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# Department of Pesticide Regulation

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California Notice 2025-05

To: Pesticide Registrants and Other Stakeholders

**Subject: SEMIANNUAL REPORT SUMMARIZING THE REEVALUATION STATUS OF PESTICIDE PRODUCTS DURING THE PERIOD OF July 1, 2024, THROUGH December 31, 2024**

California regulations require the Department of Pesticide Regulation (DPR) to investigate all reports of adverse effects to public health or the environment that indicate a pesticide may have caused or is likely to cause a significant adverse impact. Reevaluation of a registered pesticide is required if from the investigation a significant adverse impact occurred, or is likely to occur, from its use.

Title 3 of the California Code of Regulations (3 CCR) section 6221, specifies several factors under which DPR may initiate a reevaluation, including but not limited to: (a) public or worker health hazard, (b) environmental contamination, (c) residue overtolerance, (d) fish or wildlife hazard, (e) lack of efficacy, (f) undesirable phytotoxicity, (g) hazardous packaging, (h) inadequate labeling, (i) disruption of the implementation or conduct of pest management, (j) other information suggesting a significant adverse effect, (k) availability of an effective and feasible alternative material or procedure that is demonstrably less destructive to the environment, and (l) discovery that data upon which a registration was issued is false, misleading, or incomplete. An ongoing DPR pesticide review may trigger a reevaluation. Reevaluation triggers also include data or information received from registrants, state and county pesticide use surveillance and illness investigations, pesticide residue sample analyses, environmental monitoring activities, and issues that may concern other state or federal agencies.

When a pesticide enters the reevaluation process, DPR reviews existing data and may require that registrants provide additional data to characterize the nature and extent of the potential hazard and identify appropriate mitigation measures if needed.

DPR concludes reevaluations in several different ways. If data shows no significant adverse effect, DPR concludes the reevaluation without additional restrictions on use or other regulatory actions. If new restrictions are necessary, DPR places controls on the pesticide to mitigate the potential significant adverse effect. If the adverse impact cannot be mitigated, DPR cancels or suspends the registration of pesticide products meeting applicable legal standards.

This report complies with the requirement of 3 CCR section 6225, which requires DPR to prepare a semiannual report describing pesticides reevaluated, under reevaluation, or for which factual or scientific information was received, but no reevaluation was initiated.

The report contains two sections:

- I. *Reevaluations*—initiated when an investigation indicates a significant adverse impact has occurred or is likely to occur; and,
- II. *Preliminary Investigations (Evaluations)*—initiated when DPR receives possible adverse impact data or information resulting from the use of a product and/or active ingredient, but no reevaluation has been initiated.

## **EXPANDING USE OF PESTICIDE PRODUCTS UNDER REEVALUATION**

In January 2018, [California Notice 2018-01](#), <[cdpr.ca.gov/stakeholder-notice/expanding-use-of-pesticide-products-under-reevaluation/](http://cdpr.ca.gov/stakeholder-notice/expanding-use-of-pesticide-products-under-reevaluation/)>, titled *Expanding Use of Pesticide Products Under Reevaluation* was issued to inform stakeholders that DPR will not act upon an Application for Pesticide Registration or an Application to Amend Pesticide Product if it's relevant to the concern that prompted the reevaluation. When DPR completes the reevaluation, DPR will be able to, in light of the reevaluation determination, consider Applications for Pesticide Registration or Applications to Amend Pesticide Product.

## **FOOD AND AGRICULTURAL CODE (FAC) SECTION 12824.5**

On July 2, 2024, the Governor signed Assembly Bill (AB) 2113 which, among other changes, added section 12824.5 to the Food and Agricultural Code (FAC). FAC section 12824.5(e) requires DPR to post on its internet website, on or before January 1, 2025, estimated completion times for the pesticides that the department has under reevaluation as of January 1, 2024.

