Minutes
VERTEBRATE PEST CONTROL RESEARCH ADVISORY COMMITTEE MEETING
Sponsored by: Kern County Department of Agriculture
1001 S. Mount Vernon Ave.
Bakersfield, CA 95206
April 30, 2014

Members Present	Members Absent
Dennis Bray, Chairperson	David Kratville
Art Foster	Karen Sweet
Mark Novak via phone	Dan Spangler
Dale Huss	
Paul Stapp	
Robert Timm	
Ruben Arroyo	

Visitors	
Jennifer Gordon	Michelle Dennis
Roger Baldwin	Katherine Horak
Fred Rinder	Ryan Meinerz
Edmund Duarte	Michael Leoni
Michael Konda	Scott McCalley

Welcome from Mr. Ruben Arroyo, Kern County Agricultural Commissioner

Mr. Dennis Bray - Chairperson brought the meeting to order at 9:00am and followed by introductions of committee members and guests.

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

Mr. Bray and the Committee acknowledged the Vertebrate Pest Control Research Advisory Committee (VPCRAC) compliance with the Bagley-Keene Open Meeting Act.

APPROVAL OF MINUTES

Committee Meeting on October 23, 2013

Motions: **Robert Timm moved that the Committee recommend approving the minutes from the October 23, 2013 meeting. The motion was seconded by Art Foster and passed unanimously.**

Conference Call on February 5, 2014

Motions: **Dale Huss moved that the Committee recommend approving the minutes from the February 5, 2014 conference call. The motion was seconded by Paul Stapp and passed unanimously.**

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE (CDFA) UPDATES

Program Updates

Ms. Michelle Dennis gave an update on CDFA including an overview of the Vertebrate Program activities including VPCRAC, training, cooperation and county assistance. She discussed a field tour at Pinnacle National Park in Salinas, CA area where Ms. Dennis and Mr. David Kratville met with federal vertebrate control personnel to review feral pig exclusion measures at the park. She also mentioned that the program was asked to review several documents for sister agencies including a feral pig environmental assessment and conducted several bill analysis on behalf of the Department. Ms. Dennis explained that at times CDFA is called upon to assist with reports for abatement activities and gave an example of a ground squirrel abatement that was conducted late last year. Ms. Dennis also requested that the Committee give them the ok to use $2,500 in funds from general expenses to purchase supplies such as binoculars, cameras, etc. The Committee thought that would be fine as long as the final amount for the budget for the FY was not affected.

California Department of Pesticide Regulation (DPR) Update

Ms. Dennis gave an update from CA Department of Pesticide Regulation (DPR) on Second Generation Anticoagulant Rodenticides (SGARs) regulations that will become effective on July 1, 2014. Three components will take effect from these regulations. It will designate all SGARs containing brodifacoum, bromadiolone, difenacoum, and difethialone as California restricted materials. Only certified applicators (or those under their direct supervision) can purchase and use SGARs. Only licensed pest control dealers can sell SGARs to end users.

FINANCIAL REPORTS

Ms. Dennis provided the Committee with updates on the financial reports. For the FY 2013/2014 the Committee authorized a budget of $529,622 and the program has spent approximately $281,171 to date, including encumbrances. Administrative budget for FY 2013/2014 was set at $203,509 and has spent $102,852 to date. Research expenditures with encumbrances for FY 2013/2014 were set at $219,732 and the program has spent $98,130 to date. Revenue from bait sales for FY 2013/2014 through the 3rd Quarter are $420,624. For those

who couldn't make the October 23, 2013 meeting, Ms. Dennis updated the Committee on the agreed budget for FY 2014/2015. The overall budget was authorized by the Committee at $573,450 with admin budget of $160,500 and to date the research contracts/ grants for $314,673. If revenue and expenditures maintain as they have been the Fund Condition reserve would be maintained well in to FY2017/2018.

The Committee requested that the financial statements come to them earlier so they could look over them before the day of the meeting. Mr. Dale Huss requested to check why the bait surcharges were listed under regulatory taxes on the Fund Condition Statement when it should be under fees. Ms. Dennis and Ms. Jennifer Gordon said they would look into this.

