

PRODUCE SUB-TROPICAL FRUITS

UNIT CODE: HO/OS/HP/CR/02/3/B

UNIT DESCRIPTION

This unit specifies the competencies required to participate in establishing and maintaining a sub-tropical fruits orchard. This includes applying food safety measures in land preparation, planting, weeding, nutrient application, control of pests and diseases, harvesting and post-harvest handling of fruits.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes which make up workplace function.	PERFORMANCE CRITERIA These are assessable statements which specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in the range.</i>
1. Apply food safety measures in producing sub-tropical fruits	1.1 Orchard is established and maintained according to recommended <i>agronomic practices</i> and instructions given. 1.2 Standard operating procedures for preventing and mitigating food safety risks are implemented as per the identified food safety risks 1.3 <i>Food safety procedures</i> are followed in producing sub-tropical fruits 1.4 Possible <i>sources of food safety hazards</i> are identified and documented as per instruction
2. Prepare to produce sub-tropical fruits	2.1 <i>Tools, equipment, materials and supplies</i> are assembled based on the requirements of the job 2.2 <i>Occupational safety and health procedures</i> are adhered to according workplace procedures 2.3 Soil samples are collected as per instructions. 2.4 Land for tropical and <i>sub-tropical fruits</i> production is prepared according to type of fruit tree and instructions given.
3. Produce sub-tropical fruits	3.1 Nutrients are applied to the fruit trees based on the soil analysis report and as instructed 3.2 Diseases, pests and physiological disorders of fruit are managed as per the instructions given.
4. Complete production of sub-tropical fruits	4.1 Fruits are harvested in accordance with the workplace instructions 4.2 <i>Post-harvest handling</i> of the tropical fruits is carried out based on the workplace instructions 4.3 Tropical fruit production records are kept as per workplace instructions 4.4 Waste disposal is undertaken in accordance with workplace instructions.

RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environment and situations that will affect performance.

Variable	Range
1. Agronomic practices may include but not limited to:	<ul style="list-style-type: none">• Growing cycle and growing period• Rooting of cuttings• Optimizing soil conditions• Determining crop water needs• Application of nutrients• Control pests, diseases, physiological disorders and weeds
2. Food safety procedures may include but not limited to:	<ul style="list-style-type: none">• Hand washing• Use of PPE• Judicious use of agro inputs• Personal hygiene• Clean as you go
3. Sources of food safety hazards may include but not limited to:	<ul style="list-style-type: none">• Water• Growing media• Site• Organic and inorganic fertilizer
4. Food safety hazards may include but not limited to:	<ul style="list-style-type: none">• Chemicals• Heavy metals• Pesticides• Biological• Physical
5. Tools may include but not limited to:	<ul style="list-style-type: none">• Hoes• Machetes• Secateurs• Shovels• Soil augur• Pegs• Hammer• Wire strainer• Pruning saw• Bucket• Shears• Dibbler

<p>6. Farm machinery & equipment includes but not limited to:</p>	<ul style="list-style-type: none"> • Spray pumps • Watering cans • Hose pipes • Plough • Harrows • Ridger • Pruning saw • Traps • Pipe sprinklers • Scouting flags • Storage tanks • Tractors • Bud count square • Meteorological equipment
<p>7. Materials and supplies may include but not limited to:</p>	<ul style="list-style-type: none"> • Seedlings /planting materials • Pesticides • Herbicides • Pheromones for arthropod traps • Fertilizers • Staking sticks • Nails • Khaki paper bags • Stationery • Manures • Measuring tape • Layout string • Shade nets • Translucent papers • Planting pots • Fencing wire
<p>8. Occupational safety and health procedures may include but not limited to:</p>	<p>The practices to manage hazards from:</p> <ul style="list-style-type: none"> • Fire • Use of tools • Chemical contamination and poisoning
<p>9. Sub-tropical fruits may include but not limited to:</p>	<p>Types of :</p> <ul style="list-style-type: none"> • Mangoes • Oranges • Papaya • Pineapple • Custard • Avocado • Bananas
<p>10. Planting materials may include but not limited to:</p>	<ul style="list-style-type: none"> • Seeds • seedlings • splits • crowns

	<ul style="list-style-type: none"> • slips • Cuttings • Suckers • Tissue culture
11. post-harvest handling includes but not limited to:	<ul style="list-style-type: none"> • Removal of edible crop parts (e.g. fruits) from the plant • Basic cooling • Cleaning • Transporting • Sorting and grading • Weighing

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

Required skills

The individual needs to demonstrate the following skills:

- Record keeping
- Basic hygiene
- Tilling
- Measuring
- Leveling
- Gaping
- Pruning
- Spraying
- Produce handling
- Soil sampling
- Basic numeracy
- Communication

Required knowledge

The individual needs to demonstrate knowledge of:

- Basic food hygiene practices
- Record keeping
- Basic tropical/ sub-tropical fruits orchard establishment and management
- Basic tools and equipment used in production of tropical fruits
- Basic soil sampling
- Basic soil conservation
- Basic agronomic practices in tropical/ sub-tropical fruits production
- Basic maturity indices in tropical/ sub-tropical fruits
- Harvesting and post harvesting handling of tropical/ sub-tropical fruits
- Basic production records
- Basic waste disposal

- Occupational safety and health

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

1 Critical Aspects of Competency	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Prepared planting land depending on the type of fruit tree and instructions given.</p> <p>1.2 Established and maintained the orchard according to recommended <i>agronomic practices</i> and as per instructions given.</p> <p>1.3 Harvested and carried out post-harvest handling practices as instructed</p> <p>1.4 Observed safety measures by using Personal Protective Equipment (PPE) and correct tools as per the instructions</p> <p>1.5 Observed food safety procedures as per instructions</p> <p>1.6 Documented food safety records as per instructions</p>
2 Resource Implications for competence assessment	<p>The following resources should be provided:</p> <p>2. 1 Access to relevant workplace where assessment can take place</p> <p>2. 2 Appropriately simulated environment where assessment can take place</p> <p>2. 3 Materials relevant to the proposed activity or tasks</p>
3 Methods of Assessment	<p>Competency may be assessed through:</p> <p>3.1 Observation</p> <p>3.2 Oral questioning</p> <p>3.3 Interviews</p> <p>3.4 Third party report</p>
4. Context of Assessment	<p>Competency may be assessed:</p> <p>2.1 Of-the job</p> <p>2.2 On-the-job</p> <p>2.3 Work placement -attachment</p> <p>Off the job assessment must be undertaken in a closely simulated workplace environment.</p>
5. Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p>