GROWING MUSHROOMS AND MUSHROOM MYCELIUM IN 5 GALLON BUCKETS

CASCADIA MUSHROOMS LLC - BELLINGHAM, WA

If you're looking for a simple, low-cost way to grow mushrooms at home, the bucket method is a great choice. It doesn't require any special skills or equipment, and it produces high yields of mushrooms.

Growing in a five-gallon bucket is also a great way to get even more use out of an already fruited Oyster Mushroom Grow Kit or a simple, low-tech way to expand mycelium for creating Wine Cap mushroom gardens. The mycelium you have will be broken up into small pieces and used as ***spawn*** to grow even more mushrooms! "Spawn" is the term mushroom growers use for mushroom mycelium that will be used to grow more mushrooms on different substrates.

ITEMS YOU NEED TO GROW MUSHROOMS AND MYCELIUM IN A BUCKET:

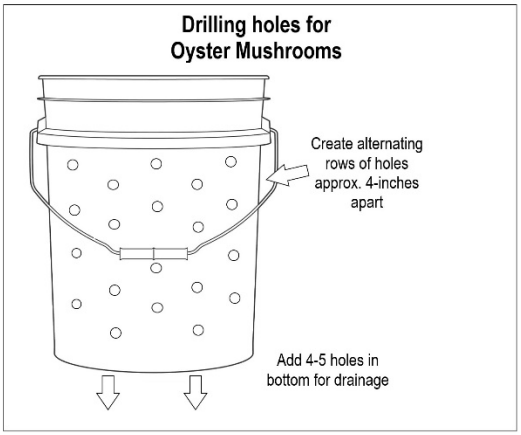
- Two 5-gallon buckets with at least one lid (the buckets should be new or at least free of any chemical or petroleum residues)
- A drill with a ⅜" or ½" bit
- Substrate (the growing media) - we suggest hardwood chips, sawdust, or straw
- Mushroom spawn or a mushroom block broken up into small pieces (a good ratio is about 2 ½ - 5 pounds of spawn per 5-gallon bucket, or ½ standard mushroom block)
- Spray bottle

STEP 1: SOAK YOUR SUBSTRATE

- Fill one of the buckets about ¾ full with your chosen substrate material
- Use either the bucket lid or a weight like bricks or a cinder block to hold the material down in the bucket
- Fill the bucket with fresh tap water until the substrate is fully submerged
- Wait: For wood chips 10-14 days; for straw 3 days
- Make sure the substrate stays submerged in the water. You may need to add water as it is absorbed by the dry substrate

STEP 2: DRILL HOLES IN (THE OTHER) BUCKET

- For growing mushrooms which will fruit directly from the bucket like ***Oyster Mushrooms***, drill several holes in the sides of the bucket, each hole about 4 inches apart in a pattern as shown—this allows the mycelium to breathe while it is growing and will provide a site for mushrooms to grow from. Also add 4-5 holes in the bottom of the bucket to allow for drainage



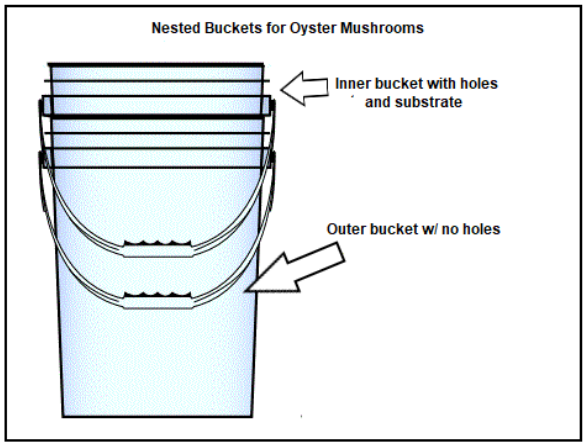
- For expanding the mycelium of mushrooms you wish to transplant outdoors like ***Wine Cap Mushrooms***, only drill 4-5 holes in the bottom of the bucket to allow for drainage.