The estimated completion times can be found on the reevaluation program webpage: [Reevaluation Program Webpage](#) <[cdpr.ca.gov/how-pesticides-are-evaluated/#continuous-evaluation-after-a-pesticide-is-registered-in-ca](http://cdpr.ca.gov/how-pesticides-are-evaluated/#continuous-evaluation-after-a-pesticide-is-registered-in-ca)>.

## **REEVALUATION**

DPR initiates a reevaluation when an investigation indicates a significant adverse impact has occurred or is likely to occur. Each reevaluation is summarized with the following five areas: (1) Basis and Scope, (2) Data Requirements (if any), (3) Summary of Scientific Evaluation (e.g., protocol development, study/data submission and evaluation, DPR analysis papers, risk assessments) and (4) Related Legislation (if any), and (5) Mitigation Efforts and Status (if any). Estimated completion times appear at the end of each section.

## **CHLOROPICRIN – 30 Products**

### *Basis and Scope*

In October 2001, DPR placed pesticide products containing the fumigant active ingredient chloropicrin into reevaluation. The reevaluation is based on air monitoring data, which found that air concentrations at some distances from treated greenhouses exceeded the National Institute for Occupational Safety and Health reference exposure limit and the Occupational Safety and Health Administration permissible exposure limit of 100 parts per billion (ppb), averaged over an eight-hour period. In addition, DPR found that data submitted under the Birth Defects Prevention Act (Food and Agr. Code, § 13121 *et seq.*) indicated a potential for chloropicrin to cause adverse health effects at low doses.

### Data Requirements

Under this reevaluation, DPR required chloropicrin registrants to conduct and submit data on various worker exposure and air quality monitoring studies from field and greenhouse applications. In August 2005, DPR completed review of required monitoring data and began a risk assessment of chloropicrin uses as part of the reevaluation process to mitigate potential adverse effects at low concentrations. In January 2015, DPR notified chloropicrin registrants of a data requirement to determine if chronic exposure to chloropicrin presents a carcinogenic hazard requiring mitigation. In July 2015, DPR established a mechanistic study data requirement to assess the carcinogenic hazard of chloropicrin. In August 2023, DPR required chloropicrin registrants to conduct five additional studies to more precisely evaluate chloropicrin's mutagenic potential.

### Summary of Scientific Evaluation

The required mechanistic study was initially divided into three phases. In June 2016, DPR accepted the protocol for the Phase 1 mechanistic study titled, *Identification of mouse lung target cell type and target respiratory region for effects following nose-only inhalation exposure to chloropicrin vapor*. Due to several unforeseen circumstances and COVID-19 related delays, the Chloropicrin Manufacturers' Task Force (CMTF) submitted the Phase 1 results in September 2022, and final nasal tissue analysis in January 2023.

After review, DPR scientists determined that the two remaining phases will not generate the data needed to determine if chloropicrin works by a mutagenic mode of action and if the mouse model for lung tumors is relevant in humans. DPR scientists evaluated the adverse outcome pathways for the formation of lung tumors in animal models and the most current literature and methodologies for evaluating mutagenesis. Throughout 2023, DPR met with CMTF to discuss proposed alternative studies using *in vivo* and *in vitro* techniques that would more quickly provide data to clarify chloropicrin's mode of action and mutagenic potential and if the mouse model for lung tumors is relevant for humans.

In August 2023, DPR required chloropicrin registrants to submit protocols for five studies: (1) *In vivo* mutagenesis following mouse inhalation exposure using error-corrected next-generation sequencing (ecNGS); (2) Regenerative proliferation following inhalation exposure, including

both single (6 hour) and repeated (6 hour per day for 5 sequential days) exposure; (3) *Ex vivo* DNA adduct; (4) Test if inhibitors of CYP isoforms block cytotoxicity in mice; (5) Evaluate human relevance using CYP2F2-null and humanized (CYP2F1) mice if results from Study 4 are positive.

