

5 Factors That Affect Plant Growth



Many factors affect plant growth. Plants have a few basic needs. Having these needs unmet will cause them to perish. There are also factors outside of a gardener's control that

can impact how well a plant grows. While some variables are out of your control, there are things that you *can* influence.

What affects plant growth?

Plants need several things to stay happy. If you have the ability to control these variables, doing so can help your plants thrive.

Sunlight

Sunlight is the lifeblood of a plant. Without it, plants die. Sunlight enables photosynthesis, which is the process that allows plants to process nutrients. Without sunlight, they can't properly take up nutrients. Some plants need more sunlight than others and providing your plants with the right amount of sunlight is key. Giving plants like lettuce too much sun can cause them to wilt, bolt prematurely, and wither. Not giving enough sun to plants, like eggplant, can stunt their growth and diminish overall yields.

Water

Honestly, this is probably the most confusing task for gardeners to get right. Even the most experienced gardeners sometimes over or under water their plants. It's one of the important factors that affect plant growth. When you're gardening outside, Mother Nature does some of the work for you. Indoors, it's all you, baby. Either way, watering is a bit of an art. Without water, plants will eventually die—even the most drought tolerant. Outside, mulch is a helpful way to retain moisture. Irrigation systems can also help you water deeply and consistently—and waste less. Inside, I highly recommend getting an app that reminds you to water on a schedule or creating a makeshift calendar of your own. Watering plants that have different moisture needs on the same schedule is a recipe for disaster.

Air

Plants are a lot like people. They don't like being squeezed together like sardines. Pack them too close, and you can encounter problems like stunted growth, pests, and disease. Space plants accordingly to prevent overcrowding. Keeping them spaced apart helps improve air circulation, which will reduce instances of disease. It'll also give your plants plenty of room to grow. If you're a patient person, you can try an experiment. Plant squash close together instead of following seed packet spacing guidelines and plant them in another area where they have plenty of room to breathe. You'll see a noticeable difference in how they grow.

Temperature

Out of all the factors that affect plant growth, this one can be tricky to control—especially outdoors. The weather can be unpredictable. Sometimes, even the most diligent gardeners end up with dead or sickly plants on their hands because an unexpected frost occurs. You can use crop protection and other tricks to play around with [temperature](#), but when it gets really cold, there's nothing you can do to stop the freeze. When [starting seeds](#), getting the temperature right is key. Tomato and pepper seeds, for instance, won't even germinate if the soil is too cold.

Nutrients

Plants need food to survive. Often, good quality soil that's amended yearly contains plenty of [nutrients](#) to get you through a vegetable gardening season. However, that's not always the case. Poor nutrient uptake can happen for several reasons, including inadequate pH and environmental conditions. Without the right nutrients, plants can become diseased and stunted and provide a diminished or non-existent yield.

How to Get Free Worms for Your Garden



Composting is an economical way to recycle household waste like kitchen scraps and yard refuse (dead leaves, grass clippings, etc.). It requires minimal effort, and in return, you get free fertilizer for your garden!

Using your homemade compost [in place of commercial fertilizers](#) is not only cheap, but it's also better for your garden. Compost delivers nutrients to the soil, conditions it, and increases the overall health of your garden environment. Healthy soil makes for healthy plants!

Traditional composting is a worthwhile endeavor, but if you're looking for an extremely efficient and effective strategy for turning your kitchen and garden waste into black gold, why not try your hand at vermicomposting?

With the help of hungry worms, you can convert organic

material into a nutrient-filled medium for your garden.

How To Get Free Garden Worms

If you're starting your compost pile, worms won't immediately be present. It's possible to purchase red wigglers to add to your bin, but if you're on a tight budget or simply want to save some money, try the following to attract free worms to your compost area:

- Feed them. Continually add kitchen scraps to your compost pile or bin. As they munch and crunch on the kitchen waste, they leave behind castings (worm poop), which is excellent for your garden.
- Sprinkle cornmeal. Whether you want to attract worms to your garden or compost, use cornmeal to bring forth the worms.
- Add ground-up eggshells. This is a bit of a controversial suggestion, but some swear by it. Shells help worms digest their food. The drawback is that eggshells don't break down like other types of kitchen waste. Always grind them up, don't add them in chunks.

If you're trying to attract worms to add to your elevated compost bin and want to transfer caught worms, it's possible to fashion a type of worm trap using a bucket.

Drill some holes into the bottom of a bucket and pop it into a shallow hole you've dug in the ground. Fill the bucket with food for hungry worms (fruit and vegetable scraps are a good choice). Add a bit of soil and cover with some type of lid. The lid keeps other critters from getting into the trap. Continue to add food scraps, and over time, you'll find yourself with a sizeable worm population that can go straight into your compost pile.

What worms don't like

You can add all the worms you want to your garden or compost, but they won't stick around very long in an inhospitable environment. Here's what to avoid when attempting to attract worms to your garden and compost bin:

- Keep the chemical fertilizers and pesticides to a minimum or banish them altogether.
- Try to minimize how often you till the soil to prevent disturbing these little creatures.
- Use organic mulches in place of synthetic options.
- Avoid overwatering. Whether you're moistening your compost pile or watering your thirsty plants, be careful not to flood out resident worms. Underwatering is also a no-no.

An Important Note

The worm you catch this way may not all be red wigglers, however, but it's doubtful that you'll introduce any harmful bugs into your compost this way.

Some things that attract worms also attract pests (rats, flies, etc.). If adding worm bait to your compost or DIY trap, be sure to properly secure the lid to prevent other critters from finding their way inside.

Note that in most cases, worms will find their way into your garden and compost bin if the conditions are right. If you see worms hanging around, it's a good sign!

Want a visual guide to building a DIY worm farm? [Watch this video](#) that demonstrates how to create your own worm trap and catch worms for free without having to spend a dime.