

MycoMate® FAST FUNGI

Edible Mushroom Kit Instructions

Difficulty level: amateur

⚠ Don't remove the micron filter plug from the substrate bag.

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 - b. Liquid Culture
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For best results use SporeMate® spore suspensions with MycoMats® growing products.



Looking for a pure strain (monoculture)?
Try the MycoMate® Cloning Kit.

More info @
www.mycomate.com
and
www.sporemate.com

1 included:

- Micron-filtrated bag with growth substrate and injection site
- MycoMate® Liquid Culture vial
- Sterile alcohol swabs
- Sterile syringe and 18 gauge needles
- Fruiting tray
- Bag of vermiculite
- Micron-filtrated fruiting bag

2 REQUIRED:

- Gas flame (a butane "torch-style" lighter works well)
- Clean mixing bowl
- Hand water mister
- SporeMate® Edible Spore Suspension Vial or Spore Syringe, MycoMate® Liquid Culture Vial (containing mycelium), or other suitable inoculant
- Clean hands and area to work

3 inoculation:

There are two options for inoculating (injecting) mushroom kit:

a. Spores:

You may inject spores directly into growth substrate. This is a little less work but takes longer and occasionally not enough of the spores germinate. If you choose this option, go directly to step #1 below.

b. Liquid Culture:

For much quicker colonization, and larger yields you must first inoculate and colonize a MycoMate® Liquid Culture vial and then inject the liquid culture into the bag of growth substrate. If this is your option then you must first follow steps #1 through #11 in the instructions included with the MYCOMATE® Liquid Culture vial before going on to step #1 below.

Note: With option B (Liquid Culture) you must utilize a reliable and sterile product for injecting into the liquid culture vial or you will risk contamination. However, if the liquid culture becomes contaminated you may discard it and return to option A (Spores).

1. Wash hands well (antibacterial soap is optional). Dry with clean towel (i.e. paper towels).
2. While holding the injection site of the substrate bag with one hand, lift the two plastic tabs with the other hand and gently tear off the plastic disc protecting the injection area. Swab with fresh alcohol swab and let dry. (See picture a)
3. Remove syringe and needle from bag. Remove the plastic shield protecting the needle (twist clockwise then pull). Do not touch the tip of the needle to anything else or it must be re-sterilized*. If utilizing syringe and needle from another supplier then it must first be sterilized.

*Needles may be sterilized with a flame. You want tip of needle to become red but must be careful not to overheat and melt the area where the needle is attached to the plastic. Always let needle cool before injecting it. Additionally, do not breath directly on injection sites or needle. (See picture b)

4. Push the needle of the syringe (filled with colonized liquid culture or spore suspension) through the injection site of the substrate bag. (See picture c)
Spores: Use the injection site to guide the needle and inject 1 to 2 ml into each corner and along the sides of the substrate bag. Let the solution drip down the sides of the substrate bag. Include several drops on top of the substrate. The more evenly the substrate is injected, the quicker the colonization.
Liquid culture: Use the injection site to guide needle and inject 1-2 drops into each corner and along the sides of the substrate bag. Let the solution drip down the sides of the substrate bag. Include several drops on top of the substrate. Each drop of liquid culture represents a point of growth so the more evenly the substrate is injected, the quicker the colonization.

4 colonization:

Incubate the substrate bag in the dark at the appropriate temperature (typically between 23° to 27° C).

Spores: Within several days to two weeks spores will germinate (little white cottony growth which become stringy) and the fungus will colonize the bag over several weeks.

Liquid culture: Within 24 to 72 hours the fungus will spring to life (little white cottony growths which become stringy) and colonize the substrate in one to two weeks, depending upon the species and strain.

Contamination: If the fungus cake becomes another color than white, check the species you are growing to confirm whether it's normal. The more common contaminants you may encounter are bacteria (no growth of fungus, milky appearance) and green molds. When it appears that the fungus has completely colonized the substrate bag, wait an additional 5 to 7 days to insure the inside of the substrate is also fully colonized. The fungus cake is now ready to dunk and fruit.

5 Dunking:

Dunking re-hydrates the fungus cake and substantially increases the yield.

1. Wash hands well (antibacterial soap is optional). Dry with clean towel (i.e. paper towels).
2. Carefully remove the fungus cake from substrate bag and place in clean container (i.e. mixing bowl, Tupperware container).
3. A good method is placing the cake in a Ziploc bag in a container and filling it with water until it is fully submerged. Remove remaining air until it's covered. This can also be accomplished by filling a container with clean water (spring or distilled is best) until fungus cake is completely submerged. This can be accomplished by placing something light on top of the fungus cake to hold it underwater. (See picture d)
4. Place sealed container in refrigerator overnight (or about 12 hours). Do not freeze. After several flushes of mushrooms a fully dehydrated fungus cake may be dunked for up to 24 hours.