CMTF began submitting draft protocols for these studies in October 2023. CMTF began work on the first study in December 2023. In June 2024, CMTF submitted a progress report on Study 1. Due to a laboratory closure, CMTF switched to a different laboratory to conduct the second half of Study 1, with results expected in early 2025. CMTF will begin work on Studies 2, 3, and 4 in early 2025, with results expected by the end of the 2025.

#### Mitigation Efforts and Status

In March 2020, U.S. Environmental Protection Agency (U.S. EPA) issued its interim registration review decision for chloropicrin products. The interim decision includes labeling changes such as general updates to the glove statement, clarification on shade houses, soil sealing, and application rates on the product label. These federal revisions address separate issues from the scope of California reevaluation. DPR continues to monitor amended pesticide product registrations to ensure labeling compliance, and all California-registered chloropicrin product labels have been accepted with the federally required label changes in 2024.

For information on human health risk assessment and mitigation for chloropicrin, visit [Information on Chloropicrin](https://cdpr.ca.gov/active-ingredient/chloropicrin/) <cdpr.ca.gov/active-ingredient/chloropicrin/>.

#### Estimated Completion Times for Chloropicrin Reevaluation

- CMTF to complete study 4 and preliminary report by Quarter 3 2025.
- CMTF to complete studies 1, 2, and 3 by Quarter 4 2025.
- Determine need for CMTF study 5 by Quarter 4 2025.
- Complete review of all required CMTF studies by Quarter 2 2027.
- If mitigation or rulemaking is required, complete by Quarter 2 2029.

### **CYFLUTHRIN - 15 Products**

#### Basis and Scope

In May 1998, DPR placed pesticide products containing the insecticide active ingredient cyfluthrin into reevaluation. The reevaluation is based on DPR's investigations of a May 1997 respiratory irritation outbreak reported among orange harvesters exposed to cyfluthrin residues and other related pesticide illness reports. As part of the investigation, DPR's Worker Health and Safety Branch conducted two separate inhalation-monitoring studies in orange groves during orange harvest. As dust and pollen are a part of the normal working environment, DPR determined that additional variables in the work environment led to the workers' respiratory irritation symptoms. DPR compiled the results in its monitoring study titled, *Health and Safety*

*Report HS – 1765*, which found a probability that cyfluthrin, applied close to harvest, led to the symptoms experienced.

#### Data Requirements

Under this reevaluation, DPR required registrants of pesticide products containing the active ingredient cyfluthrin to provide: (1) a respiratory irritation study, (2) a worker exposure study, and (3) monitoring data for structural applications. In October 2001, the primary manufacturer submitted two worker exposure studies regarding hand harvesting of oranges and sweet corn, four indoor exposures studies, and a study titled, *Study on the RD<sub>50</sub> Determination in Rats*. Based on this data, DPR determined structural monitoring data was no longer required. In February 2002, DPR required a worker exposure study during the harvesting of sweet corn. The results of the study were submitted to DPR in October 2004.

#### Summary of Scientific Evaluation

In 2006, DPR determined an exposure assessment was necessary for cyfluthrin. In September 2008, DPR completed a cyfluthrin Exposure Scoping Document intended to lay the groundwork for the risk assessment process. DPR completed its review of the cyfluthrin sweet corn hand harvester studies. In August 2015, DPR completed a Summary of Toxicology Data document for chronic health effects on cyfluthrin. This is being updated in Q1 2025 to include new registrant-submitted studies dated March 2017 and May 2017, as well as the revised and updated human health risk assessments from US EPA dated 2017 and 2019.

