

# Oysters on Pasteurized Straw



## General Procedure for Pasteurization

Oyster mushrooms can be planted on pasteurized straw, but the process is a little more complicated than planting on soaked or chemically treated straw. Straw must first be chopped, stuffed into woven or cloth bags, which are then tied shut, and heated in a large pot of water at a temperature of 160°F for 45 minutes. Bags must be drained and cooled. The straw is then mixed together with the grain spawn, and the mixture is placed into polyethylene sleeves. Holes are punched into the bags, and from there they go directly into incubation. This room should be between 75–77°F with a humidity of 80%. Monitoring internal temperature is critical at this time, especially during warmer months. Usually within 3-4 weeks pinning occurs, at which point the bags can be moved into a separate fruiting room. An optimal temperature of 65°F should be maintained while fruiting. Temperatures are, of course, dependent on Oyster species. Humidity should be closer to 90-95%, and there should be 10-12 hours of light. Straw bags will fruit many times, and are capable of lasting several months. As the number of fruitings increase, yields will decrease. On average, one 4 lb. bag of grain spawn will inoculate one bale of straw at a 4% inoculation rate.

## Fruiting Temperatures for Oyster Species

Golden Oyster .....	60–85°F
Italian Oyster .....	50–70°F
Grey Dove Oyster .....	45–65°F
PoHu Oyster .....	55–85°F
Pink Oyster .....	65–85°F
King Oyster .....	55–65°F

## Supplies

As far as supplies go, all you need to purchase from us is:

- Grain spawn
- 18" x 36" polyethylene sleeves
- Compost thermometer.



## Tips

- Golden Oyster requires 600 lux or 2 times the intensity of normal lighting to achieve its bright coloring.
- Blue Dolphin and Polar White Oyster spawn should not be used for straw inoculation; they are specifically a log grown mushroom. For autumn in the North and winter in the South, avoid planting Golden and Pink Oyster. It's too cold.

# Other Processing Options

## Soaking

### The Basics

Simply soak straw for 4–6 days in a large tank filled with water. When water is drained away, and the straw is planted, the Oyster spawn is able to propagate and push past some of the contaminants already in the straw. Make sure to plant the straw within a few hours of draining and also be sure the containers are of a dark material so grains that will sprout in the straw will not be given the light they need to grow (sprouting grain will inhibit mycelial growth).

**EASY!**



## Treating with Chemicals

### What You Need to Know

Hydrated lime (also known as slaked lime or pickling lime) is simply calcium hydroxide. This powder is made by treating lime with heat and pressure. It is available at garden centers, and when added to the soak water at a rate of .36 lbs./5 gallons it will make the straw a very suitable substrate for Oyster mycelial growth (sometimes rivaling pasteurization alone). Add the powder to the soak water, then add the straw. Soak for 24 hours and plant; again, planting into a dark container to discourage germination of cereal grains.



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\*More detailed instructions are included with every spawn or kit purchase!



# Oysters on Straw

## Growing in a Box

### INDOORS

#### This is Easy!

Oyster mushrooms can easily be planted on straw. The planting vessel, which can be a large cardboard box or plastic container is packed tightly with processed straw (see the two different ways to process on the next page) inoculated with grain spawn, closed up, and put into an incubation room that maintains temperatures between 65–75°F. The container stays there for about four weeks. After that time, the container is ready to fruit and is moved into a fruiting room with adequate light. Temperatures should be at least ten degrees cooler than the incubation area. High humidity, preferably 90–95%, is ideal. Containers may fruit many times and are capable of lasting several months. As the number of fruitings increase, yields will decrease.



## Growing in a Bed

### OUTDOORS

#### Simplified

Similar to planting in a box, this method is relatively easy. A black perforated plastic bag is laid down on a draining surface, covered with a layer of straw, and then sprinkled with grain spawn. This layering of straw and spawn is repeated two more times and then the bed is covered in plastic. For the next 3–4 weeks mushroom mycelium will colonize the straw. Once complete, it will be time to initiate fruiting by opening up the bed and exposing it to fresh air. The bed will need to be misted daily to maintain the adequate amount of moisture needed for baby mushrooms to form. A second fruiting can be attained by recovering and repeating the process. Yields will decrease with each fruiting.



## Helpful Hint

Chopping straw before processing can lead to increased yields as it provides more surface area for the mycelium to grow.