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How to Grow Mushrooms



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Grow Mushrooms at Home in Buckets

By [Benedict Vanheems](#)

Last Updated: January 30, 2025



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You can do it! You can grow mushrooms!

Mushrooms are fun and inexpensive to grow at home. You can grow this immune-system-boosting treat in a simple container such as a 1-gallon bucket. No gardening space or experience is required!

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Note: Our mushroom guide focuses on growing mushrooms in a simple bucket—a less pricey and more reliable method than a store-bought kit.

For beginners, we recommend starting off with oyster mushrooms—specifically blue oysters (*Pleurotus ostreatus*)—which are the easiest mushrooms you can grow at home and among the most delicious.



Gourmet Blue Oyster mushrooms are much less pricey to grow yourself! Credit: TangmoOrathai

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- [How to Grow Microgreens at Home: A Beginner's Guide](#)
- [Don't Fear the Mushrooms in Your Lawn](#)
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PLANTING

To get started growing oyster mushrooms, here's what you'll need:

1. A 1-gallon plastic bucket with a lid. They do not cost much, but you may even be able to source them for free; perhaps ask a local restaurant for containers that might have held, for example, pickles.
2. A substrate for the mushrooms to grow on such as straw, which is widely available and very cheap.

to handle.

4. Some surgical tape and an old pillowcase
(to be explained below).

How To Grow Mushrooms in a Bucket



Prepare the Buckets

Let's start by preparing the buckets. You'll need to drill holes in the sides of the buckets.

Drill one row of holes set fairly close to the top of the bucket and a lower row about two-thirds of the way down. The holes themselves should be between 10 and 12 mm in diameter or exactly half an inch.

Take a moment to sandpaper any sharp edges so they're nice and smooth. Then, drill some smaller holes across the bottom of the bucket for drainage; this will prevent excess water from pooling, which could create unpleasant

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It's also possible to buy special mushroom growing bags, but by drilling your own bucket like this, you'll be able to reuse it time and again.

You could also scale things up by using, say, a 5-gallon or 20-liter bucket. For something this smaller, drill up to 20 holes, spaced about 6 inches or 15 cm apart in each direction, which in this case would mean four staggered rows along the height of the bucket.

The holes not only ensure good air exchange, but they also serve as portals from which the fruiting bodies themselves eventually emerge.

Prepare the Substrate

and, crucially, be sold already sliced into small pieces. The smaller the pieces of straw, the quicker the “roots” of the mushroom—the mycelium—will colonize there. Any straw will do, and you could even break up a full-sized straw bale, but you’ll need to chop it up into smaller pieces using, for example, a brush cutter.

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To ensure trouble-free growth, free of contaminants or weed fungi, you could pasteurize the straw—and this is where that pillowcase comes in. Stuff the straw in a pillowcase and then plunge it into very hot water. You can use anything that will hold the straw: a net bag or an onion storage net, for example.

of the good guys—the beneficial bacteria—in-tact, which will help the mushrooms to grow. (To completely sterilize the straw by boiling it, which would annihilate every organism living in the straw, would, perversely, leave the straw open to infection from contaminants. Pasteurizing in hot—but not boiling—water offers us a sweet spot.)

Tie off the pillowcase and pop it into a large stock pot or water bath of hot water. Check the temperature so it's at the upper end of our temperature range, and add little blasts of heat, as needed, to keep it above the lower temperature range. (If you have a jam thermometer, that's handy for measuring water temperature.) Weigh the straw down so it's completely submerged. This stays in the wa-ter for a full hour.

After an hour, drain off the straw. Just hang it up and allow all the excess water to drip off; allow everything to cool down to the touch, which should take half an hour or so. You want it so that when you give it a good squeeze, barely any water drips out. The wet straw will be quite heavy—at least triple the weight of when it was dry.

Now for the real magic ... inoculation time!

But before we do anything else, we need to make sure we're squeaky clean because any contaminants could compete with our mushroom rooms and spoil everything.

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1. Sterilize the bucket and your gloved hands with a solution of isopropyl alcohol or use a sterilizer.
2. Massage the bag of grain spawn to separate out all the grains.
3. Open the bag and layer up the bucket, starting with a few handfuls of that pasteurized straw ... squash it all down.
4. Then, add a small handful of grain spawn.
5. Then add more straw—another few handfuls—and more spawn.

105 spawn to 90 to 95% straw. You could use slightly less, but it will take longer and increase the risk of weed fungi taking hold.

7. If you have any spawn left over, seal it up and put it in the fridge. It should stay fresh and ready to use for another month or so.
8. After reaching the top, it's on with the lid —also sterilized, of course.
9. Now, take the surgical tape. Cut off little squares of it and cover all of the holes on the walls of the bucket. The surgical tape is breathable and will do two things. It will keep the substrate and spawn protected from unwanted contaminants while still allowing free air exchange, and it will retain some moisture, keeping the humidity up, which fungi love.
10. Finally, keep this at a comfortable room temperature, away from wild temperature swings. Over the next few weeks, the mycelium will spread out from the grain spawn and throughout the straw, ready for our next stage ...

GROWING

After about 14 days, open the lid of the

the mycelium, you're on the cusp of getting mushrooms. If not, it needs more time.

Remove the surgical tape to see what is called *pinning*—the tiny little embryonic fruiting bodies of the mushroom. But mushrooms don't grow like plants ... these guys, believe it or not, will pretty much double in size every day.

