Cultivating Oyster Mushrooms on your own Coffee Grounds

You need a container with a lid such as a plastic bucket or Tupperware box; a steady supply of FRESH coffee grounds (or a friendly café who will give you enough all in one go), your oyster mushroom grain spawn. 500g of Spawn is about 1 litre by volume. 1 litre of spawn will inoculate up to 5 litres of spent coffee grounds.

Coffee from (stove top or café) espresso machines is best because of the high temperature steam sterilizes the coffee and the moister content is ideal. If you are collecting from a café make sure they give you uncontaminated coffee grounds produced the same day. You can also use filter or cafetiere made coffee grounds but make sure it is well drained and use as soon as it is cool.

1. Carefully collect the cooled and spent coffee grounds and place into the container
2. Massage your mushroom spawn bag to separate the grain into individual bits to maximise their spreading capability.
3. If you are using your own coffee at home proceed as follows:
    a. Sprinkle a small amount of the mushroom spawn sparingly over the surface of the coffee grounds. Leave the container lid ajar so it can breathe. Put the container on a kitchen counter or in a garage, where there is indirect light, but never direct sun.
    b. Add coffee grounds (and filters) daily, sprinkling the spawn sparingly over each layer as you add more. After a few days, mycelium will start to be visible as white threads growing together.
    c. Fill the container almost to the top leaving a few inches of space to make room for developing mushrooms. When you stop adding coffee the mycelium will finish colonising in a week or two.
4. If collecting coffee from a cafe to mix all in one go simply mix
5. Once the container is completely colonised expose it to diffuse natural or fluorescent light at room temperature (it will dry up if it gets direct sunlight). Keep the surface misted lightly and the lid slightly ajar to preserve moisture.
6. Two or three weeks after colonisation is complete, mushrooms should begin to form. Baby mushrooms appear overnight so check your container at least once a day and keep the surface misted (not underwater). The mushrooms should double in size every day. Harvest them when the fruitbodies' growth slows. In warm weather this can be just 3 or 4 days. There may be a powdery spore deposit underneath the caps when they are ready to harvest.
7. After harvest, allow the mycelium to rest by not watering or adding any additional growing media, and it should fruit again in a few weeks. No light is needed during the rest period. Soaking the coffee grounds with a generous amount of water after a few weeks of resting can help shock the mycelium into more prolific fruiting.
8. If you are lucky you can get two, three or even more crops by periodically resting and soaking but eventually your coffee grounds substrate will be spent. However it is full of fungal life and has become a living compost starter. It can be mixed into your outdoor compost pile or wormery to help with the decomposition.

Cultivating Oyster Mushrooms on Cardboard

Expanding oyster mushroom spawn on cardboard is quite easy but because it is low in nutrients (compared to coffee grounds) crops will be much smaller and usually limited to a single flush.

1. Find a large box or bin in which you can stack sheets of cardboard. A plastic bin will work best, by maintaining humidity and promoting mushroom formation. As a last resort, use a cardboard box but you will need to water it more often as cardboard is prone to drying out and mushrooms may form all over the outside.

2. Stack all of your cardboard in the bin, and add enough water to cover it. Let the cardboard soak until completely saturated – for an hour or so. After soaking, drain off the excess water and remove the soaked cardboard from the bin.

3. Layer the bottom of the bin with a few sheets of cardboard, then sprinkle a small amount of spawn across the surface. Repeat, layering cardboard and spawn, until the container if full.

4. Set a lid on top of the bin, leaving it just cracked open, or lay a plastic bag over it. You want the cardboard to remain humid but also to allow it to breathe.

5. Monitor the moisture level inside the bin. You want to keep the cardboard moist but not too wet. If it dries out, soak the mass overnight and pour out the excess water the next day. Once the bin and cardboard is fully colonised and completely white, you have created a mother culture of cardboard spawn capable of making many more.

6. You can now expand the mycelium in new bins; just separate the layers of spawned cardboard and shuffle them into additional layers of fresh cardboard in new bins. Or, leave it alone to fruit. Fruiting will usually occur around the perimeter of the bin. You may consider drilling half-inch holes every 8-10 inches around the bin. These are for ventilation and for the mushrooms to emerge, but you will have to mist them several times a day to stop the primordial drying out.

7. Once the growing medium in the bin is completely colonised, expose the bin to diffuse natural or fluorescent light at room temperature. Keep the lid just cracked, mist the surface and any holes regularly. Mushrooms will fruit, at least twice, and you can use the spent waste as spawn or you can compost it. After complete colonisation it can take several week to fruit mushrooms again.

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