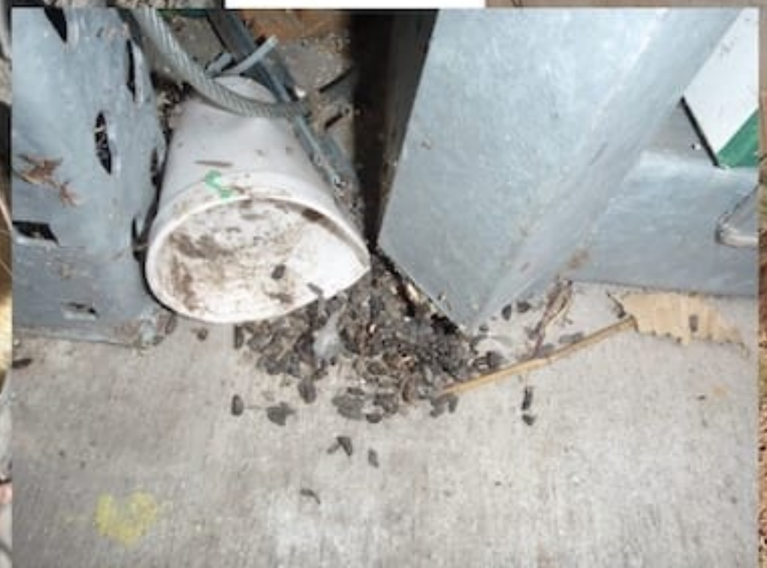
EPA PID Summary

Katie Swift

Chair, Rodenticide Task Force



Rodenticide
TASK FORCE

Member Companies

(** denotes Full Member)

- BASF Corporation
- Bell Labs
- Central Garden & Pet Company (Farnam)
- JT Eaton & Co., Inc.
- Liphatech, Inc**
- Neogen Corp.**
- PelGar International Ltd.**
- Reckitt Benckiser LLC
- Scimetrics Limited Corp.
- Unichem d.o.o
- VM Products
- Wilco Distributors**
- Woodstream Corporation

Rodenticide
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EPA Documents

- Proposed Interim Decisions
  - Seven Anticoagulant Rodenticides PID (EPA-HQ-OPP-2015-0778-0094)
  - Bromethalin and Cholecalciferol PID (EPA-HQ-OPP-2016-0077-0024)
  - Zinc Phosphide PID (EPA-HQ-OPP-2016-0140-0031)
  - Strychnine PID (EPA-HQ-OPP-2015-0754-0025)

- Supporting Documents – All Rodenticides
  - Rodenticides Draft Effects Determination and Proposed Mitigations Endangered Species (EPA-HQ-OPP-2015-0778-0096)
  - Use and Benefits Assessments 11 Rodenticides (EPA-HQ-OPP-2015-0778-0095)
  - Revised Tier I Update Review Human Incidents (EPA-HQ-OPP-2015-0778-0101)

- Supporting Documents – Zinc Phosphide

EPA Documents

- Supporting Documents – Anticoagulant Rodenticides
  - ChemSAC CPN DPN Further Food Non-Food Considerations July 13 (EPA-HQ-OPP-2015-0778-0099)
  - ChemSAC CPN DPN WOE Supporting Non Food Characterization April 6 (EPA-HQ-OPP-2015-0778-0098)
  - Response to Public Comments on Draft Ecological RA Anticoagulant Rodenticides (EPA-HQ-OPP-2015-0778-0097)
  - Response to Comments Draft Human Health RA Anticoagulant Rodenticides (EPA-HQ-OPP-2015-0778-0100)

- Draft Risk Assessments from 2020 (Human Health, Ecological)

Background EPA Documents

- Reregistration Eligibility Decision (RED) Rodenticide Cluster 1998
- Potential Risks of Nine Rodenticides to Birds and Nontarget Mammals 2004
- Risk Mitigation Decision for Ten Rodenticides 2008
- Scientific Advisory Panel documents 2011
- Opening documents 2016 (Work Plans, Problem Formulation)

Rodenticide
TASK FORCE

First Generation ARs
Chlorophacinone, Diphacinone, Warfarin

- All commercial/professional structural products become Restricted Use Pesticides (RUPs).
- Cancellation of all General Use Pesticides (GUPs) for control of field pests.
- Prohibit use in cropped areas including orchards, groves, vineyards, and alfalfa. Above ground applications: 1) cannot be made directly to food or feed crops, 2) can only be made during the non-growth (dormant) period of the crop, and 3) must be made along fence lines, border areas, and buffer strips adjacent to the crops. Below ground applications: 1) must be made directly into the main run of the burrow, and 2) can only be made during the non-growth (dormant) period of the crop. One year harvest interval required for applications made to non-bearing crops.
- Prohibit spot/scatter and broadcast applications to rangeland, pastureland, and fallow land.
- Prohibition of spot- and broadcast- applications to turf, lawns, parks, golf courses, campsites, and other recreation areas.
- APF10 (half-face elastomeric respirators), along with any fit testing, training, and medical evaluations will be required for application of meal baits, tracking powders, grain meals, and waxy/paraffinized or non-paraffinized pellets.
- Chemical-resistant gloves required for applications of products that are meal baits, tracking powders, grain meals, and waxy/paraffinized or non-paraffinized pellets.
- The PPE label requirement for gloves for all products would be changed to chemical-resistant gloves, generally with a thickness ≥ 14 mils (thicker than the current standard).
- Mandatory statements for post-application follow-up: 1) carcass search, collection, and disposal, 2) spilled/ kick out bait disposal, and 3) dead/dying non-target animal reporting requirements for RUP products packaged in ≥ 4 lbs. of bait used in fields and other non-structural use sites. For all other commercial/professional use applications, carcass search will be advisory.
- Cancellation of reusable consumer bait stations (1lb or less) and refills. The only products available as General Use Pesticides (GUPs) will be ready-to-use prefilled disposable bait stations.

