

# The Self Automated Myco System Instructions and Setup Manual

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This kit includes:

- 1 – 50 quart grow chamber/water incubator with heater
- 1 - humidifier / air exchange system
- 1 - air pump
- 1 – check valve air filter
- 1 - digital multiple setting timer
- 1 – digital thermometer
- 10 - quarts perlite

This kit will arrive in 1 huge box. The box will contain 2 plastic chambers with only 1 lid, 1 submersible aquarium heater, 1 humidifier, 1 air pump, 1 large bag of perlite, 1 check valve, 1 digital timer and 1 digital thermometer.

After you have made sure you have all the parts and pieces of your kit it is a good idea to clean out the chambers with some warm, soapy water. You could also wipe it out with some household bleach/water solution (10% bleach and 90% water works great) to sterilize thoroughly. The chambers may have picked up some unwanted contaminants while in transit.

## SETTING UP THE SELF-AUTO AS AN INCUBATOR

One of the functions of this kit is to act as a fully functioning water incubator.

Place one of the plastic chambers on a flat surface in a place that will be fairly dark and fill about  $\frac{1}{4}$  of the chamber with water. Add 1 cap full of bleach to the water to prevent algae growth. Place the submersible aquarium heater in the water and turn the thermostat to around 85 degrees. NOTE: this heater is submersible. It can be completely underwater with the cord running out of the side. Do not drill any holes! Plug the heater into a wall socket and then place the second chamber inside of the chamber with water in it and close the lid. It will take an hour or so for the incubator to reach the proper temperature and depending on where you have placed the incubator and the ambient temperature around it, you may want to toggle the thermostat until you reach the desired incubation temperature of around 85 degrees. (Do not exceed 86 degrees inside the incubator) Use the digital thermometer provided to monitor the temperature inside the incubator.

You can incubate inoculated substrate jars, grow bags, quart and half gallon jars, petrie dishes and much more.

## SETTING UP THE SELF AUTO AS A FRUITING CHAMBER

This setup is almost identical to the water incubator so if you have it already setup then disregard these first few steps.

Put the submersible heater down in the bottom of the largest chamber that you received that doesn't have any holes in it. Position the heater in the middle of the chamber, fill about 1/4 with water and a cap full of household bleach and set to desired temperature.(just like the incubator) NOTE: this heater is submersible. It can be completely underwater with the cord running out of the side. Do not drill any holes!

Now you will want to place the second chamber with the hole in it inside the chamber with the water. Your humidifier and air pump has already been assembled for you so all you need to do is follow the instructions for the humidifier, get it filled with water and attach the output hose to the green check valve that comes out of the hole in the top chamber. Simply attach the hose to the rod if it is not already attached for you. You can position however you like inside the chamber with the suction cups provided.

Add all of the perlite to the self-auto and enough water to where the perlite absorbs all of the water but there is very little standing water below the surface of the perlite. The perlite should be wet but firm enough to allow cakes to be set on the surface.

Your temp gauge can read inside and outside temperature as well as humidity. Place the gauge inside the chamber to monitor the temperature AND humidity. When the thermometer is set to "outside" using the wire monitor it can only read the temperature and not humidity.

Your timer is digital and very easy to use. Simply follow the instructions on the back. We recommend that you use these techniques when using the self-auto with the timer.

Cake method = 2 inch wetted layer of perlite at the bottom of the self-auto run for 20 minutes every 2 hours.

Casing techniques = No perlite. Timer set at 15-30 minute intervals every 3 hours

## **USING THE SELF-AUTO WITH THE MYG KIT**

The MYG upgrade includes 1 half gallon rye grain jar or 1 rye grain bag, (whatever we have available) 1 large bag of straw in a burlap sack, 1 large bag of casing soil, 1 vial of casing starter, 1 spray bottle and 1 large mixing bag.

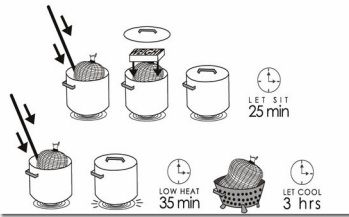
To start the MYG kit just inject approx. 2-4cc from a 10cc syringe into the grain

jar and leave it in a dark place at 86° for approx 20-30 days until the spores colonize the grain and it becomes a thick, white, fuzzy substance in the jar. This is the live mycelium.

