

FIRST WIPE INJECTION PORT WITH ALCOHOL PAD!

IF YOU HAVE NOT DONE SO ALREADY, THEN PLEASE REMOVE YOUR MUSHROOM BAG FROM THE VACUUM SEALED ENCLOSURE.... BE SURE TO WIPE INJECTION PORT ON SEALED MUSHROOM BAG WITH ALCOHOL PREP PAD BEFORE INJECTING.

Inoculate with Mycelium: Inject the mycelium culture into the substrate through the injection port of the grow bag using a sterile syringe. The amount depends on the size of the bag and the mushroom species.

Incubate: Place the bag in an appropriate environment for mycelium colonization. This typically requires specific temperature and humidity conditions and can take several weeks or even months, depending on your species. You can try to mix the mycelium once it starts to spread **without opening** the bag to help it colonize the grow block faster. If you have inoculated just grain bags, please skip down to the section tagged (**1B. Setup: Grain Bags**)

Fruiting Conditions: Once the substrate is fully colonized, cut an quarter to golf ball size X in the middle of the bag so that the mycelium has more oxygen to fruit. Also be sure to adjust the environmental conditions to trigger mushroom fruiting. Changes may involve light exposure, temperature, and humidity and will depend on your species of mushroom.

Maintaining high humidity is crucial during the fruiting stage of mushroom cultivation, as it helps in the development of healthy and robust mushrooms. Here are several methods to maintain high humidity in your growing environment, each with its advantages and suitability for different scales of mushroom cultivation: **Different options** Plastic Bin with Coffee Filter or better 0.2 – 0.5 micron filter patch (Shotgun Fruiting Chamber):

1A. Setup: All In One Bags: Drill multiple holes (about 1/4 inch in diameter) on all sides, including the bottom and lid, of a clear plastic bin to allow for air exchange. Place a few inches of perlite at the bottom of the bin, which has been soaked in water and then drained to retain moisture.

Alternate with setup 1B if you are starting from just grain bags:

1B. Setup: Grain Bags: Be sure to mix your inoculated grain with coco coir or wood based substrate. The coco coir can be a combination of Gypsum, Vermiculite, and Coir (That is what most of the AIO bags already have).

Humidity Maintenance: The perlite and/or Substrate acts as a humidity reservoir. Mist the inside walls of the bin and the perlite surface with water daily to maintain high humidity. Avoid directly misting the mushrooms to prevent waterlogging.

Air Exchange: The holes covered with coffee filters allow for gas exchange while filtering out contaminants. The natural evaporation from the perlite, combined with occasional fanning, provides fresh air and maintains humidity.

2. Plastic Bag Method:

Setup: Use a large clear plastic bag to enclose your mushroom substrate or grow kit. Some growers place a few small sticks or a rack inside the bag to keep it from collapsing onto the mushrooms, ensuring there is enough air space around the fruiting bodies.

Humidity Maintenance: Mist the inside of the bag and the substrate surface lightly with water daily. Close the bag loosely to trap humidity while still allowing some air exchange.

Air Exchange: Open the bag a few times a day and gently fan to provide fresh air. This helps in gas exchange and prevents the buildup of carbon dioxide.

3. Humidity Tent:

Setup: Construct a frame using PVC pipes or similar materials and cover it with a clear plastic sheet to create a tent-like structure over your mushroom growing area.

Humidity Maintenance: Place open containers of water inside the tent, or use a humidifier to maintain high humidity. Misting the inside of the plastic sheet helps increase humidity levels.

Air Exchange: Ensure the tent is not completely sealed; allow for some openings at the bottom or sides for air exchange. Use a small fan for periodic air circulation inside the tent if necessary.

Additional Tips for Humidity Control:

Humidifiers: For larger setups or more consistent humidity control, consider using a humidifier. Ultrasonic humidifiers are popular in mushroom cultivation for their ability to produce fine mist without too much water droplet accumulation. Hygrometer: Use a hygrometer to monitor the humidity levels within your growing environment. Most mushrooms thrive at a humidity level between 90-95% during the fruiting stage.

Misting and Fanning: Combine regular misting with gentle fanning to simulate natural conditions. Misting increases humidity, while fanning replaces stale air with fresh, oxygen-rich air.

Choose the method that best suits your scale of operation, available space, and the specific requirements of the mushrooms you are growing. Each method can be effective if managed properly to maintain the ideal humidity and fresh air exchange mushrooms need to fruit successfully.

Harvest: Harvest the mushrooms when they're fully grown, ideally before they release spores.

Dispose or Reuse: After harvesting, you can either dispose of the substrate or use it for composting. This substrate may support multiple fruiting cycles depending on the grown species.

Watch the instructional video! Step 1.



Step 2.



Or navigate to <u>youtube.com/@galnut</u>

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