



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AUG 12 1985

MEMORANDUM

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

SUBJECT: EPA Reg No 2724-321. Phosmet (Prolate) on Cattle.
Practicality of A 21-Day PSI. Amendment of 6/3/85.
No Accession Number. RCB No 1072.

FROM: Leung Cheng, Chemist *L. Cheng*
Residue Chemistry Branch
Hazard Evaluation Division (TS-769)

THRU: Charles L. Trichilo, Chief
Residue Chemistry Branch
Hazard Evaluation Division (TS-769) *CT*

TO: George LaRocca, PM #15
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Zoecon Industries has sought responses from persons who are knowledgeable in the current agricultural practices on raising beef cattle and requested specific comments on the practicality of a 21-day preslaughter interval (PSI) versus PSI's of 3 days or less. Four specific issues/questions were raised:

1. General agricultural practices in terms of management of cattle in ranch and feedlot situations, with special reference to the use of pesticides and drugs (perhaps tracing the life of steer from birth to slaughter).
2. Timing and frequency of pesticide applications to cattle in ranch and feedlot situations.
3. Concurrent use of pesticides with various medications and drugs, including withdrawal times for such things.
4. Is a pre-slaughter interval of three days or less meaningful in terms of current agricultural practice? Are there specific situations when longer times would be impractical? If so, what is the frequency of these situations?

Attached were responses from three veterinary doctors in the private sector and two livestock specialists from the University of Idaho Cooperative Extension Service and the Agricultural Research Service located in Texas. These are summarized below with emphasis on issues in items 2 and 4.

All respondents gave an overview of managing cattle in ranch and feedlot. Administration of insecticides on ranches is usually done at a time that is generally convenient to the schedule for handling the animals such as when cattle are treated for internal parasites, when animals are moved into summer or winter pasture, or when calves are weaned. This would reduce gathering costs in terms of labor and possible injury to cattle. Typically this consists of one primary treatment. Additional treatments are only applied when a disease or pest reaches a magnitude so as to necessitate special gathering. If livestock producers anticipate culling individuals from a herd, they normally remove the culls before applying any treatment to the remainder of the herd. In feedlot situations animals are routinely treated for ticks, lice, mites, flies, grubs, etc. upon admission to the feedlot and usually not treated again throughout the feeding period. Subsequent treatments would disrupt feed utilization and average daily weight gain of the cattle. Here they are fed for an additional 90-180 days before being sold to a slaughter plant.

In both ranch and feedlot situations, treatment of animals for cosmetic reasons immediately before slaughter is not a general practice. If a pest problem is evident enough to require treatment, owners normally retain the treated cattle long enough for the effects of the pesticide to provide not just the death of the target pest but a positive response such as increased weight gain, restoration of hair coat (which improves appearance) and subsequent marketability. These desired effects normally take 2-3 weeks. The economic reward has to justify the time and expense of pesticide application.

Two exceptions however are cited. One would be when an animal had accidentally injured itself to the extent that it would have to be sold even though the animal had been treated only a short time before sale. The animal may go directly to slaughter. Another would be when slaughter-ready animals were quarantined for scabies infestation and had to be treated before shipment.

All respondents do not see the necessity of a 3-day or less PSI because cattle are not slaughtered soon after pesticide treatment. They believe the ranch and feedlot managers/owners by and large are aware of the label restrictions including PSI's.

We have requested information on these issues independently from two specialists at USDA (Drs. Ralph Bram & Glen Schubert). They tend to confirm the information that was provided by Zoecon Industries. However, additional information from USDA indicates that cattle on smaller farms are treated with pesticides more often than just once or twice and pesticide treatment for cosmetic purposes is more likely to happen in cases of economic hardship to facilitate sale. As one respondent has stated in reply to Zoecon Industries, there certainly exists the possibility that because of market changes, land sales or management decisions, an owner/manager is apt to sell the animals before the waiting period is completed. In order to guard against any emergency or unforeseen situation, especially on smaller farms, we believe a

PSI of 21 days is too extended a period of time when excessive residues are likely to result in beef cattle.

Conclusion and Recommendation

In order to guard against any emergency or unforeseen situation due to economic hardship, market changes, land sales or simply management decisions, a 21-day PSI is too extended a period of time when excessive pesticide residues are more likely to result in beef cattle. We thus recommend against a PSI of 21 days on the proposed label.

The petitioner has amended the label to read ".....milk must be destroyed" as recommended in our initial memo dated 1/8/85. Zoecon Industries, however, will still need to delete all dip treatments that call for higher than 0.06% phosmet concentrations from the label to avoid phosmet residues exceeding the meat/fat/meat by-product tolerances of 0.2 ppm since the 21-day PSI is considered not practical.

cc:Circ, SF, RF, Phosmet, Cultural Practice F, Amended Use F, Cheng
RDI:RALoranger:8/5/85:RDSchmitt:8/6/85
TS-769:LCheng:CM#2:RM810:Date:8/7/85:557-7484