

## PRODUCE OIL CROPS

**ISCED UNIT CODE:** 0812 551 20A

**TVETCDACC UNIT CODE:** HO/OS/HP/CR/01/6/MA

### UNIT DESCRIPTION

This unit specifies the competencies required to produce quality oil crops. It involves establishing oil crops nursery, establishing oil crops, performing oil crops post-harvest practices.

### ELEMENTS AND PERFORMANCE CRITERIA

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. <i><b>Bold and italicized terms are elaborated in the range.</b></i>
1. Establish oil crops nursery	1.1 <i><b>Personal protective equipment</b></i> are worn as per work requirement 1.2 Nursery site is selected based on the farm layout 1.3 <i><b>Tools, equipment</b></i> and <i><b>materials</b></i> are assembled as per work requirement 1.4 Nursery site soil analysis is performed as per work procedure 1.5 Nursery is prepared according to <i><b>agronomic requirements of oil crops</b></i> 1.6 Planting materials are obtained as per work procedure 1.7 Planting materials are established in the nursery as per work procedure 1.8 Oil crops <i><b>nursery management practices</b></i> are performed as per agronomical requirements
2. Establish oil crops.	2.1 Personal protective equipment are worn as per work requirement 2.2 Orchard site is selected based on farm plan

	<p>2.3 Tools, equipment and materials are assembled as per work requirement</p> <p>2.4 Land clearing is performed as per agronomic requirements</p> <p>2.5 <b><i>Tillage practices</i></b> are carried out as per agronomic requirements</p> <p>2.6 Soil and water conservation measures are applied as per agronomic needs and field conditions</p> <p>2.7 <b><i>Soil amendments</i></b> are applied as per soil analysis report</p> <p>2.8 Seedlings are transplanted based on agronomic requirements</p>
3. Manage oil crops	<p>3.1 Tools and equipment for carrying out management practices are assembled as per work requirement</p> <p>3.2 Gapping is carried out on oil crops as per agronomic requirements</p> <p>3.3 Training and pruning is carried out as per agronomic requirements</p> <p>3.4 <b><i>Crop protection practices</i></b> are carried out as per agronomic requirement</p> <p>3.5 Physiological disorders are managed as per agronomic requirement</p> <p>3.6 <b><i>Fertilizers</i></b> are applied as per agronomic requirements</p> <p>3.7 Mulching is carried out as per agronomic requirements</p> <p>3.8 Watering is carried out as per agronomic requirements</p> <p>3.9 Oil crops are induced to flower as per agronomic requirements</p> <p>3.10 Oil crops are harvested as per agronomic requirements</p>

	3.11 Waste management is undertaken in accordance to work requirement
4. Perform oil crops post-harvest practices.	<p>4.1 Tools and equipment for carrying out post-harvest practices are assembled as per work requirement</p> <p>4.2 Quality and quantity of oil crops is assessed as per work procedures</p> <p>4.3 <b><i>Post-harvest practices</i></b> are carried out in accordance to work requirement</p> <p>4.4 Oil crops <b><i>marketing techniques</i></b> is applied as per organizational policy</p> <p>4.5 Waste management is undertaken in accordance to work requirement</p>

## 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. Personal protective equipment may include but are not limited to:	<ul style="list-style-type: none"> <li>• Gloves</li> <li>• Safety goggles</li> <li>• Safety boots</li> <li>• Overalls</li> <li>• Dust coat</li> <li>• Ear muffs</li> <li>• Face masks</li> </ul>
2. Oil crops may include but are not limited to:	<ul style="list-style-type: none"> <li>• Macadamia</li> <li>• Coconut</li> <li>• Ground nut</li> <li>• Cashew nuts</li> <li>• Chest nut</li> <li>• Hazel nut</li> <li>• Almond</li> </ul>

	<ul style="list-style-type: none"> <li>• Wal nuts</li> <li>• Sunflower</li> </ul>
<b>3.</b> Tools, equipment and materials may include but are not limited to:	<ul style="list-style-type: none"> <li>• Hoes</li> <li>• Machetes</li> <li>• Secateurs</li> <li>• Shovels</li> <li>• Soil auger</li> <li>• Panga</li> <li>• Pegs</li> <li>• Hammer</li> <li>• Saw</li> <li>• Bucket</li> <li>• Shears</li> <li>• Dibbler</li> <li>• Pegs</li> <li>• Spray pumps</li> <li>• Watering cans</li> <li>• Hose pipes</li> <li>• Plough</li> <li>• Harrows</li> <li>• Ridges</li> <li>• Boom sprayer</li> <li>• Pruning saw</li> <li>• Wire strainer</li> <li>• Traps</li> <li>• Pipe sprinklers</li> <li>• Scouting flags</li> <li>• Storage tanks</li> <li>• Tractors</li> <li>• Grading shed</li> <li>• Bud count square</li> <li>• Meteorological equipment</li> </ul>

