

## Training Schedule

### Mushroom Production (618)

S.No	Schedule		Theory (40 Hrs)		Practical (80 Hrs)		Instructions to the trainer	Learning Outcomes (After going through the particular PCP learner will be able to...)
	Week	Day	Topic	Hours	Topic	Hours		
1.	Week 1	Day 1	Introduction to mushroom	2	<ul style="list-style-type: none"> <li>• Orientation to a mushroom farm</li> <li>• Identification of different types of mushroom</li> </ul>	3	<ul style="list-style-type: none"> <li>• Use relevant ppts/ videos showing the importance of mushroom from agricultural, health and industrial point of view and scope of income.</li> <li>• Show relevant success stories in nearby locality.</li> <li>• Arrange visit to nearby mushroom farm in advance.</li> </ul>	<ul style="list-style-type: none"> <li>• Display intellectual competence on the knowledge about the importance of mushroom production and its economic value</li> <li>• Identify various types of mushroom grown economically</li> </ul>
2.		Day 2	Mushroom Spawn (seed) production/ procurement	2	<ul style="list-style-type: none"> <li>• Preparation of pure culture</li> <li>• Preparation of mother spawn</li> <li>• Production of planting spawn</li> <li>• Storage /Transportation of spawn</li> </ul>	3	<ul style="list-style-type: none"> <li>• Explain quality spawn production for different mushroom using models/charts/ specimen.</li> <li>• Explain cautions to be taken for procurement of mushroom spawn from authentic source using relevant audio video Aids.</li> <li>• Demonstrate procedures for production of quality</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate technologies for spawn production</li> <li>• Follow recommended procedure for quality spawn production</li> </ul>

							product.	
3.	Week 2	Day 1	Cultivation of Button mushroom	2	<ul style="list-style-type: none"> <li>Wetting and mixing of ingredients in mixture</li> <li>Outdoor fermentation in stacks/ turning schedule by long method</li> </ul>	3	<ul style="list-style-type: none"> <li>Demonstrate procedures using appropriate tools and equipments.</li> <li>Explain precautions to be followed.</li> </ul>	<ul style="list-style-type: none"> <li>Perform wetting &amp; mixing of ingredients</li> <li>Perform the turning of mixture by long method at proper time</li> </ul>
4.		Day 2	-	-	<ul style="list-style-type: none"> <li>Short method of composting done in two phases: phase-1 (Outdoor/ bunker) and phase-2 bulk pasteurisation chambers)</li> <li>Spawning of compost/ spawn run</li> <li>Casing and case-run</li> <li>Cropping and harvesting of mushroom</li> <li>Post harvest handling</li> </ul>	5	<ul style="list-style-type: none"> <li>Demonstrate procedures using appropriate tools and equipments.</li> <li>Explain quality control methods.</li> </ul>	<ul style="list-style-type: none"> <li>Describe various phases of short methods of composting</li> <li>Perform the spawning of compost, casing &amp; case run</li> <li>Harvest mushroom at appropriate stage and post harvest handling</li> </ul>
5.	Week 3	Day 1	Cultivation of Oyster mushroom	2	<ul style="list-style-type: none"> <li>Substrate formulation</li> <li>Substrate wetting and treatments:</li> </ul>	3	<ul style="list-style-type: none"> <li>Demonstrate procedures using appropriate tools and equipments.</li> <li>Explain precautions to be</li> </ul>	<ul style="list-style-type: none"> <li>Summarize the Oyster mushroom production procedure</li> </ul>

					Hot water/ steam		followed.	
6.		Day 2	-	-	<ul style="list-style-type: none"> <li>• Spawning of substrate and filling in container/ bag, spawn run</li> <li>• Exposing of bags for cropping</li> <li>• Cropping and harvesting of mushroom</li> <li>• Post harvest handling</li> </ul>	5	<ul style="list-style-type: none"> <li>• Demonstrate procedures using appropriate tools and equipments.</li> <li>• Explain quality control methods.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform the spawning of compost</li> <li>• Harvest mushroom at appropriate stage and post harvest handling</li> </ul>
7.	Week 4	Day 1	Cultivation of Paddy Straw mushroom	2	<ul style="list-style-type: none"> <li>• Substrate wetting and treatments: Hot water/ steam</li> <li>• Stacking of paddy straw bundles in a heap and spawning in layers</li> <li>• Polythene cover of the heap for spawn run</li> </ul>	3	<ul style="list-style-type: none"> <li>• Demonstrate procedures using appropriate tools and equipments.</li> <li>• Explain precautions to be followed.</li> </ul>	<ul style="list-style-type: none"> <li>• Summarize the Oyster mushroom production procedure</li> <li>• Perform stacking of paddy straw and spawning</li> </ul>
8.		Day 2	-	-	<ul style="list-style-type: none"> <li>• Cropping and harvesting of mushrooms</li> <li>• Post harvest handling</li> </ul>	5	<ul style="list-style-type: none"> <li>• Demonstrate procedures using appropriate tools and equipments.</li> <li>• Explain quality control methods.</li> </ul>	<ul style="list-style-type: none"> <li>• Harvest mushroom at appropriate stage and post harvest handling</li> </ul>
9.	Week 5	Day 1	Cultivation of Milky mushroom	2	<ul style="list-style-type: none"> <li>• Substrate formulation</li> <li>• Substrate wetting</li> </ul>	3	<ul style="list-style-type: none"> <li>• Demonstrate procedures using appropriate tools and equipments.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain procedure to grow milky mushroom</li> <li>• Perform the stacking</li> </ul>

