

Community-based Sustainable Forest Management for Water Resources Conservation, Manipur (COSFOM)

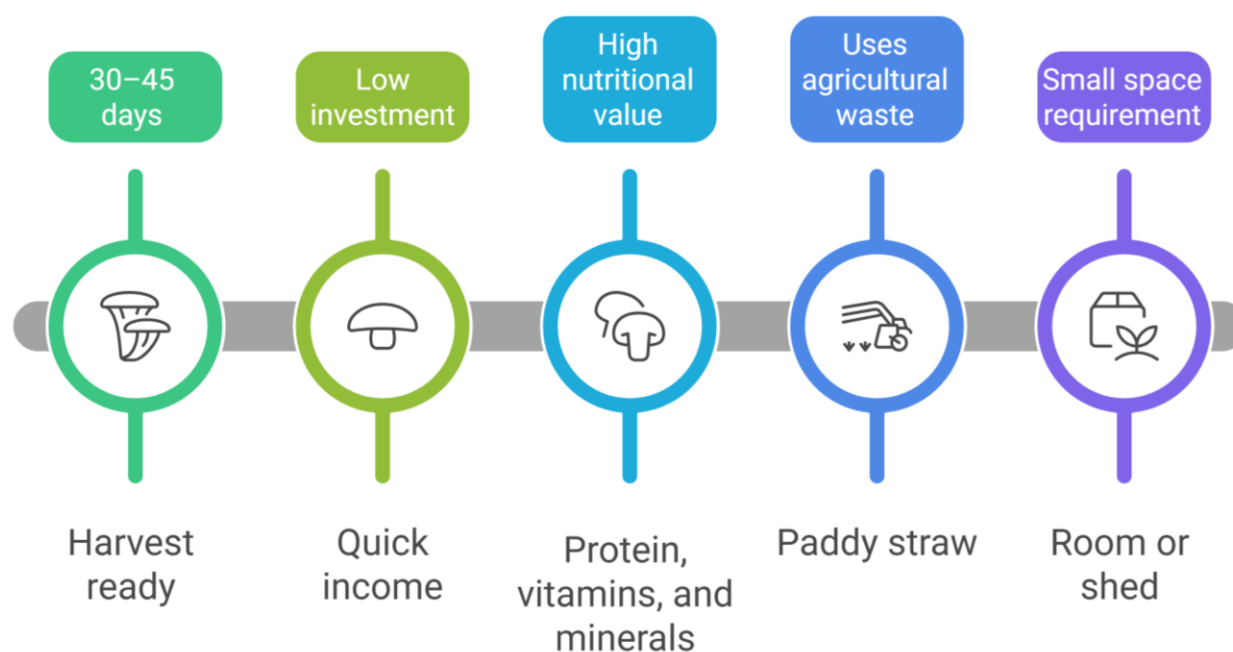
Training Handout

Small-scale Mushroom Cultivation

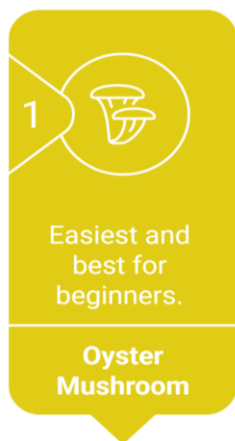
I. Why Grow Mushrooms?

Mushrooms grow well in cool, moist, and shaded conditions, which are common in many areas of Northeast India.

More on suitable for small-scale production, nutrition value, simple technology etc.



