

Vulpia Control

CPOP Listserv Discussion



Summary

In November 2021, Nate Johnson, then with Ecostudies Institute, asked the Listserv for input on using clethodim to treat *Vulpia* species (i.e., effective application rates and timing). His Fusilade DX treatments had been unsuccessful in controlling *Vulpia*, and he was looking to re-evaluate other grass-specific herbicides.

Elaine Stewart from Metro responded that she'd had success using a mix of 1% clethodim, 1% sethoxydim, and 1% Competitor in the fall and noticed improvements in native annual and perennial forb cover in the treatment area. Wes Messinger of USACE asked about the response of *Festuca roemerii* to clethodim, as clethodim is also used for control of fescue species. Elaine noted that nearly all the Roemer's fescue in her treatment area had likely been killed by clethodim. Linda Boyer of Heritage Seedlings echoed Elaine's suggestion that *F. roemerii* does not tolerate clethodim and added that it does seem to tolerate fluazifop. Nate Johnson expressed concern about using clethodim at 1% concentration on sites where fescue grows. Peter Moore with the Institute for Applied Ecology responded that *F. roemerii* was unaffected by clethodim and sethoxydim when he'd sown it in the fall and sprayed the following spring. Dave Wilderman of WDNR added that he had not observed any damage to Roemer's fescue from clethodim when using 0.67-0.75% concentration in spring and fall applications.

Clethodim seems an effective option for controlling *Vulpia* species, but avoiding damage to native grasses may require experimentation with timing and application rates.

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10 November 2021 – Nathan Johnson

First off, thanks to everyone for their responses to my last question about Heiracium species. I appreciate it.

I've read a few CPOP email exchanges and talked to some folks in the Willamette Valley who've had success controlling Vulpia with clethodim. We had poor success with some initial Fusilade DX (fluaziflop-p-butyl) applications at 075% v/v, and kind of wrote-off grass specific herbicides. I'm curious to re-evaluate them and I have a few questions for folks who've had success.

Rates

I'm curious what rates of clethodim folks have used for spot applications? What about boom spraying?

Timing

I think I've heard multiple spring applications can be effective? Like perhaps early March and early May. Of course, subject to adjustment based on the phenology of a particular spring. Is that correct? Is there any value in a fall application? What about winter?

Context

We've had trouble with thatchy sites that intercept much of the herbicide. I imagine this would be a concern with any application. Can anyone speak to that? We've discussed weed-torching areas in the winter to remove the thatch before spraying in the spring. Anyone try that?

Thanks in advance!

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Nate Johnson (he/him)
Project Manager
Ecostreams Institute
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18 November 2021 – Elaine Stewart

Hi Nate et al.,

I'm experimenting with a mix of clethodim and sethoxydim on Vulpia. There seems to be some difference in their chemistry that makes them work better together than alone. Also, these treatments are in fall. Just did one yesterday. Sometimes it's so hard to get in between rains and other weed treatments in spring. Unfortunately, I have not been doing any detailed plots but can report qualitatively that the areas treated last fall seemed to improve in native perennial forb cover (*Eriophyllum* and *Achillea*) as well as native annual forbs (esp *Madia*) this year. The visual difference between them was pretty striking. I'm attaching a photo from June 2021, and the area to the left had the fall 2020 grass-selective treatment while the area to the right did not. (The area to the right was treated yesterday, as a repeat of the trial on another part of the unit.)

There is so much propagule pressure from Vulpia on the surrounding landscape that I am trying only to reduce its prevalence enough to release other more desirable species to grow. These early results are encouraging, I think.

The mix was 1% clethodim, 1% sethoxydim, and 1% Competitor (surfactant).

The irony here is that the Vulpia exploded AFTER my first grass-selective treatment out there. Exotic bromes and such were really taking off, so I had the unit sprayed several years ago. After I got rid of those perennial grasses, the Vulpia filled the vacuum. Once again, you have to watch what you wish for, or for unintended consequences at least!

-Elaine

Elaine Stewart
Senior Natural Resources Scientist
Metro - Conservation Program
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18 November 2021 – Wes Messenger

Any comments on *Festuca roemerii* response to clethodim &/or sethoxydim? Fluazifop has been a valuable tool for me to reduce tall oatgrass and exotic *Agrostis* in planted FERO/forb sites, but I was pointed to a paper that recommends clethodim for control of *F. filiformis*, by appearances a fine-leaved fescue similar to FERO...

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Wes Messenger
USACE Willamette Valley Project Botanist

19 November 2021 – Elaine Stewart

Hi Wes,

Some Roemer's is still around in the unit, but I probably killed nearly all of it with the treatment. It had not been terribly abundant previously, and I don't recall noting it during site visits this year. If the treatment killed *Vulpia*, it can't have been good for fescues.

This particular site is a closed landfill that is being shifted away from exotic grass dominance to a mix of native and exotic forbs and grasses to support grassland birds and pollinators. So all plants on the site have been introduced by landfill cover operations, my rehabilitation work, wildlife and wind. I figure as soon as the *Vulpia* is knocked back and other vegetation response is good, I will re-seed Roemer's into the site. That obviously is not going to work for many sites that have naturally occurring *Festuca*.

-Elaine

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19 November 2021 – Linda Boyer

Festuca roemerii does not like clethodim. I too have used Fluzaifop which it will tolerate but does not flower the summer after application.

Linda

19 November 2021 – Nathan Johnson

Thanks Elaine. You pretty much nailed my question. The picture is quite compelling, and, oh-boy, it looks like you've got serious amounts of vulpia to contend with!

I don't see any roemer's fescue in that picture though. We've been cautious about using the rates you describe (1%) over top of existing fescue. Can you (or anyone else) speak to that?

19 November 2021 – Karl Anderson

Elaine,

Thanks for your detailed treatment and results information, that's very helpful.

Anybody know how long we should wait after applying graminicides in the fall, before seeding with native grasses?

Karl Anderson
Fall Creek, OR

22 November 2021 – Peter Moore

It is interesting that some people have observed Roemer's fescue being affected by grass-specific herbicides, specifically Clethodim.

Generally, I have planted forbs and Roemer's in the fall and then in the following year done one or more broadcast sprays of a grass-specific herbicide to give an extra year to control non-native grasses before seeding with supplementary forbs and native grasses.

Looking at notes from one area, we sprayed clethodim in May, having sowed Roemer's fescue the previous October. There was no apparent effect on the Roemer's and it continued to develop to a very healthy stand.

In another site, after sowing Roemer's and forbs in the fall, we did a broadcast spray of sethoxydim in April, partial spray of swales with clethodim in May (probably limited overlap with the Roemer's though), and a spray of fluazifop in October. Non-native grasses were being killed by the treatments and Roemer's fescue continued to develop into a healthy stand.

Peter Moore
Institute for Applied Ecology, Corvallis, OR

22 November 2021 – Dave Wilderman

The Roemer's fescue damage was interesting and surprising to me as well. We have been using Clethodim pretty extensively for several years to treat non-native grasses, often growing within established Roemer's fescue stands, and not observed any such damage. Perhaps it depends on

herbicide concentration, timing, and/or surfactants being used? We have strictly used 0.67-0.75% herbicide concentration and NuFilm IR surfactant. The vast majority of applications are spring (late March – late May), although we have also done a few fall applications with no apparent fescue damage.

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