



Totem Method for Cultivating Oyster Mushroom

Oyster mushrooms are voracious colonizers of a wide range of substrates and are therefore fairly easy to grow. Commercial growers most commonly grow oyster mushrooms on hay bails or sawdust blocks. Another approach for growing oyster or other mushroom species is the totem method. The totem method is reputed to, and in our experience does “fruit” (produce mushrooms) sooner than the bolt inoculation method commonly used for shiitake mushrooms which involves inoculating 4-6 inch diameter x 3-4 feet longs.

As the name implies, the totem method involves vertically stacking short sections of logs on top of each other with a layer of mushroom spawn beneath the stack, between each section, and on top of the stack. The method described below involves stacking only 2 sections per totem, but stacking 3 or more sections per totem is possible if you secure the stack so it won't fall over.

Materials:

- Fresh cut logs, 9-12 inch diameter x 24 inch long. Larger diameter logs tend to be unreasonably heavy, and smaller diameter logs are more prone to falling over. In our area Oyster mushrooms perform well on big tooth aspen (*Populus grandidentatum*), but other tree species may be suitable.
- Paper grocery or paper lawn sized bags to cover totems.
- Plastic bags, black or white, sized to completely enclose your totem and close over the top.
- Sisal or other inexpensive twine long enough to encircle each totem, or large rubber bands.
- Saw dust spawn or rye grain spawn. Saw dust spawn is less likely to attract squirrels.
- Plastic cup to dispense spawn uniformly
- A Rake for site preparation.
- Work gloves, etc.

Procedure:

Logging should be done before during winter or early spring, before leaf out, when the bark is still tight and the tree is full of sap and nutrients. Try to avoid using logs with scars and/or disease. Cuts between log sections (24") should be smooth and horizontal to facilitate stacking. Cut off side branches flush with the stem. If logs are cut while dormant they may be stored under shade for several weeks.

Incubation Site (laying yard) should be well shaded. A dense evergreen coniferous stand is best, as winter sun penetrating a deciduous canopy can cause heating and moisture loss. The site should be protected from drying winds as well as possible. Choose a site that is fairly level, and use a rake or other implements to level it as much as possible so logs will not fall over. Choose and prepare your site with care. Once totems are assembled they are difficult to move.

Inoculation should occur in the spring when temperature is between 5C and 20C. Begin by cutting the approximately 24 inch long logs into two approximately 12 inch long sections. This is best done just before inoculation to minimize drying of the logs. Keep track of which is the top and which is the bottom section so they will fit together snugly upon reassembly.

Open up a plastic bag and set it flat on the ground with the open top of the bag facing up. Place 8 ounces of loose spawn at the bottom of the bag and place the lower of the two log sections on top of the spawn. Next put 8oz of finely divided spawn (no big clumps) on top of the lower section, and place the upper section on top of that. Finally, place 8oz of spawn on top of the upper section. Place a large paper bag upside down over the top of the two log sections, and secure it with the large rubber band or twine. Pull the plastic bag up over the totem stack and close it loosely at the top with a small rubber band or twine. Do not cut off the air supply by closing too tightly.





By midsummer, or when whitish fungal mycelium has covered the paper bag, drop the outer plastic bag to the ground, rather than removing it entirely, since removing it will result in disrupting the bottom layer of spawn. It is a common, though not universal practice to disassemble the totem entirely, and continue to incubate the log sections in a cool, dry location.

There are several strains of oyster mushroom available from various suppliers. Consult their literature or websites for expected fruiting times which correspond, more or less to seasonal temperature fluctuations.