

Why growing mushrooms at home can improve your kitchen skills and save you money

For two billion years, an organism has been growing under my feet—and I just noticed it. For most of my life, I didn't think much of mushrooms. It wasn't until, on a Friday night not too long ago, I was stuck at home after a long week of being broke and busy, that I began scheming of a project which could improve my time around the house. I needed something that was 1. cheap (broke) and 2. easy to fit into my schedule (busy). I already had an herb garden, but planting an actual garden seemed like too much work. That was when I stumbled across mushroom growing. In three simple steps, I watched as mushroom growers turned a few mushroom cells into an entire mushroom farm.

With just 3 or 4 hours of work across 6 weeks, I was harvesting my first blue oyster mushrooms. I've since gone on to expand my collection, growing lion's mane (which tastes like crab) and pink oyster mushrooms (which taste like bacon). Harvesting a couple pounds of mushrooms each week cuts down the cost of my meals. With the price of meat so high, it's nice to have a substitute on hand which is cheap, healthy, and delicious. And they don't taste like grocery store mushrooms. You will get to experiment with the many, *many* delicious recipes you can make with them. My first harvest was a great opportunity to invite friends over for a gourmet dinner party, with a menu of [fried oyster mushrooms](#) and [mushroom birria tacos](#).

This short guide will teach you how to grow your own blue oyster mushrooms at home. I've chosen blue oyster mushrooms because they are beginner friendly. Blue oysters grow in under a month, produce high yields, and are particularly resistant to other bacteria and fungus. Growing blue oyster mushrooms is easy, once you've familiarized yourself with the following steps and acquired the necessary equipment.

The three steps to growing your own mushrooms at home

First, growers inject a syringe filled with mycelium into a bag of grain. This is called “inoculating grain spawn.” After 2 to 4 weeks, the mycelium will expand and fully envelop all of the grain in the bag. In the second step, called “spawn to bulk,” this grain is layered in a bucket with straw. In the third step, the mixture is misted for 2 to 4 weeks, during which little “pins” will start to sprout out of the mycelium. These pins will grow into a fully-formed mushroom over the course of a week, doubling in size every day until they are ready to harvest with a quick pull.

Equipment

- 10cc liquid culture syringe of blue oyster mushrooms. You can buy one from a [small farm](#) or a [mushroom growing supplier](#).
- 1lb bag of grain with an injection port and a 0.2 Micron Filter. You can buy one from a small farm or a mushroom growing supplier.
- 2 lbs of straw to be used as the “soil” to grow the mushrooms. (Insider tip: this straw is what mushroom growers would call our “substrate”). You can buy one ?.
- 16oz bottle of 70% isopropyl alcohol. Don’t substitute with liquor.
- A soup pot that is larger than 5 qts.
- a spray bottle, the finer the misting nozzle the better.
- A [still air box](#).
- A [grow bucket](#).

And now to the actual mushrooms!

1. Inoculating Your Grain With Blue Oyster Mycelium

Preparing your work area:

Before inoculating the grain spawn, gather your materials and clean off your work area. Put your grain bag and liquid culture syringe in your still air box. Soak a paper towel in alcohol and use it to wipe down the insides of the still air box.

Keep in mind that bacteria and mold on our own bodies can also contaminate our work. Take a shower and wear freshly laundered clothes. Gloves and a face-mask are optional but lower your risk of accidentally introducing unwanted bacteria into your grain bag. Try to minimize the air currents in the room as much as possible. Turn off any fans as well as your central air unit. This will help keep the air-flow in the still air box to a minimum.

Inoculating your grain spawn:

When working in a still air box, it is important to move at a deliberate pace—neither too fast or too slow. When you are ready, rub your hands thoroughly in alcohol. Soak a paper towel in some alcohol, then reach into the box and wipe the surface of the grain bag's "self-healing" injection port.

Uncap your syringe and inject it through the injection port. Spray your syringe evenly throughout the grain bag by gently wiggling it as you spray. Then, gently remove the needle from the grain bag and wipe down the injection site once more with your alcohol soaked paper towel.

Congratulations, you have successfully inoculated your first grain bag!

Storing your grain bag and waiting for it to fully colonize

Your grain bag will provide a sterile environment for the oyster mushrooms to grow in. Store your grain bag in a closet, a garage, or a basement. Just make sure the room maintains a stable temperature between 60 to 75 degrees.

Mycelium is made of thousands of white strands that look like stringy or fluffy growth. Slowly, these growths will envelope the grains in the bag. This can take three to five weeks. When the bag is

about 20% colonized, break the mycelium block apart and spread the colonized grain evenly throughout the bag. This will speed up growth.

Once a week, look into the bag to check for contaminants. There are many contaminants to look out for, which you can learn more about by reading [here](#).

You will know that your grain spawn is ready for the next step when the mycelium has completely taken over your grain bag. At this point, very little grain will be visible in the bag.

2. Spawn-to-bulk and preparing your grow bucket

Once your grain bag is fully colonized, you will be ready to mix it with your straw in your grow bucket and begin fruiting your oyster mushrooms. Mushroom growers call this step “*spawn-to-bulk*.” They layer colonized grains and straw to help the mycelium spawn oyster mushrooms. The grains allow the blue oysters to rapidly colonize the straw, while the straw retains water to nourish the mushrooms.

First, prepare the straw. In a large pot, boil enough water to submerge 2 pounds of straw. Boil the straw for an hour. This will ensure that your straw is hydrated and pasteurized. Dump out the water, leaving the straw. In order to test that your straw is sufficiently hydrated, grab a clump and give it a good squeeze. Your mixture is properly hydrated if rivulets of water run out for roughly 2 to 4 seconds(?).

Next, fill the bottom of your grow bucket with a layer of straw about one inch thick. Layer some grain spawn over top the straw. Repeat this process until you have filled up your bucket, then place your lid on top. Place your bucket anywhere with decent air flow, as long as it is out of direct sunlight—options include your garage or under a tree. If an upcoming heatwave or cold-snap is forecasted, bring your bucket inside until it passes.

3. Fruiting & Harvesting:

Here’s a quick overview of your timeline from now until harvest: it usually takes 10 to 21 days for the mycelium in the grain to expand out into the straw. It then takes another five days for “pins” to begin sprouting from the holes of the bucket. “Pins” are the precursor to mushrooms. Once formed, they will take another week to grow into blue oyster mushrooms.

Spray the holes in the grow bucket generously twice a day. Check on their progress by peering through the grow holes or taking off the lid.

Harvesting is easy. You will know your blue oyster mushrooms are ready to harvest once the edge of their caps begin to curl upwards. Simply grab a bushel of oyster mushrooms from the base of their stem, twist it, and pull it free of the grow bucket. Enjoy!

Now that you know the basics, here's what to learn next:

There are still many more things to discover about growing mushrooms, for example:

- Harvest another round of blue oyster mushrooms from your grow bucket by soaking it [in water](#).
- Cut down on costs significantly by making your own grain bags or liquid culture syringes.
- Research “grain-to-grain” transfers and learn how mushroom growers turn one fully colonized grain bag into ten.

For some far out there ideas, consider turning mycelium into [art](#), [clothing](#), and [furniture](#); using mushrooms to boost your [vegetable garden](#); and using mycoremediation to remove pollutants from [your local ecosystem](#).