

Leading Edge

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These crops have you covered

Consider planting cover crops this fall and reap benefits

Thinking of trying cover crops this fall? You've still got time to research which cover crop type, seeding method, and equipment is right for your operation. Growing a cover crop on the field in the fall or early spring can help replenish residue, among other benefits. If you're still on the fence about the advantages of cover crops, consider these advantages:

- **Increased soil moisture** In dry weather cover crop residue helps trap any available water so it can be used by the cash crop. Grass-type cover crops such as rye, wheat, and sorghum tend to be very effective for this purpose.
- Supplemented organic matter and soil fertility Cover crops increase organic matter and promote soil aeration. Some people refer to cover crops as "green manure" because, like manure, they can increase soil fertility and nitrogen levels. You may even be able to decrease nitrogen application for your cash crop, but soil testing should still be done before making a fertilizer plan.
- **Pest and weed prevention** Cover crops can out-compete and smother weeds trying to take root. Some crops help to reduce populations of bacterial and fungal diseases and combat parasitic nematodes.



This research plot shows some of the many options when it comes to cover crops.

The tillage radish is another popular option in a cover crop blend, due to its effectiveness in breaking up compacted soil.

How to get started

Picking the right cover crop for your situation depends on multiple factors: the cash crop that you will be planting along with it, when you will be planting the cover crop, and the type of nutrient you are counting on for your cash crop. Before planting anything, make sure to do your homework. Be on the lookout for meetings, webinars, or field days available to provide you with information about cover crops. Speak to other farmers with experience in planting cover crops for advice. Online resources can also supply information, like the cover crop decision tool from the Midwest Cover Crops Council.¹ Above all, be patient—a successful venture using cover crops takes time and research.

Timing is crucial

Many cover crops need time to mature for you to reap the full benefits. Most need at least 30 days to grow before they become effective, and 60 days before you can expect to reap the full benefits. Cover crop termination must also be carefully planned. In some cases cover crops should be terminated two to three weeks before you plant the cash crop so the cover crop plants can dry out and become brittle, making it easier for equipment to cut through residue. Research and experimentation will give you insights on the right timing for your cover crop termination.

If you are planning to plant cover crops after harvest, be sure that there is enough time for the cover crop to become established before the first frost.

- FarmFutures.com

The right equipment

Because cover crops can lead to thick residue, you may require different equipment or modifications on existing equipment. You want to make sure your coulters have the ability to cut through cover crop residue rather than pushing it into the soil along with the seed. Residue managers with backward-sloping teeth designed to sweep residue away from the opening disks of the planter units are ideal.

When planting your cash crop in cover crop residue, you'll also need to make sure good seed-to-soil contact and seed placement are being achieved. Proper planter attachments, like residue managers and spike closing wheels, are essential to proper planting into cover crops.



Yetter SharkTooth® Wheels move a thick cover of hairy vetch.

Seeding methods

Depending on when you plan to plant your cover crops and the size of your field, among other variables, there are a wide variety of seeding options to choose from.

Drilling

- Achieves good seed-to-soil contact, which is essential for successful cover crops.
- Ideal time to seed is after harvest.

Air seeding (air drill)

Provides precise placement, which ensures good germination.

Broadcast and incorporation

- Done at an increased seeding rate.
- Typically less reliable than drilling.

Surface broadcast

- Used when planting cover crops during the growing season.
- A highboy seeder can accurately deliver seed between rows while cash crop is still in the field.

Aerial seeding

- Seed distributed/planted by aircraft.
- Used when planting cover crops during the growing season.

The seeding rate must be adjusted for the different seeding methods. CoverCropSolutions.com suggests the following when using broadcast and aerial seeding, taking the recommended drilling rate as a starting point:²

- For broadcast seeding, increase rate by 25%
- For aerial seeding, increase rate by 30%

Insurance issues

The Natural Resources Conservation Service (NRCS) recently released new guidelines on the termination of cover crops to help "tackle contradictions among federal agencies on the use of cover crops—particularly as it pertains to crop insurance." The USDA's Risk Management Authority will most likely use this set of 12 new guidelines to revise their policies on cover crops and cover crop insurance.

Part of these new guidelines is the division of the U.S. into <u>four different zones</u> with different standards for cover crop termination. Most of lowa, and almost all states to the east of lowa, fall into Zone 4, for which the NRCS recommends terminating cover crops "at or within 5 days after planting, before crop emergence."

In a year like 2013, when many farmers have decided to take advantage of the prevented plant insurance option, it could benefit you to be aware of which cover crops are acceptable to grow on prevented plant acres without forfeiting your right to collect the insurance dollars. Many farmers, instead of leaving the prevented plant acres completely bare, choose to plant cover crops to help prevent erosion and tie up nutrients in the soil. The University of Minnesota extension suggests checking with the Farm Service Agency

to understand all the intricacies. They go on to say, "Crops that can be insured (such as soybeans or alfalfa) are usually not considered acceptable for the 60 percent payment [for prevented plant insurance]."

Ready to reap the rewards

From timing, to seeding methods, to insurance options, to equipment, cover crops are one of the most complicated aspects of farming. But, if you do your research and consult the experts, they can also be one of the most rewarding for your operation.

Endnotes

- 1 http://www.mccc.msu.edu/selectorINTRO.html
- 2 http://www.covercropsolutions.com/documents/literature/CCS-seed-planting-guide.pdf
- 3 http://www.no-tillfarmer.com/pages/Spre/Feature-NRCS-Issues-Guidelines-On-Cover-Crop-Termination-June-19,-2013.php
- 4 http://farmindustrynews.com/crop-protection/considering-cover-crops-option-prevented-plant-acres

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