STEP 3: DRAIN THE SUBSTRATE

- Once your substrate has soaked for the proper amount of time described in Step 1, it's time to drain the water and inoculate the substrate with spawn
- Carefully tip the bucket over and try to "strain" the substrate so it doesn't flow all over the ground. Tipping it onto clean cement or a tarp will allow you to dump the entire contents without losing any of the substrate
- Using either the cement or tarp or dump the contents into a clean wheelbarrow, you can spread out the substrate for inoculation
- Pro Tip: the soaked substrate should have a funky, sweet, fermented smell at this point. The water from the soaking bucket is a highly nutritious slurry that will benefit outdoor plants and gardens

STEP 4: INOCULATING THE SUBSTRATE

- After draining the substrate, break-up the mycelium into fine pieces that you will use as spawn
- Using your hands or a clean trowel, mix the spawn evenly with the soaked substrate material
- Once mixed, fill the bucket with holes drilled in it with the substrate/spawn mixture—the bucket should be filled to the top, but if it isn't quite that high, don't worry
- Snap on the lid, or if you don't have a lid a clean plastic bag can be used to cover the top of the bucket—this traps moisture inside and prevents insects from wandering in
- If your bucket has holes drilled in the sides (***Oyster Mushrooms***) nest it into the second bucket you used for soaking the substrate—this prevents moisture loss during 1st phase of growth. If your bucket only has holes on bottom (***Wine Cap Mushrooms***), you do not need to nest this bucket into the other
- Place your inoculated bucket(s) into a warm room (60-70 degrees) and wait!



STEP 5: THE NEXT PHASE

→ OYSTER MUSHROOMS:

- If you are growing ***Oyster Mushrooms***, wait for 3-4 weeks and then peek inside to see if your bucket has been fully colonized by the mycelium—you should see vigorous fuzzy white fungus growing throughout the substrate.
- When you see that the substrate is well-colonized by the mycelium, lift the inner bucket out and oxygen will trigger the fruiting of mushrooms!
- Move the bucket to a new place to fruit. An ideal location is somewhere out of direct sunlight, and preferably with high humidity. Depending on your conditions, you can do this in a shed, a garage, your backyard, or a deck in the shade.
- A few days after you've removed the inner bucket, pins will start to form through the holes that you drilled. Pins are baby mushrooms! It's super important to keep those little pins hydrated, so make sure to mist them a few times a day during this stage.
- Pro Tip: You don't want the mushrooms to dry out, so avoid places that are overly breezy or are in direct sunlight. Mist the mushrooms with a spray bottle a few times a day to help keep them moist, especially when they're first starting to pin. If you need to increase humidity, you can also drape a plastic bag loosely around the bucket and/or spray near the holes to get them to pin.
- Oyster mushrooms are ready to harvest when the fruiting bodies get large and their caps start to flatten out. Cut off the entire cluster with a sharp knife, or use your hands to gently break them off from the growing medium. Oyster mushrooms have a shelf life of 5-7 days. Keep them in a paper bag in the refrigerator until ready to use.

→ WINE CAP MUSHROOMS:

- If you are growing ***Wine Cap Mushroom*** mycelium to expand into a garden bed, simply allow the fungus to fully colonize its substrate before spreading outdoors.
- It's important that the mycelium can breathe as it grows—so keep the lid on loosely or use a clean plastic bag draped somewhat loosely over the top of the bucket.
- Once fully colonized, the bucket of mycelium/substrate can be mixed further into more wood chips or straw and used as top-dressing or mulch in garden beds and perennial landscaping—when mixing with more substrate to spread outdoors, this new material does not require the extended soaking period but should be fresh, clean material like fresh hardwood chips or fresh straw.
- Pro Tip: Wine Cap spawn in a bucket can be stored in a cool room like a shed or garage over the Winter to be saved for early Spring inoculations into the garden. The best time to start a Wine Cap patch outdoors is in the Fall or early Spring. When starting in the Fall, it's best to add a 1-2 inch layer of protective straw or mulch on top of the patch to reduce frost damage and keep the mycelium warm.