study with stocker beef calves was conducted over a 294 day period from grazing through the feedlot. A 55 lb. weight gain advantage in favor of the calves treated with the IVOMEC SR Bolus compared to calves treated twice with benzimidazole anthelmintics and an ectoparasiticide ($p<0.05$) was demonstrated. Details relative to the technology, efficacy and prophylactic effect against specific species of parasites and resulting productivity benefits will also be briefly described.