

## **TROPICAL FRUITS PRODUCTION**

**ISCED UNIT CODE:** 0812 351 07A

**TVET CDACC UNIT CODE:** HO/CU/HP/CR/03/4/MA

**Unit duration:** 150 Hours

### **Relationship to Occupational Standards**

This unit addresses the Unit of Competency: **Produce tropical fruits**

### **Unit Description**

This unit specifies the competencies required to produce quality and clean tropical fruits. It involves preparing tropical fruits planting materials, establishing tropical fruit orchards, managing tropical fruit orchard and performing tropical fruits post-harvest practices.

### **Summary of Learning Outcomes**

SNO	Learning Outcome	Duration (hours)
1.	Establish tropical fruits nursery	30
2.	Establish tropical fruits orchard	40
3.	Manage tropical fruits orchard	40
4.	Perform tropical fruits post-harvest practices	40
	<b>TOTAL</b>	<b>150</b>

### **Learning Outcomes, Content and Suggested Assessment Methods**

Learning Outcomes	Content	Suggested Assessment Methods
1. Establish tropical fruits nursery	<b>Theory</b> 1.1 Nursery site selection 1.1.1 Definition of terms	<ul style="list-style-type: none"><li>• Written tests</li><li>• Reflection papers</li><li>• Projects</li></ul>

	<p>1.1.2 Importance of nursery site selection</p> <p>1.1.3 Factors considered when siting a nursery</p> <p>1.1.4 Tools, equipment and materials used</p> <ul style="list-style-type: none"> <li>1.1.4.1 Panga</li> <li>1.1.4.2 Jembe</li> <li>1.1.4.3 Slashers</li> <li>1.1.4.4 Rake</li> </ul> <p>1.2 Nursery preparation</p> <p>1.3 Planting seeds in a nursery</p> <p>1.4 Nursery management practices</p> <ul style="list-style-type: none"> <li>1.4.1 Mulching</li> <li>1.4.2 Shading</li> <li>1.4.3 Hardening off</li> <li>1.4.4 Watering</li> <li>1.4.5 Fertilizer application</li> <li>1.4.6 Pest and diseases control</li> <li>1.4.7 Pricking out</li> </ul> <p><b>Practice</b></p> <p>1.5 Carry out a nursery bed preparation and planting</p> <p>1.6 Carry out nursery bed management practices</p>	<ul style="list-style-type: none"> <li>• Interviews/ Oral questions</li> <li>• Workshop reports</li> <li>• Individual/group assignments</li> <li>• Practicals</li> </ul>
2. Establish tropical fruits orchard	<p><b>Theory</b></p> <p>2.1 Orchard site selection</p> <ul style="list-style-type: none"> <li>2.1.1 Definition of terms</li> <li>2.1.2 Importance of an orchard</li> <li>2.1.3 Factors considered when siting an orchard</li> </ul> <p>2.2 Preparation of the land</p> <p>2.3 Planting of seedlings</p>	<ul style="list-style-type: none"> <li>• Written tests</li> <li>• Reflection papers</li> <li>• Projects</li> <li>• Interviews/ Oral questions</li> <li>• Workshop reports</li> <li>• Individual/group assignments</li> </ul>

	<p>2.4 Field management practices</p> <p><b>Practice</b></p> <p>2.5 Carry out land preparation using various methods.</p> <p>2.6 Carry out planting of seedlings</p> <p>2.7 Carry out field management practices</p>	<ul style="list-style-type: none"> <li>Practicals</li> </ul>
3. Manage fruits orchard	<p><b>Theory</b></p> <p>3.1 Field management practices</p> <p>    3.1.1 Gapping</p> <p>    3.1.2 Training</p> <p>        3.1.2.1 Pruning</p> <p>        3.1.2.2 Trellising</p> <p>        3.1.2.3 Staking</p> <p>    3.1.3 Fertilizer application</p> <p>    3.1.4 Pest and disease control</p> <p>        3.1.4.1 Causal agent</p> <p>        3.1.4.2 Signs and symptoms</p> <p>    3.1.5 Irrigation</p> <p>    3.1.6 Mulching</p> <p>3.2 Harvesting of tropical fruits</p> <p>3.3 Management of wastes</p> <p><b>Practice</b></p> <p>3.4 Carry out management practices using various methods</p> <p>3.5 Carry out harvesting of tropical fruits.</p> <p>3.6 Carry out management of waste in an orchard</p>	<ul style="list-style-type: none"> <li>Written tests</li> <li>Reflection papers</li> <li>Projects</li> <li>Interviews/ Oral questions</li> <li>Workshop reports</li> <li>Individual/group assignments</li> <li>Practicals</li> </ul>
4. Perform tropical fruits	<p><b>Theory</b></p> <p>1.1 Post-harvest practices</p>	<ul style="list-style-type: none"> <li>Written tests</li> <li>Reflection papers</li> </ul>

post-harvest practices	1.1.1 Definition of terms 1.2 Examples of post-harvest practices <ul style="list-style-type: none"> <li>1.2.1 Cooling</li> <li>1.2.2 Freezing</li> <li>1.2.3 Drying</li> <li>1.2.4 Grading</li> <li>1.2.5 Sorting</li> <li>1.2.6 Packaging</li> <li>1.2.7 Storage</li> <li>1.2.8 Transportation</li> </ul> 1.3 Marketing techniques <ul style="list-style-type: none"> <li>1.3.1 Online marketing</li> <li>1.3.2 Influencer marketing</li> <li>1.3.3 Public relation</li> </ul> 1.4 Management of wastes <b>Practice</b> 1.5 Carry out post-harvest practices using various methods 1.6 Carry out the management of waste	<ul style="list-style-type: none"> <li>• Projects</li> <li>• Interviews/ Oral questions</li> <li>• Workshop reports</li> <li>• Individual/group assignments</li> </ul> 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

### **Recommended Resources for 25 Trainees**

<b>General Resources</b>	<b>Tools and Equipment</b>	<b>Materials and Supplies</b>
● Source of water	● 25 Spray pumps	● Seeds
● Gutters	● 25 Watering cans	● 25 Suckers
● 25 Bucket	● 25 Hose pipes	● Seedlings
● 25 Shears	● 25 Plough	● 25 Cuttings
● 25 Soil augur	● 25 Harrows	● 25 Tubers
● 25 Panga	● 25 Ridgers	● 25 Tissue culture
● 25 Hammer	● 25 Boom sprayer	● 25 Buds
● 25 Saw	● 25 Pruning saw	● 25 Corms
● 10 Flow meters	● 25 Wire strainer	● 25 Corms Pesticides
● 10 Pumps	● 25 Traps	● Fertilizers
● 10 Sprinkler	● 25 Pipe sprinklers	● 25 Stationery
● 25 Dibbler	● 25 Scouting flags	● Manures
	● 25 Storage tanks	● 25 Ropes
	● 25 Tractors	● 25 Nets
	● 25 Grading shed	● 25 Papers
	● 25 Bud count square	● 25 Fencing wire
	● 25 Meteorological equipment	● 25 Staking sticks
	● 25 Hoes	● 25 Nails
	● 25 Machetes	25 Herbicides
	● 25 Secateurs	● Seeds