The Effects of Early Treatment with Micotil on Animal Health and Performance of Stocker Cattle During Preconditioning and Winter Wheat Grazing

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Two studies were conducted to evaluate the effects of early treatment with Micotil on animal health and performance of calves at high risk of contracting Bovine Respiratory Disease (BRD) during the preconditioning period and also while grazing winter wheat pasture. The calves (368 at study 1 and 240 at study 2) averaging approximately 460 lbs were randomized to 1 of 2 treatments at the time of processing. Processing at both locations included a MLV IBR-PI_3-BVD vaccine, clostridial vaccination, external and internal parasiticides, and an implant. At study 1 an autogenous pasteurella vaccine was administered to all cattle. Intact bull calves at study 2 were castrated on arrival. Calves assigned to the control treatment received no antibiotic at processing while cattle assigned to the early treatment group received a single subcutaneous injection of Micotil (10 mg/kg). The study was carried out as a randomized block design with the pen(control or early treatment) as the experimental unit. The calves in study 1 were preconditioned over a 31 day period before being turned out on a wheat pasture for 92 days. In study 2 the calves were preconditioned for a 21 day period and were then turned out on to an irrigated wheat pasture for 119 days.

Early treatment with Micotil resulted in morbidity levels of 47.2% and 17% which was significantly ($P < .05$) lower than the levels of 73.5% and 86.25% in the control groups in studies 1 and 2 respectively. The mortality due to BRD was also significantly reduced from 8.1% and 10% in the control groups to 2.2% and 1.25% in the metaphylactic groups in locations 1 and 2 respectively. The administration of Micotil to calves on arrival significantly increased the average days to sickness to 10.9 and 12.9 days in comparison to the control groups that had an average days to sickness of 5.8 and 2.5 days. In study 1, ADG and final weight in the metaphylactic group were greater ($P<0.1$) on a deads in basis. Similarly the ADG and final weights in the metaphylactic group of study 2 were significantly ($P<0.05$) greater than the control group when expressed on a deads in basis.

The results of this study demonstrate that on arrival treatment with Micotil decreases morbidity and mortality in stocker cattle at high risk of contracting BRD in the preconditioning period. The ability of calves to achieve their expected rates of gain by preventing the detrimental effects of respiratory disease makes the use of Micotil in high risk stocker calves in a metaphylactic fashion a sound management practice.