#### Mitigation Efforts and Status

In January 2018, DPR issued a problem formulation document (PFD) to initiate risk assessment. U.S. EPA completed its registration review and released the draft human health risk assessment in May 2020 and the interim registration review decision in September 2020. In March 2021, U.S. EPA revised the Agency's interim registration review decision. DPR continues to review and monitor federal decisions on cyfluthrin pesticide product registrations. If DPR concludes that use of cyfluthrin poses a significant risk to workers, DPR will proceed with mitigation. For information on human health risk assessment for cyfluthrin, visit [Cyfluthrin and Beta-Cyfluthrin - Human Health Risk Assessment and Mitigation Documents and Activities](#) [Cyfluthrin](#) and [Beta-Cyfluthrin](#) - Human Health Risk Assessment and Mitigation Documents and Activities <[cdpr.ca.gov/active-ingredient/cyfluthrin/](http://cdpr.ca.gov/active-ingredient/cyfluthrin/)> and <[cdpr.ca.gov/active-ingredient/beta-cyfluthrin/](http://cdpr.ca.gov/active-ingredient/beta-cyfluthrin/)>. <[cdpr.ca.gov/docs/whs/active\\_ingredient/cyfluthrin.htm](http://cdpr.ca.gov/docs/whs/active_ingredient/cyfluthrin.htm)>.

#### Estimated Completion Times for Cyfluthrin Reevaluation

- Publish human health risk assessment scoping document by Quarter 2 2025.
- Complete risk human health risk assessment by Quarter 4 2026.
- If mitigation or rulemaking is required, complete by Quarter 4 2028.

## **DIPHACINONE – 50 Products**

### *Basis and Scope:*

In October 2023, pesticide products containing the active ingredients diphacinone and diphacinone sodium salt (henceforth collectively referred to as diphacinone), which are classified as first-generation anticoagulant rodenticides (FGARs), were placed into reevaluation for concerns regarding non-target wildlife. In target rodents, death is usually delayed by several days after direct consumption of a lethal dose. Non-target wildlife may be exposed by direct consumption of diphacinone or when they consume target rodents that have fed on diphacinone (indirect consumption).

DPR's May 2023 *Notice of Proposed Decision to Begin Reevaluation on Diphacinone and Public Report* concluded that there have been substantial increases in diphacinone exposure rates to non-target wildlife, as represented in the California Department of Fish and Wildlife (CDFW) loss reports. These increases are concerning given the toxicity of diphacinone to mammals and birds, and potential to bioaccumulate. This, along with increases in sales and use data of diphacinone in recent years, suggests that there are increasing amounts of diphacinone in California's environment, which demonstrates that a significant adverse impact to non-target wildlife has occurred or is likely to occur.

### *Data Requirements*

Under this reevaluation, DPR required registrants of diphacinone pesticide products to: (1) submit compliance proposals by December 2023 and identify relevant data, and (2) submit identified data by January 2024. All registrants of diphacinone products have complied.

In June 2022, DPR contracted with Dr. Niamh Quinn, University of California Agriculture and Natural Resources, through 2024 to monitor for anticoagulant rodenticides (ARs) in urban carnivores (#21-C0091). This study and its results may provide general information to DPR on ARs. DPR granted a contract extension to allow sample processing to be completed. A final report is expected by June 2025.

### *Summary of Scientific Evaluation*

DPR staff are currently considering all diphacinone data submitted and on file to determine if further use restrictions are necessary to address significant adverse effects to non-target wildlife.

### *Mitigation Efforts and Status*

In 2024, DPR held meetings with CDFW to consult on potential mitigation measures in adherence with the "Related Legislation" section below. DPR continues to refine potential

mitigation options and consider if further use restrictions are necessary to protect non-target wildlife.

### Related Legislation

On October 13, 2023, and on September 25, 2024, Governor Newsom signed AB 1322 (Chapter 836, Statutes of 2023) and AB 2552 (Chapter 571, Statutes of 2024) respectively, which amended FAC section 12978.7. The amendments prohibit certain uses of diphacinone, first-generation anticoagulant rodenticides (specifically warfarin, warfarin sodium salt, and chlorophacinone), and second-generation anticoagulant rodenticides, due to their threat to mountain lions and other wildlife. These bills also establish the standards, including concluding the diphacinone reevaluation, that are necessary to remove the prohibition. Effective January 1, 2024, most uses of rodenticides containing diphacinone were prohibited and required to be sold by licensed dealers. This prohibition will remain in effect until the DPR's Director certifies completion of the diphacinone reevaluation and DPR's development, in concurrence and consultation with the CDFW, and adoption of any additional use restrictions necessary to protect wildlife including a requirement to implement integrated pest management alternatives before the use of diphacinone.

