



Sheet Mulching: How to Improve Your Soil Without Destroying Your Soil Food Web

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Sheet mulching is one of my favorite methods of building a new organic garden, and today I'll outline how to make a great sheet mulch. You may have also heard it called lasagna gardening or no-till gardening, both of which mean basically the same thing.

There are many ways to make a yummy lasagna and there are many ways to make a sheet mulch, but no matter how you do it, you can think of sheet mulching as kind of like composting right in your garden. It's mostly done to create new garden beds, and occasionally in existing vegetable beds during the fallow season.

Sheet mulching is an amazing way to smother weeds - and build fertility and soil structure at the same time - by layering various materials anywhere from just a few inches to 18 inches high.

It has a few advantages over composting. It's less work in the long run - with a sheet mulch, you don't have to get rid of the grass first, and once you put the materials down, that's where they stay, whereas with composting you generally turn it a few times and then have to move it into your garden.

Along with this, your soil food web - the thousands of miles of fungal hyphae (as well as earthworms, insects, and other microorganisms) - are saved from the various implements that are generally used to till in compost. I still use compost and I will dig it into a new bed, but in the long run, I tend to turn to sheet mulching.

Sheet Mulching Disadvantages

At the same time, a sheet mulch generally doesn't get hot enough to kill weed seeds and pathogens. Fortunately, if you keep a continuous mulch, most of the weeds will be taken care of anyway, and if you're using a diversity of materials from good sources, the few pathogens you'll be introducing will be taken care of, too.

Unfortunately, some tenacious weeds can be introduced when sheet mulching, giving you some occasional weeding to do, so for some people, a proper compost pile can be less work in the long run. Also, if you already have slugs, you'll probably have more when you build a lasagna garden. They love the stuff. That's one reason why I put my sheet mulched vegetable garden in a sunny, hot spot and don't over water, but a few often seem to show up anyway.



[1]

Sheet Mulching Materials

It can be difficult to get enough materials to sheet mulch a big area, so it's often best done for a kitchen garden right near the house, which will end up covered in your most important foods for daily picking, such as herbs and greens. I may even do this inside a raised garden bed.

You can use many of the same organic materials for sheet mulching that you would use in a compost pile. Your main mulch types for nitrogen are manure, fresh grass clippings and even a few food scraps. For carbon - hay, straw and leaves. Plus we may put some newspaper or cardboard on the bottom to kill the grass and perhaps some compost towards the top.



[2]

Sheet Mulching Process

If you're a lasagna lover, you know there are many ways to make it. When I was a kid, my mom made incredible lasagna with lots of meat and cheese. Now, I follow a mostly vegan diet, and when I visit home, she's nice enough to make incredible lasagna without meat and cheese.

Likewise, there are many methods of making a sheet mulch. It can be as simple as newspaper on the bottom and a few inches of compost on top, but for the best results long term, you might want to do something similar to what I do.

I start with a 1/2 inch layer of newspaper or cardboard on the ground to suppress weeds, and then water the heck out of it (which incidentally stops the newspaper from flying away before your next sheet mulch layer goes on). There's no need to pull the weeds first. Even if you do this on a lawn, you don't have to till up the lawn first - just mow it short and leave the clippings there.

In fact, sheet mulching can be a handy way to deal with weeds you don't want to put in your compost, or with turf you've removed from somewhere else in the garden. Throw them under the weed barrier layer and you're good to go.

Some people are concerned about the glues in cardboard and inks in newspaper, but they're mostly fairly benign and should be broken down by microbes. I wouldn't use glossy or colored paper, but I'm okay with the ink.

From the bottom up, my sheet mulch often looks something like this:

* fertilizers such as calcitic lime based on a soil test, not a pH test - don't just guess what your soil needs because you may be wrong (more on this another time)

- * 1/2 inch newspaper or cardboard, overlapping a few inches to stop grass from squeezing through
- * 1 inch manure or other nitrogen material (some people put this below the newspaper layer)
- * 6-12 inches hay or straw
- * 2 inches fresh grass clippings (incorporate this down into the straw)
- * 1-2 inches compost
- * 2 inches weed-free straw or leaf mulch to top it off

I've never had success seeding into this until it has broken down for a year or so, but I have planted many veggies into a fresh sheet mulch with much success. Potatoes are ideal - just make holes in the mulch and place them at the bottom without having to dig into the soil, and without ever needing to heel the soil up around them as they grow. Feel free to ask me any questions!

Editor's note: If you want to see the detailed process Phil undertakes when preparing a new organic garden, check out the '15 Vital Lessons For Becoming A Better Organic Gardener' on the home page of his [Smiling Gardener](#) [3] website. His new book (as yet untitled) will be published by Acres USA this Christmas.

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