

**MINUTES**  
**VERTEBRATE PEST CONTROL RESEARCH ADVISORY COMMITTEE MEETING**  
**Sponsored by: Monterey County Department of Agriculture**  
**Monterey County Agricultural Commissioners Office**  
**1428 Abbott Street**  
**Salinas, California 93901**  
**October 13, 2010**

Members Present

Dan Spangler, Chairperson  
Dale Huss  
Mark Novak  
Dennis Bray  
Edward Meyer  
Paul Stapp  
Robert Timm  
Victoria Hornbaker  
Art Foster

Members Absent

Ellen Des Jardins-Hirth

Visitors

Jennifer Gordon  
Chester Gould  
Ron Ross  
Vince Guise  
Scott McCalley  
Donald Mayeda  
Mohammad A. Bari  
Terry Salmon  
Denise Stetson  
Curt Nelson  
Roger Baldwin

Bob Roach  
Greg Creekmur  
Michael Kins  
Thomas Schmit  
Fred Rinder  
Michael J. German  
Peter N. Alaga  
Steve Schweizer  
Katherine Horak  
Gene Mangini  
Marjorie MacGregor

INTRODUCTIONS

Welcome from Mr. Bob Roach, Monterey County Deputy Agricultural Commissioner.

Ms. Victoria Hornbaker called the meeting to order at 8:15am followed by the introductions of Committee members and guests.

BAGLEY-KEENE OPEN MEETING ACT AND VERTEBRATE PEST CONTROL RESEARCH ADVISORY COMMITTEE COMPLIANCE

Ms. Victoria Hornbaker and the Committee acknowledged the Bagley-Keene Open Meeting Act and Vertebrate Pest Control Research Advisory Committee (VPCRAC) compliance.

## APPROVAL OF MINUTES

**Motion: Dennis Bray moved to approve the minutes from the April 14, 2010 Vertebrate Pest Control Research Advisory Committee meeting with corrections. The motion was seconded by Dale Huss and passed unanimously.**

## FINANCIAL REPORT UPDATE

Ms. Hornbaker provided the Committee with information on the program budget, revenue, expenditures, and projections. The program budget for FY 2009/10 was authorized at \$954,225 and the program has spent approximately \$562,258 to date, including encumbrances. The administrative budget for FY 09/10 was set at \$244,000 and the total administrative expenditures through September 30, 2010 were \$212,975. Research expenditures including encumbrances for FY 09/10 are approximately \$512,717.

Ms. Hornbaker also reported on the Ag Trust Fund Reserves. CDFA financial services met with program staff to discuss the Ag Trust Fund Reserves. Financial services staff explained that statutes require each Special Funded Program to maintain a ten percent operating reserve that is placed in a separate account. The reserve is based on the total annual budget and is in place to cover any costs incurred as a program ends. Currently, VPCRAC has a reserve equal to three percent of the budget. Financial services intends on increasing the VPCRAC Ag Trust Fund to meet the required percentage. In addition, interest earned on the Ag Trust Fund will remain in the reserve and will not be accessible to VPCRAC. Ms. Hornbaker stated that she wrote a letter to financial services to describe the hardship that this increase will impart to the Vertebrate program, as revenues have been declining over the past several years. She asked that the reserve remain at three percent. No answer has been received as of yet.

**Motion: Edward Meyer moved that the Committee accept the Financial Reports as presented. The motion was seconded by Art Foster and passed unanimously.**

## COMMITTEE MEMBERSHIP: CONSIDERATION AND RECOMMENDATION FOR NEW MEMBER

Mr. Dennis Bray recommended a candidate for the vacant position left by the retired Committee member Mr. Edward Tully. Mr. Bray enclosed the resume of Ms. Karen Sweet owner and operator of Sweet Ranch in Livermore, California. Ms. Sweet has been an active cattle rancher since 1973. She has an impressive list of qualifications including, working with Alameda County Resource Conservation District as an executive officer, working with CDFA in the Fair & Expositions division as an exhibit supervisor and with Alameda County as Fair Exhibit Supervisor. She is also affiliated with the Alameda County Agriculture Advisory Committee, California Cattle Women's Association, and the Lawrence Livermore National Laboratory.

**Motion: Dennis Bray moved that the Committee recommend, to the Secretary, that nominee Karen Sweet be appointed as a member to the Vertebrate Pest Control Research Advisory Committee to fill the agricultural industry member vacancy. The motion was seconded by Dale Huss and passed unanimously.**

Ms. Ellen Des Jardins-Hirth is considering retiring from the Committee and asked fellow industry member Gary Martin to attend the Committee meeting as she felt he might be an appropriate replacement. He introduced himself and stated that he had worked with vertebrate pest control related to voles, gophers, foxes, and coyotes. Ms. Hornbaker welcomed Mr. Martin and explained the Committee's focus and goals for vertebrate pest control.