Second Generation ARs
Brodifacoum, Bromadiolone, Difenacoum, Difethialone

- All commercial/professional structural products become Restricted Use Pesticides (RUPs).
- APF10 (half-face elastomeric respirators), along with any fit testing, training, and medical evaluations will be required for application of meal baits, tracking powders, grain meals, and waxy/paraffinized or non-paraffinized pellets.
- Chemical-resistant gloves required for applications of products that are meal baits, tracking powders, grain meals, and waxy/paraffinized or non-paraffinized pellets.
- The PPE label requirement for gloves for all products would be changed to chemical-resistant gloves, generally with a thickness ≥ 14 mils (thicker than the current standard).
- Advisory statements for post-application follow-up: 1) carcass search, collection, and disposal, 2) spilled/ kick out bait disposal, and 3) dead/dying non-target animal reporting requirements for RUP products packaged in ≥ 4 lbs. of bait used in structural use.

Rodenticide
TASK FORCE

Bromethalin and Cholecalciferol

- All commercial/professional structural products become Restricted Use Pesticides (RUPs).
- Cancellation of all General Use Pesticides (GUPs) for control of field pests, except for bromethalin worms for moles.
- APF10 (half-face elastomeric respirators), along with any fit testing, training, and medical evaluations will be required for application of meal baits, tracking powders, grain meals, and waxy/paraffinized or non-paraffinized pellets.
- Chemical-resistant gloves required for applications of products that are meal baits, tracking powders, grain meals, and waxy/paraffinized or non-paraffinized pellets.
- The PPE label requirement for gloves for all products would be changed to chemical-resistant gloves, generally with a thickness ≥ 14 mils (thicker than the current standard).
- Advisory statements for post-application follow-up: 1) carcass search, collection, and disposal, 2) spilled/ kick out bait disposal, and 3) dead/dying non-target animal reporting requirements for RUP products packaged in ≥ 4 lbs. of bait used in structural use sites and for products packaged in sizes ≤ 1lb. bait labeled for consumer/residential use.
- Cancellation of reusable consumer bait stations (1lb or less) and refills. The only products available as General Use Pesticides (GUPs) will be ready-to-use prefilled disposable bait stations and bromethalin gummy worms for mole control.

Zinc Phosphide

- All products become Restricted Use Pesticides (RUPs).
- Cancellation of all General Use Pesticides (GUPs) for control of field pests.
- Prohibition of spot- and broadcast- applications to turf, lawns, parks, golf courses, campsites, and other recreation areas.
- APF10 (half-face elastomeric respirators), along with any fit testing, training, and medical evaluations will be required for application of meal baits, tracking powders, grain meals, and waxy/paraffinized or non-paraffinized pellets.
- Chemical-resistant gloves required for applications of products that are meal baits, tracking powders, grain meals, and waxy/paraffinized or non-paraffinized pellets.
- The PPE label requirement for gloves for all products would be changed to chemical-resistant gloves, generally with a thickness ≥ 14 mils (thicker than the current standard).
- Mandatory statements for post-application follow-up: 1) carcass search, collection, and disposal, 2) spilled/ kick out bait disposal, and 3) dead/dying non-target animal reporting requirements for all applications.

Rodenticide Use and Distribution Sectors

- Agriculture – Crops
- Agriculture – Structures (Animal Production and Animal Health; Livestock, Farm and Ranch)
- Professional Pest Control Operators
- Food Safety
- Property and Facility Owners / Operators / Managers
- Municipal Services
- Retailers of Consumer Products/Consumers
- Rodenticide Distributors
- Farm and Tractor Stores

Rodenticide
TASK FORCE

Commensal Rodent Control

Purpose:

- Public health; damage to property, infrastructure, and equipment; food safety; landscaping

Species:

- Structural: Rats and mice
- Field: Ground squirrels, pocket gophers, voles, deer mice, Norway and black rats, moles

Rodenticide
TASK FORCE

Rodent Control for Lawns, Parks, Golf Courses, etc.

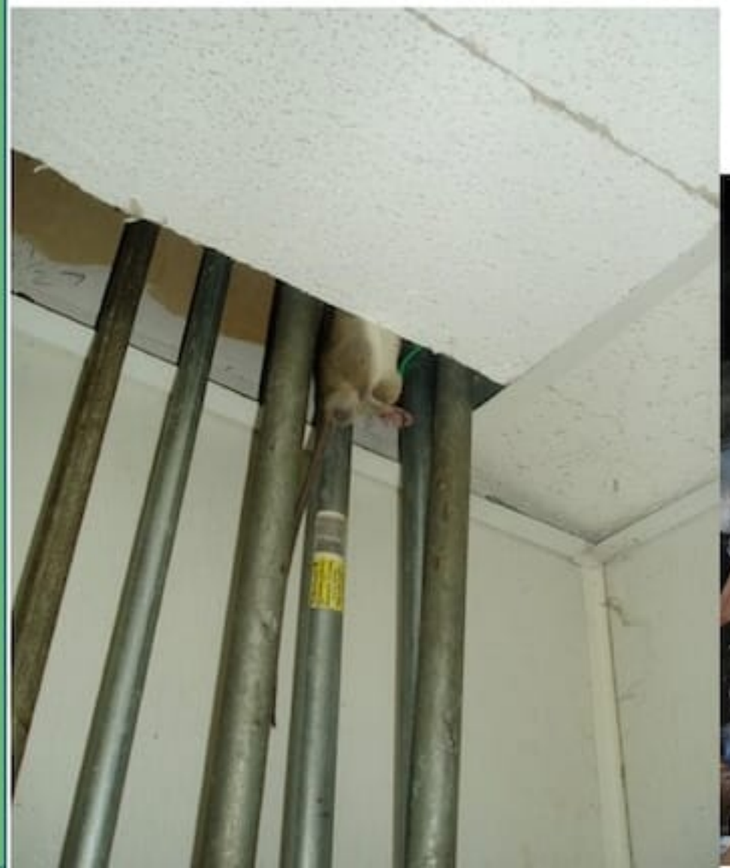
Ground squirrels, pocket gophers, voles, deer mice, Norway and black rats, moles

Rodenticide
TASK FORCE

Commensal Rodent Control

Methods:

- Structural: Bait stations, locations inaccessible to nontargets
- Field: Spot and broadcast, burrow baiting, bait stations



