

This checklist contains the most important things you can do in your garden to improve the fertility of your soil and the health of your plants, which will translate to much more nutritious food with better flavor, greater yields, fewer pests and longer storage time.

1 Compost

Although compost certainly brings in nutrition that can improve soil chemistry, the main reason we use it is to bring in the beneficial biology that improves the soil, feeds plants and controls pests. Even 1/4 inch dusted over the soil is plenty, but it needs to be good compost, which is why it's very worthwhile to make your own in the long run.

2 Compost tea

This is how you turn a tiny amount of compost into a potent probiotic that can shift the biological balance of your soil and feed and protect your plants. Put a small amount of good compost into a bucket of clean water, add some microbe foods like molasses and liquid kelp, and aerate the whole mixture with an air pump for 24 hours.

3 Effective microorganisms (EM)

This has a much lower diversity of microbes than compost tea, but they're very important microbes to have. They do a lot of good for soil and plant health. I use [effective microorganisms](#) as the base for my monthly foliar sprays - it keeps the garden in good health and helps control a lot of pest problems.

4 Mycorrhizal fungi

Apply these fungi every time I plant any plants or sow any seeds. They protect plants from soil predators and bring nutrients and water right into the roots. I use a [mycorrhizal product](#) for this because it makes it easier, but it's also possible to gather a handful of soil from a natural, healthy ecosystem and use that as your inoculant.

5 Herbal tea

Loosely fill a bucket with weeds, then with water. Cover it with a tight lid and let it ferment for a few days or weeks. After that, strain out the weeds and mix the remaining liquid with 10-20 parts water before watering your plants. It stinks, but the nutrients give plants a boost, and some teas even help with disease.

6

Urine

By my math, peeing once or twice a year on each 5 square feet of your garden will supply all of your nitrogen needs, plus some other nutrients. If you have plants in the garden, mix the urine with 20 parts water first and water with that. If you're healthy and not on toxic medication, your urine is also non-toxic, so there's nothing to worry about.

7

Mulch

If I have the option, my favorite mulch is any kind of leaves that have fallen on the property in autumn. They break down slowly, enriching the soil, controlling weeds and conserving moisture. If you don't have leaves, straw is an okay second choice. Wood chips can work too, but more so on perennial plantings than annual vegetables.

8

Cover crops

Cover crops do even more to improve garden health than mulches do because of how their roots can improve the soil, often deeply, and how their shoots can attract beneficial insects and repel pests. Common legumes are vetch and clover. Common grasses are annual ryegrass, cereal rye and oats. They're often mixed.

9

Beneficial plants

I suggest planting a lot of legumes because they bring nitrogen into the soil (examples are lupin, clover and vetch), 'accumulators' that make available other nutrients (examples are borage, yarrow and nettles), and plants that attract beneficial insects and repel plant predators (especially herbs such as mint, dill and marigold).

10

Garlic

Attracts beneficials, repels pests and can be used throughout the year as a highly potent medicine for you. To make a natural pesticide from garlic, crush 1 medium clove and marinate it in 1/2 tsp of vegetable oil for at least 24 hours. Then add 1/2 tsp of soap and mix well in 1 liter of water. Spray on the infested plants in the morning.

11

Ocean water

Ocean water has 90+ elements in it plus beneficial biology, so applying it to your soil and plants is an exceptional way of bringing more nutrition into your food. I use a highly concentrated [ocean water fertilizer](#), but if you live by the ocean you can use 5 liters of ocean water mixed into 50 liters of water per 1000 square feet, 4 times a year.

12

Rock dust

This is simply rocks that have been ground up into a powder. Look for a volcanic or glacial dust, as they have the most nutrition. Even just 50 pounds of rock dust spread out over 1000 square feet will bring in a huge array of minerals. If you're willing to do a little searching, you can get it from a quarry in bulk, or you can buy it in bags.

13

Seaweed

Seaweed is about the most perfect source of organic matter there is for mulching the soil and putting into a compost pile. Since I'm landlocked, I use a concentrated [liquid seaweed fertilizer](#) to bring those nutrients and other beneficial compounds onto my plants where it helps them deal with many environmental stressors.

14

Neem oil

Neem oil seems to act as a biostimulant that helps improve plant health while also controlling insect and disease pests. I'm careful applying anything that kills garden pests, but I've seen how plants respond positively to neem oil, so I've started using it twice per year in early and late spring. You want cold pressed, pure neem oil.

15

Soil test

A lot of people skip doing a soil chemistry test, but it's the only way to know which specific minerals your soil needs more of, i.e. in quantities greater than the above fertilizers provide. You can send a soil sample to an organic lab and they'll help you make fertilizing decisions, or if you're in my Academy, you can send it to me.

16

Calcium and phosphorus

For people who simply aren't going to do a soil test, I recommend incorporating 10 pounds of calcium carbonate and 5 pounds of soft rock phosphate per 1000 square feet into the top few inches of soil, ideally along with some compost. These two nutrients are usually deficient, and vital for plant health.

17

Water

I saved the most important for last. No amount of compost, microbial inoculant or organic fertilizer is going to get your plants to optimal health unless they have optimal water. By implementing the items in this checklist you'll be dramatically improving soil water holding capacity, but in the meantime, make sure you do your best to supply it.