

Zumwalt Acres Oyster Mushroom – Indoor Cultivation Protocols 2022

Inoculation, Incubation and Fruiting

Inoculation:

Materials:

- 2-3 burlap sacks of chopped pasteurized straw
- 6-foot plastic folding table
- Spray bottle with 70% alcohol and clean rag
- Scale
- 4lb bag of oyster mushroom grain spawn (we source from Field and Forest products)
- 2 cup volume vessel for transferring grain spawn
- 6-8 clean 6-gallon buckets with ¼" holes drilled 4-6" apart; with lid
- Labels and permanent marker

Methods:

- Thoroughly clean table surface and wipe down with >70% alcohol
- Weigh straw and determine the weight of straw available for inoculation
- Determine how many buckets will be inoculated, using 9-11 lbs. of straw/bucket
- Determine how much spawn will be used per bucket (= weight of spawn/number of buckets to be inoculated)
- Empty sacks of straw onto table
- For each bucket:
 - o Weigh out and transfer proper amount of grain spawn to be used for one bucket into small vessel
 - o Place bucket on scale and tare
 - o Add a handful of grain spawn to bottom of bucket
 - o Add several inches of straw
 - o Add a handful of grain spawn
 - o Continue to layer straw and grain spawn until target weight is reached. Use full quantity of grain spawn allocated to the bucket.
 - o Place lid on bucket and record all data on bucket label (weight of hydrated straw used, weight of grain spawn, strain of mushroom spawn, date inoculated, pasteurization method)
- Repeat for all buckets
- Buckets are now ready for incubation

Incubation

(Ideal incubation conditions are ~70 degrees F, 50% humidity. We use ambient basement conditions, which fluctuate from 50-75 degrees F throughout the year.)

Place buckets on shelving in basement until pinning is visible (~2-3 weeks). (“Pinning” is the first visible emergence of tiny mushrooms from the holes – looks like a pin cushion).

Transfer pinning mushroom buckets into fruiting chamber. Record date of pinning.

Fruiting

- Wash hands and wear clean clothes and a mask.
- Harvest mushroom clusters by hand when the margins are still slightly curved downward.
- Record weight of mushrooms harvested from each bucket, and record date and weight on bucket label.
- Place mushrooms into shallow cardboard boxes and store in walk-in cooler. Handle gently.