

GROWING MUSHROOMS - All ages with supervision

DESCRIPTION

Did you know you can grow delicious oyster mushrooms in just about any household container, including plastic bags? Create a mini mushroom farm using straw pellet or toilet paper substrate. The bags need to sit 2-3 weeks before you see fruiting mycelium. Take notes during this time on growing conditions.



MATERIALS AND PREPARATION

- Oyster Mushroom Grain Spawn:
<https://houstonfrogs.com/shop/ols/products/mushroom-grain-spawn-king-tuber-pleurotus-tuberformis>
- Substrate (straw pellets, unbleached toilet paper rolls, or coffee grounds)
 - If using toilet paper rolls: a pot of boiling water, tongs, and a drying rack
 - Straw Pellets: <https://www.amazon.com/MushroomMediaOnline-Wheat-Straw-Pellets-Absorption/dp/B08J8D5QNT?th=1>
- Mushroom grow bags with filters:
https://www.amazon.com/dp/B085JPLRNV/ref=sspa_dk_detail_5?pd_rd_i=B085JPLRNV&pd_rd_w=CizUs&content-id=amzn1.sym.386c274b-4bfe-4421-9052-a1a56db557ab&pf_rd_p=386c274b-4bfe-4421-9052-a1a56db557ab&pf_rd_r=X8AWDT6D638DEYNPY0ZB&pd_rd_wg=eTVND&pd_rd_r=c37be0a1-5acc-475e-9fbf-cb5c02e341c7&s=kitchen&sp_csd=d2lkZ2V0TmFtZT1zcF9kZXRhaWxhdGhlfWF0aWM&th=1
- Rubber bands or twist ties
- Labels
- Water
- A dark place to store bags at room temperature for a few weeks
- Water in a spray bottle

There are also mushroom growing kits available online:

- Back to the Roots: <https://backtotheroots.com/collections/organic-mushroom-kits/products/golden-oyster-mushrooms>

- Houston Frogs:
<https://houstonfrogs.com/shop/ols/products/terrarium-mushroom-growing-kit/v/MSH-FRT-KIT-KNG2>

INSTRUCTIONS

1. Mix mushroom spawn with the substrate:
 - a. For straw pellets, mix 1:5 ratio of mushroom spawn to pellets. Use 2x or more water than the weight of the substrate.
 - b. For toilet paper, first sterilize it by dipping the roll into boiling water until saturated, then let it drain. Once the roll is cool, remove the center cardboard core and put the roll in a mushroom grow bag. Fill the center of the roll with mushroom grain spawn. Toilet paper substrate instructions from Field & Forest: <https://bit.ly/3NxTw9n>
2. Close the top of the grow bag above the filter using a rubber band or twist-tie.
3. Label the bag with the date and the oyster variety. Use your braille or make the print as large as you need.
4. Place the bag in a dark, undisturbed area (like a closet), where the temperature is between 65–75°F.
5. Within 3 weeks, there should be white, fluffy mushroom mycelium on the substrate. Open the bag and touch them very carefully if that helps you verify that they are there. Make sure to close the bag back up with the rubber band or twist tie when you are done. Let it continue to grow for another 1–3 weeks.
6. When you are ready for the mushrooms to start fruiting, place the bag in your refrigerator for 48 hours (this simulates winter).
7. After 48 hours, remove the bag from the refrigerator and place it in a well-lit room. Open the top of the bag to let the air in, or cut x's on the sides of the bag.
8. Mist with water from your spray bottle daily, being careful not to use so much water that it pools inside the bag.

9. In a few days, there should be tiny pins of mushrooms starting to develop. A week or two after that, you will have mushrooms ready to harvest!

RELATED ACTIVITIES

1. Use your mushrooms in a recipe or just wash them and sprinkle them on a salad or add them to a stir fry dish.

<https://backtotheroots.com/blogs/recipes/pan-fried-mushrooms-with-rosemary>

2. If you are in the Austin area between now and August 31, 2024 go see the IMAX movie FUNGI THE WEB OF LIFE at the Bullock Museum:

<https://www.thestoryoftexas.com/visit/calendar/imax/fungi-the-web-of-life-202309>

RESOURCES

Through August 31:

<https://www.thestoryoftexas.com/visit/calendar/imax/fungi-the-web-of-life-202309>

Educators Guide Grades 3-8:

https://www.thestoryoftexas.com/upload/files/activity-guides/Fungi_WebOfLife_EducatorGuide.pdf

RELATED BOOKS

Juvenile Nonfiction

FUNGUS IS AMONG US! By Joy Keller (DB 98578)
Kindergarten – 3

Juvenile Fiction

MUTANT MUSHROOM TAKEOVER by Summer Rachel Short (DB 101184)
Grades: 4-7

Adult Nonfiction

ENTANGLED LIFE: HOW FUNGI MAKE OUR WORLDS, CHANGE OUR MINDS
& SHAPE OUR FUTURES by Merlin Sheldrake (DB 99961)

FUNGI: A VERY SHORT INTRODUCTION by Nicholas P. Money (DB 86492)

MUSHROOM HUNTERS: ON THE TRAIL OF AN UNDERGROUND AMERICA by
Langdon Cook (DB 77636)

MYCELIUM RUNNING: HOW MUSHROOMS CAN HELP SAVE THE WORLD by
Paul Stamets (DB 117322)

Adult Fiction

CARNE DE DIOS por Homero Aridjis (DB 103213)

MEXICAN GOTHIC by Silvia Moreno-Garcia (DB 99404, BR 23483)

WHAT MOVES THE DEAD by T. Kingfisher (DB 109294)

WILDER GIRLS by Rory Power (DB 96341)