Motion: **Dale Huss moved that the Committee recommend approving the financial reports as presented. The motion was seconded by Paul Stapp and passed unanimously.**

LEGISLATIVE/ REGULATORY UPDATE

AB 2210 Nongame
This bill would revise provisions to provide that nonnative fox squirrels (Sciurus niger), instead of red fox squirrels, may be taken as specified. The bill would also prohibit the barter of raw furs, and would require that all animals in the traps be removed within 24 hours of the setting of a trap instead of at least once daily. The bill would require that the nontargeted species be released unharmed and not taken. The bill would make other nonsubstantive changes to these provisions. This bill would instead authorize the department to take any mammal that it determines is unduly preying on any bird, mammal, or fish.

AB 2657 Anticoagulants
This bill was amended in assembly on April 3, 2014. This bill prohibits the use of any pesticide that contains one or more of specified anticoagulants, including brodifacoum and bromadiolone, in wildlife habitat areas, as defined. To the extent the bill would impose additional duties on county agricultural commissioners, and because a violation of this provision would be a crime, this bill would impose a state-mandated local program.

SB 1332 Carbon Monoxide Pesticide
This bill would authorize the director of DPR to regulate the use of carbon monoxide pest control devices, as defined. It would adopt and enforce regulations to provide for the proper, safe, and efficient use of these devices, as specified. A violation of those provisions would be a misdemeanor, and would also be subject to the provisions authorizing the action to be prosecuted civilly by the director, or for a county agricultural commissioner to levy a civil penalty, in lieu of prosecution as a misdemeanor. The bill would also make nonsubstantive

changes. By expanding the scope of a crime, the bill would impose a state-mandated local program.

COMMITTEE MEMBERSHIP: CONSIDERATION AND RECOMMENDATION OF NEW MEMBERS

Discuss Candidates for Vacant Position

Concerns were raised if Mr. Dan Spangler was still interested in being a committee member anymore since he had not been able to make it to meetings. Mr. Bray stated that he would get in contact with Mr. Spangler and see if he still was interested in being a committee member or would like to step down.

Committee Member Appointments Update

As of April 1st, 2014, Mr. Dennis Bray has been moved to the position of Public Member in the Committee. As of April 1st, 2014, Mr. Ruben Arroyo has been appointed to the Committee as the California Agricultural Commissioners and Sealers Association (CACASA) representative on the Committee.

UC Cooperative Extension positions

Submitted by Dr. Robert Timm
Dr. Timm noted that UC Cooperative Extension is currently in the process of recruiting a new position in vertebrate pest management to be located in Irvine, CA at the South Coast Research & Extension Center. This is a new area advisor position that will be part of the UC Integrated Pest Management team and will focus on human-wildlife conflicts in Southern California, specifically in Los Angeles, Orange, and San Diego Counties, and the western portions of San Bernardino and Riverside Counties.

Dr. Timm noted that the process of prioritizing other Advisor and Specialist positions within UC Cooperative Extension, to be hired beginning in calendar year 2015, has begun. Greg Giusti, Mendocino/Lake UCCE County Director will be submitting proposals for a new Area Advisor to be based in the northern part of the state, and will also submit a proposal to re-fill the position at the Kearney Agricultural Research & Extension Center in Parlier which was vacated when Dr. Roger Baldwin accepted the CE Specialist position on the UC Davis campus. External support for these positions is needed in order to advance them to a high level of priority. Discussion among VPCRAC members and attendees provided strong support for such positions. Fred Rinder (Fresno Co.) noted the need to have educators who could cross county lines to provide training and assistance to various clientele throughout areas of the state where these needs are the greatest. There was general agreement that there are unmet needs regarding damage by birds, feral pigs, and other mammal and bird pests, and neither

CDFA nor the CA Department of Fish & Wildlife are in a position to meet such needs. Dr. Timm noted that CE Advisors are also expected to conduct applied field research, and VPCRAC can be an excellent funding source and networking opportunity for these new positions.

Discussion followed

FISH AND GAME COMMISSION DEPREDATION MEETING UPDATE – MIKE BOITANO, AMADOR COUNTY AGRICULTURAL COMMISSIONER

Unfortunately Mr. Mike Boitano of Amador County Agricultural Commissioner's office was not able to make it to the meeting. The Committee will ask if he would be available to join us for the next meeting in October 2014.

RESEARCH PROPOSALS

No research proposals were presented this day but discussion followed about the following topics as possible future proposals.

