

To: Transportation, Water and Infrastructure Committee
From: Vince Guise, Agricultural Commissioner/Director of Weights and Measures
Date: February 5, 2014
Subject: Agricultural Department Response to Public Comments Made at the December 5, 2013
TWIC Meeting

Commenter: Michael Sullivan representing PfSE

Comment: County should use free labor programs

Response: Almost all of our noxious weed program involves activity on private lands or lands that are not owned or managed by the county. Use of volunteer help in these areas would involve liability to those land owners or managers. Volunteer help used in field and remote locations involves a lot of county resources including organizing, outreach involving solicitation for volunteer help, supervision, training, equipment, and transportation.

Commenter: Stan Newman representing PfSE

Comment #1: There is still no posting when pesticides are applied.

Response: For the last two years we have fully abided by the posting policy adopted by the IPM Committee.

Comment #2: Staff has still not demonstrated that for each pest control problem, least toxic alternatives were evaluated first prior to choosing pesticides.

Response: Least toxic control is always our first consideration as demonstrated in our 50 page departmental IPM plan and further in our detailed decision documents. With both noxious weed species and ground squirrel control our treatment decision involves the biology of the species, the extent of the infestation, the immediate environment, all treatment options, endangered species act and injunction restrictions if chemical treatment is used, weather and other considerations at the time of treatment if chemicals are used. We mechanically remove or hand-pull five of the eighteen noxious weed species we manage as our only treatment method. Hand pulling was tried with four other species and was found either to be unsuccessful or exacerbated the problem. Hand-pulling or mechanical treatment is a viable option with three other species; however, because of the extensiveness of the infestations it is not a practical option. All other species have very extensive root systems that cannot be removed with hand or mechanical treatment making this method not an option. Grazing is also not an option for many reasons that include ineffectiveness due to the extensive root system of the species, non-county owned or controlled lands, and infestations that are a small percentage of larger lands. We have also tried various chemical control methods and materials on many of the species in an effort to find the least toxic but still effective material. Over the last two or three years as a result of striving to find and use the least toxic method we have switched from

the use of the less environmentally favorable herbicide imazapyr to glyphosate for pampas grass control after experimentation demonstrated to us that glyphosate is an effective alternative. We switched from chemical control of smooth distaff thistle to mechanical control using hand tools for this species after we successfully decreased the infestation to the point that we could make the switch. Note that the biology of the species is such that it can be effectively controlled with this method.

With ground squirrel control we have tried both raptor perches and live trapping. Unfortunately neither has been efficacious.

Comment #3: TWIC was asked to instruct the Department of Agriculture to use trapping methods (for ground squirrels) that three neighboring counties with IPM Ordinances use with great success and satisfaction.

Response: We ran a very extensive live trapping trial and analysis in 2012. We did this of our own volition and many of our findings were unexpected. We found that we were very successful with trapping to the extent that we captured and euthanized 152 ground squirrels in the 1,200 linear foot trial area over the five day trial period. Unfortunately, we found that squirrels from the surrounding area freely used the burrows that were vacated making this method ineffective in areas with surrounding ground squirrel pressure. This does not occur with the use of the treated bait even with surrounding ground squirrel pressure. We surmise that this is due to the fact that the treated squirrels die in the burrow which repels squirrels from the surrounding area. We also found live trapping to be cost prohibitive at an extrapolated \$5,074.36 per linear mile treated compared to \$220.40 per linear mile using bait. We verified this expense by contacting two pest control contractors. Using their fees per hour or per squirrel trapped, we extrapolated that the cost to use a contractor to trap ground squirrels would be between \$12,523.50 and \$16,700 per linear mile. One pest control operator told us that he observed the same ineffectiveness as we did in areas with surrounding pressure. We had other unexpected problems that included trapped squirrels bloodied from fighting and injuries trying to bite their way out of the traps, and trap vandalism that exposed the public to health risks from various transmissible diseases that are carried by ground squirrels. In certain small areas that have a limited number of ground squirrel colonies, live trapping may be a viable alternative. Santa Clara County uses traps near Regional Park building to prevent undermining of foundations. We do not have areas like this though with our program. We are protecting long strips of critical infrastructure that have ground squirrel pressure adjacent to the treatment areas.

We have also evaluated kill traps but have chosen not to use this method for many reasons that include increased risk of taking of non-target animals, risk of injury to curious children and expense.

Finally, we are not the only area county using ground squirrel bait treatment. The Santa Clara Valley Water District uses diphacinone treated grain bait in areas much the same as those that we treat for CC Water District. Alameda County Department of Agriculture has an extensive roadside ground squirrel treatment program.

Commenter: Priscilla Rich representing Transition Express Campaign

Comment #1: Unfortunately, Contra Costa County Departments are applying more pesticides than any other Bay Area County, even Santa Clara, which is twice as large as we are.

Response: As stated above Alameda County and Santa Clara Valley Water District use first generation anticoagulant baits. Undoubtedly others do too though this has not been verified. And roadside vegetation control by public works in Alameda and Solano Counties involves very much more herbicide use than in Contra Costa County.

Comment #2: Are pesticide-free alternatives considered and piloted prior to using pesticides as the last option.

Response: See previous responses related to the noxious weed hand-pulling and grazing and ground squirrel raptor perches and live/kill trapping methods.

Commenter: Shirley Shelangoski representing PfSE

Comment: Lack of progress is evident in that the county has not significantly altered their use of pesticides since 2009.