II. Mushrooms Suitable for Manipur



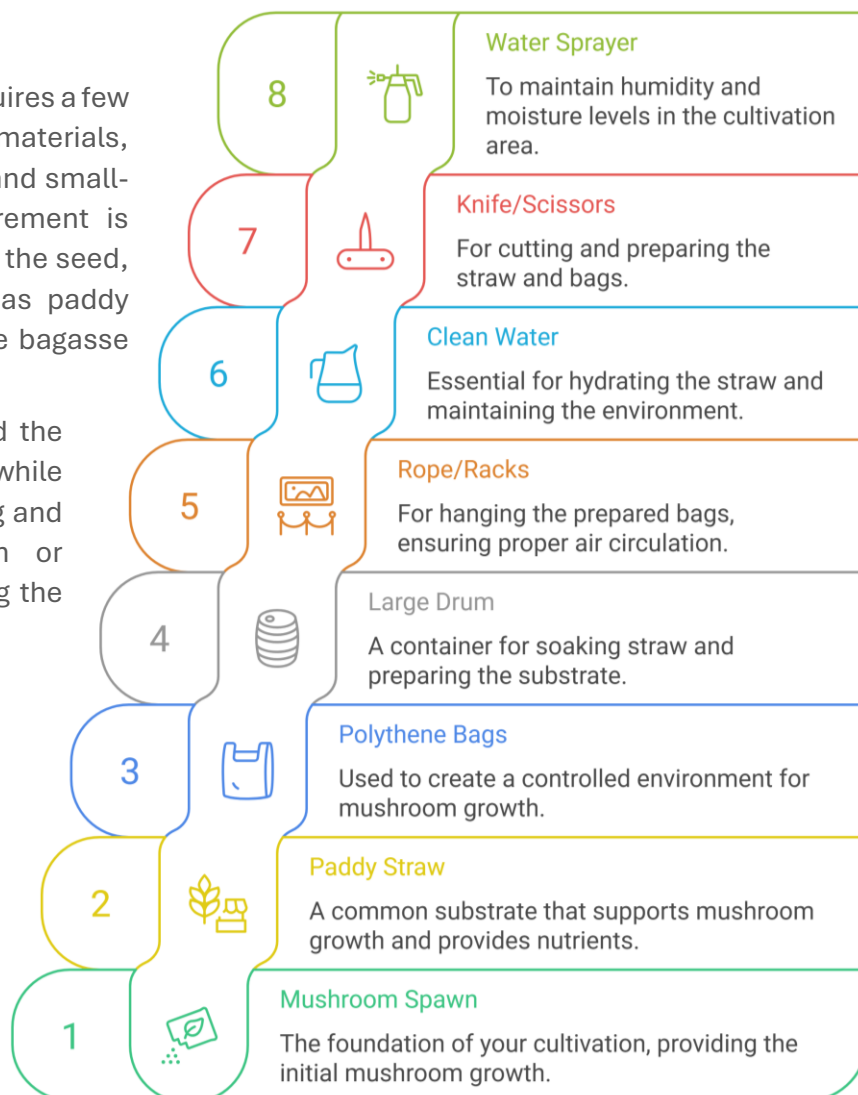
Oyster mushroom is most recommended because it is easy to grow and requires simple technology.

III. Materials Required

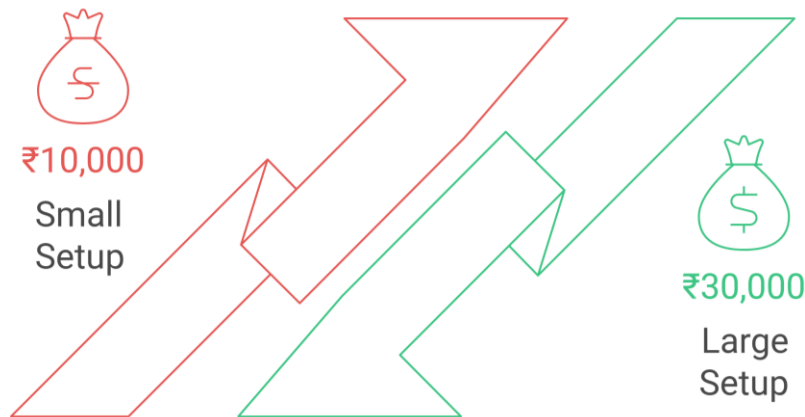
Oyster mushroom cultivation requires a few simple and easily available materials, making it suitable for beginners and small-scale farming. The main requirement is mushroom spawn, which acts as the seed, and a suitable substrate such as paddy straw, wheat straw, or sugarcane bagasse on which the mushrooms grow.

Polythene bags are used to hold the substrate and spawn mixture, while clean water is needed for soaking and maintaining moisture. A drum or container is used for pasteurizing the straw to prevent contamination.

Additionally, a clean, shaded, and humid growing space is essential, along with basic tools like a sprayer for watering and ropes or racks for arranging the bags. Hygiene materials such as gloves and disinfectants are also important to ensure healthy mushroom growth.