The surgical tape will either drop off as the mushrooms grow, or you can just remove it carefully. As our mushrooms grow, it's really important to offer them both light and high humidity. So move them somewhere that gets light but is out of direct sunshine. In the summer, this could be under the shade of a tree, but in the winter, near a window should be fine.

To keep the humidity up, mist mushrooms twice a day—once in the morning, again in the evening, and, if possible, at lunchtime, too. To keep things tidy, keep them on this tray.

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The speed with which the mushrooms grow is the most exciting part. Watch them grow overnight! Imagine getting the kids involved in this. Instead of an Xbox or Playstation, this is where it's at!

Types

The easiest varieties to grow are oysters, shiitakes, wine caps, and lion's mane.

HARVESTING

The best time to harvest mushrooms is when the caps have opened up but before they've flattened out. This will also avoid spores going absolutely everywhere and making a mess!

To harvest, just reach behind the clump, twist, and pull free. The holes won't all crop at the same time, so just take each clump as it's ready and leave the others to grow.

Once everything's finished, you may well get

up as before, and, all being well, a second and possibly even third flush will be yours for the taking.

Once it's all done, you can try using the mycelium-laden straw as "seed" for a fresh batch of pasteurized straw, thereby keeping the cycle going.

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Break the old batch up into thirds and use it to inoculate three new buckets, layering the mycelium-filled straw with fresh straw in exactly the same way as we did with the grain spawn.

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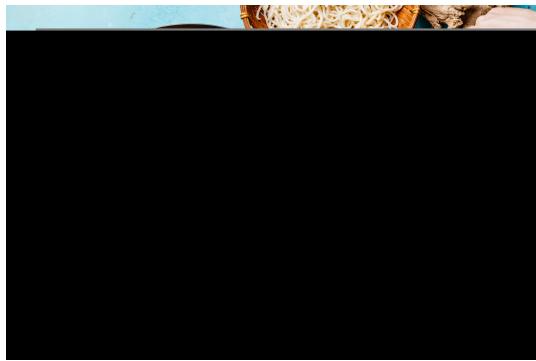
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Mushrooms are so versatile; they are great with eggs, in a pasta dish, or an Asian soup. If you're vegetarian, mushrooms help achieve a warm, savory meal without meat.



Cooking with Udon noodles with oyster mushrooms and vegetables. Credit: Natalia Lisovskaya

A simple recipe for your first harvest is seared mushrooms:

Seared Mushrooms with Garlic

1. Heat a couple of tablespoons of olive oil in a large skillet over medium-high until just beginning to smoke.
2. Cut the mushrooms into large pieces, arrange them in a skillet in a single layer, and cook, undisturbed, until the bottom side is golden brown about 3 minutes.
3. Season with salt and pepper, toss mushrooms, and continue to cook, tossing often and reducing heat as needed to avoid

Optional: Reduce heat to medium and add a couple of tablespoons of butter and a couple of crushed garlic cloves if you wish. If you have fresh thyme, add chopped thyme leaves.

VEGETABLES

ABOUT THE AUTHOR

Benedict Vanheems



Benedict Vanheems is the author of GrowVeg and a lifelong gardener with a BSc and an RHS General Certificate in horticulture. [Read More from Benedict Vanheems](#)

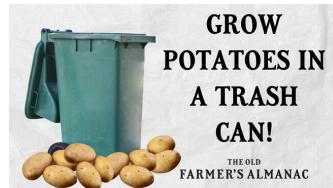
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The video is quite motivating, thank you for making it. I can't wait to get started!

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Phil Lombardi (not verified) 5 months 3 weeks

ago

Temperature: What is the best for Mushrooms to grow?

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Brian (not verified) 5 months 4 weeks ago

Can a sanitizing solution such as you would use for wine making work to clean the bucket etc.?

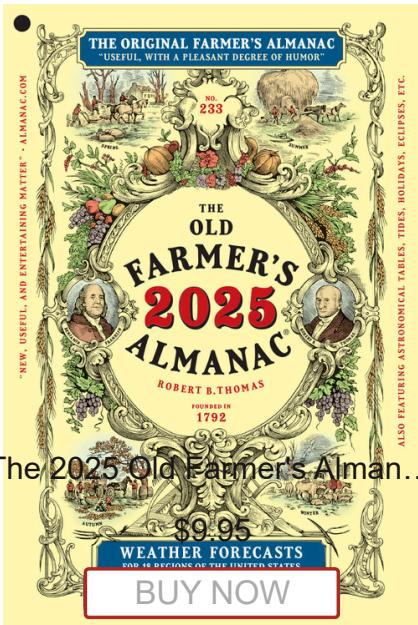
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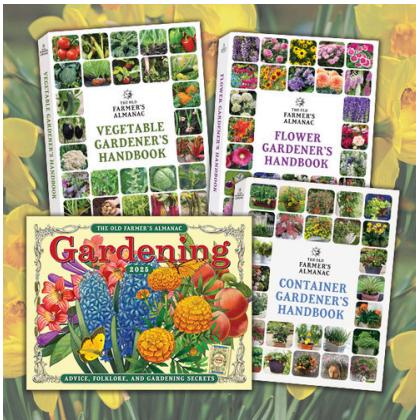
I love this idea. My husband and I love fresh mushrooms but to grown them the traditional way is a lot of work and not something we can do. Kits sound great, but I am not interested in growing mushrooms in my house. This sounds like a great option to get them established and move them out-

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