

Growing MushroomBox™ Glowing Panellus Stipticus.

www.mushroombox.co.uk - *Purchase Mushroom Spawn online, plus a source of growing instructions, downloads and mushroom-growing links*

The MushroomBox strain of Panellus Stipticus is a fast-growing strain which will rapidly colonise the substrate. Because of this, it is not necessary to sterilise the substrate – pasteurisation is adequate.

Stages of P. Stipticus Oyster Growth

- 1) Pasteurisation of the Substrate
- 2) Spawning the Substrate
- 3) Spawn 'run' (where the mushroom mycelium grows through the compost)
- 4) Fruiting

Pasteurisation

The substrate can be any of a variety of materials. Chopped straw or hardwood sawdust are two popular choices. The addition of a small amount (2%) of gypsum (ie plaster) and calcium carbonate (gardeners' lime) to the substrate provides nutrients, but it's not absolutely necessary.

Weigh out a suitable amount of substrate. Use the spawn at 2% - so 60g of spawn can be used with up to 700g of dry substrate (around 3kg once wet). For beginners, better results are usually obtained when using higher spawn rates (3-5%), as the higher concentration of mushroom spawn out-competes competitor organisms more easily. Place the dry, mixed substrate into a MushroomBox MycoBag (This is a bag which when sealed, allows CO₂ and Oxygen to be exchanged through micro-filters, whilst keeping bugs and contaminants out), and pour on boiling water, until the substrate is completely submerged in the hot water. Make sure the bag is placed inside a box to prevent it tipping over during this process, and take precautions when working with hot water to avoid scalding. Leave for 8-12hours, then drain away any excess water. Make sure all the excess water is drained away. Small quantities of excess water will water-log lower regions and provide an ideal environment for competitive contaminants such as moulds to take hold.

Cooling and Spawning.

After the excess water has been drained away, leave the substrate (fully covered to isolate against infection from airbourne contaminants) for 5-8hours until it is fully cooled to room temperature. Ensure you do not rush this stage – premature inoculation, whilst the substrate is still warm (over 35C) is the easiest way to kill your mushroom spawn, which will obviously produce an unsuccessful outcome. Remember that even if the outside of the compost feels cool, the inside may well be 40-50C. If the spawn is added to the compost when the temperature is above 30C, it will be killed, so make absolutely sure (leave overnight if necessary) that it is cooled to ambient temperature.

Once the substrate temperature has fallen below 30C, crumble the spawn into small pieces (ideally, do this before opening the pack by squeezing the pack between your fingers to separate the grains), then mix the spawn throughout the spawn, with freshly washed hands. Higher spawn rates (3%) guarantee faster growth and less opportunity for infection by competing microorganisms.

Next, seal the top of the mycobag – ideally with a heat-sealer, but if you do not have access to one, use wide cellotape or parcel tape to completely seal the opening.

After a few days, you will see cottony growths coming from the grains of spawn, and after several more, noticeable white mycelium threads will be running through the substrate. *P. Stipticus* tends to change the colour of the substrate quite noticeably to a faint orange colour. Full colonisation will take around 25-30days.

For most growers, this will be a desirable goal – the mycelium glows brightly at first, but fades as the nutrients are gradually used up – a myco bag of oak sawdust will glow brightly for 3-4months, and gradually fade. Even though the brightness will fade, it will still glow potentially for 6-12months, depending on the substrate and ambient temperatures.

Panellus Stipticus has 'brightly' glowing mycelium. The word 'brightly' is used in relation to other glowing mushrooms. Depending on the sensitivity of your eyes, it may take 5-10minutes adjusting to the dark before you will see the glow. At first, the glow will seem to be very dim or non-existent, but as your eyes become accustomed to the dark, the mushroom mycelium will appear to glow more brightly. Under ideal conditions, it will glow brightly enough that you could just about read by the light, but usually the brightness will be less.

Fruiting

Panellus stipticus is a difficult mushroom to fruit. Some growers will wait for primordia to appear inside the bag before slitting the bag to let the mushrooms grow out. Other growers will purposely slit the bag once the substrate is fully colonised to encourage the formation of primordia.

The primordia and the resultant adult mushrooms grow rather brighter than the surrounding mycelium, and can even be seen glowing in dim daylight.

All text and pictures copyright MushroomBox™. Not for reproduction or distribution without prior permission