

(0.23 l/kg), and was at unmeasurable levels in the serum within 5 hours following administration. Ketoprofen levels in milk were unmeasurable by HPLC (level of detection 25 ppb) for all samples.

Disorders while posing minimum potential for milk

residues in lactating ruminants. These results provide initial data for the study of milk residues due to ketoprofen administration in ruminants. Ketoprofen at a dosage of 2.2 mg/kg may be beneficial in the treatment of inflammatory.

Livestock Identification, the Benefits of Regulatory Involvement Past, Present, and Future

James P. Davis

USDA, APHIS, VS,
National Animal Health Programs
4700 River Road, Unit 43
Riverdale, MD 20737-1231

Livestock identification has played a vital role in our surveillance programs for the eradication of tuberculosis and brucellosis. However, there is an increasing need for new and existing identification systems to better identify our nations livestock for existing and

emerging diseases. Better understanding of the role of regulatory and industry involvement in the development of new identification systems is essential to meet the future needs for livestock identification. Type of presentation: poster board.

The persistent activity of Ivermectin in cattle challenged daily with Nematodes

D.H. Wallace^{*1}, D. Barth², D. Baggott³, J.L. Cox⁴, G.F. Ericsson⁴.

Merck Research Laboratories

¹Fulton, MO, USA,

²Lauterbach, Germany

³Hertford Herts, England

⁴Rahway, NJ, USA

To investigate the persistent nematocidal activity of the injectable formulation of ivermectin under repeated challenge conditions, three studies were conducted in which the trial animals were administered infective larvae daily. In each study, 14 nematode-free calves were allocated by restricted randomization on weight to one of two treatment groups: unmedicated control or ivermectin injected subcutaneously at 200 g/kg body weight. Animals were treated at Day 0. Starting at Day 0 and daily thereafter, all animals were artificially infected for 14 or 15 days with third-stage larvae of *Haemonchus placei* (500 larvae/day), *Trichostrongylus axei* (1000/day); and *Cooperia* spp. (1000/day); for 21 or 22 days with *Ostertagia ostertagi* (1000/day) and *Oesophagostomum radiatum* (100/day) and for 28 or 29 days with *Dictyocaulus viviparus* (50/day). Trial animals were sacrificed for nematode quan-

tification using standardized techniques, by replicate on Days 49-51. Parasite counts for each animal were transformed to $\ln(\text{count} + 1)$. Geometric means were calculated and results for each medication were compared to controls by the modified Friedman's test for combined data. Mean counts for the medicated group were reduced (99%, $p < 0.01$) compared to control counts for *T. axei*, *H. placei*, *Cooperia* spp., and *O. ostertagi*. *Oes. radiatum* and *D. viviparus* mean counts in the medicated group were reduced (98%, $p < 0.01$ and 94%, $p < 0.01$, respectively) compared to control counts. These results indicate that IVOMEC injection effectively controlled *Haemonchus*, *Trichostrongyles* and *Cooperia* for 14 days, *Ostertagia* and *Oesophagostomum* for 21 days and *Dictyocaulus* for 28 days under conditions that simulated challenge under field conditions.