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Spring Cover Crop Termination

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Spring Cover Crop Termination

Abstract

Spring weather has finally arrived and fieldwork will begin soon. Iowa State University research suggests cereal rye should be terminated at least 10-14 days prior to planting corn, so the favorable weather forecast may allow some farmers to begin terminating overwintered cover crops in the next few weeks.

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Integrated Crop Management

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March 21, 2019

Spring weather has finally arrived and fieldwork will begin soon. Iowa State University research suggests cereal rye should be terminated at least 10-14 days prior to planting corn, so the favorable weather forecast may allow some farmers to begin terminating overwintered cover crops in the next few weeks.



Cereal rye cover crop spring growth in early 2018. Photo by Meaghan Anderson.

Herbicides provide the most flexibility and consistency in cover crop termination, but they do not come without risks. Cover crops generally have a dense canopy of rapidly growing plants in the spring. That, combined with cool temperatures typical of that time of year leaves opportunity for termination failure. Herbicide choices for spring cover crop termination are relatively few, and limited information is available to determine the effectiveness of burndown treatments on less common cover crop species.

Dr. Kevin Bradley, University of Missouri, found that hairy vetch, cereal rye, and Austrian winter pea were relatively easy to control with herbicides. Other species, including annual ryegrass, wheat, and crimson clover, were more difficult to control. More specific information regarding Dr. Bradley's research can be found [here](#).

Glyphosate provides the most consistent control of grass cover crops, but paraquat may work in certain situations. Glyphosate generally provides more consistent control in early spring under variable weather conditions than paraquat. Neither Group 10 (glufosinate/Liberty) nor Group 1 (Assure II, Select), etc.) herbicides have provided consistent control of cereal rye.

The less than ideal weather conditions can inhibit herbicide effectiveness. The following tips may help when planning your spring sprays.

1. Whenever possible, spray midday in sunny conditions when daytime temperatures are above 60 F, the cover crop is actively growing, and nighttime temperatures will be above 40 F.
2. Avoid skimping on herbicide or adjuvant rates during the cool spring conditions typically encountered during cover crop termination. Glyphosate at 1 lb a.e./acre with AMS-treated water is suggested for best control of cereal rye; other species, like annual ryegrass, may require higher glyphosate rates.
3. Follow herbicide label instructions for appropriate adjuvants, mixing order, and application instructions including spray volume, nozzle type, and environmental considerations. Increased spray volumes (15-20 GPA) may help improve coverage in dense canopies.
4. The use of off-label adjuvants and inclusion of additional herbicides may reduce spray efficacy. Antagonism is sometimes observed with certain tank-mixes or termination timings but not others, so consulting the [available research](#) may be useful.
5. Check herbicide labels for restrictions to planting corn or soybeans following application in order to avoid injury to your cash crop.

Category: [Crop Production](#)

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Crops:

Corn Soybean Cover Crop

Tags: cereal rye cover crops cover crops cover crop burndown rye cover crop cereal rye

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