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

JUN 28 1988

MEMORANDUM

OFFICE OF PESTICIDES AND TOXIC SUBSTANCE

SUBJECT: Sodium Monofluoroacetate (Compound 1080)

TOX Chem No. 770

FROM: Ray Landolt
Review Section I, Toxicology Branch
Hazard Evaluation Division (TS-769C) 6/24/88

TO: John T. Tice, Acting PM 16
Insecticide-Rodenticide Branch
Registration Division (TS-767C)

THRU: Robert B. Jaeger, Section Head
Review Section I, Toxicology Branch
Hazard Evaluation Division (TS-769C) RBJ 6/27/88 for 6/27/88

Registrant: Montana Department of Agriculture Letter of February 16, 1988
EPA Experimental Use Permit File Symbol 53669-EUP-E

Action Requested

To evaluate the efficacy of sodium monofluoroacetate (1080) treated baits in controlling the Columbian ground squirrel at less than the traditional active ingredient concentration of 0.05 percent.

Experimental Design

Three concentrations of 0.05, 0.025, and 0.01 percent of 1080 on oat groats will be dyed yellow for application to ground squirrel burrows. Baits will be applied by hand using calibrated dippers containing 5 g of bait scattered near the burrow. Up to 250 pounds of 1080 treated grain bait, spot treated by hand at up to 1 pound per acre may be used. Only rangeland or pasture will be considered. Food crop areas such as small grains and row crops will not be treated.

Recommendation

1. With residue chemistry considerations permitting tnat this experimental use is nonfood use, the toxicity data requirements for grain bait formulations containing 1080 would be limited to acute oral, acute dermal, eye and skin irritation studies (R.B. Jaeger to S. Palmateer, October 13, 1987).

   To determine the Toxicity Category and precautionary labeling for these three grain bait formulations, the following studies are required for the highest concentration (0.05%) of the grain bait formulation proposed in this experimental use permit. An aqueous formulation of 1080 should be tested by the following routes of exposure.

   - o Acute Oral (Rat) Toxicity
   - o Acute Dermal (Rabbit) Toxicity
   - o Eye Irritation (Rabbit)*
   - o Skin Irritation (Rabbit)*

   Note: Asterisk (*) above identifies those studies which the Agency has determined are waiverable, but which is also requesting each affected State to provide their rationale for excluding them.

2. The toxicity studies cited in paragraph 5, Toxicity to Nontarget Wildlife have been reviewed and found not to be scientifically adequate in experimental design and performance of the following three studies (R. Landolt November 19, 1985 and December 15, 1986).

   a. USDI (1984a) - Fish and Wildlife Service. Primary Dermal Irritation Study. Denver Wildlife Research Center. December 1984.

   b. USDI 1984b - Fish and Wildlife Service. Primary Eye Irritation Study. Wildlife Research Center. December 1984.

   c. Dr. Peoples - Department of Physiological Science, University of California, December 1976 to June 1977.