Rodenticide
TASK FORCE

Rodent Control in Animal Production Structures

Purpose:

- Damage to buildings and equipment; food safety; consumption and contamination of feed; direct mortality

Species:

- Rats and mice

Rodenticide TASK FORCE

Rodent Control in Animal Production Structures

Methods:

- Structural: Bait stations, locations inaccessible to nontargets

Rodenticide
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Rodent Control in Agriculture

Damage to crops and equipment, food safety

- In-Field: Ground squirrels, pocket gophers, prairie dogs, voles, deer mice, black rats – damage to crops and equipment, food safety
- Structural: Rats and mice

Rodenticide
TASK FORCE

Rodent Control in Agriculture

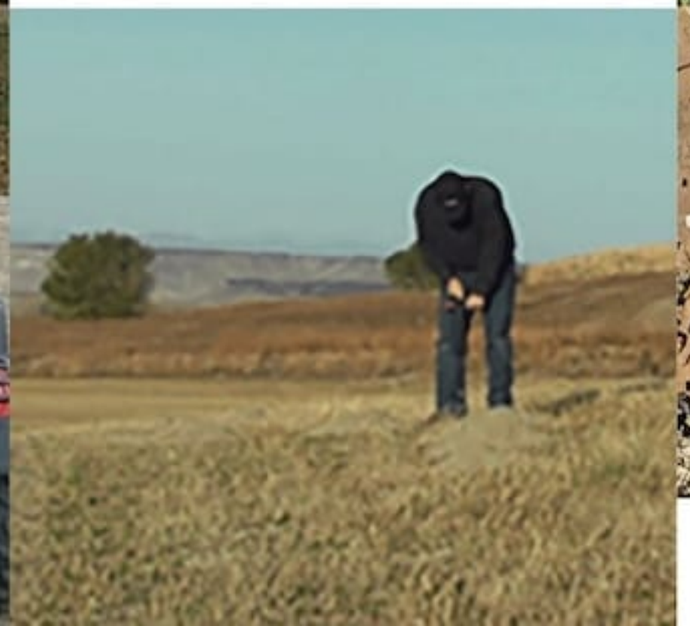
Application methods:

- By hand
- Specially constructed bait stations
- Commercially available application equipment

Broadcast spreader


Rodent Intrusion

Broadcast Spreader



Rodenticide
TASK FORCE

Environmental Justice

- More prone to infestations vs lacking the resources to address them
- Direct and indirect effects: Family Dollar Distribution Warehouse

- EPA Language:

Because the poorest populations may face the most frequent rodent infestations, these populations face the highest health and safety risks both from rodent infestations and from the use of chemical rodenticides including anticoagulant rodenticides. Therefore, these populations may be disproportionately affected by changes to the use patterns or availability of the rodenticides and may disproportionately experience impacts, including cost increases or reduction in rodent control, from the Agency's proposed mitigation measures for the rodenticides.

WEEKEND EDITION SATURDAY | FEB 27

A rodent infestation shut down Family Dollar stores. How one Alabama town is coping

Stephen Blasha

LISTEN

York's Family Dollar store is centrally located in town. The closure has created a shopping challenge for residents without cars.
Stephen Blasha for NPR

As a cross country trucker, Harris Wade could live just about anywhere. He chose York, Alabama, a town of 2,500 near the Mississippi border. He says it's quiet, hardly has any crime and is a welcoming place where "people know each other."

He does have one big complaint – York doesn't have a grocery store. Luckily, there's a Dollar General and Family Dollar so he doesn't have to drive 10 miles for a gallon of milk.

But this week the Family Dollar in York has been shuttered, along with 403 of the company's other stores across six

Rodenticide TASK FORCE

Environmental Justice

- While people of all income levels may be exposed to mouse and rat infestations, these incidents are most common in housing for lower socio-economic populations. According to the 2019 American Housing Survey (Sellner and Wicht, 2021), households who had rodent sightings "daily" in the last 12 months had lower income levels than households that reported "not seeing" rodents or seeing rodents "a few times". Proper rodent prevention measures, especially exclusion, can be expensive and/or time-consuming for low-income households and in multi-family dwellings.

- In a recent NPMA survey of US homeowners, one out of every three people saw a rodent in their home in the past year.

Rodenticide
TASK FORCE

Mitigation Measures Summary

- Restricted Use Pesticide classification for all non-consumer rodenticides
- Personal Protective Equipment requirements: Chemical-resistant gloves for all formulations, respirators for loose bait formulations
- Application Method Prohibitions:
  - Cancellation of certain consumer products (bait station refills)
  - Cancellation of GUP products for field species
  - Spot and broadcast applications of chlorophacinone and diphacinone in cropped areas, rangeland, pastureland, and fallow land
  - Spot and broadcast applications of FGARs and zp in turf, lawns, parks, golf courses, campsites, and other recreation areas

Rodenticide TASK FORCE

Mitigation Measures Summary

- Post-Application Follow-Up: Carcass searches every other day for two weeks after an application
  - Mandatory for field and other non-structural use sites, and all zp applications

- Endangered Species and Bulletins Live! Two Label Language

Rodenticide TASK FORCE

Mitigation Measures
RUP

Despite these minimum packaging size requirements and sales and distribution limits, non-target incidents (including children, domestic pets, and non-target wildlife, including listed species) have continued to occur.

Criteria for Hazard to Non-Target Species

In accordance with 40 CFR 152.170(c)(iv), EPA may consider restricted use classification for products intended for outdoor use where "under conditions of label use or widespread and commonly recognized practice, the pesticide may cause discernible adverse effects on non-target organisms,

Other Evidence

In accordance with 40 CFR 152.170(d), "the Agency may also consider evidence such as field studies, use history, accident data, monitoring data, or other pertinent evidence in deciding whether the product or use may pose a serious hazard to man or the environment that can reasonably be mitigated by restricted use classification." Incidents reported to IDS are evidence that humans and non-target species are being exposed to anticoagulant rodenticides, resulting in poisonings via primary and secondary exposure.

