Dr. S. R. SIVAKUMAR
Assistant Professor
Department of Botany
Bharathidasan University
Tiruchirappalli-24

MUSHROOM TECHNOLOGY



Hieroglyphics found in Egyptian tombs showed pharaohs

considered mushrooms "the plant of immortality".



Crimini

Also known as baby 'bellas or browns, criminis are similar in appearance to whites, but have a light-tan to rich-brown cap and a firmer texture.





Mushrooms are grown indoors, so are always in season and ready to use

Portabella

A larger relative of criminis, Portabellas have tan or brown caps and measure up to 6 inches in diameter.







Maitake

Maitake appear rippling and fan-shaped, without caps. They are also called "Hen of the Woods."







The largest living organism ever found is a honey mushroom that covers 3.4 square miles of land in the Blue Mountains of eastern Oregon and it is still growing



Enoki

Enoki have tiny, button-shaped caps and long, spindly stems.







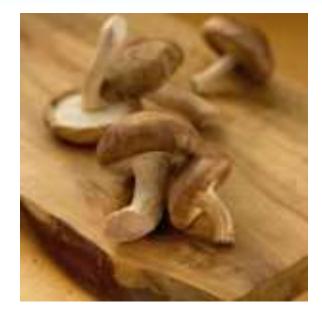
Hay and Straw are very important to the mushroom growing process



Shiitake

Shiitakes are tan to dark brown and have broad, umbrella-shaped caps, wide open veils, tan gills and curved stems that should be removed.







Mushrooms are unique for their umami content, meaning 'savory' or 'meaty' taste.



The truffle, a type of mushroom that grows below the ground, is one of the world's most expensive foods. One variety, Tuber melanosporum, can cost between \$800 and \$1500 a



The early Romans considered mushrooms "the food of the Gods".







A mushroom has almost as much banana.

potassium as a small

Mushrooms contains 8% of the daily value







Mushrooms are the only item on the produce aisle with Vitamin D

Oyster

Oysters can be gray, pale yellow or even blue, with a velvety texture.







The English believed that mushrooms had to be gathered under a full moon to be edible.





SUBSTRATE PRODUCTION (Phase I) Wheat straw and hay previously harvested and used in agricultural operations, (such as stable bedding from horse farms) is transferred to mushroom farms and placed on a wharf (concrete slab). It will be mixed and turned over several days as it decomposes.



compost application Compost can be re-applied to agricultural fields as well as mine reclamation projects, green roofs, storm water management basins, wetland material, greenhouses/nurseries, highway site remediation, erosion control and home gardens.



compost is steamed, emptied and trucked away from the mushroom houses



MUSHROOM HOUSE (Phase II)

Substrate is moved into mushroom houses, placed on beds and

pasteurized Mushroom spawn

(seed) is then dug into the beds. With warm temperatures (75°F), the spawn will

grow into threadlike

strands called

mycelium.

CASING/PINNING Peat moss is mixed with limestone and water and spread over the substrate. Small mushrooms (pins) push up and emerge through the peat moss.



CROPPING Mushrooms are harvested over several breaks or flushes. One break can last for six to eight days. Mushrooms are hand-picked, packed, refrigerated and sent to markets.



If it weren't for fungi, there might not be any fossil fuels.

Mushrooms are a good source of B vitamins, including riboflavin, niacin, and pantothenic acid, which help to provide energy by breaking down proteins, fats and carbohydrates. B vitamins also play an important role in the nervous system.

Criminis & portabellas are the same mushrooms just picked at different times



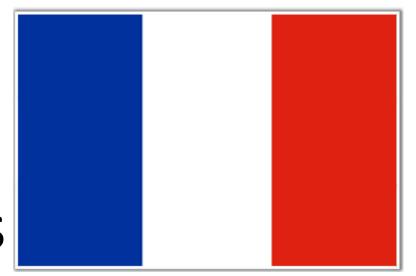


Portabella

Mushrooms are low in calories, fatfree, cholesterolfree and very low in sodium



Some of the earliest commercial farms



were actually set up in caves in France during the reign of King Louis XIV (1638-1715)

Mushrooms deliver the antioxidant selenium & ergothioneine which help maintain a healthy immune system

Kennett Square, PA is considered the mushroom capital of the world since it produces the most fresh cultivated mushrooms each

Kennett Square, Pennsylvania







White button mushrooms are the most popular variety, representing 90% of mushrooms consumed in the United States.

White button

The most popular mushroom, white buttons represent about 90 percent of mushrooms consumed in the United States.



