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State of Hawaii
DEPARTMENT OF AGRICULTURE

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MORRIS M. ATTA
Deputy to the Chairperson

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To whom it may concern,

Hawaii Department of Agriculture (HODA) is requesting to add flupyradifurone to Hawaii's list of Restricted Use Pesticide Active Ingredient list. Once the active ingredient is added to the list, you will be notified and all products currently licensed with the active ingredient flupyradifurone will not be renewed unless the registrant consents to products having the state restricted status. Also, any new products with this active ingredient will be licensed as a state restricted pesticide.

We have received several chemical product applications from you that contain the active ingredient flupyradifurone: Sivanto 200 SL (EPA Reg. No. 264-1141), Sivanto Prime (EPA Reg. No. 264-1141), Altus (EPA Reg. No. 432-1575), and Sivanto HL (EPA Reg. No. 264-1198). Sivanto 200 SL and Sivanto Prime will continue to be registered as a general use pesticide until 12/31/2023 when their registrations expire. Atlus and Sivanto HL will not be registered unless we receive your consent to register them as a state restricted product. Since the initial application for Altus was misplaced by HDOA staff in 2017, the fee will be waived. A \$330.00 refund will be issued for Sivanto HL if the application is withdrawn.

Below is a brief summary for the historical record for the active ingredient flupyradifurone.

An internal groundwater review was conducted by pesticide staff in 2014 since flupyradifurone was a new active ingredient at the time of the Sivanto submissions. This review takes into account the soil adsorption coefficient (Kd), the total acreage of all uses on the EPA stamped "accepted" labels, the type of application method, whether the chemical is systemic or contact, and a possible preliminary run through the Comprehensive Leaching Risk Assessment System (CLERS). CLERS is a modeling system specifically designed for the Hawaiian islands in which the leachability of a new compound is compared against two reference chemicals: atrazine which is a known leacher and endosulfan, a known non-leacher in Hawaii.

Flupyradifurone scored greater than 45 on the internal review which triggered the requirement of conducting a full groundwater review. Full groundwater reviews compare and contrast information provided by the registrant and what is found in literature and considers the water quality and quantity information of the areas the pesticide is most likely to be used, any



drinking water level concerns established by EPA and/or Hawaii's Department of Health, and the pesticide application. This review was contracted out to University of Ḥawaii's Water Resource Center (UH-WRC) and completed in 2015. Based on this full groundwater review, flupyradifurone was considered a potential leacher in Hawaii.

Despite branch reservations, Sivanto 200 SL and Sivanto Prime were both licensed in 2015 under the condition that no other products containing the active ingredient flupyradifurone will be licensed until an in-field study can be completed. A proposal for the in-field groundwater study was submitted in 2017 by UH-WRC totaling \$403,199.00, but due to lack of funding, the study was never conducted.

Currently, a groundwater contract is in place that will review new active ingredients, not including flupyradifurone, using two modeling systems: CLERS and HYDRUD-ID. If the results of the contract conclude that CLERS is no longer a sufficient modeling tool, then the branch may re-review flupyradifurone using the new model. In addition, when funds are available, an infield study may be attempted to help determine if the state restricted status is warranted. If the infield study is funded and the results of that study do not support the state restriction, or if a new groundwater model is established and the results of running flupyradifurone through the new model suggests flupyradifurone is not a potential leacher, then we will request the removal of the active ingredient on the list and will notify any registrants.

If you had any questions, please reach out to Esther Riechert at (808) 973-9403 or at esther.riechert@hawaii.gov.

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Plant Industry Division Administrator

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