Rodenticide
TASK FORCE

Mitigation Measures
RUP

Revised Tier I Update Review of Human Incidents:

While there has been an increase in the frequency non-anticoagulant incidents, IDS and AAPCC data suggest that the overall the total frequency of rodenticide incidents reported to both IDS and AAPCC appears to be decreasing over time. In IDS the total number of rodenticide incidents decreased from 198 incidents in 2009 to 146 incidents reported in 2018 (26% decline). Similarly, the total number of rodenticide incidents reported to AAPCC declined from 19,432 rodenticide incidents reported in 2004 to 8,494 incidents in 2017 (56% decline).

In addition, reviewing AAPCC data, a comparison of child rodenticide exposures from 2011 to 2017 identifies a 46% decline in child rodenticide incident reports.

This suggests that the 2008 RMD may have contributed to an overall decrease in exposure incidents involving rodenticide products.

Finally, 21 occupational exposure incidents reported to the NIOSH SENSOR-Pesticides database from 2011-2015, nine occupational exposure incidents reported to California PISP from 2012-2016, and two incidents from IDS (2015-2019) were summarized.

Rodenticide
TASK FORCE

Mitigation Measures
RUP

- EPA rationale assumes applicator expertise
- Precludes use by schools, landlords and tenants, building maintenance and managers
- Cancellation of GUP products for field pests

- Education and testing specific to rodents and rodenticides
  - Stewardship required of registrants
  - Passive, no requirements for applicators
  - Incentives?

Rodenticide
TASK FORCE

Mitigation Measures Stewardship

Appendix D: Updated Terms and Conditions of Registration

The Agency proposes the following updated terms and conditions for the rodenticide registrations:

Education and Outreach Stewardship Plan

Registrants must develop, implement, and maintain a rodenticide stewardship plan that includes the development of education and outreach materials intended for product users that are made available on registrants' websites. The purpose of these plans is to educate the user on proper rodenticide use and to address potential impacts from the use of these products to non-target organisms, including listed species. The individual plans must include the following components:

1) Rodenticide registrants must develop educational materials that describe the importance of protecting non-target organisms and best management practices to reduce potential rodenticide exposure to non-target organisms, including listed species. Materials must also describe label provisions intended to minimize the potential for product exposure to non-target organisms, including, if applicable, carcass search, collection, and disposal, cleaning up spilled or kicked-out bait, overview of BLT, and incident reporting.

2) The importance of integrated pest management practices to control a rodent infestation, including, but not exclusive to, inspection, sanitation, exclusion, mechanical control, and chemical control. Additionally, these materials should include information relating to rodent biology and rodent behavior for the target pests listed on the registrant's labels, the different types of rodenticides and how they work, and the various use sites and application methods of the rodenticides for which the registrant owns the registrations.

References to the company's website on the label, including listing a web address or a Quick Response (QR) Code, renders the website as labeling under FIFRA and therefore subject to review by the Agency.

Rodenticide TASK FORCE

Task Force Stewardship

Rodenticide TASK FORCE

EPA PROPOSED CHANGES FIND YOUR SECTOR HOW TO COMMENT STEWARDSHIP VIDE

Stewardship video coming soon!

The Rodenticide Task Force has developed a stewardship video for educational purposes. The video provides information on rodent biology, the use of different rodenticides, and on protecting the environment, non-target animals, public health and food supplies. By using rodenticides properly as part of an IPM program, their effectiveness can be maximized while minimizing risk to other animals and the environment. Leading experts in rodent biology and control, Dr. Claudia Riegel, Mr. Timmy Madere, Dr. Niamh Quinn and Dr. Bobby Corrigan will describe how to put these concepts into practice.

Dr. Jim Fredericks

Rodenticide TASK FORCE

Mitigation Measures
PPE

Respirators required for loose bait formulations, chemical-resistant gloves for all formulations and actives

- Acute toxicity vs chronic exposure
- Incident reports (relevant or not?)
- Acute toxicity studies
  - On rats, mice, rabbits, etc.
  - Extreme exposure scenarios with technical

Rodenticide
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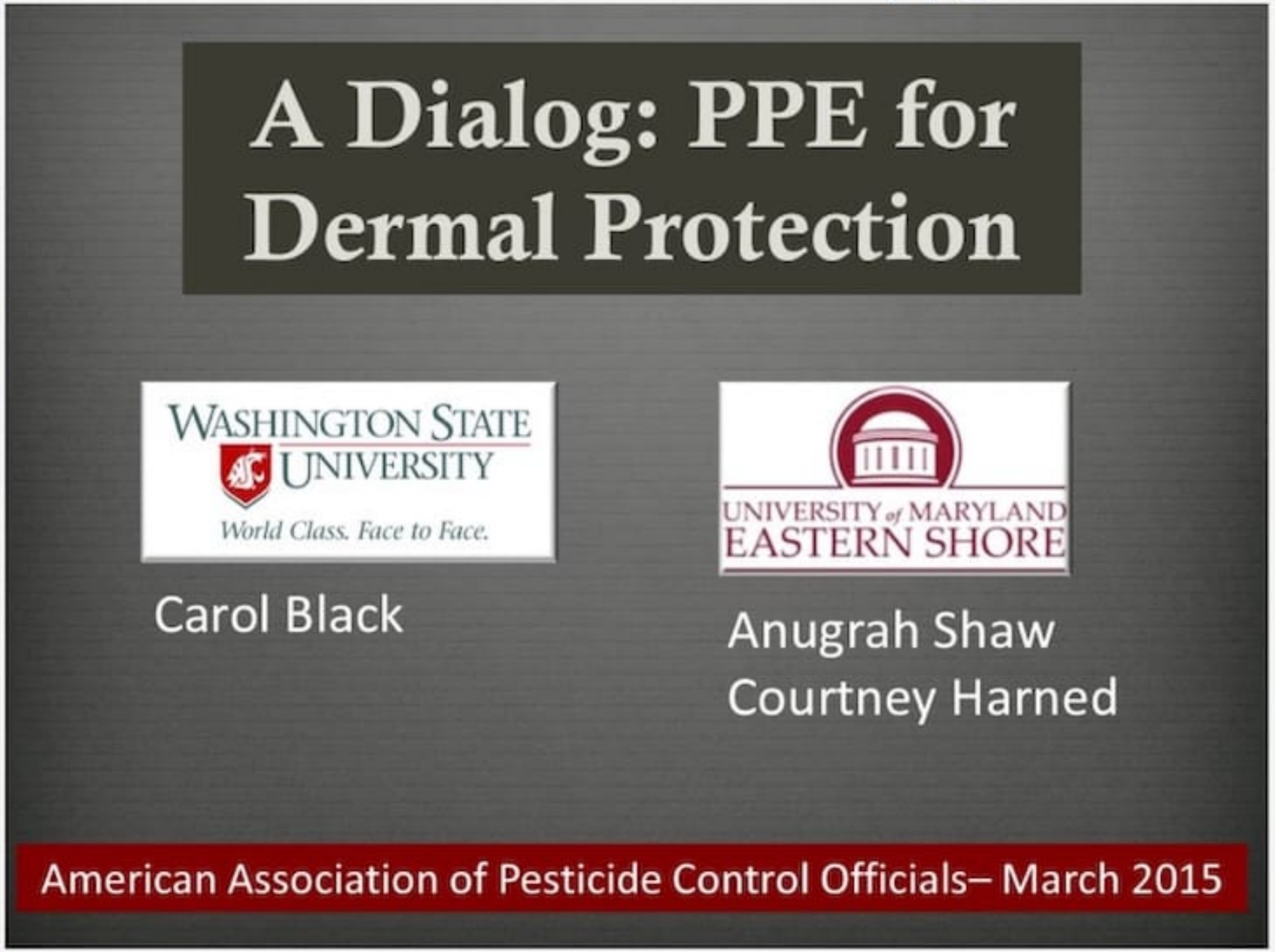
Mitigation Measures
PPE



