

Inoculating wood substrates with grain spawn (Level 2 - advanced cultivator)

Most fungi do not develop fruiting bodies on rye grain substrate, that's why an adequate fruiting substrate must be inoculated with grain spawn. This method is suitable for most wood-inhabiting mushroom species.

Recommended equipment:

Grain spawn, ready colonised
Sterilised wood substrate
Bag sealer or strong adhesive tape
Latex gloves
Face mask and hairnet
Disinfectants for workspace and hands
Sterile working area: Glove Bag/Glove Box or
sterile air flow (HEPA-filter, laminar flow hood)

Inoculation

Perform this working step under aseptic conditions to prevent contamination. Clean your worktop, wash hands and forearms, put on face mask, hairnet and gloves and disinfect your worktop well.

Separate the grains of the colonised spawn by shaking and plumping them repeatedly (with the bag still closed). Open the sterilised wood substrate bag. Use 2 to 10 % (of target substrate mass) of grain spawn for inoculation of wood substrate.

Add about $50-250~{\rm g}$ of grain spawn per bag containing 2,5 kg of wood substrate.

Close the inoculated substrate bag using a bag sealer or strong adhesive tape. Now distribute the colonised grain evenly into the fresh substrate, by shaking the bag, to achieve fast and equal colonisation. It could be beneficial to reshake the bag after 5 – 7 days.





Mycelium growth

During mycelium growth stage, store the inoculated substrate in a dark and clean place at convenient temperature (spawn run) of this mushroom species. Ensure that the incubator in which the mycelium is grown provides enough ventilation. After about 2–3 weeks the mycelium should have grown through the bag and the substrate should be overgrown by white mycelium (please note that some different species of fungi could have different mycelia colours). Now the mycelium is ready for the fruiting phase.

References:

- "Mycelium running/ How mushrooms can help save the world", Paul Stamets; Ten Speed Press, Berkeley/Toronto;
- "The Mushroom Cultivator: A Practical Guide to Growing Mushrooms at Home", Paul Stamets, Agarikon Press; First Edition (December 1983);
- "Growing Gourmet and Medicinal Mushrooms", Paul Stamets, Ten Speed Press, Berkeley/Toronto;