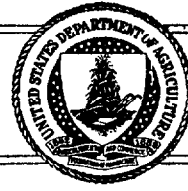




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FEAR OF THALLIUM DANGER TO  
PLANTS FROM RODENT CONTROL  
UNFOUNDED, SCIENTISTS FIND

- - -

Will thallium compounds used in rodent control prove harmful to crop growth?

No, says the U. S. Biological Survey, not even to weeds under the conditions used in the control of rodents by properly trained personnel employing standardized methods.

For more than 10 years thallium compounds have proved useful in local control of rats, Zuni prairie dogs, California ground squirrels, and other rodents especially hard to combat by other means. No adverse effects on plant growth had been observed by the Biological Survey. Several writers, however, raised the question, and accordingly four specialists of the Survey investigated both in field and laboratory.

Results of the Survey's studies are reported in Circular No. 409 just issued by the U. S. Department of Agriculture on "The Effect of Thallium on Plant Growth." The authors are E. E. Horn, Justus C. Ward, James C. Munch, and F. E. Garlough, of the research laboratory at Denver.

Under the conditions used in the control of rodents by trained workers, no evidence has been found of injury to vegetative growth by "thalgrain", the grain treated with thallium sulphate and used in control operations. In control work, ground squirrels consumed thalgrain so promptly that there was no damage to plant growth on areas treated as many as nine times.

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Under laboratory and field conditions on various types of soil, the investigators found that the addition of thallium compounds up to 10 parts per million had no injurious effects on vegetation, and in many cases even appeared to stimulate plant growth. Ten parts per million, they explain, means 10 pounds of thallous sulphate per acre, or the equivalent of 1,000 pounds of thalgrain per acre. This is much more than is used in control operations.

When quantities larger than 10 parts per million were applied, injury was observed in the laboratory. Under field conditions no damage occurred during 9 months of dry weather, but did develop following the rainy season.

The authors also conducted a few experiments to determine whether thallium compounds would be effective as weed killers. They placed Ribes in pots of soil and treated the soil with varying concentrations of thallium, up to the rate of 1,280 pounds per acre. Over a period of 8 weeks they observed no injurious effects.

Copies of Circular No. 409, "The Effect of Thallium on Plant Growth" may be obtained at 5 cents each from the Superintendent of Documents, Government Printing Office, Washington, D. C.