

## **STUDY TITLE:**

Determination of Chlorphacinone and Diphacinone Residues in California Ground Squirrels and Non-Target Animals

## **PROJECT LEADER:**

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## **EXECUTIVE SUMMARY**

California Ground Squirrel carcasses were collected from two field studies. The first entitled "Field Efficacy Studies Comparing 0.005% and 0.01% Diphacinone and Chlorophacinone Baits for Controlling California Ground Squirrels (*Spermophilus beecheyi*)" was conducted by Dr. T.P. Salmon, University of California, Davis. The second entitled "A camera and hook system for viewing and retrieving rodent carcasses from burrows" was conducted by Dr. Kurt VerCauteren, National Wildlife Research Center, Ft. Collins, Colorado.

The animal carcasses were submitted to the Analytical Chemistry Project at the National Wildlife Research Center (NWRC). Diphacinone and Chlorophacinone residue determinations in the whole ground squirrels and several non-target animals were performed using National Wildlife Research Center (NWRC) Analytical Chemistry Project Method 114A and 114B

The objective of this study was to determine the magnitude of residues for diphacinone and chlorophacinone in whole, ground California ground squirrels and non-target animals collected in a field efficacy study to compare the use of 0.005% and 0.01% diphacinone and 0.005% and 0.01% chlorophacinone baits. The methodology developed proved to be reliable and produced mean recoveries  $\pm$  standard deviation in quality control samples of  $85.6 \pm 12\%$  for chlorophacinone ( $n = 100$ ) and  $81.1 \pm 11\%$  for diphacinone ( $n = 91$ ), respectively.

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