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY'S RISK MITIGATION DECISION FOR TEN RODENTICIDES

Ms. Hornbaker updated the Committee on the status of the commercial and residential rodenticide uses. All CDFA chlorophacinone labels were granted reregistration and the amended labels were approved by DPR. The diphacinone labels are pending approval at DPR. Counties still selling bait will need to sell out their existing stock and label any new bait with the revised labels.

Ms. Hornbaker and Mr. Roger Baldwin engaged in a dialogue with EPA to discuss the necessity of adding uses for roof rats, Norway rats, and mice back onto labels that previously had uses for those pests. The EPA agreed that CDFA is a good steward of their products and that VPCRAC has funded studies which support replacing those uses. The EPA also agreed to allow CDFA to replace the 365 day restriction for grazing after broadcast baiting with the more realistic statement "Do not graze cattle while bait is present."

As of June 4, 2011, users that are not certified by the Department of Pesticide Regulation will not be able to use the CDFA field use rodent rodenticides.

#### UPDATE ON MEETING WITH THE CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION, REGARDING THE IMPACT OF THE RESTRICTED USE DESIGNATION ON FIELD USE RODENTICIDES FOR SMALL FACILITIES "RANCHETTES"

Ms. Hornbaker and Mr. Bray reported on the continuing discussions with the Department of Pesticide Regulation (DPR) on VPCRAC's desire to develop an alternate private applicator exam for current (non-certified) rodenticide users. This would benefit small agricultural properties, also referred to as "ranchettes", which currently use rodenticides, but do not engage in production agriculture. A private applicator certificate will allow these users to continue purchasing the field use rodenticides after they become federally restricted. CDFA has offered to assist DPR in developing questions and provide training to the "ranchettes."

## CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION'S REEVALUATION OF SECOND GENERATION ANTICOAGULANT BAITS, STATUS AND PROPOSED ACTION

Ms. Hornbaker updated the committee on a lawsuit that has been filed by a rodenticide manufacturer against US EPA for the requirements of their risk mitigation decision. DPR is waiting for the results of the registrant lawsuit against EPA before making any final decision. Pending the outcome of the lawsuit, DPR will establish an independent review committee and further restrictions may be required at the State level for second generation anticoagulant rodenticides containing the active ingredient, brodifacoum.

## CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE REGISTRATION ISSUES

Ms. Hornbaker provided an update to the Committee on the status of the CDFA rodenticide bait reregistration.

### Submission of Amended Final Printed Labels for Chlorophacinone Products

USEPA authorized adding deleted pests back onto the labels.  
New labels were sent to bait selling counties.

### Diphacinone Reregistration, Amended Labels Pending Approval from DPR

The diphacinone labels were submitted to DPR and are pending approval.  
The use for cottontail rabbits has been expanded to include counties other than Orange County, per the Attorney General's interpretation of existing laws.

### Update on USDA Zinc Phosphide Registration

The decision as to whether to maintain the use of zinc phosphide on voles will be influenced by the results of Dr. Roger Baldwin's experiments on the voles in artichokes. Growers are not realizing the anticipated efficacy from the zinc phosphide product and if Dr. Baldwin's experiments do not prove efficacious the use will be removed from the label.

## EXPAND OUTREACH – INPUT AND DISCUSSION

The Committee brainstormed different ways to improve sales on bait and get people certified. Some examples of ideas brought up would be:

- Conduct grassroots training and exam days. Bait would be available for purchase once users passed the exam.
- Adding a bait preordering component on the VPCRAC, UC Extension, and Farm Bureau websites.
- Have bait selling days in remote counties who can not acquire the bait as readily as others.
- Premade one time use bait stations were brought up so over use of the bait goes down.
- Coordinate bait sales with CAPCA / PAPA and maintain 1-on-1 relationship with growers.

## USEPA INJUNCTION INVOLVING PESTICIDES AND ELEVEN SPECIES LISTED AS THREATENED OR ENDANGERED UNDER THE ENDANGERED SPECIES ACT

Ms. Hornbaker updated the Committee on the June 10<sup>th</sup> meeting regarding the Endangered Species Act and the Section 7 Consultation of pesticides including the CDFA rodenticide products for use in and around the habitat of threatened or endangered species. Although several of the baits were evaluated and reported in the 1993 biological opinion, USEPA will conduct Section 7 Consultation for each pesticide. The consultations will be conducted in small groups over a period of several years to make the workload manageable. CDFA does not know when the baits will be assessed, but eventually the labels will be amended to prohibit use near areas with threatened or endangered species.

#### QUALITY ASSURANCE / QUALITY CONTROL PROGRAM

Ms. Hornbaker reported on the second round of tests made on the diphacinone bait samples. The technical products were sampled and test results were within the certified limits on all samples.