https://aapco.files.wordpress.com/2015/11/att16_carol_black_ppe.pdf

Rodenticide TASK FORCE

Inhalation exposure
EPA Response to Comments

Given the adverse effects of rodenticides at very low doses, a small percentage of inhalable or respirable particles may pose a potential risk. The study design neither adequately represents anticipated occupational exposure scenarios, nor is sufficient in quantifying respirable particles (< 100 μm). Moreover, the attrition data[1] describe only two "loose" formulations each of bromadiolone and chlorophacinone and cannot be assumed to be applicable to all bromadiolone, all chlorophacinone, all "loose" formulations, or across the currently registered SGARs and/or FGARs. HED concludes that these and additional available attrition studies[2] do not inform nor impact the risk conclusions outlined in the 2020 human health DRA in support of registration review[3], nor HED's reasoned conclusion that potential non-target (*e.g.*, human) exposures should be limited to the extent possible. Based on the available hazard and toxicity profile, HED concludes that FGAR and SGAR pesticides are highly toxic by all routes of exposure, including both dermal and inhalation exposure. HED believes there is potential inhalation exposure from contact with formulations… However, the data do not demonstrate the absence of attrition of the tested products and do not make a clear distinction in attrition for paraffinized products compared to non-paraffinized products. Thus, while the data were used in 2001 to support acute inhalation toxicity classifications, they are not directly applicable to risk assessment and do not support the claim that these formulations produce negligible inhalation exposure to occupational applicators and other handlers of rodenticide enduse products. Regarding the incident data, incident data reflects health effects due to acute exposures (*e.g.*, spills, releases, or other unintentional exposures). Association between potential adverse effects related to chronic, or repeat exposures over time, are not addressed in incident data. Incident reports are not a surrogate to, nor refinement measure, for risk assessments but instead represent a useful adjunct to them. Incident data can provide important product end-user exposure information, but the data alone do not represent the risks posed by a compound.

Rodenticide
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Mitigation Measures
Carcass Searches

Mandatory or advisory, depending on active ingredient and whether structural of field application:

- *"Search the application site and surrounding area to monitor the effects of treatment and to collect and dispose of dead carcasses of target pests or other non-target animals. Search for carcasses 4 days after first application and at subsequent intervals of 1 to 2 days for at least 2 weeks after the last bait application, or longer if carcasses are still being found. While wearing gloves, collect and properly dispose of visible carcasses by burial, dispose of in the trash, or dispose of according to the Pesticide Disposal instructions. Carcasses buried on site must be buried a minimum of 18 inches below the ground surface, preferably deeper. Use leakproof plastic bags or other suitable containers for transporting carcasses not buried on site."*

Rodenticide
TASK FORCE

Prohibit Surface Applications to Lawns, Parks, Golf Courses, etc

The 2008 RMD required that FGAR and non-anticoagulant rodenticide products be applied using bait stations wherever children, or non-target wildlife may be exposed. As part of registration review, EPA concluded that anticoagulant rodenticides pose an acute and chronic risks to non-listed mammals, birds, reptiles, and amphibians through primary and secondary exposure, supported by risk assessment and review of wildlife incidents. Additionally, based on the Agency's most recent incident reviews, non-target primary exposures, including those to children and domestic pets, have also continued to occur. The Agency is proposing to prohibit spot and broadcast applications of FGARs to turf, lawns, parks, golf courses, campsites, and other recreation areas to reduce the potential for non-target exposure, which is consistent with the risk management goals established in both the 2008 RMD, as well as this registration review.

Agriculture – Crops Non-food Use

- Application Method Prohibitions:
  - Spot and broadcast applications of chlorophacinone and diphacinone in cropped areas, rangeland, pastureland, and fallow land
  - Prohibition of chlorophacinone and diphacinone products registered for use in cropped areas including orchards, groves, vineyards, and alfalfa.

1) applications cannot be made directly to food or feed crops; 2) the application can only be made during the non-growth ("dormant") period of the target crop; and 3) application is made along fence lines, border areas, and buffer strips adjacent to target crops.

- Due to these restrictions, EPA is proposing to prohibit aerial application to food or feed crops.

- For below-ground or in-burrow use, EPA is proposing that: 1) applications must be made below ground into the main run of the burrow; and 2) the application can only be made during the non-growth ("dormant") period of the target crop.
- For applications made to non-bearing crops, EPA is proposing to add a restriction for harvesting food/feed from that crop within one year of application.

