



California Notice 2023-11

TO: Pesticide Registrants and Other Stakeholders

SUBJECT: **NOTICE OF FINAL DECISION TO BEGIN REEVALUATION OF
DIPHACINONE**

Pursuant to Title 3 of the California Code of Regulations (3 CCR) sections 6220, 6253, and 6254, the Director of the Department of Pesticide Regulation (DPR) notices the final decision to begin reevaluation of pesticide products containing the active ingredients diphacinone and diphacinone sodium salt. The Director, under 3 CCR section 6255, files this notice of final decision with the Secretary of the California Natural Resources Agency to be posted for a period of 30 days for public inspection.

REEVALUATION

Pursuant to 3 CCR sections 6220, 6253, and 6254, DPR hereby begins reevaluation of products containing the active ingredients diphacinone and diphacinone sodium salt. This reevaluation involves 12 registrants and 56 pesticide products. A list of products included in the reevaluation is available upon written request to the address listed below or on [DPR's Diphacinone Reevaluation Web site](#).

<https://www.cdpr.ca.gov/docs/registration/reevaluation/chemicals/diphacinone_products.pdf>.

BASIS OF REEVALUATION

DPR has registered pesticide products containing the active ingredients diphacinone and diphacinone sodium salt (henceforth diphacinone) to control rodents. Diphacinone is classified as a first-generation anticoagulant rodenticide and products containing this chemical are allowed for use by professional applicators and the general public. In target rodents, death is usually delayed by several days after direct consumption of a lethal dose of diphacinone. Non-target wildlife may be exposed by direct consumption of diphacinone or when they consume animals that have fed on diphacinone (indirect consumption).

Under 3 CCR section 6220, DPR is required to investigate all reported pesticide episodes and information received indicating that a pesticide may have caused, or is likely to cause, a significant adverse impact. If the Director finds from the investigation that a significant adverse effect has occurred or is likely to occur, the department must reevaluate the pesticide involved. As provided in more detail below, based on DPR's investigation covered in the 2023 public report, the Director is initiating reevaluation of pesticide products containing the active ingredient diphacinone.

On May 19, 2023, DPR issued the Notice of Proposed Decision to Begin Reevaluation of Diphacinone and Public Report (California Notice 2023-06). The 2023 public report updated and

superseded DPR's 2018 report titled "Investigation of Anticoagulant Rodenticide Data Submitted to the Department of Pesticide Regulation" (2018 Investigation) only with respect to whether diphacinone may have caused, or is likely to cause, a significant adverse impact to non-target wildlife. The 2023 report provides a review of diphacinone-specific information and data submitted to DPR of diphacinone's prevalence, toxicity, effect on non-target wildlife, and the extent of its interaction with other rodenticides on non-target wildlife. It also includes a review and analysis of statewide diphacinone sales and use reporting data and California Department of Fish and Wildlife (CDFW) loss report data from 2014-2021. The 2023 [public report](https://www.cdpr.ca.gov/docs/registration/canot/2023/ca2023-06.pdf) is available on DPR's Web site at: <<https://www.cdpr.ca.gov/docs/registration/canot/2023/ca2023-06.pdf>>.

DPR's investigation of diphacinone concluded that the percentage of non-target wildlife with diphacinone exposure, as represented in the CDFW loss reports, has increased substantially. The increase is concerning given this chemical's toxicity to mammals and birds, and potential to bioaccumulate. This, along with increases in sales and use of diphacinone in recent years, suggests there are increasing amounts of diphacinone in California's environment and demonstrates that a significant adverse impact to non-target wildlife has occurred or is likely to occur from the use of diphacinone.

After issuing California Notice 2023-06, DPR provided a 60-day public comment period, which closed on July 19, 2023. DPR reviewed relevant and timely public comments that raised a significant environmental point relevant to the proposed decision to reevaluate, DPR's responses to comments are listed below.

