

Cover Crop Basics for Gardens

Cover crops are the secret to healthier soil, fewer weeds, and more beneficial insects.

Cover crops are the hardest-working plants you'll ever grow. Cover crops (also called green manure) suppress weeds, build productive soil, and help control pests and diseases. Plus, cover crops are easy to plant and require only basic care to thrive. And they grow well in Indiana!

Get Started!

Maybe you already know about the benefits of cover crops but think they're just for farmers and other large-scale growers. Think again. Cover crops are well suited to all gardens, whether they're big or small. Here's a step-by-step guide to reaping the rewards of cover crops in your garden.



Step 1: Planting

If you've ever reseeded a bare patch in your lawn, rest assured you can plant a cover crop. Work up the soil gently with a garden rake, broadcast seed over the soil, and then rake it in. Raking establishes good soil-to-seed contact and protects the seed from birds. If you decide to plant cover crops in the fall, be sure to allow them plenty of time to become established (about a month before killing frosts begin).

Step 2: Care

Cover crops are low-maintenance compared to most crops, but they still need some care. Mowing keeps large cover crops manageable, and sorghum-sudangrass actually increases its root growth if mowed once or twice. White Dutch clover planted in garden pathways needs to be mowed regularly to keep it from competing with vegetables and flowers. Be sure to water cover crops during times of drought.

Step 3: Killing

You must kill your cover crops before they set seed and the top growth gets out of control. That's right, **kill them**. The best time to kill them is at flowering or when the seedheads emerge on grains. The annuals can all be killed at this point by cutting at the base of the plant.

You can **mow** cover crops with a lawn mower or a weed trimmer, depending on how tall the plants are. Wait a day or two until the leaves and stems dry down, and then dig them in. It won't take long before the vegetative growth partially decomposes.

After turning under a cover crop of grasses, wait 2 to 3 weeks before planting vegetables or flowers. The decomposition of the green material can tie up soil nitrogen. And cover crops such as rye are allelopathic, which means they inhibit seed germination.

Finding Space In Your Garden

No matter the size of your garden, you can find space for cover crops.

Succession cropping is one of the easiest ways to do this. After spring crops of lettuce, radishes, and other early vegetables have been harvested, plant a fast-growing cover crop, such as buckwheat. In most climates, you can allow this cover crop to flower and still have time to plant a crop of frost-tolerant vegetables. Cover crops can also be planted in fall after some main-season crops, such as cabbage, are finished.

Interplanting cover crops with vegetables is possible, though a bit trickier. Ample water and nutrients available to both cover crops and vegetable crops, and controlling growth of the cover crop, are key to making this approach work.

One idea is to plant cover crop seed into the vegetable bed one-third of the way through the vegetable crop's growing season. Or you can transplant young plants into a mowed mulch which will reduce weeds, maintain moisture, and provides nitrogen.

The Easiest Cover Crops

Which cover crop is right for you? It will depend on the time of year and species you are growing. Here are a few of our favorites.

Rye. This crop comes in two different types: *annual rye* and *cereal rye*. Both have their advantages. Sow cereal rye during the late summer or early fall, and it will grow until late in fall and resume growing in spring. With annual rye, which winterkills in USDA Plant Hardiness Zones 5 and colder, you'll be able to plant your garden earlier, since you won't have to turn the cover crop into the soil and then wait 3 weeks as you would with a perennial cover crop.

Field peas/oats. This dynamic duo combines the benefits of a legume (peas) that fixes nitrogen and a grain (oats) that contributes plenty of organic matter. And the plants have complementary growth habit—the peas climb right up the oats. Both crops are cold-tolerant, which makes this a good mixture to plant in late summer or early fall. In colder climates, they will also winterkill, allowing an early spring start.

Sorghum-sudangrass. As its name suggests, this grass is a cross between sorghum and sudangrass. This hybrid generates large amounts of organic matter and needs little encouragement to grow 5 to 12 feet tall. You can keep this frost-tender plant in check by mowing it down to 6 inches when it reaches a height of 3 feet or by planting it just 7 weeks before frost.

Buckwheat. It's not wheat, and it's not a *Little Rascals* character! Buckwheat is a broadleaf plant and an excellent smother crop—it's effective even against weeds. Buckwheat is very fast-growing and can provide a quick canopy to shade weeds. Just be careful to not let it go to seed, or you'll have buckwheat in your next crop. It matures in just 6 to 8 weeks and can be squeezed in between spring and fall vegetable plantings. Buckwheat's white flowers serve two purposes—they work well as a filler for flower arrangements, and they attract beneficial insects.

Clover. Clover comes in many different shapes and sizes. White Dutch clover works well as a living mulch, since it tolerates both shade and traffic. Yellow blossom sweet clover is an excellent nutrient scavenger and helps build good soil structure. Crimson clover attracts beneficial insects, especially pollinators, and looks great, too. Whatever the color, clover fixes nitrogen and helps to build rich soils.

Seed Sources: The one drawback of cover-cropping for gardeners is that you may pay premiums for seed in small packages rather than a farmer's bulk seed prices. Check with your local farm supply store for seed—they may be willing to order varieties they don't normally carry. The following are mail-order sources for untreated and certified organic cover crop seed: [Peaceful Valley Farm & Garden Supply](#), Grass Valley, CA, 888-784-1722; [Johnny's Selected Seeds](#), Winslow, ME, 877-564-6697; [Seven Springs Farm](#), Check, VA, 540-651-3228

Sources: Adapted from <http://www.rodaleorganiclife.com/garden/cover-crop-basics>; Nancy Creamer, Ph.D., director of the Center for Environmental Farming Systems at North Carolina State University; Marianne Sarrantonio, Ph.D., associate professor of sustainable agriculture at the University of Maine; Steve Diver of ATTRA - The National Sustainable Agriculture Service

Plant "green manure" this fall, and your garden will be more productive and healthier next season.

*Thank you for visiting the Pathway to Water Quality at the Indiana State Fair sponsored by the Indiana Conservation Partnership. For more information about what you can do at home to improve water quality go to:
<http://icp.iaswcd.org/outreach/pathway-to-water-quality-2/>*