

## PRODUCE HERBS AND SPICES

**UNIT CODE:** HO/OS/HP/CR/06/3/B

### UNIT DESCRIPTION

This unit specifies the competencies required to participate in producing quality herbs and spices while applying food safety measures, observing regulatory requirements and keeping accurate production records.

### ELEMENTS AND PERFORMANCE CRITERIA

| <b>ELEMENT</b>  | <b>PERFORMANCE CRITERIA</b>   |
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| 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.<br><b><i>Bold and italicized terms are elaborated in the range.</i></b>   |
| 1 Apply food safety measures in producing herbs and spices        | 1.1 Garden is established and maintained according to recommended <b><i>agronomic practices</i></b> and instructions given.<br>1.2 Standard operating procedures for preventing and mitigating food safety risks are implemented as per the identified food safety risks<br>1.3 <b><i>Food safety procedures</i></b> are followed in producing herbs and spices<br>1.4 Possible <b><i>sources of food safety hazards</i></b> are identified and documented as per instruction |
| 2 Prepare to produce herbs and spices                             | 2.1 <b><i>Tools, equipment, materials and supplies</i></b> are assembled based on the requirements of the job<br>2.2 <b><i>Occupational safety and health procedures</i></b> are adhered to according workplace procedures<br>2.3 Soil for analysis is sampled as per <b><i>soil sampling procedure</i></b> and instructions given.<br>2.4 Land for <b><i>herbs and spices</i></b> production is prepared according to recommended practices as instructed                    |
| 3 Produce herbs and spices  | 3.1 Nutrients are applied to the nut trees based on the recommended rates and instructions given.<br>3.2 Diseases and pests are managed as per the workplace instructions   |
| 4 Complete production of herbs and spices                         | 4.1 Nuts are harvested in accordance with the instructions given.<br>4.2 <b><i>Post-harvest handling</i></b> of the herbs and spices is carried out based on the instructions given.<br>4.3 Herbs and spices production records are kept as per workplace instructions  |

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|  | 4.4 Waste disposal is undertaken in accordance with workplace practices |
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### 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   |
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| 1. Agronomic practices may include but not limited to:            | <ul style="list-style-type: none"> <li>• Growing cycle and growing period</li> <li>• Rooting of cuttings</li> <li>• Optimizing soil conditions</li> <li>• Determining crop water needs</li> <li>• Application of nutrients</li> <li>• Control pests, diseases, physiological disorders and weeds</li> </ul> |
| 2. Food safety procedures may include but not limited to          | <ul style="list-style-type: none"> <li>• Hand washing</li> <li>• PPE</li> <li>• Personal hygiene</li> <li>• Clean as you go</li> </ul>  |
| 3. Sources of food safety hazards may include but not limited to: | <ul style="list-style-type: none"> <li>• Water</li> <li>• Growth media</li> <li>• Site</li> <li>• Organic and inorganic fertilizers</li> <li>• Agro-chemicals</li> </ul>  |
| 4. Food safety hazards may include but not limited to:            | <ul style="list-style-type: none"> <li>• Chemicals               <ul style="list-style-type: none"> <li>• Heavy metals</li> <li>• Pesticides</li> </ul> </li> <li>• Biological</li> <li>• Physical</li> </ul>   |
| 5. Tools may include but not limited to:                          | <ul style="list-style-type: none"> <li>• Hoes</li> <li>• Machetes</li> <li>• Secateurs</li> <li>• Shovels</li> <li>• Soil augur</li> <li>• Panga</li> <li>• Pegs</li> <li>• Hammer</li> <li>• Bucket</li> <li>• Dibbler</li> </ul>  |
| 6. Equipment may include but not limited to:                      | <ul style="list-style-type: none"> <li>• Spray pumps</li> <li>• Watering cans</li> <li>• Hose pipes</li> </ul>  |

