



US EPA ARCHIVE DOCUMENT

PROTOCOL REVIEW

PRODUCT: Kaput Field Rodent Bait B
FILE SYMBOL: 72500-RR
DATE: May 31, 2007
GLP: Yes
BARCODE: D335914
DECISION: 371602
CHEMICAL: Diphacinone (.0025%)
Imidacloprid (.025%)
CHEMICAL NUMBER: Diphacinone.....067701
Imidacloprid.....129099
PURPOSE: Review data to determine if it supports product registration.
MRIDS: 46966512. Borchert, J. (2006) Field Efficacy Data of Field Rodent Bait B: California Ground Squirrels (*Spermophilus beecheyi*) and Fleas of Kaput Field Rodent Bait B. Project Number: 05019. Unpublished study prepared by Genesis Laboratories, Inc. 371 p.
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5-31-07

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5/31/07

BACKGROUND:
Kaput Field Rodent Bait B is a ready-to-use pesticide intended for the control of wild rodents (ground squirrels, prairie dogs, and rabbits) and their infesting fleas. The directions for use state to scatter approximately 2 oz. of bait near burrow every other day for 3-4 applications.

DATA REVIEW:
The following data review is comprised of explanations of materials and methods, and a summation of experimental results containing a table with reformatted data.

46966512. Borchert, J. (2006) Field Efficacy Data of Field Rodent Bait B: California Ground Squirrels (*Spermophilus beecheyi*) and Fleas of Kaput Field Rodent Bait B. Project Number: 05019. Unpublished study prepared by Genesis Laboratories, Inc. 371 p.

The primary objective of this study was to determine the effectiveness of Kaput Field Rodent Bait B (25-ppm diphacinone, 250-ppm Imidacloprid) for the control of wild ground squirrels (*Spermophilus beecheyi*) and their fleas in natural field conditions. Ground squirrels are common host to the fleas *Oropsylla montana* and *Hoplopyllus anomalus*.

The experimental design consisted of six study plots located in Santa Barbara County, California. All plots were separated by buffers and were divided into two treatment plots (Field Rodent Bait B), two negative controls (no bait application), and two positive controls (rodenticide containing only diphacinone). Burrows within the treatment plots were treated with 60 grams of Field Rodent Bait B on days 0, 3, 6, and 9. The bait was spread in a “semi-circle” near each squirrel burrow, and was only applied to burrows where there were indications of bait feeding.

The collection of fleas from 20 burrows from each plot occurred four times during the duration of the study and was performed by “swabbing” the inside of each burrow with plumber’s wire wrapped with white flannel (target depth was 1.5 meters). Collected fleas were stored in vials of rubbing alcohol for further evaluation.

Results:

Table 1. Number of Fleas Collected from Ground Squirrel Burrows

	Number of Fleas			
	Pretreatment	7-8 DAT	14-15 DAT	21-22 DAT
Treatment Plot 1 (Field Rodent Bait B)	4	0	1	15
Treatment Plot 2 (Field Rodent Bait B)	7	4	8	18
Negative Control 1 (no bait)	6	10	65	19
Negative Control 2 (no bait)	2	5	22	13
Positive Control 1 (rodenticide only)	5	20	37	209
Positive Control 2 (Rodenticide only)	3	22	367	509

Review of the data indicate a significant reduction of the number of fleas found with ground squirrel burrows treated with Field Rodent Bait B, as compared to burrows not treated with rodenticide only.

RECOMMENDATIONS:

The submitted data will support the use of Kaput Field Rodent Bait B with a claim of “reduction of flea populations in ground squirrel burrows”. It should be noted that the requirement for laboratory studies to determine bait efficacy against fleas after a single feeding are still deficient. A submitted protocol was determined acceptable in an Agency review dated May 16, 2007. This data is required to fulfill the insecticide efficacy portion necessary for product registration.