	<ul style="list-style-type: none"> <li>• Pesticides</li> <li>• Fertilizers</li> <li>• Stationery</li> <li>• Manures</li> <li>• Seedlings /planting materials</li> <li>• Khaki paper bags size 3</li> <li>• Rope</li> <li>• Nets</li> <li>• Translucent papers</li> <li>• Papers</li> <li>• Fencing wire</li> <li>• Staking sticks</li> <li>• Nails</li> <li>• Herbicides</li> <li>• Pesticides</li> <li>• Pheromones</li> <li>• Seeds</li> <li>• Seedlings</li> <li>• Splits</li> <li>• Crowns</li> <li>• Slips</li> <li>• Cuttings</li> <li>• Suckers</li> <li>• Plantlets</li> </ul>
<p><b>4.</b> Agronomic requirements may include but are not limited to:</p>	<ul style="list-style-type: none"> <li>• Seed bed preparation</li> <li>• Sowing</li> <li>• Mulching</li> <li>• Spacing</li> <li>• Gapping</li> <li>• Thinning</li> <li>• Pruning</li> <li>• Training</li> </ul>

	<ul style="list-style-type: none"> <li>• De- suckering</li> <li>• Watering</li> <li>• Cover cropping</li> <li>• Nutrient application</li> </ul>
<b>5.</b> Tillage practices may include but are not limited to:	<ul style="list-style-type: none"> <li>• Primary Tillage</li> <li>• Secondary tillage</li> <li>• Tertiary tillage</li> </ul>
<b>6.</b> Nursery management practices may include but are not limited to:	<ul style="list-style-type: none"> <li>• Mulching</li> <li>• Watering</li> <li>• Fertilizer application</li> <li>• Weed control</li> <li>• Pest control</li> <li>• Disease control</li> <li>• Shading</li> <li>• Hardening off</li> </ul>
<b>7.</b> Soil amendment may include but are not limited to:	<ul style="list-style-type: none"> <li>• Fertilizers</li> <li>• Liming</li> <li>• Soil treatment</li> <li>• Gypsum</li> </ul>
<b>8.</b> Fertilizers may include but are not limited to:	<ul style="list-style-type: none"> <li>• Organic manure</li> <li>• Basal inorganic fertilizers</li> <li>• Foliar fertilizer</li> <li>• Fertigation fertilizer</li> </ul>
<b>9.</b> Post-harvest practices may include but are not limited to:	<ul style="list-style-type: none"> <li>• Transportation</li> <li>• Cleaning</li> <li>• Sorting</li> <li>• Grading</li> <li>• Drying</li> <li>• Processing</li> <li>• Packaging</li> <li>• Branding</li> <li>• Storage</li> </ul>

<b>10. Marketing</b> techniques may include but are not limited to:	<ul style="list-style-type: none"> <li>• Online marketing</li> <li>• Influencer marketing</li> <li>• Referrals</li> <li>• Advertisement</li> <li>• Auctioneering</li> <li>• Public relation</li> <li>• Cold calling</li> <li>• Content marketing</li> <li>• Invoicing</li> <li>• Loyalty programs</li> </ul>
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## 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:

- Analytical
- Sampling
- Training
- Tilling
- Measuring
- Levelling
- Gapping
- Pruning
- Spraying
- Pests, diseases and nutrients deficiency scouting
- Equipment calibration
- Technical Report writing
- Produce handling
- Soil sampling

- Observation
- Negotiation
- Digital literacy

### **Required knowledge**

The individual needs to demonstrate knowledge of

- Food safety in oil crops production
- Risk assessment
- Sources of quality water
- Agro Ecological Zonation
- Establishment and management of oil crops farm
- Types of oil crops
- Physiology of oil crops
- Oil crops production tools and equipment
- Soil sampling and testing
- Soil and water conservation measures
- Phyto-sanitary requirements
- Sources of quality planting materials for oil crops
- Husbandry practices in oil crops production
- Oil crops production Technologies
- Oil crops maturity indices
- Harvesting and post harvesting handling of oil crops
- Accounting principles
- Production records and reports
- Waste Management
- Occupational Safety and Health Procedures

### **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> <ul style="list-style-type: none"> <li>1.1 Used personal protective equipment as per work requirement</li> <li>1.2 Treated planting materials based on agronomic requirements.</li> <li>1.3 Prepared oil crops nursery as per agronomic requirement</li> <li>1.4 Raised oil crops seedlings as per work procedure</li> <li>1.5 Prepared land for establishing oil crops as per agronomic requirement</li> <li>1.6 Applied soil amendments as per soil analysis report</li> <li>1.7 Transplanted Seedlings based on agronomic requirements</li> <li>1.8 Carried out crop protection practices on oil crops as per work procedure</li> <li>1.9 Maintained plant population as per agronomic requirement</li> <li>1.10 Carried out pruning, training and de-suckering based on crop requirement</li> <li>1.11 Applied fertilizers in accordance to crop nutrient requirement</li> <li>1.12 Harvested oil crops as per maturity indices</li> <li>1.13 Carried out oil crops post-harvest practices in accordance to work requirement</li> <li>1.14 Managed wastes generated in production process in accordance to work requirement</li> </ul>
2. Resource implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2.1 Appropriately simulated environment where assessment can take place</li> <li>2.2 Access to relevant work environment</li> <li>2.3 Resources relevant to the proper activities or tasks</li> </ul>
3. Methods of assessment	<p>Competency in this unit may be assessed through:</p> <ul style="list-style-type: none"> <li>3.1 Observation</li> <li>3.2 Oral questioning</li> <li>3.3 Portfolio of evidence</li> <li>3.4 Interviews</li> <li>3.5 Third party report</li> </ul>

	3.6 Written tests 3.7 Practical tests
4. Context of assessment	Competency may be assessed: 4.1 Workplace or simulated workplace
5. Guidance information for assessment	Holistic assessment with other units relevant to the industry sector and workplace job role is recommended.