

EDIBLE MUSHROOMS PRODUCTION

ISCED UNIT CODE: 0812 451 15A

TVET CDACC UNIT CODE: HO/CU/HP/CR/06/5/MA

Unit duration: 80 Hours

Relationship to Occupational Standards

This unit addresses the Unit of Competency: **Produce edible mushrooms**

Unit Description

This unit specifies the competencies required to produce quality and clean edible mushroom. It involves preparing edible mushrooms planting materials, establishing edible mushrooms, managing edible mushrooms and performing edible mushrooms post-harvest practices.

Summary of Learning Outcomes

SNO	Learning Outcome	Duration (Hours)
1.	Prepare edible mushrooms propagation materials	30
2.	Establish edible mushrooms	10
3.	Manage edible mushrooms	20
4.	Perform edible mushrooms post-harvest practices	20
	TOTAL	80

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcomes	Content	Suggested Assessment Methods
1. Prepare edible mushrooms propagation materials	Theory 1.1 Siting mushroom production structure 1.1.1 Definition of edible mushrooms	<ul style="list-style-type: none">• Written tests• Reflection papers• Projects

	<p>1.1.2 Tools, equipment and materials used</p> <p>1.1.2.1 Weighing scale</p> <p>1.1.2.2 Poly tubes</p> <p>1.1.2.3 Lockable drum</p> <p>1.1.2.4 Table spoon</p> <p>1.1.2.5 Sisal twines</p> <p>1.1.2.6 Supplement –soya bean meal</p> <p>1.2 Construction of mushroom house</p> <p>1.3 Treatment of starter culture</p> <p>1.3.1 Organic soils</p> <p>1.3.2 Plant growth regulators</p> <p>1.3.3 Vitamins,</p> <p>1.3.4 Amino acids and</p> <p>1.3.5 Propagation of media</p> <p>1.1.5.1 Grain</p> <p>1.1.5.2 Liquid</p> <p>1.1.5.3 Wood</p> <p>1.4 Spawning of mushroom</p> <p>Practice</p> <p>1.5 Construct a mushroom house</p> <p>1.6 Carry out treatment of starter culture</p> <p>1.7 Carry out Spawning of mushroom using various spawning methods</p> <p>1.7.1 Layering</p> <p>1.7.2 Broadcasting</p>	<ul style="list-style-type: none"> • Interviews/ Oral questions • Individual/group assignments • Practicals
2. Establish edible mushrooms	<p>Theory</p> <p>2.1 Preparation of substrate</p> <p>2.2 Spawning of mushroom on substrate</p>	<ul style="list-style-type: none"> • Written tests • Reflection papers • Projects

	<p>Practice</p> <p>2.3 Prepare mushroom spawning substrate 2.4 Carry out mushroom spawning on substrate</p>	<ul style="list-style-type: none"> • Interviews/ Oral questions • Workshop reports • Individual/group assignments • Practicals
3. Manage edible mushrooms	<p>Theory</p> <p>3.1 Field management practices</p> <p>3.1.1 Pest control 3.1.2 Disease control 3.1.3 Sterilising substrate</p> <p>3.2 Harvesting of edible mushrooms</p> <p>3.3 Management of wastes</p> <p>Practice</p> <p>3.4 Carry out management practices using various methods 3.5 Carry out harvesting of edible mushrooms fruits 3.6 Carry out management practices of waste in a mushroom house</p>	<ul style="list-style-type: none"> • Written tests • Reflection papers • Projects • Interviews/ Oral questions • Workshop reports • Individual/group assignments • Practicals
4. Perform edible mushrooms post-harvest practices	<p>Theory</p> <p>4.1 Post-harvest practices</p> <p>4.1.1 Definition of terms</p> <p>4.2 Examples of post-harvest practices</p> <p>4.2.1 Cooling 4.2.2 Freezing 4.2.3 Drying 4.2.4 Grading</p>	<ul style="list-style-type: none"> • Written tests • Reflection papers • Projects • Interviews/ Oral questions • Workshop reports • Individual/group assignments

	<p>4.2.5 Sorting</p> <p>4.2.6 Packaging</p> <p>4.2.7 Storage</p> <p>4.2.8 Transportation</p> <p>4.3 Marketing techniques</p> <p>4.3.1 Online marketing</p> <p>4.3.2 Influencer marketing</p> <p>4.3.3 Public relation</p> <p>4.4 Management of wastes</p> <p>Practice</p> <p>4.5 Carry out post-harvest practices using various methods</p> <p>4.6 Carry out the management of waste</p>	Practicals
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Suggested Methods of Instruction

- Role playing
- Group discussion
- Direct instruction
- Role playing
- Group discussion
- Direct instruction
- Questionnaires
- Interviews
- Experiment
- Survey
- Observation
- Demonstration

Recommended Resources for 25 Trainees

Tools

- 25 Weighing scale
- 25 Lockable drum
- 25 Table spoon

Equipment

- 25 Hand spray equipment
- PPE –hand gloves, dust coat, dust masks

Materials

- 25 Polythene bags
- 25 Oven
- 25 Basins
- 25 Methylated spirits
- 25 Lime
- 25 Fuel for heating substrate
- 25 Molasses
- 25 Sisal twine
- 25 Poly tubes
- 25 Soap
- 25 Supplement –soya bean meal
- 25 Plant residues –stalks and bran
- 25 Sisal twines
- 25 Shelves
- 25 Shade
- 25 Spawn
- 25 Water
- 25 Substrate