

Organic Shiitake - *Lentinula edodes* – indoor spawn bag cultivation in a filter bag

For successful growth, mushrooms need suitable temperatures, relatively high air humidity levels, oxygen, as well as a little light. One mycelium bag (about 3 kilograms of substrate) can produce up to 1.5 kg of fresh mushrooms in 3 to 5 flushes. The fruiting cycle is described here. Please note that, working with organisms, time designations may vary, please check daily on your mushrooms.

Phase 1: Preparation of the grow kit

Place the spawn bag in a room with no air draft (but WITH fresh air supply) that has the right temperature (about 18 to 21 °C), avoid direct sunlight. For now, do not unpack the Shiitake.

Phase 2: Unpacking / Fruiting phase

As soon as the first primordia (also called ‚pinheads‘ = tiny little mushroom-look-alikes) start showing on the block, unpack the block and place it on a clean base (e.g. some dish). To prevent drying out of the block, simply pull over the enclosed large filter bag (the one with the many filter strips).

Phase 3: Fruiting and harvest

Within 4 to 10 days the mushrooms will mature, but not all at the same rate, so you should check your Shiitake 2 - 3 times a day to get the optimum in quality and yield. Cut as close as possible to the substrate block when harvesting; remaining parts of stalks should be carefully removed, because these are most vulnerable to midges, bacteria and/or mold.



Shiitake bag at time of delivery



Unpack when pinheads appear...



... and place inside the large filter bag

Phase 4: Resting phase (initiate directly after harvest!)

After having harvested all the fruit bodies from the Shiitake block, store the it in a dry place with suitable temperatures (18 to 21 °C min.), without (!) filter bag and let them dry out completely (Duration: 7 to 10 days).



Shiitake ready for harvest

Phase 5: Watering

After these 7 to 10 days of resting, the block is soaked in clean, cold water in a container overnight. During soaking the block **MUST** stay underwater completely for best results, so you will have to put something atop the blocks (a water-filled cooking dish or some wire frame/grid), as well as to refill soaked up water after a couple of hours.

Phase 6: Preparation for 2nd flush

After 6 to 12 hours of soaking, take the block out of the water and let it drip off well. From now on, procedures are the same as described from **Phase 2** and may be redone up to 5 times. Under optimum conditions the blocks will produce fruit bodies until the fungus has consumed up all nutrients in the substrate.



during resting phase

Storage of fresh mushrooms:

Fresh Shiitake can be stored in the fridge (+4 °C) for about 10 days. For extended storage, drying down, deep-freezing or preserving/jarring are further options. For drying the mushrooms are sliced 5mm strong and layed out in a dry and well-ventilated place. Hot-air-dryers are convenient tools, but make sure you do not operate above 40 °C, because many of the valuable ingredients may be lost. Slicing up the mushrooms is also recommended for deep-freezing; frozen fungi are put directly into the hot pan.

Recycling of the substrates:

After the last flush the mycelium block is organic 'waste'. Recycle plastic bags according to the prescriptions in your area. The blocks can be piled up for composting as well, if you happen to have a garden or green space. In that case, while the substrates are decomposed by microorganisms, and with a little luck, in the upcoming warm periods you may even have a few of your own outdoor-Shiitake growing from your pile.