SUMMARY OF CALIFORNIA NOTICE 2023-06 COMMENTS

DPR received 1,563 comments during the 60-day public comment period in response to its Notice of Proposed Decision to Begin Reevaluation of Diphacinone and Public Report. Over 1,500 of the comments received were a form/template email or letter. Most of the comments received support the proposed decision to begin reevaluation and/or request DPR to adopt use restrictions. DPR received some comments opposing its proposal to begin reevaluation of diphacinone and some of those comments also request DPR to adopt or not adopt use restrictions. DPR considered all comments received during the 60-day public comment period. The comments raising a significant environmental point relevant to the proposed decision to reevaluate are categorized and briefly summarized below along with DPR's response. Please note that individual comments may fall into multiple categories.

Comments Supporting the Proposal to Begin Reevaluation

DPR received 24 comments supporting DPR's proposed decision to begin reevaluation.

DPR Response: DPR agrees.

Comments Supporting Reevaluation and Providing Public Literature

DPR received one comment from a researcher supporting DPR's proposed decision to begin reevaluation and discussing public literature on diphacinone.

DPR Response: DPR will consider the researcher's letter and review associated research during the diphacinone reevaluation and incorporate where relevant.

Comments Opposing the Proposal to Begin Reevaluation of Diphacinone

DPR received 14 comments opposing DPR's proposed reevaluation and stating that the data in the public report did not present sufficient evidence to warrant the reevaluation. Only two letters provided a reasoning for their opposition. These two letters asserted that the data relied upon in DPR's public report was erroneous, incomplete, and biased, should include additional literature beyond the studies considered in the 2018 Investigation and more recent exposure, Pesticide Use Report (PUR), and sales data. The commenters acknowledged, however, that significant data gaps and challenges exist in terms of limited, public literature and monitoring, loss reports and PUR data in analyzing diphacinone's potential impact to non-target wildlife.

Both commenters stated that the PUR data in the public report is an inaccurate reflection of California use trends. One commenter provided specific examples of suspected errors, such as mistakes in product identity, incorrect calculations, invalid site codes, and products that no longer have an active registration, which they assert resulted in an overestimation of diphacinone use trends in California. The other commenter generally implied potential errors exist in PUR data. Nonetheless, both commenters acknowledged PUR data could be an underestimation of diphacinone use trends in California, as non-DPR licensed applicators and the general public are not required to report diphacinone use. Additionally, one commenter provided a revised use trend graph that excludes the PUR data that they suspect are errors, and the revised use trend graph still indicates an increase in diphacinone use in California over the identified time period.

DPR Response: As DPR received over 187,000 PURs for diphacinone between 2014-2021, a fraction of which could be erroneous, the PUR data remains a valuable, reasonable, and the best available source of information regarding pesticide use trends for continuous evaluation purposes. Moreover, DPR's decision to begin reevaluation of diphacinone is based not only on recent PUR data, but also on recent non-target wildlife exposure and sales data, which indicates a substantial increase in the percentage of non-target wildlife with diphacinone exposure, as well as an increase in diphacinone sales in recent years.

Under 3 CCR section 6220, DPR is required to investigate all reported episodes and information it receives indicating that a pesticide may have caused, or is likely to cause, a significant adverse environmental impact. As noted in the public report, DPR considered the strengths and limitations of the referenced data and found that the referenced data was sound. DPR's public report provides sufficient evidence to support the Director's finding that diphacinone has caused or is likely to cause a significant adverse impact and that reevaluation should be initiated at this time. As part of the reevaluation, DPR can require diphacinone registrants to submit data to fill any data gaps through the reevaluation process.

All California certified applicators are required to submit PURs to County Agricultural Commissioners (CACs), who in turn, report pesticide use to DPR. The general public is not required to report pesticide use. Therefore, while PUR data includes reported use of diphacinone

products by professional certified applicators, it does not include use by the general public and is not a complete reflection of all diphacinone use in California.

With regard to the alleged errors in the PUR data, CACs conduct initial data entry quality checks of the PUR received. DPR additionally conducts more than 50 different validity checks on the data, such as identifying missing data, invalid entries, and confirming the reported pesticide unit of measurement. Applicators are allowed to use existing stocks of inactive pesticide products that were purchased prior to the product registration becoming inactive ([Pesticide Use Annual Report: History and Background](#), January 2023)

<https://www.cdpr.ca.gov/docs/pur/pur_history_background.pdf>). Therefore, the unregistered status of a PUR listed product does not constitute an error.

