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Cooperative Extension

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November 2, 2020

U.S. Environmental Protection Agency
EPA Docket Center (EPA/DC), 28221T
1300 Pennsylvania Avenue, NW
Washington, DC 20460-0001

Re: Proposed Interim Decision, Flonicamid
EPA Docket ID: EPA-HQ-OPP-2014-0777

To Whom It May Concern:

The Arizona Pest Management Center is host to the University of Arizona's expert IPM scientists including Ph.D. entomologists, weed scientists and plant pathologists with expertise in the strategic tactical use of pesticides within IPM programs that protect economic, environmental and human health interests of stakeholders and the society at large. In coordination with the Western Integrated Pest Management Center, we contribute to federal comments on issues of pest management importance to stakeholders throughout the desert southwest including Arizona, New Mexico, Nevada, Colorado and the southeast desert regions of California.

We are writing at this time in response to the Agency's Proposed Interim Decision for the insecticide flonicamid, EPA Docket number EPA-HQ-OPP-2014-0777, on behalf of agricultural stakeholders. We thank EPA for their acknowledgement of our previous comments submitted January 2020, in response to draft risk assessments. By this letter, we request incorporation of these previous comments (Document ID# EPA-HQ-OPP-2014-0777-0027) in EPA's current comment period.

Flonicamid is an efficacious selective insecticide with uses across dozens of Arizona crops. The most significant uses of flonicamid are on cotton, lettuces, spinach and other diverse leafy vegetable crops, cole crops, and alfalfa grown for seed. Flonicamid is selective, and therefore compatible with biological control, making it a critical component of our integrated pest management (IPM) programs in cotton, desert vegetables and other crops. Flonicamid is one of two selective insecticides targeting Lygus, a key insect pest in Arizona cotton (the other is sulfoxaflor). These two active ingredients represent 98% of Lygus applications in Arizona cotton[1], and help to maintain effective biological control of whiteflies in our system through

[1] Ellsworth, P.C. 2019. Cotton Pest Losses Surveys, unpublished data.

avoidance of alternative broad-spectrum insecticides. Flonicamid specifically replaces acephate, oxamyl, neonicotinoid and pyrethroid uses in Arizona cotton. Based on Cotton Pest Losses surveys of pest control advisors in 2019, Carbine (containing flonicamid) was the most popular cotton insecticide used, averaging 0.35 sprays per acre (range: 0.05–2 sprays per acre)[1]. Based on the Lettuce Pest Losses survey of pest control advisors in the 2018-19 season, Beleaf (containing flonicamid) was among the top 10 insecticides used in spring head lettuce. It was used on 17.7% of head lettuce acres (7,020ac) an average of 1.2 times in spring 2019. In fall head lettuce, it is used to a lesser extent, an average of 1.7 times on about 2% of treated acres in fall 2018[2].

We do not have any major concerns with the proposed changes outlined by EPA in the Proposed Interim Decision. However, EPA has noted a degree of uncertainty in its bee toxicological conclusions and indicated the need for further studies, which are ongoing and which could change the conclusions of the pollinator risk assessments. We agree that it is prudent for EPA to be conservative with respect to protection of pollinators until more conclusive studies can be completed. However, we also wish to offer our observations related to potential pollinator impacts of flonicamid, based on years of field experience using flonicamid products and conducting scientific evaluations of non-target impacts of flonicamid in our cropping systems.

Dr. Peter Ellsworth is the Director of the APMC, State IPM Coordinator, Professor of Entomology and an Extension Specialist with expertise developing IPM systems in cotton and other crops. He has conducted extensive efficacy trials and evaluations of non-target organism impacts on a broad range of cotton insecticides over more than two decades. This includes many evaluations of non-target impacts of flonicamid in cotton. While our studies focused on natural enemies of cotton pests, and honeybees were never directly assessed, no ill effects on bees or other pollinators have been noted. Flonicamid is ranked in our pest management guidelines as *fully selective*, meaning it can be applied without negative impacts on a wide range of key predators in our cotton system[3].

Dr. John Palumbo is a Research Scientist in Entomology and an Extension Specialist with decades of experience working with the Arizona vegetable industry. His work includes ongoing efficacy trials that also evaluate the selectivity of insecticides in vegetables crops. He has yet to observe any negative impacts of flonicamid use on bees. The most significant vegetable uses of flonicamid are in lettuces and spinach. Of course, pollinators are not an issue for leafy green vegetables. Flonicamid use in brassica seed crops is generally pre-bloom, before pollinators are active, and there is much more moderate use in brassica crops compared to lettuce and spinach. Flonicamid use is not recommended in melons, and we see very little use there.

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[2] Palumbo, J.C. 2019. Insecticide Usage on Desert Lettuce, 2018-2019. Vegetable IPM Update, Vol. 10, No. 12. University of Arizona. https://cals.arizona.edu/crops/vegetables/advisories/docs/190626-insecticide-usage-summary-in-lettuce-2018-19.pdf

[3] Bordini, I., A.J. Fournier, S.E. Naranjo, N. Pier, P.C. Ellsworth. 2020. Cotton Insecticide Use Guide: Knowing and Balancing Risks. University of Arizona Cooperative Extension. https://acis.cals.arizona.edu/docs/default-source/ipm-shorts/cottoninsecticiderisk.pdf?sfvrsn=a5628a8b_0

Thank you for your consideration. Please feel free to contact us with any questions.

Sincerely,

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