Rodenticide TASK FORCE

Agriculture – Crops Non-food Use

EPA does not have sufficient residue data to support the establishment of tolerances for chlorophacinone and diphacinone, or to demonstrate there is no plant uptake in order to make a non-food use determination.

Residue Chemistry

There are only limited residue chemistry data available for chlorophacinone and diphacinone. Available studies are sufficient to suggest potential behavior of chlorophacinone resulting from either above- or below-ground treatments. One study was submitted on potted alfalfa plants with chlorophacinone mixed in soil, which resulted in limited uptake over 3 weeks into the roots and no observable translocation throughout the plant (MRID 00155541). Another study was submitted on potato (Study No. 079801). Two field trials (each) were conducted for chlorophacinone on potatoes in California (1998). The trials were applied using a hand-operated seed broadcaster as a post-emergent treatment to mature potato crop at 6 lb product/A (0.0006 lb ai/A, 1x label rate) and 12 lb product/A (0.0012 lb ai/A, 2x label rate). The potato samples were harvested about a month post treatment. The limit of quantitation (LOQ) was 0.10 ppm. The results indicate that residues of chlorophacinone were below the LOQ <0.10 ppm (reported as <0.05 ppm, the level of detection (LOD).

Agriculture – Crops Non-food Use

ChemSAC Conclusion

The ChemSAC concluded that based on label restrictions, the fate/physiochemical properties of the chemical and the use pattern, it is unlikely that the loose meal bait formulations of chlorophacinone and diphacinone applied during dormant periods would result in residues occurring within food commodities for the following reasons:

a. Based on the use pattern, there is no direct contact of chlorophacinone to plants;
b. The likelihood of residues in food is low due to low application rate, and the immobility of the parent compound in soil and within bait formulations;
c. The likelihood of residues in drinking water is low due to very low water solubility. Chlorophacinone baits typically retain the parent compound even after exposure to wet weather and moisture (D426557). This means that movement in the environment will be minimal while chlorophacinone is still adsorbed to the bait or on eroded sediment;
d. The vapor pressure is low (3.58 x 10-6 torr), indicating that chlorophacinone is not expected to volatilize.

Therefore, based on the label restrictions and the fate/physiochemical properties of the active ingredients, the loose meal bait application of chlorophacinone/diphacinone as above ground scatter/bait or below ground to an agricultural cropped area be considered a non-food use.

Rodenticide TASK FORCE

Rodenticide
TASK FORCE

Rodenticide
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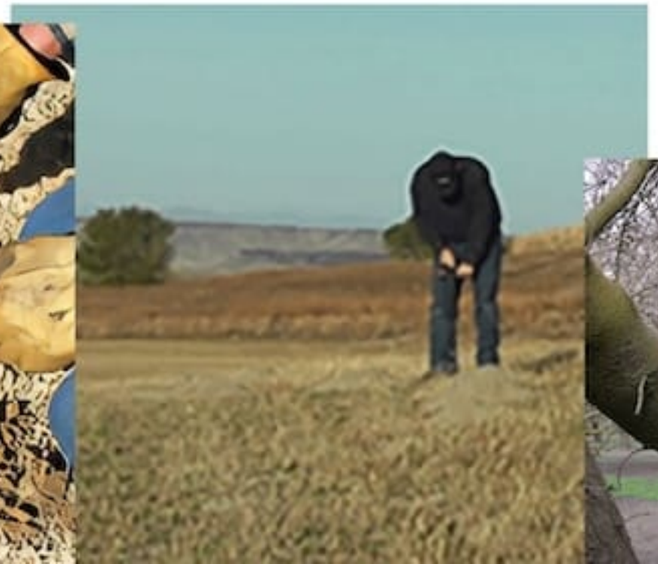
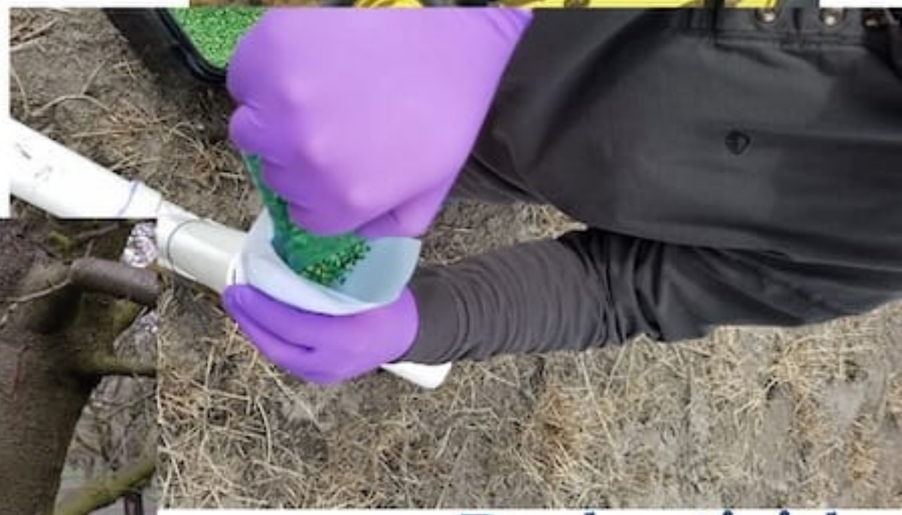
Agriculture – Crops
Personal Protective Equipment

Gloves and respirators required for loose bait formulations:

- Applicators frequently work in extreme weather conditions of high heat and sub-freezing temperatures, rain, wind and snow
- Manual dexterity and clear sight is required when operating equipment and manipulating bait stations





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Endangered Species Mega Litigation

- Filed in 2011 by Center for Biological Diversity against EPA
  - Procedural noncompliance with ESA by EPA for failing to initiate consultation prior to registering; and
  - Substantive noncompliance with ESA by EPA for failing to ensure registrations do not jeopardize species/adversely modify critical habitat
- Covered numerous products and active ingredients, including Warfarin, Zinc Phosphide, Brodifacoum, Bromadiolone
- EPA has agreed to release the Draft BE in Nov 2023, Final in Nov 2024

Rodenticide TASK FORCE

Endangered Species Mitigation Measures

- All users must check Bulletins Live! Two for each application

- The following restrictions apply for ALL non-consumer labels:

