

# Zumwalt Acres Oyster Mushroom – Indoor Cultivation Protocols 2022

## Straw Pasteurization

### Straw Pasteurization with Lime

#### Materials:

- 2-3 burlap sacks filled with chopped straw (see Straw Chopping Protocol)
- One 55 gallon, food-grade plastic drum with lid
- 2 cups hydrated lime (we use Hi-Yield brand horticultural lime)
- PH meter
- Large paddle for stirring
- Water source
- Heavy rocks or other heavy objects
- Drying screen (we use a metal grate resting on buckets)

#### Methods:

- Fill 55 gallon drum with 45 gallons of water
- As drum is filling, add 2 cups hydrated lime and mix
- Use pH meter to ensure pH is between 12-13. Record value
- If pH is below 12, add additional lime, continue recording values until pH falls in proper range
- Add burlap sacks of straw
- Use rocks to ensure bags are submerged
- Place lid on drum
- Soak straw for 12-16 hrs
- Remove burlap sacks and place on drying screen
- Allow straw to dry until straw reaches field saturation moisture level (water no longer drips from the bags and when you squeeze a handful of straw, barely a drop or two comes out)
- Straw is now ready for inoculation

### Straw Pasteurization with Biochar Squelch Water

#### Materials:

- 2-3 burlap sacks filled with chopped straw (see Straw Chopping Protocol)
- One 55 gallon, food-grade plastic drum with lid
- 45 gallons biochar squelch water
- Hydrated lime\*(small amount if necessary) (we use Hi-Yield brand horticultural lime)
- PH meter

- Large paddle for stirring
- Heavy rocks or other heavy objects
- Drying screen (we use a metal grate resting on buckets)

#### Methods:

- Transfer 45 gallons of biochar squelch water from biochar kiln to 55 gallon drum (using a 5 gallon bucket)
- Use pH meter to ensure pH is between 12-13. Record value
- If pH is below 12, add hydrated lime, continue recording values until pH falls in proper range
- Add burlap sacks of straw
- Use rocks to ensure bags are submerged
- Place lid on drum
- Soak straw for 12-16 hrs
- Remove burlap sacks and place on drying screen
- Allow straw to dry until straw reaches field saturation moisture level (water no longer drips from the bags and when you squeeze a handful of straw, barely a drop or two comes out)
- Straw is now ready for inoculation