Although FAC 12978.7 generally prohibits use of diphacinone, there are limited exemptions for specified activities, such as agriculture, and use in locations necessary for public health and safety. Federal and State laws and regulations applicable to allowed uses must continue to be followed. Guidance on permitted uses of diphacinone under AB 1322 and AB 2552 are available on DPR's Enforcement Branch Web page titled [Enforcement letter 23-19](https://cdpr.ca.gov/cac-letter/diphacinone-restricted-material-status-prohibitions-allowed-uses-and-questions-and-answers/) <cdpr.ca.gov/cac-letter/diphacinone-restricted-material-status-prohibitions-allowed-uses-and-questions-and-answers/> and the page titled [Enforcement letter 24-20](https://cdpr.ca.gov/cac-letter/chlorophacinone-and-warfarin-restricted-material-status-prohibitions-allowed-uses-and-questions-and-answers/) <cdpr.ca.gov/cac-letter/chlorophacinone-and-warfarin-restricted-material-status-prohibitions-allowed-uses-and-questions-and-answers/>.

### Estimated Completion Times for Diphacinone Reevaluation

- Conduct informal public workshops on potential mitigation by Quarter 3 2025.
- Complete scientific evaluation by Quarter 4 2026.
- If mitigation or rulemaking is necessary, complete by Quarter 3 2028.

## **NEONICOTINOIDS (Non-agricultural Uses on Non-production Outdoor Ornamental Plants, Trees, or Turf) – 146 Products**

### Basis and Scope

On January 1, 2024, AB 363 amended FAC section 12838. FAC section 12838(c)(3)(B) states

that on or before July 1, 2024, the department shall initiate a reevaluation of neonicotinoid pesticides (containing the active ingredients imidacloprid, thiamethoxam, dinotefuran, clothianidin, and acetamiprid) for non-production agricultural outdoor uses on ornamental plants, trees, or turf for potential impacts on pollinating insects, aquatic organisms, and human health, taking into account relevant routes of exposure. On March 7, 2024, DPR released [California Notice 2024-05](https://cdpr.ca.gov/stakeholder-notice/notice-of-initiation-of-reevaluation-of-neonicotinoid-products-intended-for-non-agricultural-use-on-non-production-outdoor-ornamental-plants-tress-or-turf/) <cdpr.ca.gov/stakeholder-notice/notice-of-initiation-of-reevaluation-of-neonicotinoid-products-intended-for-non-agricultural-use-on-non-production-outdoor-ornamental-plants-tress-or-turf/>, noticing the initiation of the reevaluation mandated by AB 363.

### Data Requirements

DPR has not required data for this reevaluation. DPR evaluators are currently reviewing data on file to determine if additional data are needed. If data are required, DPR will reach out to registrants with products included in the reevaluation.

### Summary of Scientific Evaluation

In December 2024, DPR completed a Risk Characterization Document (RCD) and an Exposure Assessment Document (EAD) for the non-agricultural uses for imidacloprid. The final RCD, final EAD, responses to scientific peer review, and response to one public comment from a registrant are available to the public upon request. These technical RCD and EAD documents are being converted to accessible formatting for posting on DPR's website. DPR is evaluating exposure scenarios of concern identified in the RCD and may determine control measures are necessary for the protection of human health.

In addition, draft risk and exposure assessments for the remaining neonicotinoids active ingredients, thiamethoxam, dinotefuran, clothianidin, and acetamiprid, will be submitted to U.S. EPA and OEHHA for scientific review in early 2025. Final assessments on these four neonicotinoid insecticides will be released in Q1 2026 after which DPR will evaluate if any exposure scenarios of concern identified in the final assessments would require additional control measures to protect human health.

