

# 10 Steps TO MUSHROOM GARDENS

## INGREDIENTS

Small plastic bags .....	50 pcs
Ethanol .....	1/2 L
PV tubes cut in small rings .....	1, size 3
Watering can .....	1
Mushroom spawn (seeds) .....	5 kg
Strings .....	5 rolls
Water .....	20 L
Empty rice sack .....	1
Metallic drum .....	1
Water basin .....	1
A pair of scissors .....	1
Small dark room (or kitchen) .....	12 by 15 ft

## SUBSTRATE

**The following materials can make 50 oyster mushroom gardens**

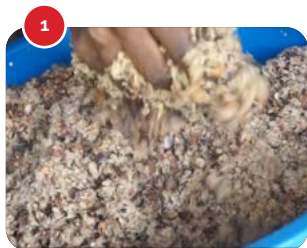
Cottonseed hulls ...	1 bag
Coffee husks .....	1 bag

## FACTS

In Uganda, the spawn is UGX 3,000 per bottle from the National Agricultural Research Organization in Kawanda. For those located outside Uganda, a local supplier can provide the spawn.

### Benefits

- Rich in vitamins (B, C, D)
- Boosts immune system



Dry mushroom substrate in sunlight to reduce the moisture and contamination from the field.<sup>1</sup>

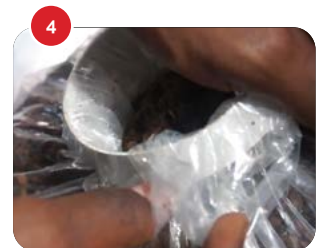


Take substrate through a two-step sterilization process.

**Step 1 - Wet sterilization:** Mix the substrate with water in a basin until it is wet but not soaked.<sup>2</sup>  
**Step 2 - Steam sterilization:** Pour 20 liters of water in the drum and place a rice sack with substrate in the water. Heat the water to allow steam to pass through the substrate in the garden sack. Steam for 3-4 hours and let cool for 1-2 hours.



Start the inoculation, adding spawn (seeds) to substrate.<sup>3</sup> Mix the 100g of spawn with 2 kg of substrate to make 1 garden. Ensure to disseminate the spawn fully in the substrate. 100g is roughly a handful.



Place the mixture in a small plastic bag, tie it with the small PV tube rings and then cover the top of the bag with paper.<sup>4,5</sup>



Poke small holes around the bag to allow aeration into the gardens.



Place the gardens in a dark room for 14 days to allow full colonisation of the spawn with the mixed substrate.



After 14 days, hang the mushroom gardens on a string in the dark room with temperatures above 32 degrees.<sup>6</sup>



Cut vertical slits around the garden and remove the paper to irrigate.<sup>7</sup>



Water the mushrooms bags in the morning and evening (1 cup each time). Do not soak the gardens. Just leave them moist.



The mushrooms start sprawling 3 to 5 days after hanging and will be ready for harvest. You can dry and package the mushrooms or sell them fresh.

## TIPS

1. The mushroom substrate is a mixture of coffee husks and cottonseed hulls. The cottonseed hulls can be bought at a local ginnery at UGX 30,000 a sack. Sifting helps to aerate the flour and give the cake a great texture.
2. This process eliminates microorganisms.
3. Before you start, disinfect your hands and materials with ethanol.
4. These tube rings allow the flow of water during irrigation
5. The paper prevents infections and contamination while in the dark room.
6. The gardens have colonized when the garden turns white.
7. The slits make the irrigation process easier.