The majority of the 32,000 claimed errors identified by one commenter was based on the inactive registration status of products, which, as explained above, does not constitute an error.

Additionally, the commenter did not provide complete records of the 32,000 errors; instead, the commenter provided examples of potential or suspected errors. For example, for year 2014, the commenter provided 57 example errors. However, 53 of these 57 example errors were inactive products (93%), which do not constitute errors. The remaining four potential errors included issues such as product identity, that are forms of potential human input error which occurs at the time of original data entry.

One commenter expressed a concern regarding the accuracy and potential bias of non-target wildlife loss data provided to DPR from CDFW. DPR partners with CDFW to obtain accurate non-target wildlife loss data and to ensure clear understanding of how samples are obtained, and regularly meet to discuss additional information as it becomes available. Regardless of any bias in the data towards analyzing non-target wildlife that have been exposed to anticoagulant rodenticides, the data still demonstrates that an increasing number of the animals that died from suspected pesticide toxicosis were exposed to diphacinone.

Comments Opposing and Alleging DPR's Proposal to Place Diphacinone Violates Environmental Laws and California First District Court of Appeal's (Court's) Order

DPR received two letters opposing DPR's proposed decision to begin reevaluation of diphacinone and alleging that DPR's proposed action runs afoul of environmental laws and the California First District Court of Appeal's order in *Raptors are the Solution v. California Department of Pesticide Regulation et al.* (Sept. 27, 2022; Alameda Co. Sup. Ct. Case No. RG 18908605 [nonpub. opn.] (*RATS v. CDPR*)). Both commenters maintain that the court did not require reevaluation and instead only required a cumulative impacts analysis of diphacinone impacts on non-target species. Additionally, one commenter asserts this action avoids the Court's decision, is not categorically exempt from California Environmental Quality Act (CEQA) and fails to consider human health and environmental justice impacts as required by CEQA.

DPR Response: In *RATS v. CDPR*, the Court of Appeal did not order DPR to conduct a reevaluation of diphacinone. Moreover, no judgment has been entered in this case. Rather, the Court of Appeal decision instructs DPR to "reassess its decision not to place diphacinone into reevaluation after it performs a cumulative impacts analysis" to the extent there is available

information or data. Consistent with the Court of Appeal instruction, as outlined in its 2023 investigation covered in the public report (California Notice 2023-06), DPR conducted a cumulative impacts analysis of available cumulative impacts information or data. DPR then reassessed its decision not to place diphacinone into reevaluation. As outlined in California Notice 2023-06, wildlife exposure data available following the 2018 Investigation indicates that an increasing percentage of non-target wildlife that have died due to pesticide exposure are being found with diphacinone in their livers. Additionally, reported statewide sales and use reporting data for diphacinone have also shown increases. Accordingly, DPR determined that a significant adverse impact to non-target wildlife has occurred or is likely to occur from the use of diphacinone under 3 CCR section 6220, and therefore proposed to begin reevaluation of pesticide products containing the active ingredient diphacinone.

Commenters stated that DPR should conduct a comprehensive cumulative impacts assessment, before initiating a reevaluation of diphacinone. They assert that DPR can evaluate ongoing research and continue monitoring results without formally initiating a reevaluation. DPR partners with CDFW to receive information on wildlife loss reports and supports environmental monitoring work in the form of research contracts and continues to stay informed of the most current research on potential impacts to non-target wildlife. While DPR appreciates registrants voluntarily providing data to DPR, commencing reevaluation is critical to DPR's ability to require that diphacinone registrants provide additional data to characterize the nature and extent of the potential hazard. Reevaluation enables DPR to obtain the necessary data and studies to properly assess the cumulative impacts of diphacinone and other anticoagulant rodenticides on non-target wildlife in California. DPR will use this information to inform the diphacinone reevaluation, and the development of any use restrictions or regulatory action that DPR determines to be necessary to resolve environmental concerns to non-target wildlife from diphacinone pesticide products.