Response: Last year we altered our ground squirrel bait treatment program significantly. We now prebait with untreated bait. This increases squirrel activity making our treatments more focused to the areas of activity. We added a second person in the vehicle when the truck mounted bait spreader is used. This is a safety feature plus helps us to target our treatments more precisely and thus use less bait. We went from a standard three treatment regimen to a two day regimen with the third day focusing more on survey while treating only areas that still have activity. This has resulted in a decrease in bait applied.

Note that that the pounds of pesticide active ingredients used by the Agriculture Department went from 795 in FY 10-11 to 529 in FY 12-13. For County operations as a whole, the amount of pesticide active ingredients used has gone from 11,000 lbs. in FY 08-09 to 7,500 lbs. in FY 12-13.

See previous responses in regard to the many trials and altered uses of pesticides where we successfully switched to non-chemical use in two cases and switched to a less toxic alternative in another case.

Commenter: Karen Perkins representing PfSE

Comment #1: We are requesting that TWIC require that all staff involved in ordering pesticides from salespersons fill out a form disclosing any monetary compensation or any other forms of gifts from pesticide salespersons.

Response: Our department has never received gifts or compensation in any form. This would be against county policy and would subject our department and staff to disciplinary action.

Comment #2: It is unfathomable to some of us why other comparable counties can use fewer pesticides than Contra Costa County.

Response: See above comments in regard to ground squirrel and roadside use by Alameda, Santa Clara and Solano Counties. Alameda County Department of Agriculture also has a noxious weed control program that involves pesticide use. Marin County Department of Agriculture is in the process of implementing a noxious weed program due to extensive problems to their agriculture and environment that have developed due to the lack of a program.

Commenter: Sherrill Cook, volunteer with Lindsay Wildlife Museum

Comment #1: Use alternatives to rodenticides (owl boxes are mentioned)

Response: We have tried alternatives, see above responses. Also, owl boxes are not an effective alternative for ground squirrel control because owls hunt at night when ground squirrels are not out.

Comment #2: It is her understanding that our department has not responded to the kestrel study that shows kestrels to be more sensitive to diphacinone than quail and ducks that were used in the studies for approval of the product.

Response: We responded to Susan JunFish regarding the kestrel study on November 22, 2013 (copy included) and re-sent the documents on January 7, 2014. In summary, our surveys as well as those done in other areas of the state have shown that very few ground squirrels die above ground. In the 2012 treatment season only six dead ground squirrels were found by our staff in surveys performed on the equivalent of 725 linear miles treated in the county and no non-target mammals or raptors were found. This would indicate that any voles or mice affected by the treatment also die in their burrows or harborage. Also, since 2004 the California Department of Fish and Wildlife has had only ten raptors (and no mammals) that were submitted for analysis for suspected anticoagulant poisoning. The birds were red-tail and red-shoulder hawks plus two barn owls. Only one was found to have levels of diphacinone and this was found at a time of year prior to our scheduled use of the bait. That one and all others that had any detectable levels of anticoagulant (5 in total) were found to have brodifacoum, a second generation anticoagulant with known secondary poisoning potential. After our letter of response on the kestrel study, an eleventh raptor was submitted and found to have levels of brodifacoum with no diphacinone detected.

We suspect that second generation anticoagulants (not the first generation materials that we use) were the problem which is consistent with Fish and Wildlife Service findings. We support proposed restrictions of the California Department of Pesticide Regulation in regard to second generation anticoagulants and have actively participated in that regard in several meetings with that agency.

General charts and graphs submitted to TWIC from PfSE:

Item #1: Pesticide use data in 2012/13 by the Department of Agriculture

Response/Comments: The total amount of herbicide and rodenticide used by the Department per the PfSE chart is 30,134 pounds with 332 pounds active ingredient used. We are not disputing the amount that PfSE listed but must point out that the difference between these two numbers is the amount of inert material. Almost all of the inert material is the rolled oats that is used in the ground squirrel bait.

Item #2: Injunction listed materials List and Use Data.

Response/Comments: There are two injunctions related to allegations that various pesticides have not received adequate consultation from the US Fish and Wildlife Service and the National Marine Fisheries Service in regard to the use of these pesticides in endangered species habitat. The pesticides covered by the injunctions are only restricted in specific areas that are listed in the injunctions, not the county as a whole. As an example the use of diphacinone is restricted where it cannot be used within 700 feet of known San Joaquin Kit Fox dens. There is also an exemption that allows use of listed herbicides in habitat areas for noxious weed control if done by government agencies using handheld equipment such as the backpack sprayers that we use.

Item #3: Potential Ground Water Contaminants.

Response/Comments: Though these materials have certain characteristics that make them potential ground water contaminants, use restrictions on the label make this unlikely to occur. In fact, according to the California Department of Pesticide Regulation, none of these materials has been found to have contaminated ground water in any area of California from their normal legal use.

Item #4: Pesticide chart of materials used by the Department of Agriculture.

Response/Comments: There are a number of PfSE listed applications that our department does not use or make. We do not apply any materials by air. We do not apply to surface water. We do not apply by chemigation methods. Those materials listed as ground water contaminants have never been found in California to have contaminated ground water as the result of any legal use.

Smoke cartridges are listed as a pressurized gas on the chart. They are not a pressurized gas. They are made of charcoal, potassium nitrate and cardboard. When placed in a squirrel burrow and lit, the burning creates carbon monoxide which displaces the oxygen in the burrow. PfSE also lists the "parent" material as a PANNA bad actor, presumably because of acute toxicity. Carbon monoxide build up in a confined space is highly toxic. These cartridges are only used in burrows in outdoor situations.