

## U16202

## Prepare growing media

## Unit Descriptor:

This unit sets the standard for horticultural workers who prepare growth media for planting or potting. You will work in accordance with specifications from a supervisor or manager.

The first element is about gathering, and putting in place, any materials that need to be incorporated into the growing medium. In the case of soil preparation, this may include the spreading of measured quantities of organic and inorganic fertiliser and soil conditioners. This will typically be carried out in cleared ground prior to cultivation. In the case of compost preparation, this will involve the measuring out of ingredients.

The second element is about preparing the growing medium. In the case of soil preparation this may involve the incorporation of fertilisers and soil conditioners, and the preparation of suitable tilth for subsequent operations. In the case of compost preparation it will involve the mixing of the ingredients to a uniform consistency, and subsequent storage of the prepared compost prior to use.

The unit is applicable to cultivation of soil by hand or machine, and to the mixing of compost for potting or containerising, either by hand or machine.

**ELEMENT****PERFORMANCE CRITERIA**

*To be competent you must achieve the following:*

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| 1. Obtain and position materials | 1.1 Maintain equipment in a safe, clean and effective condition.   |
|                                  | 1.2 Correctly and safely use equipment and materials throughout.   |
|                                  | 1.3 Correctly identify the required materials for incorporation into the growing media in accordance with production requirements.   |
|                                  | 1.4 <b>Make ready</b> materials for incorporation into the growing media in accordance with production requirements.                 |
|                                  | 1.5 Handle and dispose of <b>waste</b> safely and correctly in accordance with relevant legislation and organisational requirements. |

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| <p>1.6 Work at an acceptable commercial speed.</p> <p>1.7 Ensure working methods promote health and safety, and are consistent with relevant legislation and codes of practices.</p> <p>2. Prepare growing media</p> | <p>1.8 Work in a manner which minimises environmental damage.</p> <p>1.9 Ensure the relevant records are accurate, legible and complete.</p> <p>2.1 Maintain equipment in a safe, clean and effective condition.</p> <p>2.2 Correctly and safely use equipment and materials throughout.</p> <p>2.3 Incorporate materials into the growing media in accordance with <b>planting requirements</b>.</p> <p>2.4 Prepare the growing medium in accordance with <b>planting requirements</b>.</p> <p>2.5 Work at an acceptable commercial speed.</p> <p>2.6 Handle and dispose of <b>waste</b> safely and correctly in accordance with relevant legislation and organisational requirements.</p> <p>2.7 Ensure working methods promote health and safety, and are consistent with relevant legislation and codes of practice.</p> <p>2.8 Work in a manner which minimises environmental damage.</p> <p>2.9 Ensure the relevant records are accurate, legible and complete.</p> |
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### RANGE STATEMENT

*You must cover the items below:*

#### **Element 1: Obtain and position materials**

**A. Make ready** in the following ways:

- (i) correctly obtaining materials
- (ii) measuring out materials
- (iii) positioning materials

**B.** Handle the following types of **waste**: *(Also applies to element 2)*

- (i) organic waste
- (ii) inorganic waste

**Element 2: Prepare growing media**

**A.** Recognise the following **planting requirements**:

- (i) consistency
- (ii) moisture level

**UNDERPINNING KNOWLEDGE AND SKILLS**

1. The maintenance of equipment.
2. The types of equipment and materials required.
3. Correct methods for using equipment.
4. Production requirements in relation to the preparation of growing media.
5. Procedures for obtaining materials required.
6. The different growing media required within the enterprise.
7. Different ingredients used in the preparation of growing media.
8. The different properties of the various ingredients used to prepare growing media.
9. Procedures for collecting and measuring out the ingredients of the growing media.
10. Correct methods for disposing of waste.
11. The commercial speeds at which work should be performed.
12. Your responsibility under health and safety legislation.
13. Health and safety issues in relations to preparing growing media.
14. Ways in which environmental damage can be minimised during work activities.
15. The reasons for keeping records.
16. How to up date records correctly.
17. The maintenance and safe use of equipment.
18. The types of growing media used within the enterprise.
19. Factors affecting the timing of operations.
20. The preparation of growing medium in relation to planting requirements.
21. Different methods of incorporating ingredients into a growing medium.
22. Different methods of preparing the growing medium.

**EVIDENCE GUIDE**

*For assessment purposes:*

**(1) Critical Aspects of Evidence**

Assessment should involve observation of you obtaining and positioning materials as well as preparing growing media.

In demonstrating competence in preparing growing media you should:

A. **Make ready** in the following ways:

- (i) correctly obtaining materials
- (ii) measuring out materials
- (iii) positioning materials

In situations where growing media (compost) are entirely artificial: e.g. rock wool, making ready may include, for example, addition of water. Where no additional materials are required, for example pre-mixed bagged composts, candidates should be assessed on Range A and performance criteria 3 or 4, by questioning of the materials that have already been added to the compost and the requirements and methods of accurate measurement and mixing.

B. Recognise the following **planting requirements**:

- (i) consistency
- (ii) moisture level

C. Handle the following types of **waste**:

- (i) organic waste
- (ii) inorganic waste

Use of equipment, chemical and all other activities must meet the requirements of the law and relevant codes of practice.

**(2) Methods of Assessment**

Observation by your assessor of you:

- Identifying correctly the required materials for incorporation into the growing media in accordance with production requirements
- Making ready materials for incorporation into the growing media in accordance with production requirements
- Working at an acceptable commercial speed
- Incorporating materials into the growing media in accordance with planting requirements
- Preparing the growing medium in accordance with planting requirements

Answers to written or oral questions from your assessor.

**(3) Context of Assessment**

Evidence from simulations is **not** acceptable for this unit.