Safety of Feeding Aureomycin® to Cattle

Abstract

A study was conducted to evaluate the safety of feeding Aureomycin to cattle at the levels of 10 mg (1x), 20 mg (2x) or 30 mg (3x) per lb body weight per day for 42 days. Ten mg/lb body weight is the level recommended for the treatment of bacterial enteritis caused by *Escherichia coli* and bacterial pneumonia caused by *Pasteurella multocida* susceptible to chlortetracycline in beef and nonlactating dairy cattle when fed for 5 days.

Under the conditions of this study, feeding Aureomycin (chlortetracycline) at 1x, 2x or 3x the recommended 10 mg/lb body weight level was shown to be safe for cattle.

Summary

- No signs of toxicity or decrease in feed consumption were observed in any of the treatment groups during the 42-day period.
- No gross pathological lesions were observed in the 3x treatment group that could be attributed to medication.
- Although some variations ($P < 0.05$) in clinical chemistry results were observed in medicated animals, mean biological values were within accepted normal limits for cattle at all test intervals. Therefore, these variations were considered to be biologically insignificant.
- The results of this study confirm the safety of feeding Aureomycin (chlortetracycline) at the recommended level of 10 mg/lb body weight.

Experimental Design

Sixteen steers were allotted by weight to the four treatment groups listed below. There were four steers per treatment group, and the Aureomycin treatments were fed for 42 days:

- Unmedicated controls
- Aureomycin, 10 mg/lb body weight (1x)
- Aureomycin, 20 mg/lb body weight (2x)
- Aureomycin, 30 mg/lb body weight (3x)

Aureomycin was mixed in a concentrate ration and fed in the amount (approximately 1 lb/head/day) necessary to provide the desired intake of medication. Silage was fed after the medicated concentrate had been consumed. Feed consumption was recorded daily, and individual animal weights were recorded on days 0, 14, 28 and 42.

Blood samples were collected at -7, 0, 14, 28 and 42 days for blood chemistry and hematology. All steers were observed for clinical toxicity signs. At the end of the study, four 1x steers and four 3x steers were necropsied.

Literature Cited

Berger, H. FD32: 1301-1338 (Princeton) 1984. Unpublished data, Cattle Technical Information Manual, p. III-19.

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