Who are we??

Metamimicry is a nonprofit organization based in what is currently known as Olympia, Washington and with work in California and Florida as well. Our mission is to explore accessible biological solutions for our time's most pressing environmental pollutants.

We work with groups to establish bioremediation projects utilizing the natural powers of fungi, plants, bacteria, and animals. We do this through managing research, improving real-world applications, making implementation more accessible, and reaching the public through education.

Check us out at metamimicry.org

and on social media @metamimicry

Resources for sourcing spawn include:

MycoUprrhizal ad North Spore

Bucket Tek

Step by Step guide for Growing Mushrooms in Buckets with Metamimicry

make-a-bucket

START

While you wait to pasteurize, it is a good time to make your fruiting bucket. When buying a bucket make sure to get a lid as well. Drill ¼ inch holes every few inches all the way around the bucket. These will allow for some air circulation as well as a place for the mushrooms to fruit out of. You can also drill a few smaller holes near the base to allow water to drain out but that is not necessary.

holey bucket

spawn substrate

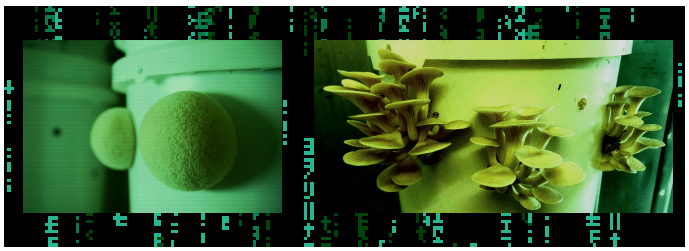
Once your substrate is adequately pasteurized, it is time to make your bucket! Make sure the substrate has cooled down before combining with your spawn or else it will kill the mycelium. The substrate should have some moisture but not be dripping wet. Add a couple handfuls of substrate to your bucket and then about a cup of spawn. You want to alternate between substrate and spawn until your bucket is full.

what can i grow?

Unless you are experimenting, there aren't that many species to choose from. Oyster mushrooms are the most successful variety cultivated in buckets. You can grow White (Pearl), Yellow (Golden), Blue, Pink, and Phoenix Oysters. You can also grow Lions Mane with a high success rate. People have grown Reishi, Shiitake, and Chestnut mushrooms in buckets but that would require a bit more finesse and practice of cultivation. Of course mushroom cultivation encourages experimentation so do your best research and see what happens! Spawn usually comes in 5 lb bags and will grow one to two 5-gallon buckets. The more spawn you use the faster and more tenacious the mycelium will grow. Our sources for spawn are on the back page.

what the heck
is the Bucket Tek

The Bucket Tek* is one in a set of mushroom growing techniques. Growing mushrooms in buckets is an easy way to expand the fruiting capacity of your mushroom spawn. This method of cultivation requires very little experience, allows room for substrate experimentation, is less wasteful and produces a lot of mushrooms! This technique is best suited for oyster mushroom cultivation, but other species like Lion's Mane will work here, too. The Bucket Tek doesn't require any special equipment, uses minimal pasteurization, fruits in 1-3 weeks and for up to 6 months!



*Tek=technique, not to be confused with TEK which is Traditional Ecological Knowledge

GROW! GROW! GROW!

Place your mushroom bucket in a coolish shady place like a basement or garage. They will grow fine in ambient lighting if needed. Check what temperature the species you chose like to grow at and consider this when finding a spot for it.

The key thing is to not let it dry out! In order to maintain humidity you can loosely place a plastic bag over the bucket while it is colonizing or if its rrreeeaalllyy dry, you can spray the inside of the plastic bag. After about 10-21 days you should see baby mushrooms and a couple days after that they are ready! Picking them is easy, just pop them off! They will continue to grow for up to 6 months.

(If you aren't seeing any growth after lifting the lid or smell something funky, your bucket was contaminated and needs to be dumped out)

finding substrate

Once you have decided on your spawn, it is time to choose the growing medium aka substrate. Mushrooms love to grow on material with a high surface area so that the mycelium can crawl into all the little cracks on a microscopic level. The easiest choice would be hardwood chips such as Alder, Aspen, Birch, or Maple. Another accessible choice is organic straw. If you are feeling experimental, you could choose common waste byproducts that mushrooms love such as spent Brewer's grain from your local Brewery or spent coffee grounds from your local coffee shops!

When acquiring a substrate it is very important to remember that the mushrooms will absorb everything so make sure to choose accordingly.

pasteurization
(not sterilization)

After acquiring substrate and before combining it with your spawn, the substrate needs to be pasteurized. Pasteurization utilizes boiling water, hot steam, or hydrated lime to try to kill off competing microorganisms while maintaining the nutrients so your mushrooms can grow. If you are using a common waste byproduct, it has likely already gone through pasteurization and if you are able to get your hands on it within the same day you can skip this part! The simplest way to pasteurize would be to put your substrate in a plastic tote, add 150 to 180 °F water until it covers your substrate, and then let sit overnight. In addition to pasteurization this will hydrate your substrate and start to break it down which will help your mushrooms. Other low-tech ways to pasteurize are with the Pillowcase Tek and Cold Water Lime Pasteurization and there are many step-by-steps available online.