DPR disagrees that its proposed action misapplies the CEQA categorical exemption. DPR's proposed action, to begin reevaluation of diphacinone, is categorically exempt from environmental review under 14 CCR section 15061(b)(3) as there is no possibility that beginning reevaluation of diphacinone will cause a significant adverse effect to human health or the environment. Beginning reevaluation of diphacinone triggers DPR's review of existing data and allows DPR to require diphacinone registrants to provide additional data to characterize the nature and extent of the potential hazard and identify appropriate mitigation measures if needed. Beginning reevaluation of diphacinone does not affect the registration, current availability, or currently allowed uses of diphacinone products in California; any additional mitigation resulting from reevaluation will be determined following the reevaluation.

Under [Expanding Use of Pesticide Products Under Reevaluation](https://www.cdpr.ca.gov/docs/registration/canot/2018/ca2018-01.pdf) (California Notice 2018-01) <<https://www.cdpr.ca.gov/docs/registration/canot/2018/ca2018-01.pdf>>, DPR will not act on pesticide registration applications for products in reevaluation if DPR determines the registration would expand use of the active ingredient relevant to the concern that prompted the reevaluation. However, no applications to expand the use of diphacinone in California are pending and DPR is not aware of any intent by registrants to expand the use of diphacinone in California. Therefore, it is entirely speculative that DPR will receive an application to expand the use of diphacinone in

California, let alone whether there will be environmental impacts from not expanding the use of diphacinone.

In response to comments that DPR's proposed decision failed to consider possible environmental justice impacts when deciding to begin reevaluation of diphacinone, while DPR agrees that diphacinone products are effective at mitigating rodents and that rodents may carry infectious diseases, as stated earlier, DPR's decision to begin reevaluation of diphacinone triggers DPR's review of existing data and allows DPR to require diphacinone registrants to provide additional data to characterize the nature and extent of the potential hazard and identify appropriate mitigation measures if needed. Beginning reevaluation of diphacinone does not affect the registration, current availability, or currently allowed uses of diphacinone products in California, and any additional mitigation that may affect the use or availability of diphacinone will be determined following the reevaluation.

Comments Supporting or Opposing Potential Diphacinone Use Restrictions

DPR received 1,540 comments recommending DPR adopt various use restrictions for diphacinone pesticide products. DPR received 12 comments opposing the adoption of additional use restrictions or recommending DPR adopt various use restrictions. Comments in support of use restrictions included requests to ban some or all diphacinone products, to suspend some or all diphacinone products, and/or to adopt use restrictions. The use restrictions suggested included designating diphacinone as a California restricted material, enacting a moratorium, or lowering the concentration of diphacinone in available products. Comments opposing use restrictions included requests that DPR's reevaluation find no restrictions to diphacinone use are necessary.

DPR Response: DPR appreciates the various suggested diphacinone use restrictions and the commitment of commenters to this important issue. DPR must evaluate relevant data to characterize diphacinone's effects on non-target wildlife, including conducting a cumulative impacts assessment, before determining whether additional use restrictions are necessary (3 CCR section 6224). DPR is not proposing any use restrictions on diphacinone at this time. If following a comprehensive evaluation of diphacinone and any required data DPR determines that use restrictions or further regulatory action is necessary, DPR will review the recommendations made by commenters.

Comments Out of Scope of the Proposal to Reevaluate Diphacinone

DPR received 1,524 comments expressing concerns regarding the impacts to domestic animals and human health from direct exposure to diphacinone and other rodenticides.

DPR Response: These comments are outside the scope of DPR's proposed decision to begin reevaluation of diphacinone based on the determination that a significant adverse impact to non-target wildlife has occurred or is likely to occur from diphacinone use.

NEXT STEPS

DPR completed its review of the public comments, and the Director is proceeding with initiation of a reevaluation of pesticide products containing the active ingredient diphacinone. DPR has not yet determined all of the data it may require pursuant to this reevaluation. However, in general, DPR intends to require data related to diphacinone exposure rates as well as any resulting risk of adverse impacts to non-target wildlife.

Please address all questions on the reevaluation process to Brenna McNabb, Senior Environmental Scientist (Specialist), at 916-445-0179 or at <Brenna.McNabb@cdpr.ca.gov>.

Original Signed by

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

October 3, 2023

Date

cc: Brenna McNabb, Senior Environmental Scientist (Specialist), DPR