

COMPLETED PROJECT REPORT

Project Title: Chlorophacinone and Diphacinone residues in rangeland grasses.

Research Agency: National Wildlife Research Center

Principal Investigator: Fagerstone

Budget: \$173,994.00

Summary:

The final report was submitted in December 2000.

Abstract: The objective of this study was to determine the residues in range grasses from 0.005% and 0.01% diphacinone and chlorophacinone steam-rolled oat (SRO) baits applied via broadcast application. The test area was located in northern California on the Hopland Research and Extension Center of the Univ. of California. Application occurred once on July 21, 1998 at 1X and 2X the maximum allowed application rate. Final samples were collected on May 1, 1999. Analyses of samples were completed by June 2000. Samples were collected at approximately 1, 14, 28, and 90 days post-treatment and consisted of rangeland grasses that were predominately dry. Mean residue values for all samples collected after broadcast application of the baits were less than the method limit of detection (MLOD). The mean MLOD for chlorophacinone and diphacinone for all samples analyzed was 0.051 ug/g and 0.043 ug/g, respectively. Residues in grass samples collected from treated plots for systemic uptake at 141 and 283 days post-application were also less than the MLOD. These samples were predominantly green. The methodology developed for the determination of chlorophacinone and diphacinone in range grasses proved to be reliable, efficient and simple and produced mean recoveries in quality control samples of 86 + 14% for chlorophacinone (n = 128) and diphacinone (n = 107), respectively. The results will be used to determine a tolerance for the consumption of range grasses by livestock.

Last Updated:

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