



Creating Grain Spawn: A Step-by Step Guide

MATERIALS REQUIRED:

- Sterile grain (millet, milo, rye, oats, or wheat)
- Sterile Mycelium jars or bags
- Liquid culture of your desired mushroom species
- Sterile transfer tools (syringe, inoculating loop, etc.)
- Sterile gloves, mask, and work area
- Grain to grain transfer bags (sterile)

STEP 1: PREPARE THE GRAIN

1. **Sterilize the Grain:** Place the grain in a pressure cooker and sterilize according to the manufacturer's instructions. This process kills any unwanted contaminants.
2. **Cool & Package:** Allow the sterilized grain to cool to room temperature. Fill the sterile mason jars or bags with the cooled grain, leaving some headspace. Seal the jars or bags securely.

Alternatively, buy Mycelium's Sterilized Grain to skip this step and ensure your grain is 100% sterile!

STEP 2: INOCULATION

1. **Sterilize Work Area:** Clean your workspace thoroughly with disinfectant to prevent contamination.
2. **Personal Protective Equipment:** Put on sterile gloves, a mask, and any other necessary protective gear.
3. **Prepare the Liquid Culture:** Shake the liquid culture vial gently to disperse the mycelia.
4. **Inoculate the Grain:** Using a sterile syringe, transfer a small amount of liquid culture into each jar or bag. We recommend 5mL of LC per 3lb of sterile grain.

STEP 3: INCUBATION

1. **Place in a Dark Environment:** Place the inoculated jars or bags in a dark, humid location. A small grow tent or incubator works well.
2. **Monitor Temperature:** Maintain a suitable temperature for your chosen mushroom species. 65–80 degrees Fahrenheit is a suitable range for most species. Consult the specific strain's guidelines.
3. **Check for Mycelial Growth:** After a few days, check the jars or bags for signs of mycelial growth. The mycelium will appear as white, thread-like structures.

4. **Once the mycelium has grown for 2-3 weeks** or visibly colonized at least 30% of the bag, gently break up the colonized substrate without opening the bag and distribute it throughout the uncolonized substrate. This significantly accelerates mycelial growth by increasing nucleation points. (Due to variation in liquid culture injection and genetics, growth may not be immediately visible, but instead growing in center of bag. Do not worry, simply break up contents of bag and growth will become visible.)
5. **Once grain is fully colonized**, shake bag again to loosen myceliated grain.

STEP 4: GRAIN TO GRAIN TRANSFER (OPTIONAL)

1. **Prepare the Transfer Vessel:** Fill the sterile transfer jars or bags with sterilized grain, leaving some headspace.
2. **Transfer Inoculated Grain:** Using sterile gloves and tools, transfer a portion of the myceliated grain from the original jars or bags, into the transfer jars or bags.
3. **Seal and Incubate:** Seal the transfer jars or bags securely and place them in the same incubation conditions as the original jars or bags.

ADDITIONAL TIPS:

- **Sterility is Crucial:** Maintain a sterile environment throughout the process to prevent contamination.
- **Ventilation:** Ensure proper ventilation in your incubation space to prevent the buildup of carbon dioxide.
- **Patience:** Mushroom cultivation can take time. Be patient and allow the mycelium to colonize the grain.
- **Research:** Learn about the specific requirements of your chosen mushroom species to ensure optimal growth and fruiting.

By following these steps, you can successfully create grain spawn and prepare for the next stage of your mushroom cultivation journey.