Rodenticide
TASK FORCE

Endangered Species Mitigation Measures

- All users must check Bulletins Live! Two for each application

- The following restrictions apply for ALL non-consumer labels:
  - Stephens' Kangaroo Rat – applications limited to special bait stations

  - Attwater's Prairie Chicken – applications limited to bait stations for chlorophacinone and zp; no restrictions for diphacinone

  - California Condor – applications limited to bait stations; carcass searches mandatory

Rodenticide
TASK FORCE

Endangered Species Mitigation Measures

- + Approximately 90 other Listed species and their Critical Habitats:

OPP intends to expand the approaches used for the pilot species included in this memo to assess effects of rodenticides and identify mitigations for the remaining species in **Table C**. Adjustments may be needed to account for species-specific considerations (*e.g.,* related to location, different overlap of range and use sites, different species life history). When EPA completes a full biological evaluation for the rodenticides, this species list may be revised based on changes to listing status or available information on species diet or life history.

PRINTING A BULLETIN

EXAMPLE FROM EPA TUTORIAL

6. Printing a Bulletin (Step 4 on *Instructions Tab*)

If a PULA occurs within your intended pesticide application area:

Click the "***Printable Bulletin***" button at the bottom of the ***Results Tab*** to print or save a PDF version of the Bulletin.

If no PULAs occur within your intended pesticide application area:

Click the "***Printable Bulletin***" button within the "***No Limitations***" dialog box to print or save a PDF version of the Bulletin

If there are no pink-shaded "PULA effective areas," then there will be a "*No limitations*" message.

BULLETIN – USE LIMITATIONS

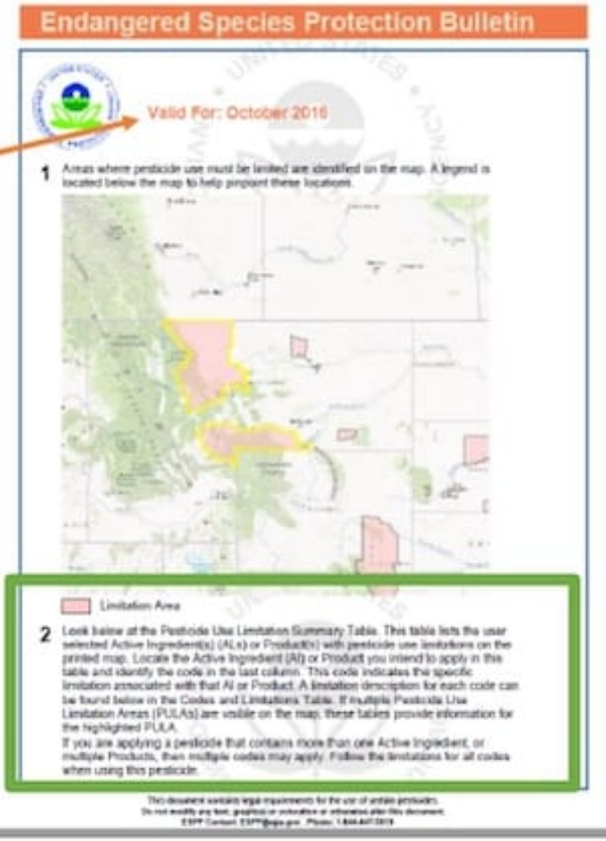
EXAMPLE FROM EPA TUTORIAL

7. Understanding the components of the PDF Bulletin

If a PULA occurs within your intended pesticide application area:

The month for which the Bulletin is valid is located at the top of the page in orange.

If you intend to apply a pesticide within the PULA, outlined in yellow, follow the steps found in the Bulletin and the limitations in the Pesticide Use Limitation Summary Table and the Codes and Limitations Table



If within a PULA, read use limitations carefully.

EPA Bulletins Live! Two

Not all pesticides that reference BLT on the label will have geographically specific ESA mitigation

- The pdf will show a blank map
- The text will read, “Currently, no pesticide use limitations exist within the printed map view for
- the month/year and product you selected, beyond the instructions specified on the pesticide label.”
- Absence of a bulletin one season does not indicate absence of a bulletin the following season
- Applicators must check the system within 6 months of planned application

Rodenticide
TASK FORCE

Stephens' Kangaroo Rat

Range: western Riverside County and western-central San Diego County of California