The Committee's plan of action for the next phase of sampling is to send diphacinone samples to two third-party laboratories as a means of checking the accuracy of the results already received.

**Motion: Dennis Bray moved that the Committee approve funding to process two CDFA diphacinone bait samples at the CDFA analytical chemistry laboratory and at two additional third party laboratories to ensure the accuracy of previous test results. The testing is not to exceed the amount of \$1,500. The motion was seconded by Art Foster and passed unanimously.**

#### DISCUSSION OF 2010 SPECIALTY CROP BLOCK GRANT AWARDS

Ms. Hornbaker announced that the California Department of Food and Agriculture (CDFA) was awarded a Specialty Crop Block Grant for the project, "Bird Depredation to Almonds, Lettuce, Melons and Ginseng." Upon receiving this grant VPCRAC will transfer the funds to Dr. Scott Werner at the National Wildlife Research Center.

**Motion: Dale Huss moved that the Committee pass through funds awarded by the California Department of Food and Agriculture 2010's Specialty Crop Block Grant Program in the amount of \$149,944 to the National Wildlife Research Center to fund the research proposal entitled, "Bird Depredation to Almonds, Lettuce, Melons and Ginseng." The motion was seconded by Art Foster and passed unanimously.**

#### RESEARCH UPDATES

## University of California

Dr. Terry Salmon provided an update to the Committee on the research projects titled “Developing a Vertebrate Pest Control Digital Library,” and the “Development and Evaluation on the VPCRAC Website for Vertebrate Pest Research Information.” He explained that thousands of slides were scanned and placed on a password secure site. The digital library will be available as a link to the VPCRAC website after the first of the year and at that time the public will have limited availability due to the sensitive nature of some of the photos. The VPCRAC website is being updated to add past research projects and update the research in progress.

Dr. Salmon provided an update to the Committee on the research project titled “A Literature Review of Existing ‘Selective’ Bait Stations for Excluding Non-Target Animals and Metering Bait Dose.” The intention of this project is to find a novel way to restrict bait access to specific pest species; this will reduce the threat of secondary exposure. A bait station is being tested in New Zealand that meters out the bait if the animal is the correct weight, animals smaller than the target weight do not gain access to the bait.

Dr. Salmon provided an update to the Committee on the research project entitled, “Assessing Some Potential Environmental Impacts from Agricultural Anticoagulant Uses.” Bird carcasses were tested from the San Diego area and from the central valley to determine if anticoagulant residues were present. Most of the birds tested in both locations had second generation anticoagulant residues in their liver tissue. This may correspond with the high volumes of second generation anticoagulants used in urban areas and suspected homeowner misuse.

Dr. Roger Baldwin provided an update to the Committee on the research project titled “Food Safety and Rodent Control in Leafy Green Crops – Amended Per VPCRAC Request.” The goal of this study was assess rodent presence and to develop techniques to deter rodents from leafy green crops. Three techniques, snap traps or mouse trap devices, wax blocks and wax tags were used to detect the presence of rodents in the field. These traps were placed along the edge of the field to separate crop from road. Laminated pocket cards were completed to be used as an educational tool.

Dr. Baldwin provided an update to the Committee on the research project titled “Amended Scope – Vertebrate Pest Control Certification, Education and Outreach.” Work began on drafting for four additional species. The technology to assist in this project will be “Touch This Media.” Work continues on this project.

Dr. Baldwin provided an update to the Committee on the research project titled “Development of an Integrated Pest Management Program for Vole Control in Artichokes.” An effective indexing model has been developed using wax blocks for a chewing index. Assessments will be made on the influence of land-use patterns on vole populations and the effectiveness of cultural practices, fumigation, and drift fencing used in conjunction with pitfall traps. Product efficacy will be assessed for zinc phosphide and chlorophacinone treated bracts. In addition, the efficacy of cholecalciferol in field settings will also be assessed.

Dr. Baldwin provided an update to the Committee on the research project titled “Reregistration of CDFA Baits for Control of Norway and Roof Rats in Agricultural Fields.” This study intends to prove that Norway and roof rats are agricultural pests in

California. In addition, Dr. Baldwin will determine the efficacy of CDFA baits for controlling rats in agricultural settings. It was determined after the successful meeting with EPA, which allowed rats and mice to be added back onto the CDFA labels, that the survey would be unnecessary. In the efficacy investigation 5 test sites (9.3 acres) were established in almond orchards in Fresno and Yolo counties. Wax bait blocks and remote-triggered cameras were used to index activity for 3 days. Live-trapping for rats was conducted for 7 days to identify a minimum number known estimate. A chew index was successful as were remote-triggered cameras. The next phase of the study will initiate baiting trials for roof rat control in almonds and for Norway rats in rice.

