

Article for Garden Myths Partner Program

Date: Jan 2018

Title:

Garden Myth: The Composting C:N Ratio

Recipes for making compost usually tell you to combine the browns and greens in the correct ratio. The recommendations usually go something like this:

The ideal C:N ratio is 30 parts brown to 1 part green.

Or

Use 6 inches of browns to 2 inches of greens

Both of these recipes are simple to understand and simple to follow. Both are wrong.

The first one is just plain wrong. It is not a ratio of brown to green, but a ratio of carbon to nitrogen that is important. The carbon to nitrogen ratio in the compost pile should be 30:1, not the ratio of browns to greens.

The second composting recipe could be correct, but probably isn't. It all depends on which browns and greens you use.

Every ingredient has its own C:N ratio. For example, horse manure is about 25:1. Fall leaves have a ratio between 30:1 and 80:1, depending on the age and type of leaves. This reference has a good [list of C:N ratios for common composting ingredients](#).

The composting recipe of 6" green to 2" brown will only be correct if you use the right combination of ingredients – and that is unlikely.

Why is the C:N Ratio Important?

Composting is a process whereby microbes degrade organic matter and they function and grow best when they are fed an ideal ratio of carbon to nitrogen of 30:1. With the right ratio, the compost pile heats up and composting happens quickly. With the wrong ratio the pile stays cold and decomposes slower – but it does compost.

KISS Your Compost

For the average gardener, it is very difficult to have the right ratio of material. Firstly, how can you figure out if your fall leaves have a ratio of 30:1 or 80:1? You can't. Secondly, you rarely

have the right ingredients available. Most greens are available in summer. Most browns are available in fall.

Some sources recommend holding the browns until you get enough greens and although this works it requires more space and effort than most of us are willing to give. The reality is that if you pile up your ingredients they will compost. Turning them speeds up the process, but is not necessary.

KISS is short for 'keep it simple stupid.' Don't make composting complicated. I stopped worrying about green and brown ratios a long time ago and I still end up with compost.

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