### Related Legislation

Effective January 1, 2025, FAC section 12838 prohibits the sale, possession, or use of non-agricultural neonicotinoid products with uses on non-production ornamental plants, trees, or turf by non-licensed applicators. This statute also requires DPR to evaluate the potential impacts of neonicotinoid pesticides labeled for use on non-production outdoor ornamental plants, trees, and turf for potential impacts on pollinating insects, aquatic organisms, and human health. DPR must



provide a determination by July 1, 2027, and adopt any necessary control measures by July 1, 2029.

### Mitigation Efforts and Status

On October 30, 2024, DPR released California Notice 2024-18, noticing registrants and stakeholders that effective January 1, 2025, neonicotinoid pesticide products used for non-agricultural uses on outdoor trees, turf, or ornamental plants can only be sold by licensed dealers and possessed or used by California certified commercial applicators. Guidance on permitted uses for neonicotinoid pesticide products with non-agricultural uses on outdoor trees, turf, or ornamental plants under AB 363 are available on DPR's Enforcement Branch Web page titled [Enforcement letter 24-12](https://cdpr.ca.gov/cac-letter/neonicotinoid-pesticides-for-non-agricultural-outdoor-use-new-law-and-questions-and-answers/) <cdpr.ca.gov/cac-letter/neonicotinoid-pesticides-for-non-agricultural-outdoor-use-new-law-and-questions-and-answers/>

### Estimated Completion Times for Neonicotinoid Reevaluation

- Complete final imidacloprid human health risk assessment by Quarter 1 2025.
- Complete draft human health risk assessments for acetamiprid, clothianidin, dinotefuran, and thiamethoxam by Quarter 1 2025.
- Complete evaluation of impact of neonicotinoid pesticides on aquatic organisms by Quarter 3 2025.
- Complete final human health risk assessments for acetamiprid, clothianidin, dinotefuran, and thiamethoxam by Quarter 1 2026.
- Issue determination with respect to the reevaluation of neonicotinoid pesticides on their impacts to pollinating insects, aquatic organisms, and human health by Quarter 3 2027.
- If mitigation or rulemaking is necessary, complete by Quarter 3 2029.

## **PARAQUAT DICHLORIDE – 7 Products**

### Basis and Scope

On September 27, 2024, Governor Newsom signed AB 1963 which added sections 14085 and 14086 to the FAC. Specifically, FAC section 14086 requires the following: “On or before January 1, 2029, the department shall complete a reevaluation of paraquat dichloride pursuant to section 12824, and make the determination to retain, cancel, or suspend its registration or to place new appropriate restrictions on the use of pesticide products containing the active ingredient paraquat dichloride.” For the full bill text please visit: [AB-1963 Pesticides: Paraquat dichloride](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240AB1963.>) <leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=202320240AB1963.>

On November 6, 2024, DPR released [California Notice 2024-20](https://cdpr.ca.gov/stakeholder-notice/notice-of-initiation-of-reevaluation-of-paraquat-dichloride/) <cdpr.ca.gov/stakeholder-notice/notice-of-initiation-of-reevaluation-of-paraquat-dichloride/>, noticing registrants of the initiation of reevaluation of paraquat dichloride mandated by AB 1963. The initiation of this reevaluation also meets the requirements of FAC section 12824.5 (a) (1) which requires DPR on or before July 1, 2025, and annually thereafter until July 2, 2029, to initiate the reevaluation of at least one pesticide in addition to those already under reevaluation.

