

Cover Cropping

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What is Cover Cropping?

A cover crop, sometimes called green manure or catch crop, is grown for the sole purpose of being tilled back into the soil in the spring.

What Are The Benefits?

1. More Organic Matter

When spring comes and your cover crop is plowed into the soil, it adds organic matter to the soil. Organic matter is essential - it provides storage for plant nutrients, improves soil tilth, and allows more air and water to be exchanged in the soil.

2. Improved Soil Structure

Bare soil is vulnerable to run off, erosion and compaction. The root system of a cover crop will both hold the soil in place, and help penetrate heavy textured soils to allow for better air and water circulation. The top growth, known as the cover crop canopy, also reduces the pounding of rain drops that can compact soil.

3. More Fertile Soil

If soil is left bare, many valuable nutrients can easily leach out of the root zone, or get picked up by rain or melting snow and end up in waterways. A cover crop scavenges nutrients left over from the previous season and incorporates them into its plant tissues. The nutrients are then safely stored until spring when the cover crop is tilled back into the soil.

4. Suppressing Weeds

Another advantage of a cover crop is weed suppression. A cover crop competes with weeds for light and nutrients.



Fall rye

How Do I Plant a Cover Crop?

After your last crops are harvested, turn soil under and rake it smooth. The smaller the cover crop seed, the smoother your garden bed soil needs to be. Once your seed bed is prepped, broadcast or hand seed. Seeds require good contact with the soil and protection from drying out. To ensure this, cover the seeds with 0.5cm (0.25") of soil. If you use a rototiller, do not go deeper than 5 cm (2 in) or the seeds may not sprout.

Which Cover Crop Do I Choose?

Determine which benefits are most important to you, and use these tips to choose the appropriate crop:

- Choose a cover crop suited for your site. Minimum and maximum temperatures, soil type, drainage, rainfall and day length all play important roles in cover crop success.
- Choose your cover crop to fit the harvesting time of your last crop.
- If you have multiple crops being harvested at different times, plant the cover crop by field section. As certain crops are harvested, begin planting your cover crop.
- Mixing a grain/grass and a legume allows the cereal to scavenge nitrogen while the legume is 'fixing' it, minimizing the risk of a crop failure.
- If plantings won't be harvested until November and December, mulch these areas with straw or compost instead of using a cover crop.

Cover crop examples:

- **Grasses and grains**
- **Buckwheat**
- **Legumes**
- **Clover**
- **Mixture of above**

When Do I Turn it into the Soil?

The best time to turn the cover crop into the soil is just before winter ends and about three weeks before you plan to plant your first crop. This is critical so the cover crop doesn't go to seed or flower. If the cover crop goes to seed, it might become a weed. Do not till your cover crop if the soil is too wet, this can damage your soil structure. However, if you wait too long the cover crop can become woody, which means it will decompose at a much slower rate. If you won't be able to till the cover crop on time, mow or chop it. Be sure to turn (bury) the cover crop to a depth of 7-15cm (3-6").



Buckwheat

What are the Disadvantages?

Just like everything, there are pros and cons to using a cover crop. These can be minimized by selecting the appropriate crop, and managing it with these concerns in mind.

- A cover crop may delay soil warming and drying, which may delay planting spring crops.
- Adding a large amount of plant material into the soil may interfere with your planting dates if the cover crop was slow to decompose.
- The cover crop may act as a host to plant diseases and/or other pests.
- The plant chemicals that compete with weeds may slow the growth of your first planting.
- The investment of money, time and energy to get the benefits you were hoping for.

Cover crops can be a great asset for your garden by adding organic matter, fertilizing soil, protecting water quality and suppressing weeds. So, if you find yourself not quite ready to put the tools back in the shed in the fall, give cover crops a try.

Information from betterground.org and westcoastseeds.com

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