Dr. Baldwin provided an update to the Committee on the research project titled "Vertebrate Pest Research "NEEDS ASSESSMENT" for California." Wildlife pests cause extensive damage to a variety of commodities in California and resources are limited to identify which pest situations are most in need of alternative control methods. This study will identify how to effectively utilize these limited resources. The objectives were to develop and distribute a survey to assess important research needs for vertebrate pests in California. The survey was distributed to several UCCE Farm Advisors, County Ag. Commissioners offices, and Dr. Stephanie Schwiff from NWRC for feedback. The next steps will be to collect surveys, analyze results, and prepare a final report.

Dr. Baldwin could not update the Committee on the research project titled "Vertebrate Pest Control – Education and Certification Using the Internet and Touch Screen Devices." Work had not yet begun on this project.

#### National Wildlife Research Center

Dr. Katherine Horak provided an update to the Committee on the research projects titled "Development of a Pharmacokinetic Computer Model to Assure the Continued/Expanded Use of Anticoagulant Rodenticides" and "Pharmacokinetic Studies with Kestrels and Owls for Validating the CDFA/USDA Rodenticide PBPK Model." The computer model has been developed, and is currently being populated with known data. With this physiological based pharmacokinetic model tests will be done based on known physiological parameters to predict rodenticide residues in tissues allowing for inter-species extrapolation. Owls and Kestrels will be used as surrogates for other raptors. This will help quantify the actual risks to non-target species. The Kestrel portion of the dosing has been completed and the data is being evaluated. Due to some difficulty with the owl dosing, the procedures were reevaluated and a second round of dosing is being conducted to optimize the results.

Dr. Horak provided an update to the Committee on the research project titled "Using Liver Microsomes to Screen Anticoagulant/ Antibiotic Formulations for Ground Squirrels and Pocket Gophers." Using pomegranate juice and grapefruit juice as inhibitors the diphacinone and chlorophacinone baits were tested for percentage of inhibition. In both baits when pomegranate juice was added the percent of inhibition went up. In the grapefruit juice the inhibition went up as well, but did not exceed 30% in either bait.

Dr. Horak provided an update to the Committee on the research project titled "Using Liver Microsomes to Assess Resistance of Chlorophacinone and Diphacinone in Meadow Voles," the study focuses on if it is possible to assess the extent of

anticoagulant metabolism within and between populations of animals through use of liver microsomes. Previous experiments have shown differences in anticoagulant concentration in the resistant voles, raised levels of anticoagulant metabolism were present and the rodenticide was not detectable. Metabolic inhibitors were chosen to help slow the metabolism in the resistant voles, which would allow the anticoagulants to be more effective.

Dr. Horak provided an update to the Committee on the research project titled "Increasing Acceptance of Zinc Phosphide Baits." The experimental design would be to catch live voles in Colorado. Then test for conditioned aversion, bait shyness, and then test encapsulated Zinc as the treatment.

Dr. Horak could not provide an update to the Committee on the research projects titled "Estimating Job and Revenue Savings from using a Variety of Pest Control Techniques to Protect Crops from Bird and Rodent Damage in California" and "IN-vitro Inhibition of Chlorophacinone metabolism in resistant meadow voles using FIFRA 25b inert ingredients," as because work had not begun on these research projects.

#### NEW RESEARCH PROPOSALS

Ms. Marjorie MacGregor, on the behalf of Dr. Donal Skinner, University of Wyoming, presented a research proposal to the Committee entitled, "Chemical Castration of the Coyote." The proposed budget amount is \$89,223.

Dr. Roger Baldwin, University of California, Cooperative Extension, presented a research proposal to the Committee I entitled, "Identifying the Level of Use of Aluminum Phosphide for Controlling Burrowing pests in California." The proposed budget amount is \$8,583.

#### RESEARCH PROPOSAL DISCUSSION AND DECISION SESSION

**Motion: Paul Stapp moved that the Committee fund the research proposal from Donal Skinner from University of Wyoming, entitled, "Chemical Castration of the Coyote," in the amount of \$89,223. The motion was seconded by Dan Spangler. The motion was defeated with a majority vote of seven Nays and two Yea votes.**

**Motion: Edward Meyer moved that the Committee fund the research proposal from Roger Baldwin from UC Cooperative Extension entitled, "Identifying the Level of Use of Aluminum Phosphide for Controlling Burrowing Pests in California," in the amount of \$8,583. The motion was seconded by Dennis Bray. The motion passed unanimously.**

#### NEXT MEETING



The meeting adjourned 4:30p.m. The next Committee meeting will be held in Nevada City, California of Nevada County. The specific date for the meeting is April 27, 2011 from 8:30a.m. until 5:00 p.m.

SUBMITTED,

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Victoria Hornbaker  
Secretary

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Date