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EPA Announces Proposed Registration of New Active Ingredient Isocycloseram

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Today, the U.S. Environmental Protection Agency (EPA) is releasing for public comment its proposed registration decision for ten products containing the new active ingredient isocycloseram, a broad-spectrum contact insecticide proposed for use on agricultural crops, turf and ornamentals, as well as indoor and outdoor uses for commercial, industrial, and domestic sites. Some of the target pests for these products can cause significant crop damage and financial loss to growers, such as the tarnished plant bug in cotton, Colorado potato beetle in potatoes and diamondback moth in *Brassica* vegetables. This new active ingredient would give farmers an additional tool to help manage crops and grow more food for our country.

EPA's Risk Assessments

In addition to its proposed registration decision, EPA has also released its human health risk assessment, ecological risk assessment, and draft biological evaluation, with the latter including EPA's Likely to Adversely Affect (LAA) determination for isocycloseram under the Endangered Species Act (ESA). An LAA determination means that EPA reasonably expects at least one listed plant or animal species may be exposed to the pesticide at a sufficient level to have an adverse effect. No human health risks of concern were identified when isocycloseram is used according to the proposed labels. EPA did not identify risks of concern for aquatic and terrestrial plants. EPA did identify potential risks of concern to insect pollinators from spray application, aquatic

invertebrates from spray, seed and soil treatments, and chronic risks to birds and mammals ingesting treated rapeseed.

Proposed Mitigations

EPA is proposing the following mitigation measures to reduce potential ecological risks while providing growers with flexibility in controlling pests:

- Instructing users to access and follow any applicable endangered species bulletins from the Bulletins Live! Two [☑](#) web-based system for all additional directions and restrictions.
- Requiring various labels to include a link to the mitigation menu [☑](#) with run-off and erosion mitigations users can choose from.
- Labeling restricting application during rain and when soils are saturated or above capacity.
- Prohibiting aerial application for all uses except corn, cotton, potato, and soybean with geographical restrictions for uses on corn and soybean. Geographically specific restrictions will be in Bulletins using Pesticide Use Limitation Areas (PULAs).
- Requiring a spray drift buffer to most areas, for aerial, ground, and airblast applications.
- Prohibiting applications 3-days before and during bloom for orchard crops and applications during hours of the day when bees are most active for indeterminate blooming crops.
- Including best management practices [☑](#), such as maintaining clear communication with local beekeepers, to help reduce the risk to pollinators and to promote the health and habitat of ground-nesting bees.
- Requiring advisories to protect pollinators from dust generated from abrasion of isocycloseram-treated seed coatings during planting.
- Instructing users on how to effectively cover or collect spilled treated seeds or treated seeds that have become exposed on the soil surface and for the management of excess treated seeds.

With these proposed mitigation measures and Bulletins with associated PULAs for eight listed species in place, EPA's draft biological evaluation predicts that the use of

isocycloseram will not result in a likelihood of future jeopardy for the survival of any listed species, or a likelihood of adverse modification for any designated critical habitat.

Next Steps

After considering public comments on the proposed registration and the draft effects determinations, EPA will decide whether the registration action meets the standard for registration under the Federal Insecticide, Fungicide, and Rodenticide Act. If EPA determines that the registration action can be granted, the agency will finalize its biological evaluation. If a final biological evaluation finds that isocycloseram may affect any listed species or critical habitats, then EPA will initiate ESA consultation and share its findings with the U.S. Fish and Wildlife Service or the National Marine Fisheries Service (collectively referred to as the Services), as appropriate.

During formal consultation, the Services use the information in EPA's final biological evaluation to inform their biological opinions. While EPA has made predictions about the likelihood of jeopardy and adverse modification as part of its biological evaluation, the Services are responsible for making any final jeopardy/adverse modification determinations. If the Services determine in their final biological opinions that additional mitigations are necessary to address any jeopardy or adverse modification determination or to address any incidental take, then EPA will work with the registrant to ensure that any necessary registration or labeling changes are made.

To read more about the proposed registration of isocycloseram and to comment, see docket ID EPA-HQ-OPP-2021-0641 [↗](#) at www.regulations.gov [↗](#). The public comment period will be open for 30 days, closing on June 10, 2025.

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