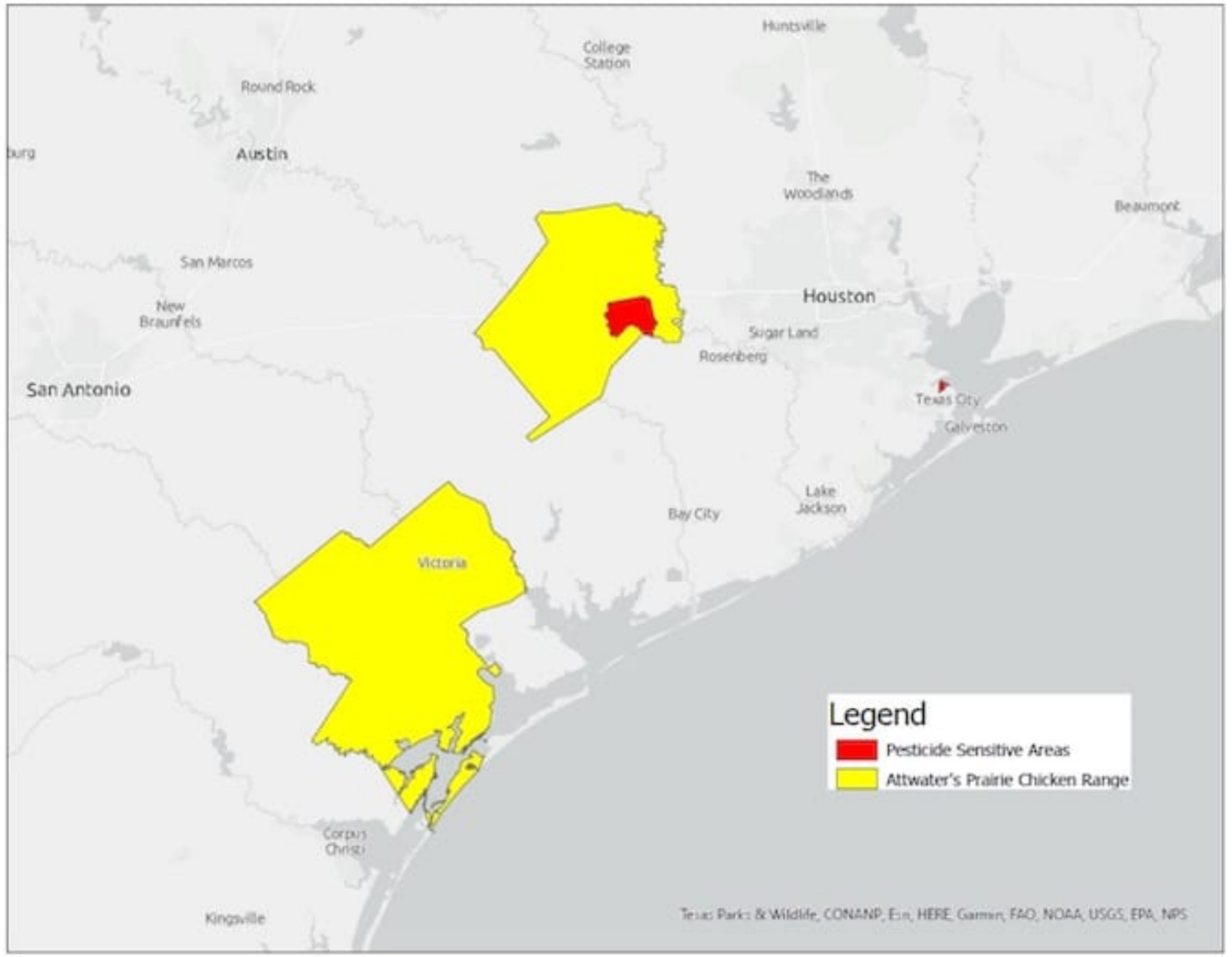
Rodenticide TASK FORCE

Stephens' Kangaroo Rat

For control of California ground squirrels within the range of the range of the Stephen's kangaroo rat, OPP proposes to only use bait stations that are designed to exclude kangaroo rats. Whisson (1998)20 conducted laboratory and field tests in order to establish bat station designs to allow entry by ground squirrels but exclude kangaroo rats, including Stephen's kangaroo rat and others that are also listed (i.e., giant, fresno and tipton's kangaroo rats). Whisson proposed two designs. One involves elevating the bait stations to 12 inches or higher using a table platform. The other design allows for placement of the bait station on the ground with PVC pipes with upturned corners. Details on both designs and pictures are available through the California Department of Pesticide Regulation21,22 . For other target pests (e.g., voles), different designs may be needed to allow the target pest access.

Rodenticide
TASK FORCE

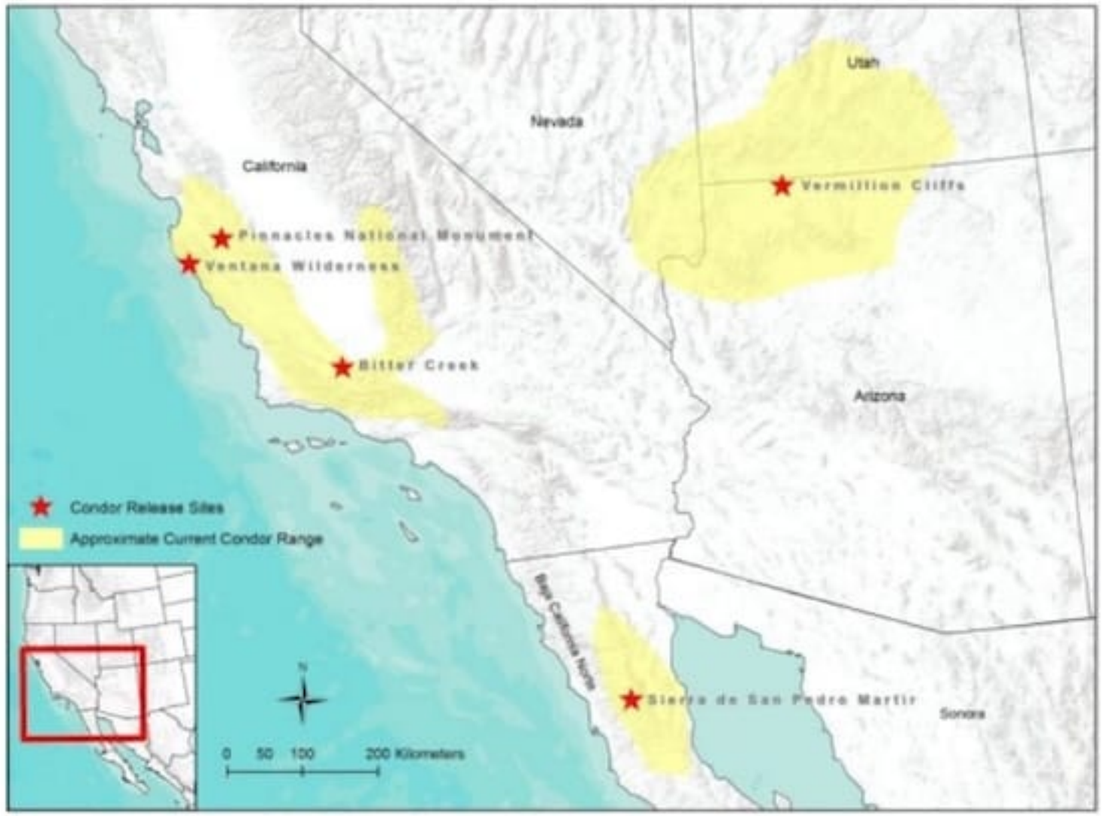
Attwater's Prairie Chicken



Range limited to a few areas in Texas; restrictions in 'pesticide sensitive areas'

Rodenticide TASK FORCE

California Condor



Rodenticide
TASK FORCE

Rodenticide
TASK FORCE