

The PF Tek Method

Materials

- [Half-pint wide-mouth canning jars](#)
- [Vermiculite](#) (or sawdust, for wood-loving species)
- [Brown rice flour](#)
- Water
- Measuring cups
- Mixing bowls
- Paper towels
- Alcohol & swabs or cotton balls
- 1/8-inch (3 mm) nail
- Hammer
- Masking tape
- Aluminum foil
- [Large pot with lid](#) or [pressure cooker](#)
- Spore or liquid culture syringe
- Bleach solution
- Lighter
- [Glove bag](#)*

PF Tek Fruiting Formula

(per jar)

- 1/2 cup (8 g) vermiculite or sawdust
- 1/4 cup (60 mL) water
- 1/4 cup (45–50 g) brown rice flour

Time Required

Prep: 30 minutes–1 hour

Sterilization: 1-1/2 hours

Inoculation: 20 minutes

Incubation: 2 weeks

Dunking: 24 hours

Fruiting: 2 weeks

Substrate Preparation for 1 Dozen Jars

- 1. Prepare the jars.** Hammer four holes through each lid, using a 1/8-inch (3 mm) nail. Wipe the interior of each jar with alcohol.
- 2. Mix the substrate.** In a large mixing bowl, combine 6 cups (96 g) of vermiculite or sawdust and 3 cups (.75 L) of water. Mix thoroughly. Add 3 cups (500–600 g) of brown rice flour to the vermiculite mixture and mix thoroughly. You should now have enough substrate to fill about 12 jars.
- 3. Fill the jars.** Fill each jar with the vermiculite mixture to the level of the lowest ring band. Do not pack it down. Wipe the tops of the jars clean with a paper towel. Fill each jar to the top with a layer of dry vermiculite. This serves as a contamination barrier.

4. Place the lids. Place the lid and screw on the ring band. Tape over the holes using masking tape. Fold the tape over to make a small tab — this makes it easy to pull off after it is sterilized.

5. Sterilize the jars. Cover each jar with foil. I usually make 8 × 8 inch (20 cm × 20 cm) squares of foil, then press them on. To steam the jars, put 2 inches (5 cm) of water in a large pot. Add a small rack or other raised surface inside the pot to keep the jars out of the water, and place the jars on the rack. Put on the cover and steam the jars for 60–90 minutes. If using a pressure cooker, leave the jars in for 45 minutes at 15 pounds per square inch (psi). Let the jars cool in the pot. Don't open it until you're ready to inoculate them. Allow your jars to cool completely to room temperature before inoculation.

Get Growing

6. Inoculate the substrate. Move the jars into your glove bag*, glovebox or in front of your flow hood. Remove the foil from the jars. Put your syringes, bleach solution, paper towels, alcohol swabs, and lighter into your glovebox. Spray a piece of paper towel with the bleach solution and use it to wipe down the sides and bottom of the box, the syringes, and any other tools. Shake the syringe to distribute the spores or culture evenly within the fluid. Remove the plastic needle cover and flame sterilize the needle. If your syringe arrives disassembled, you may need to attach the needle before you can sterilize it. Sterilize by holding a flame to the needle until you can see that it is red hot. Let the needle cool, or fast-cool it by wiping it down with an alcohol swab. Pull back the tape and inject about 1/4 cc of fluid from the syringe into each hole of each jar lid. Cover the hole again after each injection. Repeat this process for all jars.

7. Incubate. Place your inoculated jars in a warm, dry, dark place for colonization, or make an incubator for this process. For most species, you'll want the temperature of the incubation area to be in the 75–85 degree F (24–29 degree C) range. Let the jars sit and incubate for 2 weeks. You should see initial growth within your jars in 3 to 5 days, although it can take up to 7 days or more. Full colonization of the jars will usually take 2 to 3 weeks. If you see growth in any of the jars that is any color other than white, remove those jars and dispose of them immediately. Common colors are green, pink, or black. Never open contaminated jars indoors.

8. Dunking. Once your jars are fully colonized and ready to be placed in the fruiting chamber, you should dunk them in water for 24 hours before proceeding. Dunking gives the jars a burst of extra moisture before the fruiting process begins, and results in better yields. Working over a sink, simply unscrew the lid of each jar, fill the jar with water, and screw the lid on again. The colonized cake will probably float, so when you put the cap back on, you may need to force it back down into the water, causing some of the water to overflow. Store the jars in the refrigerator for this 24-hour dunking period.

9. Fruiting. Place the jars into a fruiting chamber. You may want to consider double-end casing your cakes to improve water retention for the fruiting process.