					and treatments: Hot water/ steam		<ul style="list-style-type: none"> <li>• Explain precautions to be followed.</li> </ul>	of paddy straw and spawning
10.		Day 2	-	-	<ul style="list-style-type: none"> <li>• Casing and case-run</li> <li>• Exposing of bags for cropping</li> <li>• Cropping and harvesting of mushroom</li> <li>• Post harvest handling</li> </ul>	5	<ul style="list-style-type: none"> <li>• Demonstrate procedures using appropriate tools and equipments.</li> <li>• Explain quality control methods.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify harvesting stages of mushroom</li> <li>• Describe the post harvest handling methods</li> </ul>
11.	Week 6	Day 1	Cultivation of other economically important and medicinal mushroom	2	<ul style="list-style-type: none"> <li>• Substrate preparation for Shiitake and Kabul Dhingri (King oyster) Mushroom</li> <li>• Crop management</li> <li>• Post harvest handling</li> </ul>	3	<ul style="list-style-type: none"> <li>• Demonstrate procedures using appropriate tools and equipments.</li> <li>• Explain maintaining quality and precautions to be followed.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare the substrate for King oyster production</li> <li>• Harvest mushrooms at appropriate stage and post harvest handling</li> </ul>
12.		Day 2	-	-	<ul style="list-style-type: none"> <li>• Substrate preparation for Reishi (Ganoderma) and Kira ghas (Corssdycep) Mushroom</li> </ul>	5	<ul style="list-style-type: none"> <li>• Demonstrate procedures using appropriate tools and equipments.</li> <li>• Explain maintaining quality and precautions to be followed.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare substrate for Reishi &amp; Kira ghas production</li> <li>• Harvest mushroom at appropriate stage and post harvest handling</li> </ul>

					<ul style="list-style-type: none"> <li>• Crop management</li> <li>• Post harvest handling</li> </ul>			
13.	Week 7	Day 1	Insect- Pests management in cultivated mushroom	2	<ul style="list-style-type: none"> <li>• Identification and management of pests by chemical and non-chemical methods</li> </ul>	3	<ul style="list-style-type: none"> <li>• Explain insect-pests, their symptoms and management using relevant videos/ppts/charts and specimen.</li> <li>• Explain precautions to be taken while handling mushrooms to maintain its quality.</li> </ul>	<ul style="list-style-type: none"> <li>• Diagnose different pests &amp; diseases of mushroom</li> <li>• Identify the pathogens and describe the symptoms produced by pathogens causing the diseases</li> </ul>
14.		Day 2	Disease management in cultivated mushroom	2	<ul style="list-style-type: none"> <li>• Dry Bubble and wet bubble – major diseases of cultivated mushroom</li> <li>• Competitor/weed moulds encountered: Green, yellow and plaster moulds/ <i>Coprinus</i></li> </ul>	3	<ul style="list-style-type: none"> <li>• Explain diseases in mushrooms, symptoms and management using relevant videos/ppts/charts and specimen.</li> <li>• Explain precautions to be taken while handling mushrooms to maintain its quality.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe management practices recommended to keep the diseases under control</li> <li>• Describe weed management practices recommended to keep the weed under control</li> </ul>
15.	Week 8	Day 1	Value addition of mushroom	2	<ul style="list-style-type: none"> <li>• Value added recipes preparation</li> <li>• Quality assurance</li> <li>• Shelf life</li> <li>• Packing and packaging</li> <li>• Market</li> </ul>	3	<ul style="list-style-type: none"> <li>• Use relevant videos/ ppt for explaining the topic.</li> <li>• Demonstrate procedure for preparation of different recipes, packing and packaging of mushrooms.</li> <li>• Explain importance of</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare value added products from mushroom</li> <li>• Prepare and pack different recipes of mushrooms as per market demand</li> </ul>

