

# 10 Techniques To Increase Germination Rate of Seeds



Germination refers to the process of a seed becoming a plant. Some people don't mind a very slow process. They'll plant flowers that take two years to show their colors. However, sometimes you want an experience a little bit closer to instant gratification. While no plant is going to germinate overnight, there are techniques to increase germination rate of seeds.

## What does Increasing Germination Rate Mean?

Obviously, what you're trying to do here is to reduce the amount of time it takes for your plants to go from a seed to what you'd commonly recognize as a plant (a flower, a vegetable, etc.) However, note that often the process is

really about improving the conditions for the plant. In other words, when you make the conditions optimal, the plant grows more quickly. It's not as if you pour some magic fairy dust on the seeds and they suddenly sprout. Instead, you listen to what the seeds need and give it to them. That said, some plants really need [dormant periods and slow germination](#) to grow correctly.

## Techniques To Increase Germination Rate of Seeds

After you've done some research to make sure that it's okay to speed things up, you might use these techniques to increase germination rate of seeds:

### 1. Find Out What Your Seeds Need

We're going to have general tips here that apply to many plants. However, you really need to research what each of your specific seed types need for optimal growth. Plant them at the right time of year, in the right growing medium, with the correct sunlight to optimize germination rates.

### 2. Disinfect Seeds Before Planting

[Science in Hydroponics](#) recommends using hydrogen peroxide or sodium hypochlorite solutions to remove microorganisms that might slow down germination rates.

### 3. Pre-Treat Seeds With Polyethylene Glycol Treatments

Science in Hydroponics also recommends pre-treating your seeds with PEG-6000. The specific amount and approach varies depending on the seeds you're trying to germinate.

## **4. Pre-Soak Seeds Before Planting in Soil**

[AcuRite](#) notes that you should get started on the right foot by providing ample moisture for seeds before you even plant them.

## **5. Then Keep Watering Well**

Seeds tend to need a lot of water to become plants. You'll usually use more water for seeds than you will once the plant starts growing. So, although you certainly don't want to overwater your seeds, you should make sure to keep them well-watered during those early days.

## **6. Plant Inside Before Outside**

AcuRite also points out that you do best to plant your seeds inside first. Then, make an effort to acclimate them to the move outside. By doing this part slowly, you actually increase germination rate.

## **7. Add Gibberellic Acid**

Science in Hydroponics says that this is a great way to stimulate seed germination.

## **8. Add Beneficial Fungi**

As mentioned above, you want to disinfect seeds from bad microorganisms. However, you can also introduce good organisms to the seeds. For example, some seeds do well when you add specific beneficial fungi to stimulate growth.

## **9. Temperature Is Everything**

Every resource you'll read about techniques to increase germination rate of seeds will emphasize the importance of getting the temperature right. Again, each plant needs something different. Some plants grow best in colder temperatures, others in warmer temperatures. Make the effort

to find out what your seeds need and accommodate them if you want your plants to grow quickly.

## 10. Improve Your Soil

Make sure that your soil is ideal for the seeds you're planting. Is it the right pH level? Does it offer the right kind of drainage and retention of moisture? Make the soil conditions right for the seeds to germinate into beautiful plants.

### Read More:

- [Seed Starting on a Budget: Germination](#)
  - [What Are The Different Ways to Germinate Citrus Seeds?](#)
  - [5 Cheap Substitutes for Seedling Trays](#)
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# 10 Top Reasons Why Seeds Don't Germinate



10 TOP REASONS WHY

# Seeds Don't Germinate

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There are a lot of reasons why seeds don't germinate. Knowing what can go wrong is the first step in solving the problem. If you're struggling to start seeds this spring, here are a few



things to look out for.

## Why Aren't Seeds Germinating?

Here are a few common reasons why seeds don't germinate.

- **It's too hot.** It's a common misconception that seeds require heat to germinate. Not all seeds like it hot. Some germinate best when the soil is cool. The ideal temperature for lettuce seeds, for instance, is [between 40 to 85 degrees Fahrenheit](#). Closer to 80 degrees means seeds are less likely to emerge.
- **It's too cold.** Similarly, some seeds require plenty of warmth to germinate. Things like tomatoes, eggplant, and peppers do best if you use a heat mat. If you don't provide extra warmth, your seeds may take longer to germinate or not germinate at all.
- **The soil is too wet.** Seeds and [seedlings](#) need air to survive. If you drown your seeds in water, they may not be able to access oxygen, and they'll eventually rot. When starting seeds, you want your soil to be moist but not overly so.
- **Damping-off.** This is a fungal disease that commonly affects seeds and seedlings. Avoid it by using sterilized seed starting mix, disinfecting tools, and using quality seed. If you notice your seedlings continually succumbing to damping-off, it might be wise to throw out that seed packet.
- **Seeds are getting eaten.** In some areas, you may already be direct seeding outside. It's a great way to get a jump start on the season. Unfortunately, some animals, like birds and small mammals, don't really care that you're excited about the gardening season. If you plant seeds and wonder why they aren't germinating, it might be

because critters are eating them when you're not around. You can use netting or other protective covers, like cloches, to keep your seeds away from hungry mouths.

- **You've got duds.** Sometimes, seeds, even from quality retailers, just aren't going to germinate. Most reputable seed companies have a germination percentage figure on their seed packets to let you know how many seeds are expected to germinate. The lower the percentage, the more likely you are to have a few non-starters. If you continually find yourself with duds on your hands, it's time to find a new seed supplier.
- **Your seeds are too old.** Seeds don't last forever. They'll last a shorter time if they're [stored haphazardly](#). Some types of seeds also last longer than others. If your seeds aren't sprouting, check the date on the packet. I often buy packets of seed that contain way more seed than I know I'll be able to use. I like to share seeds with other gardening pals to make sure they don't go to waste.
- **You're not being patient enough.** Some seeds take a while to germinate. While lettuce seedlings usually pop up within less than a week, many herbs take a lot longer to sprout. Others can take months. Seeds will also take longer to germinate if the conditions aren't quite right.
- **Your seeds need an extra helping hand.** Some seed types require periods of freezing weather or soaking in water to sprout. Always carefully read the back of a seed packet to check if this needs to be done. Some flower seeds have hard coatings, so you need to go through these steps to weaken the coating.
- **You've planted them too deep.** This is more of an issue when direct sowing. Only plant as deep as

the length of the seed. So for small seeds like carrots, you want to make sure you're sowing them very shallowly.