

1. Cultivation of Milky mushroom (*Calocybe indica*)

Application / Use	Can be grown indoors on pasteurized paddy straw
Input Needed	Paddy straw and casing soil. The other inputs will depend on the scale and technique of cultivation used.
Output Capacity	Approximately 100-130 kg of fresh mushroom can be produced in 1000 cubic feet volume (Room 10x10x10ft size). This amount to approximately 2.5-3.25kg of protein per 1000 cubic ft. 6 crops can be taken per annum. Production per annum will be approximately 600-780kg of fresh mushrooms from the mentioned room size.
Specific Benefits	Additional nutrition, income, employment generation and organic manure production
Unit Cost	Rs. 10-15 per kg depending on the place
Description	Milky mushroom is an edible mushroom which can be easily grown either for commercial purpose or for home consumption. It is the first indigenous variety of mushroom to be commercialized. It is the first truly tropical mushroom which can be cultivated in the tropical temperature regime of 30-40°C. It is an excellent source of high quality protein and vitamins (especially Vitamin B). Its high fiber content makes it excellent for stomach related ailments. The average biological efficiency can be 60-90%. It has excellent shelf life as compared to oyster or button mushrooms. Its spore content is very low hence does not cause respiratory allergy problem as the presently grown oyster species.
Developed By	Dr. Meera Pandey, Dr.S.S.Veena

For further details click here [**Cultivation Technology of Milky Mushroom**](#)

2. Cultivation of Elm Oyster mushroom

Application / Use	Can be grown indoors on pasteurized paddy straw
Input Needed	Paddy straw. The other inputs will depend on the scale and technique of cultivation used.
Output Capacity	Approximately 100-130 kg of fresh mushroom can be produced in 1000 cubic feet volume (Room 10x10x10ft size). This amounts to approximately 2.5-3.25kg of protein per 1000 cubic ft. 6 crops can be taken per annum. Production per annum will be approximately 600-780kg of fresh mushrooms from the mentioned room size.
Specific Benefits	Additional nutrition, income, employment generation, bioremediation and organic manure production.
Unit Cost	Rs. 10-15 per kg depending on the place
Description	The Elm oyster mushroom is an excellent edible mushroom which can be easily grown either for commercial purpose or for home consumption. It is an excellent source of high quality protein and vitamins (especially Vitamin B). The average biological efficiency can be 60-90%. The yield, sporophore size, texture and flavor of this mushroom is far superior as compared to the commercial oyster mushrooms like <i>Pleurotus florida</i> or <i>P. sajor-caju</i> presently being grown in India. Its spore content is very low hence does not cause respiratory allergy problem as the presently grown oyster species. It is highly recommended for stomach and intestinal diseases
Developed By	Dr. Meera Pandey, Dr. S.S.Veena

For further details click here [Cultivation Technology of Oyster Mushroom](#)

3. Cultivation of Shiitake mushroom(*Lentinula edodes*)

Application / Use	Can be grown indoors on hardwood sawdust
Input Needed	Sawdust, wood chips, rice bran. Spawn of the respective species. The other inputs will depend on the scale and technique of cultivation used. It is grown indoors hence vertical space can be utilized.
Output Capacity	Approximately 160-200 kg of fresh mushroom can be produced 1000 cubic feet volume (Room 10x10x10ft size) which is approximately 4.8-6.0kg of protein per 1000 cubic ft. 3 crops can be taken per annum. Production per annum will be approximately 480- 600 kg of fresh mushrooms
Specific Benefits	Additional nutrition, income, employment generation and organic manure production. This mushroom has excellent medicinal and export value.
Unit Cost	Rs. 10-15 per kg depending on the place
Description	The shiitake mushroom is an excellent edible and medicinal mushroom which can be easily grown either for commercial purpose or for home consumption. It is an excellent source of high quality protein and vitamins (especially Vitamin B). It is devoid of fat and sugar hence is excellent for diabetics and heart patients. Lentinan extracted from this mushroom is a drug for cancer. It has excellent cholesterol reducing properties. The average biological efficiency can be 70-90%. It can be grown on hardwood sawdust of Teak, sal and Indian Kino tree.
Developed By	Dr. Meera Pandey, Dr. S.S.Veena

For further details click here [Cultivation Technology of Shiitake Mushroom \(*Lentinula edodes*\)](#)

4. Elm oyster mushroom (*Hypsizygus ulmarius*)



It was introduced for commercial production for the first time in India by IIHR. Mushrooms initially gray in color, fading on maturity. Gills and stalks white. Mushrooms large and fleshy with excellent taste. Mushrooms occurring in clusters. Shelf life 36-48 hours at 25-30°C and 4-5 days at 4°C. Commercial cultivation has been standardized on pasteurized (80-85°C for 2 hours)/sterilized (121 °C, 15 lb pressure for 15 minutes) paddy straw. It completes spawn run in 25-30 days in a temperature range of 25-30°C. Pinhead initiation begins after 4-7 days of opening of the bags and matures for harvest within 2-3 days. The total cropping cycle of this variety from spawning to harvesting 37-42 days. The average biological efficiency of 60-80% can be obtained within this period. It can be marketed as fresh, dry or as mushroom powder. For natural growing any region in India having a temperature range between 20-25°C. Under controlled environment all the regions. All year round natural cultivation can be undertaken in Kodagu, Chickmangalur, Kodaikanal, Ooty, Connoor, North eastern states of Manipur, Meghalaya, Mozoram, Nagaland and Arunachal Pradesh. Seasonal cultivation can be done in other regions. Spent mushroom substrate (SMS) can be used as an excellent organic manure or for vermicomposting.

5. Mushroom - Arka OM-1

Pink coloured mushroom, synchronous flushing pattern, short duration and high shelf life

6. Reishi mushroom (*Ganoderma lucidum*)



Mushrooms brown in color with shining cap. The lower pore surface creamy to white changing color on bruising. Spores brown. It can be grown on sterilized sawdust or paddy straw. Optimum temperature requirement for spawn running 30-32°C. Spawn running period 25-30 days. Cropping requires an optimum temperature of 30-32°C, humidity of 80-85%, light and ventilation. Mushrooms can be harvested in 2-3 flushes after which the entire cycle is repeated. Total cultivation cycle of 120-150 days. Biological efficiency potential 25-30%. Since this mushroom is woody it can be dried and stored for several months. It can be marketed as powder. Reishi mushroom by virtue of being a plant pathogen, demands that utmost care be taken during disposal of the spent mushroom substrate. The spent substrate may be burnt off to avoid its spread to other trees. It is an excellent medicinal mushroom. Species of *Ganoderma* have been used traditionally as medicinal mushrooms in China and Southeast Asia. *Ganoderma* nutraceuticals are used for treating patients suffering from cardiovascular problems, leukemia, leucopenia, hepatitis, nephritis, gastritis, insomnia, asthma, bronchitis and for cholesterol-lowering. Modern research has shown that polysaccharides and tri-terpenoids are the major active ingredients triggering the human immune system. Recent pharmacological and clinical studies suggest that this mushroom is a blood-thinner and exhibits anti-cancer/anti-tumour effects. It is effective against Hepatitis – B and lowers blood glucose and blood pressure.

For further details click here [Cultivation Technology of Reishi Mushroom](#)