



LAND STEWARDSHIP PROJECT

# Cover Crop Considerations

<https://landstewardshipproject.org/lspsoilbuilders>

This fact sheet is written by Myron Sylling, a long-time no-till cash grain farmer in southeastern Minnesota. He has been intensively using cover crops for six years. Sylling has planted mostly cereal rye as a cover crop, but has recently tried adding additional species to further promote soil health. Erosion has nearly been eliminated on his farm ground (it consists of up to "D" slopes) and he has seen his organic matter levels rise an average of 1 percent after three years of continuous cover cropping. To see more fact sheets written by Sylling, see <https://landstewardshipproject.org/lspsoilbuilders>.

Cover crops are a hot topic these days. Look in any farm paper or magazine, or go to any farm show, and you will see and hear plenty about cover crops.

## Are Cover Crops New?

Definitely not! They were used on farms in the early days of American agriculture. Back in the days of farming with horses, the term "cover cropping" may not have been used, but farmers were regularly utilizing a system of seeding "covers" between the regular cash crop growing seasons. There was a necessity to keep some land planted to forages and small grains like oats to provide "fuel" for the work done on the farm. Of course, farms that have cattle of some type still grow hay, but in general, as farmers turned to tractors and fossil fuels, the acreage planted to forages has shrunk considerably.

Organic producers have long grown cover crops to aid in providing nutrients to the following crop and to help suppress weeds. Today, cover cropping systems are based on some old ideas, with some exciting modifications thrown in by a new generation of farmers.

For example, today's cover cropping leaders are getting creative with mixes/blends, timing of use and application methods. Does this sound complicated? It can be, if you choose it to be. In truth, however, cover cropping can be as simple or advanced as you are comfortable with.

## Start at the Beginning

What goals are you trying to reach by growing a cover crop? Here are some reasons farmers choose to grow them:

- ◆ Erosion control
- ◆ Sequestration of nutrients like nitrogen
- ◆ Compaction reduction
- ◆ Control diseases & pests
- ◆ Break-up a hard-pan
- ◆ Increase water infiltration
- ◆ Suppress weeds
- ◆ Build organic matter
- ◆ Reduce nutrient runoff
- ◆ Improve water quality
- ◆ Provide additional forage
- ◆ Improve nutrient cycling

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***Set cover crop goals, but remember: trying to meet too many expectations can be overwhelming.***  
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You may say you want to do all of the things listed above, and that's great! However, in order to not get overwhelmed and lost in the process, it is important that you pick your top two or three goals. Once you have done this, it is easier to look at the crop types that are the most likely to help you achieve those goals.

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## Planning

Cover cropping is part of a SYSTEM. All things need to work together. No one is looking to spend money doing something that does not provide a return on that investment. With your main goals in mind, you must look at the crops you grow, as well as how they are planted and when. You should also consider how they are cared for during the year (sprayed, cultivated), and timing of harvest.

Such planning will help you determine important things like the best time of year to establish your cover crop and the termination time that works best for you. Maybe you want a self-terminating cover that does not over-winter (like oats or radish). Just remember, the longer there are living roots in your field, the more potential benefits there are. Once you figure this out, you can then again look at your main goals and start considering covers that can be established at a time that works for you while still meeting those goals.

It is wise to talk with someone in your area about what cover cropping system works for them and problems they have had. Go to local farmer meetings and ask questions. There are many farmers willing to share their stories with you. They are your best resource—use them.

## Be Prepared to Change/Adapt

You have a plan. You have talked to neighbors, been to meetings, and talked with seed suppliers. Great! Remember, Mother Nature can ruin some of our best laid plans. The key to cover crop success is being flexible and willing to change your plan. Have an A, B, C and D plan as back-up. Cover cropping does complicate your farming system. It is another crop to plant and terminate or harvest. Be prepared. What will you do if your cash crop can't be harvested until later than planned? What if it rains all spring and you can't get in the field to terminate your

cover crop? There are ways to deal with these issues. Be prepared and have an idea of how you may handle each situation as it comes up.

Some farmers have given up on cover crops, saying they just don't work for them or that they don't provide a return on their financial investment. Many times, the problem can be traced to the stress of not having a good game plan to deal with the issues that can and will come up. When unforeseen circumstances arise, it is very important to keep your cover cropping goal or goals in mind.

## The Big Take Away

Cover crops add complexity to the way you currently farm. Can things go wrong? Yes. Most of the issues can be overcome, though.

Where do you see a payback and how much? This varies from farm-to-farm, depending on your goals. If your goal is erosion control, you can see that change the very first year of cover cropping. Nutrient cycling, increased water infiltration and reduced nutrient loss will also be seen that first year.

Many farmers with three years of cover cropping under their belt are seeing organic matter levels increase by .5 percent to over 1 percent. Earthworm populations tend to explode as cover crops are introduced. The worms' channels help increase water infiltration rates, and as their population increases they can produce up to eight tons per acre of castings, which are available as

nutrients for your crops, free of charge.

How you value each of these benefits in terms of dollars is up to you. As you think about each of these pluses, you can start to put a value to your cover crop investment on your own farm. Plus, in the bigger picture, consider the benefit cover crops provide in the form of reduced soil and nutrients running off into our water system. That's a double win. You get to keep the nutrients and soil you paid for while protecting a valuable resource for future generations.

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## Resources

### Organizations

The links below contain a vast amount of resources to get you started in cover cropping. A Google search will unearth many more resources:

- Land Stewardships Soil Builders' Network: <https://landstewardshipproject.org/lspsoilbuilders>
- Practical Farmers of Iowa: <https://practicalfarmers.org>
- NRCS Soil Health page: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health>
- Midwest Cover Crops Council: <http://mccc.msu.edu/other-resources>
- Sustainable Farming Association of Minnesota: <https://sfa-mn.org>

### Seeds

For help selecting a cover crop species or blends that will work well for you, the resources below will get you started. Your local cover crop seed dealer should be able to give you the best information for your particular situation.

- Albert Lee Seed: <http://alseed.com>
- La Crosse Seed: <https://lacrosseseed.com>
- Saddle Butte Ag: <https://saddlebutte.com>
- Green Cover Seed: <https://greencoverseed.com>

### Cover Crop Decision Tools

- <http://mccc.msu.edu/covercroptool/covercroptool.php>
- <https://smartmix.greencoverseed.com>
- <https://landstewardshipproject.org/stewardshipfood/chippewa10croppingsystemscalculator>

## LSP's Soil Builders' Network

The Land Stewardship Project invites crop and livestock farmers to join the southeastern Minnesota-based Soil Builders' Network to get regular updates on workshops, field days and on-farm demonstrations, as well as soil health and cover crop research. To sign-up, see <https://landstewardshipproject.org/lspsoilbuilders>. On that page, you will also find links to fact sheets, blogs, podcasts and videos. More information is also available by contacting these LSP staffers:

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