

GROWERTALKS

GT in Brief

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Chlorpyrifos Banned ... Does It Matter?

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Chlorpyrifos has been targeted by the Environmental Protection Agency for a long time (residential use was banned in 2000), so it was no surprise the EPA issued a final rule recently banning the broad-spectrum insecticide on all food crops. Long-term exposure to the organophosphate has been linked to nervous system effects, especially in children. California beat the Feds to the punch in 2019.

But that's food crops. What about ornamentals? Steve Larson, Nursery & Greenhouse Crop Specialist for Bayer, offered up a detailed analysis of chlorpyrifos:

Chlorpyrifos is still sold in nursery crops (as Dursban from Corteva, formerly Dow) and in nursery and greenhouse (as DuraGuard from BASF). There is a generic version, Chlorpyrifos 4E AG, manufactured by Adama, that is approved for treating nursery stock for fire ants to satisfy USDA quarantine requirements. All forms of chlorpyrifos are labeled Restricted Use and carry a 24-hour REI. One of the main draws for chlorpyrifos is its low cost.

The Dursban product is labeled for use in nursery crops only, not greenhouses, and the Restricted Use language, along with a 24-hour REI, limits use with many growers. I just don't see it being used that much.

DuraGuard is a micro encapsulated formulation that is still used by nursery and greenhouse growers. It is an effective treatment for fungus gnat and shore fly larvae in soil media in potted greenhouse crops. Again, the Restricted Use designation and 24-hour REI might limit use with some growers.

Honestly, I do not know the fate of chlorpyrifos for nursery and greenhouse use. Often, when a chemical is banned for use in large food crop markets, companies find it difficult to justify supporting a chemical for use in the smaller, niche markets like ornamentals. The costs of keeping federal and state registrations current can be expensive, and it usually comes down to a business decision. That's just my opinion based on my years in the business.

Fortunately for growers, there are several effective chemical and biological substitute insecticide options available.

Corteva has already announced they were stopping production of chlorpyrifos by the end of 2020, so that's one source that's gone away.

Still, Dr. Ray Cloyd, extension entomologist with Kansas State University, adds that more and more growers have switched away from the organophosphate chemistry.

"We're using more of the pyrethroids now," he says. "I think at this point, the loss of chlorpyrifos in the horticulture industry probably will have a negligible impact. I don't think anyone will even notice." **GT**