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|  | <ul style="list-style-type: none"> <li>• Plough</li> <li>• Harrows</li> <li>• Ridger</li> <li>• Boom sprayer</li> <li>• Wire strainer</li> <li>• Traps</li> <li>• Pipe sprinklers</li> <li>• Scouting flags</li> <li>• Storage tanks</li> <li>• Tractors</li> <li>• Bud count square</li> <li>• Meteorological equipment</li> </ul>   |
| 7. Materials and supplies may include but not limited to:                    | <ul style="list-style-type: none"> <li>• Seedlings /planting materials</li> <li>• Pesticides</li> <li>• Herbicides</li> <li>• Pheromones</li> <li>• Fertilizers</li> <li>• Staking sticks</li> <li>• Nails</li> <li>• Khaki paper bags size 3</li> <li>• Stationery</li> <li>• Manures</li> <li>• Measuring tape</li> <li>• Layout string</li> <li>• Shade nets</li> <li>• Translucent papers</li> <li>• Planting pots</li> <li>• Fencing wire</li> </ul> |
| 8. Occupational safety and health procedures may include but not limited to: | <p>The practices to manage hazards from:</p> <ul style="list-style-type: none"> <li>• Fire</li> <li>• Use of tools</li> <li>• Chemical contamination and poisoning</li> </ul>   |
| 9. Soil sampling procedure may include but not limited to:                   | <p>The process of</p> <ul style="list-style-type: none"> <li>• soil collection,</li> <li>• packaging</li> <li>• labeling</li> <li>• submission soils for analysis</li> </ul>  |
| 10. Herbs and spices may include but not limited to:                         | <p>Varieties of :</p> <ul style="list-style-type: none"> <li>• Coriander</li> <li>• Parsley</li> <li>• Garlic</li> <li>• Ginger</li> <li>• Dill</li> <li>• Chives</li> <li>• Mint</li> </ul>  |

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|   | <ul style="list-style-type: none"> <li>• Rosemary</li> <li>• Thyme</li> </ul>   |
| 11. Post-harvest handling may include but not limited to: | <ul style="list-style-type: none"> <li>• Removal of edible crop parts (e.g. leaves, stems, roots tubers, combs) from the plant</li> <li>• Basic cooling</li> <li>• Cleaning</li> <li>• Transporting</li> <li>• Sorting and grading</li> <li>• Weighing</li> </ul> |

## 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 nuts fruits orchard establishment and management
- Basic tools and equipment used of herbs and spices production
- Basic soil sampling
- Basic soil conservation
- Basic agronomic practices in herbs and production
- Basic maturity indices of herbs and spices
- How to set up trellis/ support system
- Harvesting and post harvesting handling of herbs and spices
- 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.

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| <p>1. Critical Aspects of Competency</p>                  | <p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> <li>1.1 Prepared planting land depending on the type of herbs and spices as instructed.</li> <li>1.2 Established and maintained the orchard according to recommended <i>agronomic practices</i> and instructions given.</li> <li>1.3 Harvested and carried out post-harvest handling practices as instructed.</li> <li>1.4 Observed safety measures by using Personal Protective Equipment (PPE ) and correct tools as per the instructions</li> <li>1.5 Observed food safety procedures as per instructions</li> <li>1.6 Documented food safety records as per instructions</li> </ul> |
| <p>2. Resource Implications for competence assessment</p> | <p>The following resources should be provided:</p> <ul style="list-style-type: none"> <li>2. 1 Access to relevant workplace where assessment can take place</li> <li>2. 2 Appropriately simulated environment where assessment can take place</li> <li>2. 3 Materials relevant to the proposed activity or tasks</li> </ul>  |
| <p>3. Methods of Assessment</p>                           | <p>Competency 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 Interviews</li> <li>3.4 Third party report</li> </ul>   |
| <p>4. Context of Assessment</p>                           | <p>Competency may be assessed:</p> <ul style="list-style-type: none"> <li>4.1 Off-the-job</li> <li>4.2 On-the-job</li> <li>4.3 Work placement –attachment</li> </ul> <p>Off the job assessment must be undertaken in a closely simulated workplace environment.</p>  |
| <p>5. Guidance information for assessment</p>             | <p>This section describes the skills and knowledge required for this unit of competency.</p>   |