# When Spring Weather doesn't go according to Plan:

## Midwest Cover Crop Termination Guidelines for Wet Spring Conditions

This document is intended to guide cover crop termination for 12 Midwestern states, especially for situations when spring rains prevent ideal cover crop termination and cash crop planting. Please refer to the USDA Risk Management Agency (RMA) Cover Crop landing webpage for additional information https://www.rma.usda.gov/Topics/Cover-Crops.

It is important to read weather and soil conditions to help decide which option is best for your situation. Refer to USDA RMA cover crop termination guidelines for your county's specific zone at https://www.rma.usda.gov/Topics/Cover-Crops.

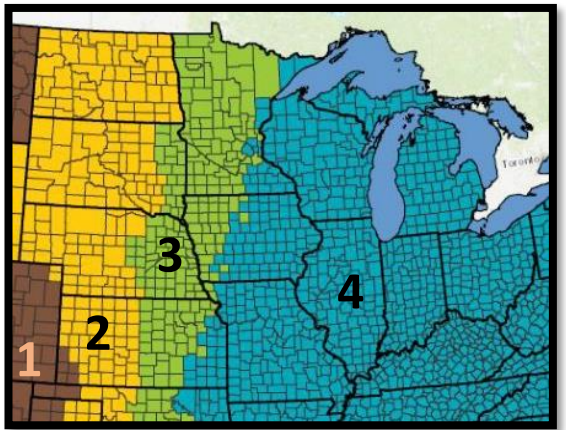


**Figure 1. USDA NRCS Cover Crop Termination Zones (Version 4: June 2019)**

## USDA NRCS zones 1, 2, 3 & 4

**Plan A** - MCCC recommends termination of cover crops two weeks before planting or when cover crops are 6-12 inches tall and actively growing, for farmers new to growing cover crops. With experience, farmers may find they can maximize benefits by terminating later.

## USDA NRCS zones 3 & 4

**Plan B** - Spray 1-2 days BEFORE planting (For corn, starter N or early sidedress N is recommended)

Advantages - Herbicide works effectively on undamaged plants. Cover crop starts dying before the cash crop is planted.

Disadvantages - If it rains after spraying but before planting, planting may be further delayed, and large cover crops may form a wet mat that interferes with planter/drill performance. Traffic ahead of planting can orient or lean tall cover crop residue against the planting direction which can cause planter/drill operation issues.

**Plan C** - Spray AFTER planting (same day or within 1-2 days - For corn, starter N or early sidedress N is recommended)

Advantages - Planter/drill performance is better in the standing cover crop.

Disadvantages - If it rains after planting but before herbicide application, there is a risk the cash crop will emerge before the application. If that happens, there are fewer options for killing the cover crop, and there is a potential for yield loss due to early-season competition.

May 2020

## USDA NRCS zones 3 & 4 - continued

**Plan D** - If unable to execute plan C, and the insured crop has emerged, spray as soon as possible. (For corn, sidedress N as soon as possible)

Advantages - The cash crop is planted, and yield loss from delayed planting is avoided.

Disadvantages - There are fewer options for killing the cover crop, and there is a potential for yield loss due to early-season competition.

## USDA NRCS zones 1 & 2

**Plan B** - Spray BEFORE planting, up to the day of planting. (For corn, use starter N or sidedress N as soon as possible)

Advantages - Herbicide works effectively on undamaged plants. Cover crop starts dying before the cash crop is planted.

Disadvantages - If it rains after spraying but before planting, planting may be further delayed, and large cover crops may form a wet mat that interferes with planter/drill performance.

### Nitrogen Management Concerns with Late Cover Crop Termination

Starter nitrogen at planting is recommended for corn, especially when considerable cover crop residue is present. Most cover crops are early users of soil available nitrogen. Starter Nitrogen can offset this early immobilization. Cover crop residue with a high carbon to nitrogen (C:N) ratio can further reduce soil nitrogen availability to meet a corn crop's high nitrogen demand. Grass and grass mix cover crops have a high C:N ratio making it very important to add starter N in these systems or to sidedress N early in the season. The maturity of the cover crop, cover crop species, and weather will impact N availability for the growing cash crop.

*These recommendations were adapted from Managing Cover Crops: An Introduction to Integrating Cover Crops into a Corn-Soybean Rotation (Purdue Extension publication AY-353-W), https://edustore.purdue.edu/item.asp?item_number=AY-353-W with the expertise of specialists at the following institutions: University of Illinois, Purdue University, Iowa State University, Kansas State University, Michigan State University, University of Minnesota, University of Missouri, University of Nebraska, North Dakota State University, Ohio State University, South Dakota State University, University of Wisconsin-Madison, and the National Wildlife Federation.*