

Inoculation of Wood Logs with Sawdust Spawn

Recommended materials and tools:

Wood Log*

Sawdust Spawn (1 package with 3.3 kg / 6 liter is sufficient for 25 to 30 linear meters of wood)

Wood Saw, tub or tank for soaking

Drilling machine + STAR M Mushroom Drill No. 41

Styrofoam-Sealing Caps or Sealing Wax (Bees Wax or Cheese Wax)

Jute Bag or Winter Fleece

Preparation

After delivery the Sawdust Spawn bags should be left to rest for 2 or 3 days at room temperature (maximum 29°C / 84°F) to give the mycelium time to recuperate from its journey. If you do not plan to use the Sawdust Spawn immediately after the recuperation, please store in the fridge at $2-4^{\circ}\text{C}/36-39^{\circ}\text{F}$ and use them within a 4 weeks.

*Suitable for mushroom cultivation is hardwood like alder, ash, beech, elm, oak and similar. Coniferous woods and softwood is not convenient for mushroom cultivation. Use wood logs with bark that have a diameter of about 20 to 35



cm. The wood should be used fresh within 4 weeks after cutting. Woods with a high content of sapwood are most suitable, because mushrooms will colonize sapwood faster and easier. Soak the wood logs for 24 hours; the logs should be totally submerged under water, but ballast on the top of the logs to avoid floating. After watering the logs are stored on a tarpaulin or similar outdoors for one day, so surplus water can drop off. If you use fresh wood within 1 or 2 days after cutting, you do not need to water it as described above. Fresh cut logs can be inoculated straightaway after cutting the trees.

Inoculation

Cut off about 2 cm of each end of the wood logs directly before inoculation to prevent unwanted fungal growth and contamination and throw the pieces away. Drill 2.5 cm deep holes using the STAR M Mushroom Drill No. 41 in to the log. The holes should be evenly distributed around the whole wood log in a diamond pattern 10 to 15 cm apart from each other. Take care to work slowly; if the wood heats up too much while drilling it might affect its quality! The holes are now filled with Sawdust Spawn using an Inoculation Tool. Various Inoculation Tools are available please find the detailed functionality in the video instruction. For mycelium development/spawn run, wrap the wood





logs in moist jute bags and put them in a shadowy place in your garden or in a well-ventilated basement. Avoid direct contact with the ground soil and place a stone or similar below the logs. The jute bags need to stay moist. The spawn run phase is over as soon as white mycelium can be seen besides the holes.

Setup in the garden and further care

As soon as the logs are fully colonized they are set up in the garden on a shadowy place. Avoid direct contact with the ground soil and place a stone or similar below the logs. For cultivation on a balcony or veranda put the logs into a planting post filled with sand or pebble stones. Keep the logs moist and apply water periodically. The fruiting bodies develop during the season providing the natural weather/fruiting conditions - depending on the species. You can expect first harvest in the year after inoculation for a period of 3 to 5 years. To protect the logs against frost, just wrap them in jute bags during winter. In spring, bags are removed and the logs are sprayed with water.



Special tips for Shiitake

For cultivation of Shiitake wood logs with bark and with dimensions of 70 to 120 cm length and about 20 cm diameter are most suitable. Shiitake brings the highest yield on oak wood. To initialize the fruiting, prepare the logs as following: submerge them in cold water for approx. 24 h (the log should be completely underwater). The best yield can be obtained if the water has pH 5 (to adjust the pH value use a 0,1% hydrochloric acid - HCl). After soaking, knock the log 3 times on a stone plate. Now it takes 10-14 days for the pins (mini-mushrooms) to appear. After harvesting, let the log rest for 6 weeks, then you can soak and pitch it again!



Fighting snails

Snails love mushrooms! To prevent these voracious creatures from destroying the whole crop, we recommend building a snail fence around the bale. Don't use slug and snail bait or other chemical pest control substances, the poison might end up in the fruiting bodies!