April 23, 2020

EPA-HQ-OPP-2012-0329; Pesticide Registration Review; Proposed Interim Decisions for Several Neonicotinoid Pesticides; Notice of Availability
Office of Pesticide Programs, Environmental Protection Agency
1200 Pennsylvania Ave. NW, Washington, DC 20460-0001
Acetamiprid, Case Number 7617 EPA-HQ-OPP-2012-0329 Jonathan Williams, Williams.jonathanr@epa.gov, 703-347-0670
Clothianidin, Case Number 7620; EPA-HQ-OPP-2011-0865 Matthew Khan, Khan.matthew@epa.gov, 703-347-8613
Dinotefuran, Case Number 7441 EPA-HQ-OPP-2011-0920 Steven Snyderman, Snyderman.steven@epa.gov, 703-347-0249
Imidacloprid, Case Number 7605 EPA-HQ-OPP-2008-0844 Steven Snyderman, Snyderman.steven@epa.gov, 703-347-0249
Thiamethoxam, Case Number 7641 EPA-HQ-OPP-2011-0581 Matthew Khan, Khan.matthew@epa.gov, 703-347-8613

Most neonicotinoids can be used safely in sequence with honey bees. However misapplication can lead to bee toxicity. This may occur when products are not absorbed into the leaf. Yet, most have a high sensitivity to light and absorb quickly into leaf tissue, leaving the bees to safely forage after products dry. One exception may be thiamethoxam that is applied in an oil formulation that can stay active depending on the humidity/drying time. I would be cautious about use of thiamethoxam on the island due to its history of slow drying in high humid conditions and its association with bee kill.
Millions of acres of canola seed is treated with neonicotinoids very successfully where honey bees and leaf cutter bees are heavily used all across Canada and the Northern Plains of the U.S. where there have been bee kills associated with neonicotinoids it has been due to misapplications, oil formulations not drying or seed treatment dust blowing into unintended hive locations.
Contrary to popular opinion if used according to the label all of the neonicotinoids listed are less likely to adversely affect bees as compared to many organic pesticide applications of soaps, oils and sulfur because the neonics are short term versus barrier sprays.
There is one neonic which is different from all the rest on bee safety but always gets associated with the more toxic neonics. Acetamiprid (Assail-Nippon Soda, Japan) gets absorbed and stays in the leaf waxes for a longer time because it is photo stable, unlike any of the other neonics. Moreover, bees have an enzyme in their saliva that detoxifies it. Assail was used for chewing and sucking insects on tree fruits/vegetables/cucurbits and legumes. Owners double checked on bee exposure studies because of a bee kill with Actara (Syngenta). However, Assail has always been safe for bees. Because of this, Assail was used, this marked differences plus because it's active in waxes of young fruit it controls boring pests. It controlled codling moths for example where none of the others would. Assail took over that market as a replacement for Guthion.

With all that said, knowing about the importance of the honey bee and queen bee populations on the island and the diversity of blooming crops-I would be concerned about most of the neonics not to mention the organic oil sprays. And I would be very suspicious of all the barrier biologicals being sprayed on coffee. I think you should be sure Assail is registered for coffee for work on a coffee bean borer registration. I would pursue Nippon Soda for the funding to do the work. It's a lot safer to bee populations than almost all other pesticides (conventional or organic) and has potential to control coffee bean borer (application would be similar to codling moth in apples). It would have a fit for sucking pests in multiple crops on the island as well.

Overall, the per limit year and reduced rate in reduction, will hinder farmers in Hawaii. This reduced rate does not work in multi-crop growing regions in Hawaii, especially multi-crop vegetables.

Comments compiled and submitted by:

Natalie Hein-Ferris
Pacific Island IPM Network Coordinator
Ferris3@hawaii.edu
(763) 913-8575