OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

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**MEMORANDUM**

**SUBJECT:** **Sulfoxaflor**: Impacts of Proposed Label Amendments for California-Specific Products on EPA's Findings in the 2023 Final Biological Evaluation

**FROM:** Justin Housenger, Branch Chief,
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In the 2023 final Biological Evaluation (BE) for sulfoxaflor, EPA predicted the potential likelihood of future jeopardy for listed species and adverse modification for designated critical habitats as part of its likely to adversely affect (LAA) effects determinations. EPA predicted that there was a potential likelihood of future jeopardy for several listed species (including listed species in California) both from direct impacts to terrestrial invertebrate species and indirect impacts to terrestrial plant species due to loss of pollination services. Additionally, EPA predicted the potential likelihood for future adverse modification for designated critical habitats (CHs).

For the terrestrial invertebrates, EPA's predictions were based upon the available acute and chronic toxicity endpoints, whether a given species had >5% overlap with one or more registered use patterns of sulfoxaflor, whether the species occurred within the spray drift distance calculated for the use pattern based on the application method, and additional lines of evidence related to species life history and habitat requirements. This analysis culminated in EPA predicting a potential likelihood of future jeopardy for 12 species of listed terrestrial invertebrates where the spray drift distance basis was 60m for uses with aerial application and where on-field overlap was used for uses with ground/airblast application.

For the terrestrial plants, EPA's predictions were based upon whether a listed plant was exclusively reliant on insect pollination for reproduction, had >5% overlap with one or more use patterns of

sulfoxaflor, and occurred within the drift distance calculated for the use pattern based on the application method. This analysis culminated in EPA predicting a potential likelihood of future jeopardy for 49 species of listed terrestrial plants where the drift distance basis was 60m for uses with aerial application and where on-field overlap was used for uses with ground/airblast application.

For designated CHs, EPA considered whether there may be potential effects to listed species within the CH or effects to the Physical or Biological Features (PBFs) of the CH. This analysis culminated in EPA predicting a potential likelihood of future adverse modification for 20 designated CHs where the drift distance basis was 60m for uses with aerial application and where on-field overlap was used for uses with ground/air blast application.

In February 2024, Corteva Agriscience inquired about a label amendment to include label language referencing spatially explicit Pesticide Use Limitation Areas (PULAs) for labels pertaining to the State of California only (Transform CA – EPA Reg No 62719-727; Sequoia CA – EPA Reg No: 62719-728). In subsequent correspondence (March 2024), Corteva proposed that using a single consolidated PULA and Bulletin with the following measures for all listed species in California where EPA predicted a potential likelihood of future jeopardy or potential likelihood for future adverse modification for their designated CHs:

- When applying via ground application methods, use a 20 m (~65 ft) on-field downwind buffer
- When applying via aerial application methods, use a 60 m (~200 ft) on-field downwind buffer
- Crops included: all crops on Sequoia CA (62719-728) and Transform CA (62719-727) labels
- 51 counties included: Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Kern, Kings, Lake, Lassen, Los Angeles, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Orange, Placer, Plumas, Riverside, Sacramento, San Benito, San Joaquin, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Ventura, Yolo, Yuba

EPA predicted a potential likelihood of future jeopardy for 21 listed species from off-site exposure to sulfoxaflor via spray drift (18 listed terrestrial plants and 3 listed terrestrial invertebrates) in California, all residing in the 51 counties above[1]. Additionally, EPA predicted a potential likelihood of future adverse modification to 9 designated CHs in California, again located in the 51 counties above with the exception of small fragments of the designated CH for the Thread-leaved brodiaea (*Brodiaea filifolia*) that are located in San Diego County. Although San Diego County was not included in the above proposed list of counties, the Bulletin and associated PULA for CH includes both the 51 counties and these small fragments of San Diego County.

After evaluating Corteva's proposed label amendments, including verifying the species and critical habitat locations and the application method-dependent buffer distances, EFED determined that by enacting these proposals and associated mitigations, EPA would not predict a potential likelihood of future J/AM for any relevant listed species (21) and designated CH habitats (9) in California.

[1] Based on Fish and Wildlife Service (FWS) species range data. This information is publicly available in the Environmental Conservation Online System (ECOS). Available at: https://ecos.fws.gov/ecp/