

- **Does compost need to be fully decomposed before it is used in/on my vegetable garden?**

Compost is added to soil to improve its fertility, structure, water-holding capacity, and insulation from extreme temperatures. Compost is considered finished when it has a crumbly texture, a dark brown color, and a fresh earthy smell. It will have reduced in volume and any organic items added to the pile will not be visible. If compost has not yet reached this stage, you should not use your compost, as it will not have the desired effect on your vegetable garden. If the compost is chunky, slimy or smells bad, it's probably not finished. It might take anything from 6 months to two years for compost to be usable, so you need to be patient.

Using unfinished compost has some potential problems for your vegetable plants. It can stress the plants causing them to turn yellow or stop growing because the compost's microorganisms compete with the plants for nitrogen and pull nutrients away from the soil and plant root systems. The extra time to put the finishing touches on the pile will encourage earthworms, which don't tolerate high heat, to move back into the compost. Weed seeds can also still be effective in unfinished compost. Unfinished compost can cause landscape beds to shrink or sink as the compost matures. Lastly, it can attract pests and rodents to your yard particularly if you have tried to compost edibles such as bones or meats.

You can speed up composting by having the right balance of materials, shredding them into small pieces, layering it effectively, and turning it regularly. Of note, composting tends to be faster in warm weather and slows down over winter. Composting works best when the balance of green and brown materials is correct. Green materials are the soft, leafy materials, including grass clippings, sappy green plants (such as annual weeds), crop waste, old fruit and vegetables and kitchen peelings. These materials are rich in nitrogen. Brown materials are mainly dry woody waste, such as pruning and hedge-trimmings (shredded, chipped or chopped up), and other dried materials such as dead stems and straw, as well as torn-up or shredded paper and cardboard. These are rich in carbon. Grass clippings are best mixed with brown material when you add them to the bin. As a rough guide 25 to 50 % should be soft leafy green, the other 50 to 75% should be chopped up woody brown material.

There's usually no need to add extra ingredients or products to improve the composting process. Lime (which raises the pH) is often recommended but provides no benefit. There are also products, variously called compost accelerators or starters that claim to speed up composting, but the process will generally run smoothly without them if you ensure a good balance of green and brown ingredients and sufficient aeration. Larger quantities of material tend to compost more efficiently, but smaller bins, while slower, should still produce good results. Mixing the contents regularly will also help to make the process more efficient.

Sources:

University of Missouri Extension "Making and Using Compost"

<https://extension.missouri.edu/publications/g6956>

Better Homes & Gardens "8 Common Composting Mistakes (and How to Fix Them)"

<https://www.bhg.com/gardening/yard/compost/9-common-composting-mistakes-you-may-be-making/>

Gardening Know How "12 Composting Mistakes That Will Ruin Your Stash – And How To Fix Them"

<https://www.gardeningknowhow.com/composting/composting-mistakes>