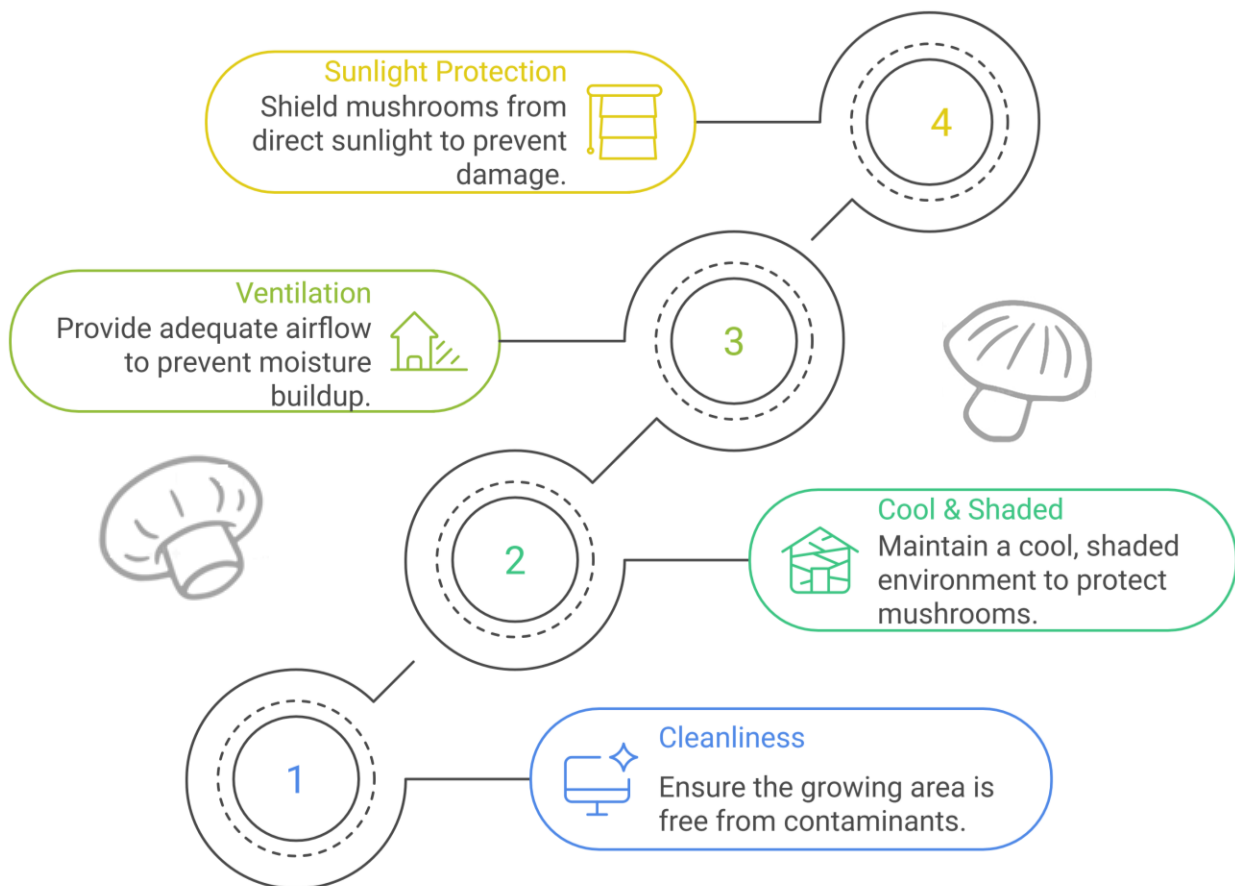


IV. Estimated Cost of Small Setup



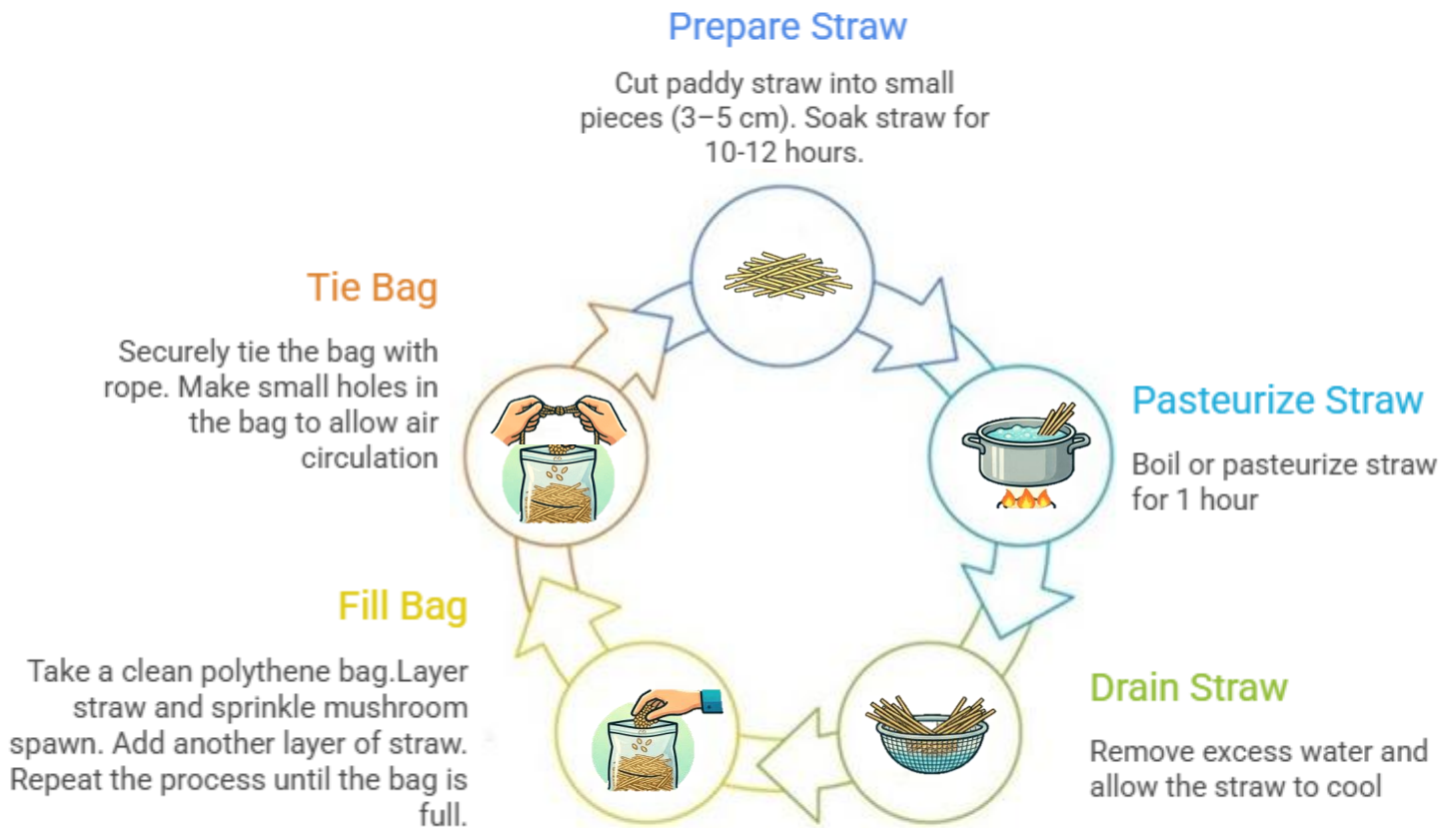
A small oyster mushroom cultivation setup typically costs around ₹10,000 to ₹30,000. Expenses include spawn, straw or substrate, bags, and a simple growing space with proper humidity and ventilation. It is a low-cost venture with quick returns potential.

V. Suitable Place for Growing Mushrooms



Even a **10 × 10 ft room** can produce a good amount of mushrooms

VI. Preparation of Mushroom Growing Bags



The prepared bags should be kept in a clean, dark, and humid room under suitable temperature conditions for incubation.

Proper preparation of the bags ensures,

- (a) healthy mycelial growth
- (b) reduces contamination
- (c) improves mushroom yield



VII. Incubation and Fruiting

Incubation Stage Requirements



Dark Room

Keep the bags in a dark room.

Maintain temperature around 22–28°C.

Temperature



Humidity

Humidity should be 80–90%.

After 15–20 days, white cotton-like growth will spread.

Mycelium Growth



Fruiting Stage Steps



Make Openings

Create small openings in the plastic bag.

Hang the bags or place them on racks.

Hang or Place



Spray Water

Spray water twice daily to keep humidity high.

Small mushroom buds will start appearing in 7–10 days.

Mushroom Buds



VIII. Harvesting Mushroom

1



Hold the Base

Gently grasp the mushroom stem

2



Twist and Pull

Carefully remove the mushroom

3



Avoid Cutting

Do not use a knife

IX. Production & Marketing



Production

Each bag produces 1.5-2.5 kg of mushrooms in 30-45 days. Several flushes can occur.



Selling Mushrooms

Mushrooms can be sold in local markets, vegetable shops, restaurants, and village markets. They should be sold fresh.

