



Republic of the Philippines
Department of Agriculture

Bureau of Plant Industry
Manila

Milky Mushroom Production Guide

Milky Mushroom Production Guide – Step by Step

Milky Mushroom (*Calocybe indica*) is an edible mushroom having a white fruit bodies, which resembles to a milk like in color. Considered as vegetable, and it is now known that mushrooms presently rank above all vegetable and legumes (except soybean) in protein content and have significant levels vitamins, fibers, minerals, amino acids and are low in fat.

Preparation of Substrates and Fruiting Bags

1. Collect any loose agricultural wastes such as rice straw, rice hull, dried banana leaves, corn stalks, etc.
2. Chopped rice straw, banana leaves, corn leaves at least 2-4 inches



3. Choose any of the following Methods of Pasteurization:

- A. Hot dipped pasteurized the chosen substrate in 80°C hot water for 40 minutes. Using clean hands, fill the substrate materials in PP bags. Addition of supplement is optional.
- B. Steam the bags. For substrate preparation, choose A or B method, use polypropylene plastic bags of 6x12 inches size 0.2 or 0.3. Fill 800g or desired weight and size of mixture substrate materials in the PP bags.

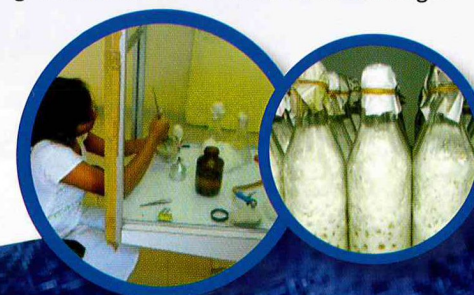
Then put on pvc pipe serve as neck, plug with cotton waste, put on a paper or plastic cap to minimize entry of water during steaming or pasteurization.



Steam the bags in a pasteurizer like drum for 6-8 hours and cool down. Provide drums with cover that fits tightly on top. Provide racks to hold the bags inside the drum.



4. **Inoculating the bags.** Inoculate each bag with the grain spawn in a clean and aseptic place. To inoculate, shake the grain spawn bottle to loosen the grains, remove the plug and flame the mouth of the bottle and pour some grains into the bags. Slightly shake the neck area of newly inoculated bags to distribute evenly the grains in the shoulder area of the bags.



5. **Incubation.** Keep the spawned bags in a dry and ventilated room for at least 30-45 days. If within five days of incubation and no growth appears, the spawn is dead or the substrate is too dry or contaminated with other microorganisms. Mycelium will colonized the bags in 20-30 days, which means the bags are ready for casing.

This is to make sure that the mycelium is matured enough to fruit. Inoculated bags could be filed and incubate directly in a growing house provided the house will remain dry to fulfill the required incubation time.



6. **Casing and fruiting requirements.** Fruiting requires a temperature of 30°C - 38°C, ventilation, light, and relative humidity (80-85%). With light (1600-3200lux).

Remove the PP bag after the bag is totally covered with mycelium. Placed a casing (serve as mulch) 2- 3 cm at the top of the 30days old milky mushroom planting substrate.



The following substrate can be used; loose soil, red garden soil, decomposed coir dust, spent mushroom substrate, sand, peat moss or tray substrate, or carbonized rice hull. After casing, add water gradually. Observe the appearance of pinhead 7-10 days after casing. Provide air ventilation (secured with insect net to prevent entry of insects) at lower and upper part of walls.



7. **Harvesting.** The fruit is ready to harvest 7 days after pinhead formation and can be stored in refrigerator for 10 days. Production of fruiting bodies will depend on correct management.



For further inquiry, please visit or call:

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Available mushroom pure cultures and grain spawn:

Kabuteng saging
Pleurotus mushroom (white, gray and pink)
Milky mushroom
Shiitake mushroom
Ganoderma mushroom
Abalone mushroom

Also available kabuteng saging
(Volvariella volvacea) planting spawn

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