
Published Jan. 26, 2019 at 04:01PM / Updated January 26, 2019 at 09:47PM

Tree deaths near Sisters spawn state investigation

Sampling shows tree-killing compound lasts longer, travels farther than previously realized



Dozens of ponderosa trees that are dead or dying line U.S. Highway 20 just west of Sisters on Wednesday, May 2, 2018. The Oregon Department of Transportation applied herbicide to kill brush along the highway from 2013-2015 and accidentally killed the trees in the process. (Ryan Brennecke/Bulletin file photo)

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More than a thousand dead and dying trees near Sisters have become a catalyst for a statewide investigation, as it's becoming clearer the herbicide that killed them may be causing more problems than previously believed.

The Oregon Department of Agriculture, which oversees the sale and use of pesticides and herbicides statewide, is finalizing a permanent rule that regulates the use of aminocyclopyrachlor, the main active ingredient in Perspective, the herbicide linked to the deaths of over a thousand ponderosa pines and other trees northwest of Sisters on U.S. Highway 20.

Rose Kachadoorian, program manager for the state agriculture agency, said a draft of the rule likely won't be released until Monday or Tuesday, but the state could dramatically curb where and when the herbicide may be used. Kachadoorian said the investigation of

the herbicide is partially due to its use near Sisters and other parts of Central Oregon, where soil sampling has demonstrated that the weed-killer lasts longer and spreads farther than was previously known.

“These particular incidents in Deschutes County and Crook County have drawn our attention,” she said.

While the issue started in Central Oregon’s forests, Kachadoorian said the agency is concerned about the herbicide’s effect statewide, from potential damage to roadside fruit trees to impacts on greater sage grouse habitat.

“We’re concerned, and we want to ensure our hazelnut trees, our fruit trees ... are not impacted by a pesticide,” Kachadoorian said.

Perspective made headlines in Central Oregon after it was selected in 2012 to kill weeds along a 12-mile stretch of Highway 20. The herbicide was applied along the highway’s right-of-way over the course of three years. After U.S. Forest Service researchers discovered that nearby trees exhibited browning needles and other signs of stress, testing showed that the herbicide was present in the trees.

However, aminocyclopyrachlor, commonly abbreviated as ACP, had a checkered history even before it was selected for use near Sisters. Drew Toher, community resource and policy director for Beyond Pesticides, a national nonprofit based in Washington D.C., said the compound was first registered with the Environmental Protection Agency in 2010, for use in a separate weed-killer called Imprelis.

Toher said sales of Imprelis, which was produced by DuPont, were suspended in 2012 after the product was linked to tree deaths across the country. However, Bayer bought a suite of chemicals from DuPont, including ACP, which it used in a new weed-killer called Perspective.

“This is a tree-killing pesticide that’s masquerading as a weed-killing herbicide,” he said. “This is an inherently dangerous chemical.”

A 2011 study from Purdue University linked ACP to symptoms in 11 species of conifers, including Douglas and Fraser firs. While ponderosa pines were not listed, Bayer added language to its label that cautions against using the herbicide where the pines are present.

Concerns about dead and deteriorating trees near Sisters, Sunriver and other locations in Central Oregon, along with pressure from environmental organizations like the Eugene-based nonprofit Beyond Toxics, prompted ODA to begin investigating the chemical in more depth last year. In September, the agency enacted a temporary rule, prohibiting the use of any herbicide containing the compound on right-of-ways along Oregon roads. A stakeholder group formed by the state agency has held several meetings, including one last year in Sisters.

Toher said one of the things that makes ACP dangerous is its ability to linger in the soil for years without breaking down. The herbicide is so resilient, in fact, that Toher cautioned that wood chips and sawdust from contaminated trees shouldn’t be used in gardens or lawns with sensitive plants. That resilience was borne out on Highway 20, where Kachadoorian said 18 of 22 foliage samples tested positive for ACP three years after the last application.

The pesticide also has shown the ability to travel through root systems to affect trees outside the area that was sprayed in the first place. Lisa Arkin, executive director of Beyond Toxics, estimated that trees up to 60 feet from the highway were impacted by the herbicide near Sisters. Kachadoorian acknowledged that foliage samples turned up ACP in areas that had never been sprayed, and speculated that it could travel farther in Central Oregon’s dry climate, where root systems need to expand to find water.

Arkin is concerned about the possibility that the compound could enter Oregon's groundwater. Perspective's label cautions users not to apply the herbicide to areas where water is present, and warns that the product may leech into groundwater in areas with permeable soil, causing problems in other areas entirely.

The Oregon Department of Environmental Quality is looking into potential impacts on water as part of the state's investigation, although results are inconclusive. Kevin Masterson, toxics coordinator for DEQ, said the compound is water-soluble, but added that there's no evidence that it has entered the groundwater in Sisters or other parts of the state.

Kachadoorian said ODA is planning to finalize a draft of its rule guiding the use of ACP by early next week. The agency is considering adding provisions to prevent use of the compound in a particular area more than once a year, and could eliminate use in areas where there are roots of valuable trees, which would expand the current prohibition in right-of-ways.

"That could basically eliminate application in a lot of areas," Kachadoorian said.

Still, Arkin and Toher feel that doesn't go far enough, and would prefer to see the compound banned statewide, due to its track record of damage.

"We're hoping ODA will really use the science that we know and ban this chemical based on the irrefutable evidence," Arkin said.

Once the draft is released, the agency will hold a public comment period that will run through Feb. 18. During that window, the agency is also planning two public hearings, one in Salem on Feb. 13 and another in Bend on Feb. 15. The Bend hearing will be held at the Deschutes County Road Department building, at 61150 SE 27th St., from 6 to 7:30 p.m.

"We thought it was important to have one in the Bend area," Kachadoorian said.

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