X. Mushroom Cultivation Cost



Straw

Cost of straw for mushroom cultivation.
₹ 200



Spawn

Cost of mushroom spawn for inoculation.
₹ 500



Bags & Materials

Cost of bags and other materials.
₹ 200



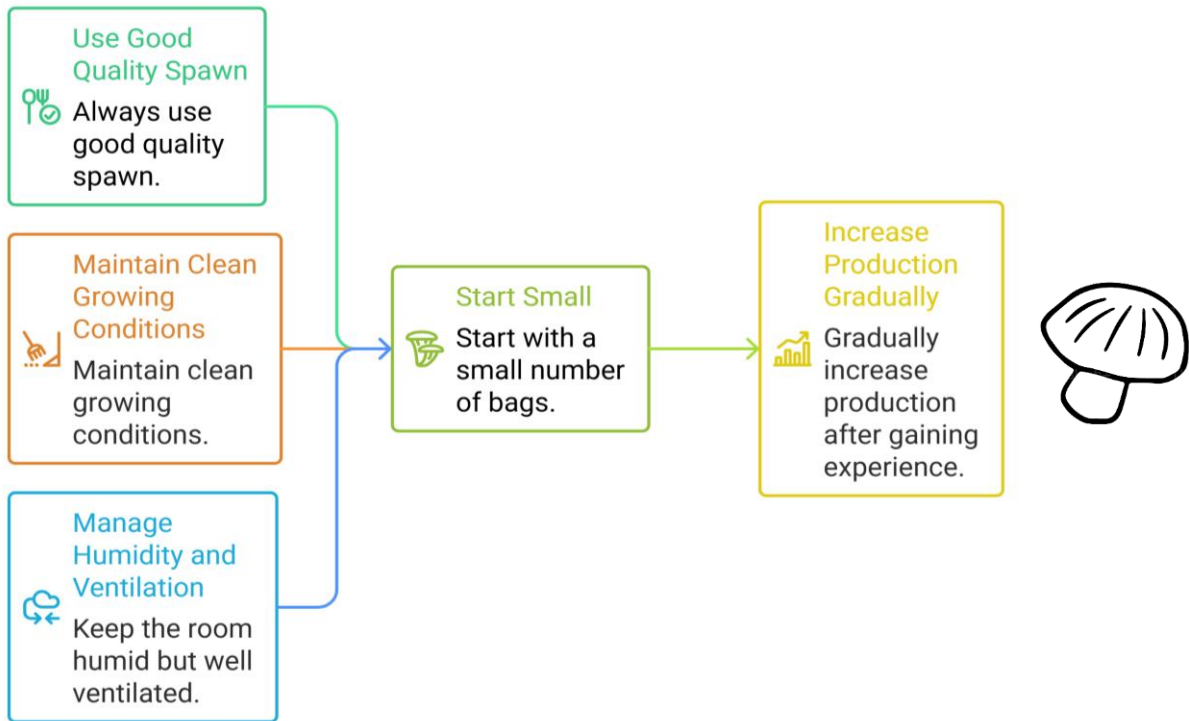
Total Cost

Estimated total cost for 10 bags.
₹ 900 – ₹ 1000

XI. Achieving Mushroom Cultivation Cost

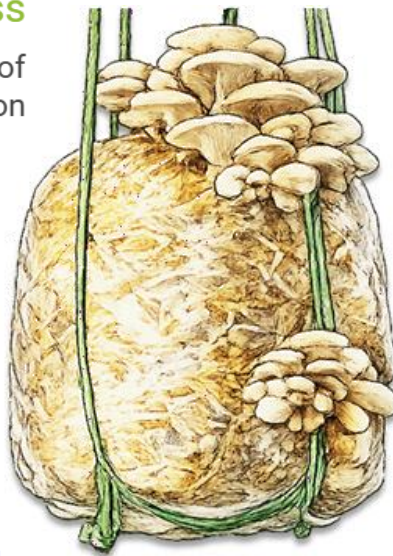


XII. Tips for Successful Mushroom Farming



XIII. Economic Importance of Mushroom Cultivation

- Profitable Agribusiness**
Core economic benefit of mushroom cultivation
- Quick Returns**
Short time to harvest and sell mushrooms
- Waste Conversion**
Transforms agricultural waste into food
- Employment Creation**
Provides jobs in mushroom farming



Conclusion

Small-scale mushroom cultivation is a simple, low-cost, and profitable activity for villagers in Manipur. It can provide extra income, improve nutrition, and create employment for women and youth.

With proper training and practice, mushroom farming can become an important part of sustainable rural livelihoods.



COSFOM Project Contact:

DFO, Ukhurul Forest Division, Phungreitang East
Ukhurul District – 795 142, Manipur.
Contact No. +91 8729 857 490