Submitted by Mr. Fred Rinder
Mr. Fred Rinder brought up the concern about anticoagulant found in the blood of a mountain lion with mange. The questions he asked were the following: Were there other factors that caused the mange? Is there a study and if not should we be doing a study funded by VPCRAC? Also, there are claims that sub-lethal amounts of anticoagulant cause a decline in the affected animal's reflexes or behavior that they are more susceptible to predation or being hit by cars, etc. Are there any studies that back this claim or if not should we be funding a study to test this theory? Those against anticoagulants could make the claim with no proof which forces producers and users to prove it wrong. He thought this needed to be addressed by the Committee.

Discussion followed

Submitted by Dr. Roger Baldwin
Dr. Roger Baldwin mentioned Oregon has recently registered zinc phosphide treated cabbage for managing Belding's ground squirrels in certain parts of the state. This registration is a 24c, and as such, has many limitations. Nonetheless, many growers in neighboring counties in California are interested in pursuing a 24c for Belding's ground squirrel control as well. Dr. Baldwin was curious if anyone was aware of this new option in Oregon, and if so, if anyone had any information on stated efficacy. No one seemed to be aware of it.

Discussion followed

RESEARCH UPDATES

National Wildlife Research Center

Dr. Stephanie Shwiff was not available to come for this meeting for an update for this project, **"Estimating Job and Revenue Savings from using a Variety of Pest Control Techniques to Protect Crops from Bird and Rodent Damage in California" #10-0332.**

Dr. Katherine Horak gave the Committee an update on her following projects.

"Dietary Toxicity of Bioincorporated Chlorophacinone to Kestrels" #11-0430, Dr. Horak submitted a paragraph of the update she gave for this meeting. Regulatory changes limiting the use of second-generation anticoagulant rodenticides in much of North America may result in expanded use of first-generation anticoagulant rodenticides (FGARs). The toxicity of the FGAR chlorophacinone (CPN) over a 7-day exposure period was investigated in American kestrels (*Falco sparverius*) fed rat tissue mechanically-amended with CPN, tissue from rats fed Rozol® bait (biologically-incorporated CPN), or control diets (tissue from untreated rats or commercial bird of prey diet). Nominal CPN concentrations in the formulated diets were 0.15, 0.75 and 1.5 µg/g food wet weight, and measured concentrations averaged 93.8% of target values. Kestrel food intake was consistent among groups and body weight fluctuated less than 6%. Overt signs of intoxication, liver CPN residues, and changes in prothrombin time (PT), Russell's viper venom time (RVVT) and hematocrit, were generally dose-dependent. Histological evidence of hemorrhage was present at all CPN dose levels. There were no apparent differences in toxicity between mechanically-amended and biologically-incorporated CPN diet formulations. Using benchmark dose methods, dietary-based toxicity reference values at which clotting times were prolonged in 50% of the kestrels were 79.2 µg CPN consumed/kg body weight-day for PT and 39.1 µg/kg body weight-day for RVVT. Based upon estimates of daily food consumption of captive kestrels, these values encompass mean CPN concentrations found in small mammals following field baiting trials. Tissue-based toxicity reference values for coagulopathy in 50% of exposed birds were 0.107 µg CPN/g liver wet weight for PT and 0.076 µg/g liver for RVVT. These tissue-based thresholds are below the range of residue levels reported in raptor mortality incidents attributed to CPN exposure. Sublethal responses associated with exposure to environmentally realistic concentrations of CPN could compromise survival of free-ranging raptors, and should be considered in weighing the costs and benefits of anticoagulant rodenticide use in pest control and eradication programs.

"Evaluation of Hazard of Sequential Exposures to First and Second Generation Anticoagulant Encountered by Non-Target Raptors at the Urban-Agricultural Interface" #13-0470 Pending, work has not begun on this project because the contract is still being processed.

University of California

Dr. Roger Baldwin gave updates on the following projects.
"Maintenance of VPCRAC website" #13-0454, Dr. Baldwin stated that he had begun updating the contents and confirming links on VPCRAC website. The hosting of the website was transferred to the UC Davis servers. The calendars and contact information are partially updated. The available final reports for projects have been uploaded and CDFA has been notified of those reports that still need to be scanned. Dr. Baldwin discussed the possibility of limiting access to the final reports. The Committee was concerned that restricting the content of a public website might raise some flags. Dr. Baldwin agreed to make project summaries available on the website with full reports available upon request.