6 Fruiting:

1. Wash hands well (antibacterial soap is optional). Dry with clean towel (i.e. paper towels).
2. Pour vermiculite into a clean mixing bowl.
3. Add 100 ml water to the vermiculite while mixing well. Mix for several minutes until the vermiculite is completely moist.
4. Spread the vermiculite out evenly on the bottom of the fruiting tray.
5. Remove fungus cake from refrigeration and rinse well under clean (and cold) tap water.
6. Place fungus cake in fruiting tray. Set the fungus cake on the vermiculite in center of the fruiting tray. (See picture e)
7. Place tray in the fruiting bag and mist sides of bag with water several times. Fold the top flap of the fruiting bag several times and close with a paperclip or clothespin. (See picture f)
8. Place bag in location where there is filtered (not direct) sunlight, or under (fluorescent) lights. Maintain appropriate temperature (typically 22° to 25° C). Fruiting is better if the inside of the bag is kept moist by gently spraying the sides of the bag with a water mister once or twice a day (as needed). Try not to spray too much water directly on the fungus (light misting is ok).
9. Within several days to a week you will see mushrooms beginning to appear. They may be picked when mature by carefully twisting the base of the stem and lifting up.
10. When each flush (group) of mushrooms is completely harvested, take a clean fork or knife and gently clean off all aborted mushrooms from the fungus cake. The fungus cake must now be rinsed well under cold (and clean) tap water and dunked again to replenish its moisture content (repeat steps #1 to 4 under Dunking). Spread the old vermiculite out in the fruiting tray and mist several times with water to re-hydrate. After dunking, the cake should be returned to the center of the tray in the fruiting bag and the fruiting process repeated. Do not roll the fungus cake again in the old vermiculite.
11. Keep the sides of fruiting bag moist and dunk the fungus cake again after each flush. Expect three or more flushes of mushrooms.

*Mushrooms may be cloned to obtain a pure strain by utilizing a MycoMate® Cloning Kit.

7 Alternative

FRUITING OPTIONS AND EXPERIMENTATION:

Low Maintenance:

You may choose to fruit the mushrooms without having to remove the substrate from the bag it grew in. Many species and strains of mushrooms will fruit this way, however not all of them. After cake is fully colonized place approximately 1 to 1.5 cm of moist (not wet) vermiculite directly on top of the fungus cake, in the smaller bag it grew in. Close the bag with the collar and filter, incubate at proper temperature in filtered (not direct) sunlight or under fluorescent light, and wait for mushrooms. After harvesting, mist the surface of the vermiculite several times, and close the bag. Wait for the next flush of mushrooms, harvest, and repeat. Dunking in between flushes can often improve yields with this technique.

Maintenance-free:

Alternatively, you may simply fruit the mushrooms in the bags the fungus cakes originally grew in without any type of casing. Many species and strains of mushrooms will fruit this way, however not all of them. After cake is fully colonized, place in filtered (not direct) sunlight or under fluorescent light and maintain appropriate temperature for fruiting. After picking each flush (group) of mushrooms simply re-close the bag and wait for the next flush. Dunking in between flushes can often improve yields with this technique.

*Looking for quantity discounts, substrate bags without the extra's, and lower cultivation costs? Choose from our MycoMate® Stealth product line.

Casing:

Very slowly add +/-100ml water to the vermiculite while mixing well. You want the vermiculite moistened to field capacity. This means you want to be able to squeeze the vermiculite in your hand very hard and only have several drops of water come out from in between your fingers. Spread half of it out evenly in the bottom of the fruiting tray. Set the other half aside. Break the colonized fungus cake up into little pieces, or slice it with a clean knife into 2 to 3cm wafers. Spread evenly on bottom of fruiting tray. With a spoon and/or clean hands, very gently spread the the moist vermiculite over the entire surface of the fungus (covering it approximately .5 to 1cm deep). Do not pack down. Place tray in micron-filtrated fruiting bag, gently mist with water, and close tightly with paperclip or clothespin. Keep the surface of the vermiculite casing moist (not wet) with daily misting (1 to 2 times a day). When you begin to see little mushrooms forming, be careful not to overwater the casing. Wait until after the flush of mushrooms is harvested and then spray a little extra water over several days to re-hydrate the vermiculite.