



[**Learn To Grow and Cook Peppers Like a Pro! ▶**](#)

Choosing The Best Fertilizer For Pepper Plants

Last updated: 08/07/2023

Disclaimer: As an Amazon Associate, I earn from qualifying purchases. Pepper Geek takes part in various affiliate programs. This means that purchases through our links may result in a commission for us.

When growing peppers, it is easy to feel unsure of your fertilizing habits. Am I fertilizing too often? Not enough? Is this Miracle-Gro even any good for my plants? Is it safe for veggies? We've been there, too.

After testing countless fertilizers, I now have a tried-and-true method for growing healthy and productive pepper plants. In this article, I'll go through some of the **best fertilizers for pepper plants**. This will include both organic and chemical versions to suit all growers.

Quick summary: We recommend [this all-purpose fertilizer](#) (organic), or [this fertilizer trio](#) (not all organic) to keep things simple. Or, get [this](#) for the vegetative stage of growth and [this](#) for the blooming/fruiting stage of growth (organic options). Also, get a [soil test](#) for in-ground beds.

Fertilizing Peppers (Video):

Fertilizing Peppers - All About Plant Nutrients - Pe...



There are countless fertilizer brands on the market today. Every gardener has their favorite, and you should experiment to find what works best for you and your plants. Each vegetable has a different growth period and pattern, but thankfully peppers are pretty easy.

The fertilizer regimen we use for peppers will work for a wide variety of fruiting garden plants. They go from seedling to leafy growth, and then right to flowering and producing fruits.



Various types of plant fertilizers.

For peppers, **we use two fertilizers through the growing season.** The first fertilizer encourages leafy growth and root development, while the second stage fertilizer encourages flower and fruit production. We'll show you exactly which fertilizers we use, when and how often we use them, and where to buy them.

But first, I want to explain *why* we choose to use two fertilizers instead of just one.

Fertilizer Grades and Contents

On the packaging of most fertilizers, you will find a 3-digit number. This is an important number as it represents the relative amount of three important elemental nutrients. It is called the 'fertilizer grade.'

These numbers appear something like this:

- 3-5-5

- 5-5-5
- 2-3-1

The **first number represents the amount of nitrogen, the second number is the amount of phosphate, and the last number is the amount of potassium** in the fertilizer. This number is a national standard for fertilizers, and it is essential to understanding how the fertilizer will feed your pepper plants.



Nutrient analysis on Espoma Organic Garden-tone.

Primary Nutrients

There are three major nutrients that are essential to all plant life. They correspond to the fertilizer grade directly, and can be derived from many sources (organically and inorganically).

- **Nitrogen** is first because it is the most important element for foliage production and overall plant health. Nitrogen is essential to the process of photosynthesis in

new leafy growth. This is why lawn fertilizers have a very large number for nitrogen. It is also the most likely nutrient to become deficient in the soil.

- **Phosphate** is a nutrient that gives plants phosphorus, an essential nutrient in most life forms, allowing plants to take in energy from the sun.
- **Potassium** is essential to plant life because of its role in water and nutrient movement throughout the plant's tissue. Without potassium, the regulation of photosynthesis could also be compromised.

Each element helps in a large variety of ways, but these are their most critical roles. With this understanding, we can understand how any given fertilizer will impact plants.

Secondary Nutrients

While the main three nutrients are the most important, there are several secondary nutrients, or trace elements, that are also critical for ideal growth of peppers.

- **Calcium** is very important for healthy cellular development in pepper leaves and fruits. If your fertilizer does not contain calcium, be sure that your soil does. It is rare for ground soil to be deficient in calcium. If you need to, you can amend your soil with bone meal to add calcium.
- **Magnesium** is important for healthy, green foliage. Epsom salt is one method to amend soil with magnesium and sulfur, but should be done in moderation. A magnesium deficiency can cause stunted plant growth and inter-veinal yellowing.

Beneficial Bacteria

While elements are the building blocks to healthy pepper plants, soil-based bacteria plays an important role to healthy gardening. Some examples include bacillus licheniformis, bacillus megaterium and other colony-forming bacteria.

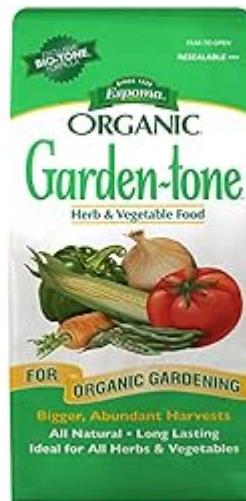
Many fertilizers will include these beneficial bacteria, so be sure to check the content analysis for them! For in-ground gardening, building healthy, living soil is essential.

Best Fertilizer For Pepper Plants

When you plant a pepper seed, the seed itself contains the nutrients required to germinate and become a small plant. However, after just a few days, the plant will need nutrients from the soil.

To put it simply, **pepper plants require lots of nitrogen during early growth to produce healthy leaves. During the fruiting stage, plants need less nitrogen but plenty of phosphorus and potassium** for the best yields. This can be achieved using an even-grade fertilizer all season, or ideally by switching fertilizers halfway through the growing season.

Want To Keep It Simple?



[Get on Amazon](#)

Perhaps the *simplest* fertilizer regimen is a **slow release, all-purpose fertilizer**. These granulated blends contain all the primary and secondary nutrients that peppers need to thrive. They can also last for *months* before needing replenishment!

Less frequent feeding, easy application, all organic, what more could you want?



[Get on Amazon](#)

Another great option to really dial in the nutrient levels is **Fox Farm's trio of fertilizers**. They even have a straight-forward feeding schedule which makes the growing process a lot easier.

Be careful not to over-feed with these nutrients – they can burn!