"Assessing the Efficacy of Carbon Monoxide Producing Machines at Controlling Burrowing Rodents" #13-0461, Dr. Baldwin stated this project had not started yet.

Joint University of California and National Wildlife Research Center

"Field Trial for Efficacy of Cholecalciferol + Diphacinone(C+D) for California Vole Control" #12-0408/ 12-0410, Dr. Baldwin gave a **FINAL REPORT** on the field trials for the C+D bait developed in New Zealand by Connovation Ltd. In initial pen trials on California voles Dr. Baldwin had effective results with this bait.. The objective of the final part of the project was to determine the efficacy of C+D bait for voles in a field study. The initial step was installing wire mesh enclosures with the top 2 inches bent inward to limit climbing over the top. Treatments were randomly assigned to each enclosure. Next Voles were captured and fitted with telemetry collars to monitor survival. As many voles as possible were placed into each enclosure (maximum of 10) then tracked one to two times per day. The baited bracts were mixed following approaches developed by Dr. Terry Salmon and others. Applications of treated bracts or C+D pellets were made to approximately every other plant. Rodents typically died in 4-7 days with cholecalciferol. Voles consuming treated bracts died quicker than those exposed to pellets. Time of death was more variable with pellets. To increase vole retention modifications had to be made to fencing. Telemetry checking was increased to twice daily to limit losses of voles due to scavenging. The bract bait proved more effective at controlling voles in a realistic field setting than pellets. Further testing on the pellets could be done if desired. Once the final report is completed the

results will be provided to the California Department of Pesticide Regulation (CDPR).

"Identifying possible alternative baits to replace strychnine for pocket gopher" #13-0233/ 13-0234,Dr. Baldwin gave a progress report for this project. Strychnine has generally been the bait of choice for gopher control. As of 2012-2013 Wilco Distributors ceased importing strychnine into the U.S. The loss of strychnine leaves a gap in knowledge on efficacy of current alternative baits for gopher control. Results from alternative active ingredients have been varied and new products have not been tested. The objective of this project was to determine the palatability and efficacy of pocket gopher baits. Gophers were captured from Pala, CA in February and Santa Rosa, CA in March. Gophers were then transferred to Fort Collins, CO for lab trials to determine the palatability and efficacy of pocket gopher baits. Two choice trials have started. Depending on the outcome of these trials funding for field trials of successful baits may be requested. If no baits prove effective new active ingredients for pocket gopher control may need to be pursued.

"Bird-repellant Rodenticide Baits" #12-0439/ 12-0440, Dr. Baldwin gave the **FINAL REPORT** for this project. The overall goal of this research project was to evaluate and develop bird-repellent rodenticide baits that exhibit limited feeding repellency to rodents and acceptable rodenticide efficacy in targeted California rodents. This project would be a three part study spanning 3 years. The decision to pursue the second and third portions of the study would be dependent upon the effectiveness of part 1, which evaluated the potential repellency of anthraquinone-treated baits for California voles in captivity. After acclimating and pretesting voles for consumption of oats, voles were ranked and assigned to one of three test groups. Groups 1-3 received 0.5%, 1% or 2% anthraquinone treated seed. Percent repellency was determined by dividing the amount of anthraquinone treated test seed consumed by the average consumption of the pretest untreated seed. Based on previous research that found Black-tailed prairie dogs exhibited 24-37% repellency for corn seeds treated with 0.5-4% anthraquinone predictions were that California voles offered oats treated with 0.5-2% anthraquinone would result in <40% repellency. California voles exhibited 58%, 72% and 84% repellency for oats treated with 0.5%, 1% and 2% anthraquinone, respectively. . Based on the results to part 1 of the project it was decided that part 2 and 3 would not be pursued.

Closed Executive Session of the VPCRAC Pursuant to Government Code Section 1126 Closed session was not deemed necessary.

Next Meeting Schedule

Future Action Items

Contact Victoria Hornbaker to discuss ways CDFA has called for research project proposals in the past.

Mr. Ruben Arroyo agreed to send Ms. Gordon an example of the format counties use for meeting agendas to consider for future VPCRAC meeting agendas.

Next Meeting Location

El Dorado County, CA, October 22, 2014

Adjourn

2:14pm

David Kratville – Secretary

11/24/14

Date