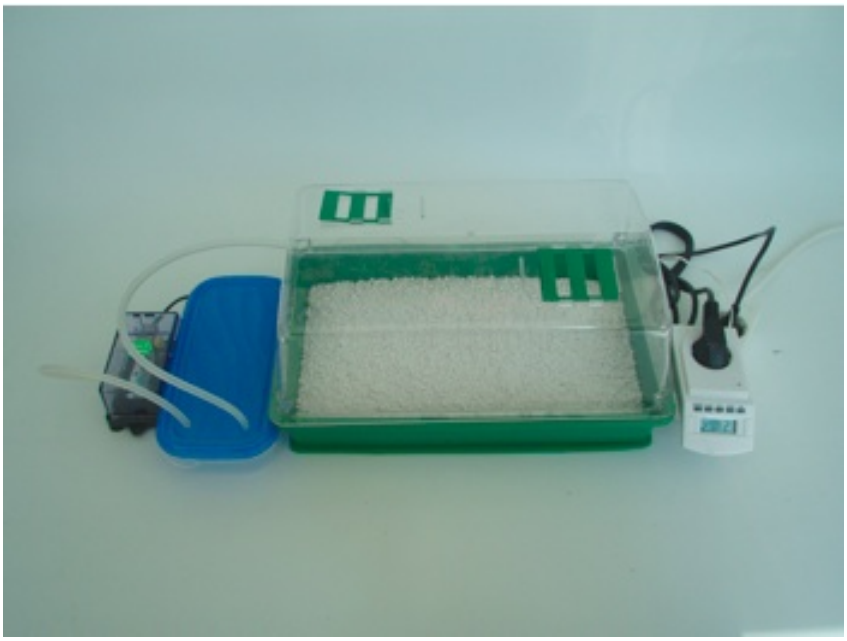
TYROLER glückspilze

Instructions for indoor mushroom propagator

For successful growth mushrooms need a suitable substrate, the right temperature and humidity, as well as oxygen and a little light. Our grow-kits are designed to provide these cultivation parameters in an easy-to-handle way.



It is easy to upgrade a customary greenhouse into a hobby-mushroom-grow-set. The main principle always stays the same, no matter in how much space you cultivate, only the machinery used to regulate the climatic conditions gets more complex, the more space you occupy.

Recommended equipment:

Greenhouse
Digital temperature control
Electric heating pad or heating cable
Humidity-/Air pump set
Perlite
Spray bottle
Disinfectant

Main principle

Throughout their different stages of development fungi need a variety of environmental conditions. During mycelium growth most mushrooms need relatively high temperatures (25 –28 °C, rarely higher than 30°C) during fruiting they need high humidity.

The electric heat pad/the heating cable is used to establish the right temperature. To set the suitable temperature for each mushroom species, the electric heat pad/cable is triggered by the digital temperature control. The humidity is kept high by the humidity/air pump (which is pressing oxygen *into* and pressing out excessive CO_2 *out* the growing chamber) and the wet perlite on the floor of the greenhouse.

Use as Incubator

Inoculated substrates have to be kept in a clean place under suitable conditions during mycelium growth. Installing the grow-set for mycelium growing stage:

Clean and dark spaces are ideal for setting up your grow-set (you may as well cover the greenhouse). If the set is stored in a cupboard, make sure it gets enough oxygen. Open the cupboard at least once a day or keep the door slightly open.

Place the heating pad under the greenhouse. If possible put some isolating material under the pad. If you are using a heating cable, make sure it is lying snake-wise on the floor of the greenhouse, try to spread it symmetrical over the floor.

Place the sensor for the temperature control system on the floor of the greenhouse. Plug the heating pad/cable into the temperature control and connect the control to a socket.

Installing: first connect both of the silicone tubes to the holes in the lids of the plastic box; one of them, (no. 1), reaching about 1 cm inside, and (no. 2) reaching about 4-5 cm inside. Connect this one to the ceramic diffuser. Fill in fresh tap water 3/4 of the volume of the box and close the lid. Important: The ceramic diffuser has to be completely under water, tube (no. 1) must be in the air above water level.

If you use an additional microfilter, cut the tube and connect the filter between the box and the pump.

The last step is connecting tube (no. 2) (attached to the ceramic diffuser) to the air pump connection and the plastic box with the greenhouse using silicone tube (no. 1). The button above the pump connection regulates the air flow- affecting ventilation and humidity inside the greenhouse. Change the water every 2-3 weeks. Adjust the system to the necessary conditions for mycelium growth of your specific mushroom. Try to keep the greenhouse as dark as possible during this phase (except for your daily checkings).

Use as fruiting chamber

As soon as the whole substrate is grown through with mycelium, the environmental conditions have to be changed to initiate the fruiting phase. The basic structure of the greenhouse stays the same as in the mycelium growth phase; the humidity/air pump and perlite will also be needed.

Moisten the perlite in a sieve or a plastic bag and spread it evenly on the floor of the greenhouse. The perlite has to stay wet during the whole fruiting phase. Evaporated water can be refilled using a spray bottle. Substrates colonised with mycelium – blank or in opened bags - can be placed directly on the perlite.

Installing the pump set: first connect both of the silicone tubes to the holes in the lids of the plastic box; one of them, (no. 1), reaching about 1 cm inside, and (no. 2) reaching about 4-5 cm inside. Connect this one to the

ceramic diffuser. Fill in fresh tap water 3/4 of the volume of the box and close the lid. Important: The ceramic diffuser has to be completely under water, tube (no. 1) must be in the air above water level.

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Adjust the system to the necessary conditions for fruiting of your specific mushroom.

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;