Now you will want to pasteurize the sack of straw.

#### A - Pasteurization

- Fill canner 3/4 full of water and bring to a boil. Turn off heat.
- Remove burlap sack containing substrate from its protective plastic bag. Do not undo the metal twist tie.
- Place burlap sack containing substrate in canner. Push down on bag with stick to remove air bubbles.
- Submerge completely by weighing the sack down with something heavy.
- Cover with canner lid and let soak for 25 minutes.
- Press down on burlap sack again to remove more air bubbles.
- Place on low heat and let simmer for another 35 minutes.
- Remove from heat and take out burlap sack.
- Drain excess water from burlap sack by placing in sink or colander. Let cool to room temperature. This takes approximately 3 hours.



## Spawning

Now you will want to break up the contents of your colonized rye grain jar. You can shake the heck out of it or you can even beat it against a spare tire for optimal effect. Make sure the spawn is broken up into marble sized pieces. If you are using a rye grain bag then just crush up the spawn with your fingers (much easier).

Cut open the burlap sack of straw and add it into the plastic bag you received with all of the spawn. Mix well until the spawn and straw are evenly distributed. You can now dump all of that mix into the fruiting chamber of your self-auto system. Using sterile gloves on your hands, lightly pack down the straw and spawn especially in the corners. Level out the surface so that there are no pieces of straw sticking up.

Set your water incubator between 74-76 degrees, close the lid and let the mix sit for about 2 weeks.

## CASING

Casing is a simple process: You layer and level the substrate to an appropriate container and cover with your casing layer. We recommend watching our great video on casing here:

<http://www.youtube.com/watch?v=mqqXiMnoT-Y> Casing

Prepare the casing soil – Place all of the casing soil into a microwave safe container and slowly mix enough water into the casing mix until it reaches field capacity\*.

\*Field Capacity - If you take a handful of this mixture in your hand and squeeze it into a ball it will hold its shape but no water will drip out. We want the mixture moist but not saturated.

Cover and microwave for 5 minutes. Remove and stir vigorously then microwave again for 5 minutes. You may have to add some more water to get it back to field capacity. Stir again and let mixture cool. You have just sterilized your soil. Save any soil you do not use for later patch ups. After the soil has cooled down add the vial of casing starter and mix well. (casing starter is a vial of casing soil with nematodes which help fight off bacteria in the casing layer)

## Fruiting

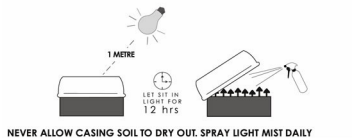
When fruiting the MYG inside of the self-auto the two most important factors to consider are humidity and air exchange. You will not need any perlite as the humidifier and casing itself will provide enough moisture.

### D - Fruiting

- Expose kit to light for 12 hours daily to activate fruiting. Use a low wattage bulb (25 W max.) at a minimum distance of 1 metre.
- Give casing soil a light spraying with water every day. **Important:** Do not let casing soil dry out.
- Air temperature should be maintained at 25-27 °C .
- Mushrooms usually start forming around the edges first. When these start lifting the dome lid they should be picked off.
- When the mushroom caps open, the mushrooms are ready to be picked. Pick off entire flush by twisting and pulling gently on the stems.

Grow area should be an extremely clean and dry room with no molds or fungus present. Keep grow room temperature constant with no fluctuations or drafts, at 27 °C NO HIGHER!  
Use a thermostat and an accurate thermometer. A fan will also help air circulation, which is important. The fan should be placed on the floor, directed upwards. If your room is cold you will need to use a heater a portable baseboard or a ceramic cube heater will work well. Wash your hands, but better still, wear clean vinyl gloves when applying the casing soil.

\*NOTE: To achieve a second flush, put the watering cap on the spray bottle and evenly add 250mls of water to the casing soil. Then repeat fruiting steps. If green mold starts to appear on casing soil, cover the moldy area with soil.



TIP\* A little trick I learned is that if you are not using your bottom chamber as an incubator then you can modify it to make a larger grow chamber. Just flip the chamber upside down on top of the grow chamber and secure with a couple of pieces of tape as hinges and you have doubled the size of your fruiting chamber.