Stage One Fertilizer for Peppers

One fertilizer we like for early growth is **Miracle-Gro Performance Organics** (11-3-8). This water-soluble mixture provides the 3 basic nutrients along with other secondary nutrients for young, growing plants.

With an 11% nitrogen makeup, we know our plants will grow strong, plentiful leaves in the early months of growth. However, we wouldn't want to use this throughout the summer, as it may inhibit the production of peppers.



Miracle Gro Organics All-Purpose.

Tip: If you prefer to use just one fertilizer for the entire growing season, use this option (or an all-purpose slow release) and reduce strength when flowering starts.

Check out our eBook!

Growing Perfect Peppers

The eBook 'Growing Perfect Peppers' provides a comprehensive guide from seed to harvest. It includes sections on soil preparation, seed sowing, seedling care, transplanting, and various growing techniques. A sample page from the eBook is shown, featuring a tray of seedlings and a PDF icon.

Learn More ➔

When pepper plants are just starting to grow, they should focus energy on growing a large canopy of foliage to take in lots of energy from the sun. This will help generate maximum energy later on when the plant is producing peppers.

Stage Two Fertilizer for Peppers

If we kept providing lots of nitrogen, the plants may look healthy with lots of leaves, but may ultimately produce fewer peppers. For this reason, I recommend reducing the strength of early-stage fertilizer, or switching to something with less nitrogen.

Once our pepper plants have begun sprouting flowers, we usually use a flowering stage fertilizer. These have less nitrogen, but provide plenty of phosphorus and potassium for pepper pod production.

One great fertilizer we use for the blooming stage of growth is [Neptune's Harvest Fish & Seaweed \(2-3-1\)](#).



Neptune's Harvest liquid nutrients.

Note: This fertilizer is not ideal as an all-season fertilizer. It **does not provide calcium or magnesium**, so you may have to supplement with cal-mag if your soil lacks these nutrients. It also has a slightly fishy smell. However, it works great as an all-season nutrient supplement!

Another stage-two fertilizer is Fox Farm's Tiger Bloom. While it is not organic, this liquid fertilizer is easy to apply while watering. *It is potent, so be sure to follow the instructions for proper feeding.*

How Often To Fertilize Peppers

Many casual gardeners fertilize whenever they remember to do it. This is not ideal, as you may be over or under-feeding your plants. To get the most out of your pepper plants, you'll want to keep track of when you fertilized last and **stick to a schedule**.

When to Start Fertilizing Young Peppers

Once your plants have sprouted their first true set of leaves, you can apply a light feeding of fertilizer. Since our seeds are started in [seed starting mix](#), the soil itself does not contain any nutrients. That is why it is vital to begin fertilizing as soon as the plants need it.

For most pepper varieties, **fertilizing should begin about 1-2 weeks after the seeds have sprouted. The first application should be light (half strength at most, depending on fertilizer potency)**, as the tiny plants don't grow very fast. However, fertilizer will play an essential role in forming healthy roots early on, as well as strong stems and leafy growth.

If your seeds were planted in a nutrient-rich medium, hold off on fertilizing until they are established in a final planting location. Compost, potting mix and other soils often contain all the nutrients that peppers need, in which case there is no need to add more!

Pepper Fertilizer Frequency

Aside from the initial fertilizing (the first ~3-5 weeks of growth), which should be 1/4-1/2 the normal strength at most, we simply follow the packaging guidelines. Most fertilizers are administered weekly or bi-weekly.

Do not over-fertilize and expect good things to happen – pepper plants require a steady intake of nutrients, not an abundance of nutrients all at one time.

Some fertilizers are meant to be worked into the soil before transplanting. Just try your best to keep to a consistent fertilizing schedule and never over-do it. Your pepper plants will thank you!

Note: If you plant in a medium that has built-in nutrients ([potting soil](#), etc.), hold off on fertilizer until the plants are more mature.

Nutrient Burn and Flushing

If you administer *too much* fertilizer, your pepper plants will show you. Leaves will develop brown spots, usually towards the edge of the leaf.



Nutrient burn at edges of pepper leaf.

If you notice brown spots and have ruled out disease, you may be over-feeding your plants. Inorganic nutrients are the most likely to cause nutrient burn. One option is to flush the nutrients from the soil to reduce the amount of excess compounds.

To flush your pepper plants, water the plants with plain water, allowing the excess water to flow out of the pot's drainage holes. This process removes excess salts and minerals from the soil and root system.

Allow the plants to fully drain, and replace under grow lights or into the sun. Do not allow the soil to become soggy with water!

If your plants are in a raised bed or in the ground, simply water without nutrients, skipping a few weeks of fertilizing. This process will reduce the minerals present in the soil, relieving the plants of nutrient overload.

Soil pH

While nutrients are what make pepper plants healthy and strong, the pH of your soil is arguably more important. **Most peppers grow best in a soil pH between 5.8-6.8, or slightly acidic soil.**

Why is pH important, you ask? Well, if the pH is too low or too high, your pepper plants may not be able to take in and use nutrients from the soil, even if they are present. This is called 'nutrient lockout' and can be detrimental to productivity and overall plant health.

You can test your soil's pH with a simple meter, though the readings are often inaccurate. If you suspect you have alkaline soil, you can get a [soil test](#).

Read Next:

- [**Pepper leaves turning yellow**](#)
 - [**Pepper leaves curling**](#)
 - [**How to grow peppers from seed**](#)
-

I hope this helped you choose the best fertilizer for your pepper plants. Remember, it's important to "listen" to your plants. If a plant is unhealthy or nutrient deficient, you'll know it!

What works for some people in certain climates may not work for others, so experiment with new feeding regimens. What's your favorite fertilizer? Feel free to leave questions or suggestions in the comments below.