During the public comment period in response to [California Notice 2022-18](https://cdpr.ca.gov/stakeholder-notice/notice-of-proposed-decision-to-renew-pesticide-product-registrations-for-2023-directors-finding-and-public-report/), titled *Notice of Proposed Decision to Renew Pesticide Product Registrations for 2023* <cdpr.ca.gov/stakeholder-notice/notice-of-proposed-decision-to-renew-pesticide-product-registrations-for-2023-directors-finding-and-public-report/>, and California Notice 2023-12, titled *Notice of Proposed Decision to Renew Pesticide Product Registrations for 2024* <cdpr.ca.gov/docs/registration/canot/2023/ca2023-12.pdf>, DPR received comments requesting that DPR reevaluate, suspend, or cancel products containing paraquat dichloride. DPR received 4,683 identical or substantially similar comments submitted pursuant to an email campaign, as well as six unique comments containing references to public literature and studies. DPR reviewed all of the information submitted in these public comments and on December 30, 2024, released [California Notice 2024-23](https://cdpr.ca.gov/stakeholder-notice/preliminary-reports-relative-to-reevaluation-of-paraquat-informal-public-comment-period/), titled *Preliminary Reports Relative to Reevaluation of Paraquat: Informal Public Comment Period* <cdpr.ca.gov/stakeholder-notice/preliminary-reports-relative-to-reevaluation-of-paraquat-informal-public-comment-period/>. California Notice 2024-23 informed stakeholders of the release of two preliminary reports regarding DPR's investigation into the human health and ecological data submitted and opened a 45-day informal public comment period to solicit feedback on these reports from paraquat registrants and the public. DPR is requesting input from stakeholders on critical uses of paraquat and currently available, effective alternatives as part of this informal public comment period.

#### Data Requirements

To date, DPR has not required data for this reevaluation. DPR evaluators are currently reviewing data on file to determine if additional data are needed. If data are required, DPR will reach out to registrants with products included in the reevaluation.

#### Estimated Completion Times for Paraquat Reevaluation

- Review public comments and issue planned next steps by Quarter 2 2025.
- If mitigation or rulemaking is required, complete by Quarter 1 2029.

### **SECOND-GENERATION ANTICOAGULANT RODENTICIDES (SGARs) – 59 Products**

#### Basis and Scope

Second-generation anticoagulant rodenticide (SGAR) products are those that contain the active ingredients brodifacoum, bromadiolone, difenacoum, and difethialone (collectively referred to as

SGARs). DPR conducted a preliminary investigation of unpublished wildlife incident data and mortality data and public literature submitted by CDFW and other sources on anticoagulant rodenticides and prepared a report on its findings.

Based on the investigation, the Director found that a significant adverse impact has occurred or is likely to occur to non-target wildlife from the use of SGARs and proposed to begin reevaluation. In November 2018, DPR issued its proposed decision to begin reevaluation for SGAR products for public comment. In March 2019, DPR issued its final decision to begin reevaluation for SGAR products.

#### Data Requirements

Under this reevaluation, DPR required registrants of SGAR pesticide products to: (1) submit compliance proposals by May 2019, and (2) submit existing data related to non-target wildlife exposure by June 2019. Registrants of brodifacoum, bromadiolone, and difethialone products complied. However, in place of submitting compliance proposals and data, difenacoum registrants submitted voluntary cancellations for all registered difenacoum products. As of May 2019, DPR no longer has difenacoum products actively registered for use in California.

In 2020, DPR contracted with Dr. Niamh Quinn, University of California Agriculture and Natural Resources, to conduct a study on rodenticide Best Management Practices (#19-C0061). DPR authorized the researcher under Food and Agricultural Code (FAC) section 12978.7, and a final report was submitted. DPR's conditional authorization of additional research by Dr. Quinn's ended July 2023.

In June 2022, DPR contracted with Dr. Niamh Quinn, University of California Agriculture and Natural Resources, through 2024 to monitor for ARs in urban carnivores (#21-C0091). This study and its results may provide general information to DPR on ARs. DPR granted a contract extension to allow sample processing to be completed. A final report is expected by June 2025.

#### Summary of Scientific Evaluation

DPR staff are currently considering all SGAR data submitted and on file to determine if further use restrictions are necessary to address significant adverse effects to non-target wildlife.

