



OYSTER MUSHROOM (PLEUROTUS OSTREATUS)

OYSTER MUSHROOM FACTS

The **oyster mushroom (*Pleurotus ostreatus*)** was first cultivated in Germany to feed people during World War I and is now grown commercially around the world for food. The mushroom has a **broad, fan or oyster-shaped cap spanning 5–25 cm and an aroma of bitter almonds** from benzaldehyde. They range in color from **white to gray or tan to dark-brown**. The flesh is white, firm, and varies in thickness while the gills of the mushroom are white to cream. The mushroom's edges rolls in when it's young and becomes smooth or wavy as it ages. *Pleurotus ostreatus* is a **white-rot wood-decay fungus found often in temperate forests** and acts as a primary decomposer, especially of deciduous and beech trees. The **mycelium, a thread-like collection of cells**, is the growth structure that produces the mushroom caps. The oyster mushroom is one of the few known **carnivorous** mushrooms and its mycelia can kill and digest nematodes, which is believed to allow the mushroom to obtain nitrogen. **In North American forests, the ivory funnel mushroom (*Clitocybe dealbata*) and western jack-o'-lantern (*Omphalotus olivascens*) can look alike and are TOXIC. DO NOT EAT OR PICK WILD MUSHROOMS WITHOUT AN EXPERT!**

INOCULATION & CARE

Naturally, *P. ostreatus* **grows on the mass of dead and dying wood as a tree begins to die**. The fungus acts as a decomposer, returning vital elements and minerals to the ecosystem. However, because of poisonous lookalikes, we don't recommend growing oyster mushrooms for eating directly in the ground. To grow oyster mushrooms for eating, we have to **inoculate or introduce the microorganism into a suitable, sterile situation for growth**. **Mushroom spawn** is what we call a substance that has been inoculated with mycelium. If using spawn or wood chips, first boil or soak in high pH water overnight to sterilize. Then sprinkle alternating layers of mushroom spawn between damp straw, wood chips, or in bucket-grown conditions, coffee grounds and place into bags or buckets with small drilled holes for air flow. During the **incubation period**, temperatures should ideally stay at about **75 degrees Fahrenheit for about 3 weeks**. When fruiting, make sure to keep in mind the light, humidity, temperature, and CO2 level. For most oyster mushrooms **a well-lit room at 85-90% humidity, 65 degrees, and CO2 below 800 PPM is ideal**. Harvesting typically occurs about 5-10 days after the substrate is moved into fruiting conditions. Mushrooms should be **harvested before the caps completely flatten out**.

NUTRITIONAL BENEFITS

Oyster mushrooms have many nutrients, **including fiber and protein**. **One cup of sliced oyster mushrooms** has 28 calories and less than 1 gram of fat, yet **delivers 2 grams of fiber and 3 grams of protein**. One cup also provides **8 percent of the daily value of potassium, vitamin B-6 and folate**. Mushrooms are one of the few plant sources of vitamin D which our body needs to absorb calcium and to regulate genes that influence cell growth and enzymes in the immune system. Oyster mushrooms **can be eaten raw, cooked, dried, frozen, or canned**.

EASY OYSTER MUSHROOM RECIPE

1. Heat 2 TB of olive oil in a large skillet on medium heat and sauté 1 pound of oyster mushrooms and 4 chopped cloves of garlic for 2-3 minutes.
2. Reduce heat and add salt, stir and cover with the lid for another 5-7 minutes until they soften and release some juices. Mushrooms should be cooked for a total of 7-10 minutes.
3. When mushrooms are completely cooked, add 2 chopped green onions to the mushrooms, mix and season with salt and pepper.
4. Top each serving with the remaining 2 chopped green onions and enjoy!

CAUTION: Mushrooms can be TOXIC if not properly identified. Do not eat any mushrooms that you do not know. The Philadelphia Orchard Project shares this information for educational purposes ONLY and cannot be held liable or responsible for misuse of this information nor as a result of ingestion.