					opportunities		quality maintenance and tips for improving shelf life of mushrooms. <ul style="list-style-type: none"> <li>• Explain precautions to be taken while different procedures.</li> </ul>	
16.		Day 2	Design and develop mushroom production growing structure / unit	2	<ul style="list-style-type: none"> <li>• Construction of mushroom growing unit using locally available materials</li> </ul>	3	<ul style="list-style-type: none"> <li>• Explain construction of mushroom growing unit using locally available materials using relevant videos/ ppt.</li> <li>• Demonstrate construction of mushroom growing unit using locally available materials</li> <li>• Explain precautions to be taken while procedures.</li> </ul>	<ul style="list-style-type: none"> <li>• Make demo unit for mushroom cultivation using locally available materials</li> <li>• Take precautions while performing various procedures</li> </ul>
17.		Day 1	Entrepreneurial skills and economics for small enterprise	5	-	-	<ul style="list-style-type: none"> <li>• Explain Key-Entrepreneurship skills using ppts/ videos/ role play</li> <li>• Demonstrate economics for small enterprise</li> </ul>	<ul style="list-style-type: none"> <li>• Develop basic entrepreneurial skills</li> </ul>
18.	Week 9	Day 2	-	-	<ul style="list-style-type: none"> <li>• Market survey- Field visit to get</li> </ul>	5	<ul style="list-style-type: none"> <li>• Arrange market visit to get prices of various</li> </ul>	<ul style="list-style-type: none"> <li>• Perform market survey</li> </ul>

					<p>prices of various inputs from the market and to assess the need and requirement of the client.</p> <ul style="list-style-type: none"> <li>• Calculation of Cost- Benefit ratio of mushroom production</li> </ul>		<p>inputs from the market.</p> <ul style="list-style-type: none"> <li>• Demonstrate to assess the need and requirement of the client.</li> <li>• Explain ways to identify appropriate buyers for the produce.</li> </ul>	<p>for demand analysis</p> <ul style="list-style-type: none"> <li>• Calculate the Cost- Benefit ratio of mushroom production</li> </ul>
19.	Week 10	Day 1	Business plan to start a mushroom enterprise	2	<ul style="list-style-type: none"> <li>• Make a business plan to start a mushroom business.</li> <li>• Make a financial and budget plan to start a mushroom farm.</li> </ul>	3	<ul style="list-style-type: none"> <li>• Explain, prepare and share a business proposal for easy understanding of learner.</li> <li>• Explain record maintenance.</li> <li>• Demonstrate best ways of marketing one's produce.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare a business plan for small mushroom unit</li> </ul>
20.		Day 2	Communication and writing skills	2	<ul style="list-style-type: none"> <li>• Communication and writing skills</li> </ul>	3	<ul style="list-style-type: none"> <li>• Explain effective communication and writing skills using relevant ppts/ videos.</li> <li>• Conduct pre and post training test to assess the understanding of learner to run an enterprise.</li> <li>• Explain appropriate ways to establish cordial relations with various clients for developing the business.</li> <li>• Explain learners to ensure quality of the produce to</li> </ul>	<ul style="list-style-type: none"> <li>• Use effective communication and writing skills</li> </ul>

							get higher returns.	
21.	Week 11	Day 1	Management of spent substrates and waste disposal of various mushroom	2	<ul style="list-style-type: none"> <li>• Management of spent substrates</li> <li>• Waste disposal of various mushroom</li> </ul>	3	<ul style="list-style-type: none"> <li>• Explain topics using ppt/ videos.</li> <li>• Explain precautions to be taken while waste disposal of various mushrooms.</li> </ul>	<p>Manage spent substrates</p> <p>Perform waste disposal of various mushroom</p>
22.		Day 2	Health and safety at workplace	2	<ul style="list-style-type: none"> <li>• Health and safety at workplace</li> <li>• Precautions and Emergency procedures</li> </ul>	3	<ul style="list-style-type: none"> <li>• Explain and demonstrate health and safety of workplace.</li> <li>• Explain precautions to be taken while emergency situations.</li> </ul>	<ul style="list-style-type: none"> <li>• Make a healthy and safety workplace.</li> <li>• Take necessary precautions in emergency situations</li> </ul>
23.	Week 12	Day 1	-	-	<p>Make a project on any of the following topics:</p> <ul style="list-style-type: none"> <li>• Make a profit report based on market survey for mushroom production citing demand and supply status.</li> <li>• Make a project report on value added mushroom products with metod of preparation and flow chart.</li> <li>• Make a demonstartion unit of mushroom production.</li> </ul>	5	<ul style="list-style-type: none"> <li>• Help learner in completing the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply core and generic skills while preparing project.</li> </ul>

24.		Day 2	Revision and doubt clearance	5	-	-	<ul style="list-style-type: none"> <li>• Revision of tough topics to be done.</li> <li>• Class test may be conducted.</li> </ul>	• Clarify doubts
		<b>Total</b>		<b>40</b>		<b>80</b>		