#### Mitigation Efforts and Status

In November 2022, U.S. EPA issued their proposed interim decision (PID) for anticoagulant rodenticides which included all SGARs followed by a Final Biological Evaluation in November 2024. Additionally in 2022, DPR completed review of data on file. DPR continues to review and monitor federal decisions on SGAR pesticide product registrations. DPR continues to work with SGAR registrants, the Rodenticide Task Force, interested stakeholders, researchers, and federal

counterparts to discuss potential mitigation strategies and any proposed actions on anticoagulant rodenticides.

Throughout 2023, DPR met with and solicited feedback from Pest Control Operators, non-governmental organizations, California Department of Public Health, CDFA, and CDFW to discuss potential mitigation measures. DPR and CDFW continue to meet yearly under current legislation. DPR continues to refine potential mitigation options and consider if further use restrictions are necessary to protect non-target wildlife.

In 2024, DPR held meetings with CDFW to discuss potential mitigation measures in adherence with consultation requirements of AB 1322 (see the “Related Legislation” section below). DPR continues to refine potential mitigation options and consider if further use restrictions are necessary to protect non-target wildlife.

### Related Legislation

On October 13, 2023, and on September 25, 2024, Governor Newsom signed AB 1322 (Chapter 836, Statutes of 2023) and AB 2552 (Chapter 571, Statutes of 2024) respectively, which amended FAC section 12978.7. The amendments prohibit certain uses of SGARs, due to their threat to mountain lions and other wildlife. These bills also establish standards, including concluding the SGAR reevaluation, that are necessary to remove the prohibition. This prohibition will remain in effect until the DPR’s Director certifies completion of the SGAR reevaluation and DPR’s development, in concurrence and consultation with the CDFW, and adoption of any additional use restrictions necessary to protect wildlife including a requirement to implement integrated pest management alternatives before the use of second-generation anticoagulant rodenticides.

Although FAC section 12978.7 generally prohibits use of SGARs, there are limited exemptions for specified activities, such as agriculture, and use in locations necessary for public health and safety. Federal and State laws and regulations applicable to allowed uses must continue to be followed. Guidance on permitted uses of SGARs are available on DPR’s Enforcement Branch Web pages titled [Enforcement letter 23-19](https://cdpr.ca.gov/cac-letter/diphacinone-restricted-material-status-prohibitions-allowed-uses-and-questions-and-answers/) <cdpr.ca.gov/cac-letter/diphacinone-restricted-material-status-prohibitions-allowed-uses-and-questions-and-answers/> and the page titled [Enforcement letter 24-20](https://cdpr.ca.gov/cac-letter/chlorophacinone-and-warfarin-restricted-material-status-prohibitions-allowed-uses-and-questions-and-answers/) <cdpr.ca.gov/cac-letter/chlorophacinone-and-warfarin-restricted-material-status-prohibitions-allowed-uses-and-questions-and-answers/>.

### Estimated Completion Times for SGAR Reevaluation

- Conduct informal public workshops on potential mitigation by Quarter 3 2025.
- Complete scientific evaluation by Quarter 4 2026.
  - If mitigation or rulemaking is necessary, complete by Quarter 3 2028.

**PRELIMINARY INVESTIGATIONS (EVALUATIONS)**

DPR conducts preliminary investigations of products (and active ingredients) for which the Department, or other State or county agencies, have identified possible hazards. As a result of evaluation, the investigation may lead to formal reevaluation. No preliminary investigations are underway at this time.

For more information on this semiannual report or any of DPR's reevaluations, visit the [Reevaluation Program Webpage](https://cdpr.ca.gov/how-pesticides-are-evaluated/#continuous-evaluation-after-a-pesticide-is-registered-in-ca) <cdpr.ca.gov/how-pesticides-are-evaluated/#continuous-evaluation-after-a-pesticide-is-registered-in-ca> or contact Mr. Taylor Whitehill, Environmental Scientist, at <Taylor.Whitehill@cdpr.ca.gov> or 916-445-2887.

*Original signed by*

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Tulio Macedo, Chief  
Pesticide Registration Branch  
916-324-3527

*04/03/2025*

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Date

cc: Mr. Taylor Whitehill, Environmental Scientist