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State of Hawai'i  
Department of Agriculture  
Plant Industry Division  
Pesticide Branch

October 2, 2024

**TO:** Advisory Committee on Pesticides

**FROM:** Greg Takeshima  
Pesticides Program Manager

**SUBJECT:** Proposed Amendment to List of State Restricted Use Pesticides to Include New Active Ingredient, Penflufen

**PROCEDURAL BACKGROUND:**

In 2012, Bayer CropScience submitted one product license application to the Hawai'i Department of Agriculture, Pesticides Branch containing the new active ingredient Penflufen. This active ingredient was new to the State of Hawai'i and subject to a full groundwater review which was conducted by Chittaranjan Ray and his team at the University of Hawai'i in 2013. The results of the review and other environmental fate data indicated that this chemical would potentially leach into groundwater.

On 1/28/2014, Evergol Energy, EPA Reg. No. 264-1122, was licensed within the State of Hawai'i despite the results of the full groundwater review. The current assumption for this decision is that the product use was only restricted to seed treatments, and this would decrease the potential for groundwater leaching since the main routes for water contamination for seed treatment is via runoff from the facility, back-siphoning, or reduced pressure backflow. Since that decision, two more products for seed treatment were approved in 2014 and 2023 respectively.

**ACTIVE INGREDIENT BACKGROUND:**

Penflufen is a systemic fungicide that is federally registered for use on artichoke, chayote, cassava, ginger, sweet potato, and yams. Additionally, it is federally registered as a seed treatment for beans, chives, corn, cotton, garlic, onion peas, rice, potatoes, and other crops. Application methods consist of soil treatment.



The preliminary environmental fate data submitted by Bayer CropScience and the wide range of uses for this chemical triggered a full groundwater review to determine leachability in Hawai'i's soils and a full groundwater data package was requested from the registrant. After review of the persistence and mobility characteristics of this chemical, it was determined that there is likelihood of leaching to groundwater.

**AUTHORITY:**

Pursuant to section 149A-19(a), *Hawaii Revised Statutes* ("HRS"), the board...shall adopt rules to: (1) Determine the pesticides that are highly toxic to humans, designate pesticides as restricted use or non-restricted use, and establish a system of control over the distribution and use of certain pesticides and devices purchased by the consuming public..." The Hawaii Administrative Rules (HAR) Section 4-66-32 outlines the procedures to designate a pesticide or its use as restricted use if its uses can be reasonably be anticipated to result in groundwater contamination.

**RECOMMENDATION:**

To date, there are 6 federally registered products containing Penflufen registered under Bayer CropScience and Lanxess Corporation. There are 3 state registered products for products containing Penflufen from Bayer CropScience.

Based on the environmental fate data provided, the broad range of uses of the products, and the full groundwater review, it is recommended that Penflufen be added to the State Department's list of state restricted pesticides referenced in section 4-66-32(g), HAR.

It is respectfully requested that the Advisory Committee recommend restriction of Penflufen to the Board of Agriculture as set forth above.

**ATTACHMENTS:**

Attachment A: Full groundwater review completed by UH

Attachment B: List of State products with the active ingredient Penflufen

Attachment C: List of Federal products with the active ingredient Penflufen