



Getting the most from your Shroom Cube pioppino mushroom kit

About your new kit:

Your Shroom Cube contains cottonseed hulls, nutritional additives, water and a fungus which has been growing for 2-3 weeks. The fungus has spread throughout the bag, feeding on the nutrients available in the substrate mixture, and is just about ready to reproduce. It does this by sending out mushrooms, the reproductive structure of the fungus, which release spores that can colonize a new area. Little does it know that you intend to pull off those reproductive structures and eat them!

The bag containing your fungus has slits cut into it, allowing the fungus to breathe, and providing a spot for the mushrooms to emerge. The slits are covered with micropore tape to help retain moisture while keeping out microbes and pests. There are several spare strips of tape on the back of the bag. If you happen to need more, you can find micropore tape in the first aid aisle of most stores.

In the envelope that comes with the kit, you will find a sheet of basic instructions and a humidity tent that can be used to help retain humidity around your fruiting Shroom Cube. More on that later.

When you get your kit home:

Find some out-of-the way place to place your Shroom Cube, ideally a place that is 65-75 degrees F, with some indirect light (anything but direct sunlight is great). Also, someplace where it can be left in peace, not moved or bumped into, and without strong wind blowing on it.

At this point it's a good idea to become familiar with a little bit of...

Foundational theory of mushroom cultivation

Or

How to grow good mushrooms:

If you want to be a successful mushroom cultivator (and why would you spend the money on a Shroom Cube if you didn't want to be successful?), it helps to understand a little bit about what fungi are, what they do, and how you can help them be successful in their endeavors. First and foremost, fungi are a group of organisms that are different than both plants and animals, but are more similar to animals than to plants. While plants get their energy directly

from the sun, animals and fungi rely on ingesting energy from other living, or previously living, sources. We put food into us, but fungi put themselves into their food. In the case of the Shroom Cube, the bag contains a food source that the fungus has already spread throughout .

The type of fungus inside your shroom cube is a primary decomposer, meaning that it obtains its energy and nutrients by decomposing plant matter. Whether the food is a dead tree, straw, corn stalks, cottonseed hulls, wheat bran, rye grains or some other source, it is going directly to the plant matter for its food. Some other fungi, like the button mushrooms that you can get at the supermarket are secondary decomposers and get their food from the composted waste of an animal that ate plants.

Also like us, fungi need to have oxygen for their cells to function, they give off carbon dioxide as a waste product of that cellular function, and they are mostly water, so need plenty of available water to build their mushrooms. This means that your Shroom Cube needs plenty of fresh air to bring in oxygen and remove carbon dioxide, and that it needs plenty of humidity to promote mushroom growth. If you love numbers, you'll be thrilled to learn that the ideal humidity for mushroom formation is around 92%. And as we learned earlier, the ideal temperature is around 65-75 degrees F. If we're really tracking the details, we should note that a temperature drop of about 5 degrees F can help to stimulate fruiting events (called flushes).

Putting your knowledge into practice:

So we return to your Shroom Cube, sitting contentedly in its quiet location, getting indirect light. For at least half the year, outdoors is an ideal spot. Lots of fresh air and often higher humidity than indoors. The only downside to growing outdoors is that lots of animals love mushrooms just as much as you do. Flies and gnats will eventually find mushrooms, particularly after they start to release spores, so if you're going to grow them outdoors, it's better to either do so in a screened area or pick them early.



Fruiting:

Within two weeks, your Shroom Cube should be starting to fruit. Tan masses will start pushing out the tape covering the slits in the bag, and those masses will develop into primordia, or "pins," which are the developing mushrooms. There are going to be A LOT of them, and some of them are likely to not develop. That's fine. More energy will go to those that do develop.

You can remove the tape at this point, and start concerning yourself with providing a good fruiting environment - comfortable temperature, fresh air, high humidity and indirect light.

Humidity is likely to be your biggest challenge. To help solve this challenge, the envelope that came with your Shroom Cube contains a perforated bag that can be used



as a humidity tent. The holes allow limited airflow while the bag maintains an elevated humidity level.

To use the humidity tent, open it up, then roll up a “cuff” on the bottom, allowing it to sit stably over the Shroom Cube. Several times a day, remove the bag and mist the inside of the bag with a spray bottle. Whenever you see that the bag doesn’t have drops of condensation on the inside, you can re-mist it. Alternatively, you can place a soaked washrag next to the bag, beneath the developing fruits, where it will humidify the air. Checking and rewetting the rag daily will probably keep humidity high enough that you won’t need to spray. Another alternative is to place a home humidifier near the kit, or simply to lightly mist the developing fruits several times a day with a spray bottle.



Picking your mushrooms and resting your Shroom Cube:



Within a few days, your mushrooms will develop from pins to full clusters of mushrooms, and the caps will start to flatten out. The mushrooms are ready to pick when the veil covering the gills under the cap comes loose so that you can see the gills. Some of the caps will start to flatten at this time. Take hold of the cluster at the base and twist to remove. You can store your mushrooms for one-two weeks in a paper bag in the fridge, but they’re best right now! You can expect to get up to 1 - 1½ pounds or so over the course of at least two fruitings.

After each flush of mushrooms, use the provided strips of micropore tape to reseal the bag, and then place the kit someplace dark to rest and prepare to refruit. Humidity doesn’t matter at this point, and it doesn’t need light. Check it daily. Within about two weeks, and

possible in as little as one week, you'll see that it's starting to push off the tape again. Back to fruiting conditions!

When your kit is done fruiting:

After your Shroom Cube is done fruiting, your kit is ready to move on to the next phase of its life. Spent mushroom substrate makes fantastic mulch or compost. If you do vermicomposting (with worms) you'll find that worms go nuts for it. Whatever you do, whether it is mixing it into your compost, spreading it onto your garden, mixing it into a mulch pile so it can colonize the mulch and give you more mushrooms, or just emptying the contents onto the ground, don't throw it away. It's good stuff and you don't want to send it to a landfill!

Final thoughts:

You will need to find what works best for your Shroom Cube in your particular environment, but rest assured that this fungus wants to fruit. If something goes wrong with a fruiting event, don't give up - it will try again. You should be able to get at least two crops from your cube. If you really want to be scientific about it, record your data: what was the temperature, the humidity, how many days did it take to start fruiting, how many days to develop from pins to fully mature fruits, how long until the next flush, how many ounces per flush, etc. Set up a camera to do time-lapse photos of the developing fruits and see how they grow. Compare different methods of humidity control, different light regimes, etc. Have fun while you're learning and eating healthy food that you grew yourself!

We want you to be successful. It's not a stretch to say that our success depends on your success, so if you have questions, or if you want to share pictures or experiences with your Shroom Cube, please contact us, either through our website at www.BorrowedLandFarm.com or via email to borrowedland@gmail.com.