

Care for Ornamental Seedlings

Assessment Guide

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CANDIDATE DETAILS

Candidate Name: _____	
Contact Details:	Physical Address: _____
Identity Number _____	
Tel: _____	Email: _____
Assessor Name: _____	
Tel: _____	Email: _____
Moderator Name: _____	
Tel: _____	Email: _____
Physical Address: _____	

Tel: _____	

Declaration:

I, _____ (assessor) hereby declare that the information contained in the attached documentation is, to my knowledge, correct and valid.

Candidate

signature

Date

Assessor

signature

Date

Moderator

signature

Date

UNIT STANDARD**TITLE****Care for Ornamental Seedlings****UNIT STANDARD NUMBER: 119686****UNIT STANDARD LEVEL: NQF 1****CREDITS: 4****FIELD: Agriculture and Nature Conservation****SUB FIELD: Horticulture****ISSUE DATE: 2006-02-09****REVIEW DATE: 2009-02-09**

PURPOSE OF THE UNIT STANDARD

This standard is aimed at people who work in or intend to work within the Horticulture industry in general and as applied in a specific environment.

Those learners who acquire the outcomes of this standard will be able to “grow on” seedlings in preparation for transplanting and the cultural practices for the care of the seedlings.

The qualifying learner is able to:

- Maintain newly germinated seedlings.
- Grow on seedlings.
- Prick out seedlings.
- Grow on plants to transplanting maturity.
- Control pests in seedlings.

LEARNING ASSUMED TO BE IN PLACE

Demonstrate knowledge of communication and Numeracy at Abet level 3.

Continued on next page

Specific Outcomes and Assessment Criteria:**Specific Outcome 1****Maintain newly germinated seedlings.****Outcome Range:**

- Gradual introduction of hardening off procedures including i.e.: reducing humidity, decreasing watering frequency, increasing light intensity, increasing temperature ranges, air movement.

Assessment Criteria

1. Explain the importance of maintaining a high level of humidity in the seedling environment,
2. Explain the effect on root development, by decreasing the frequency of watering.
3. Describe the reasons for increasing the light intensity.
4. Explain the process of increasing temperature ranges for acclimatization.

Specific Outcome 2**Growing on of seedlings.****Outcome Range:**

Monitor environmental conditions, apply appropriate watering, fertilize at correct intervals, monitor growth, pricking out.

Assessment Criteria

1. Demonstrate the environmental test procedures.
2. Demonstrate the correct application of water to seedlings.
3. Explain the need for regular fertilizing.
4. Demonstrate the procedures for the fertilizing of seedlings.
5. Indicate the state of maturity, when pricking out can be performed.

Specific Outcome 3**Prick out seedlings.****Outcome Range:**

Growing medium, hole for roots, containers, handle seedlings by leaves, firming media around roots.

Assessment Criteria

1. Demonstrate the filling of a container with growing medium.
2. Demonstrate the hollowing out of a hole large enough to accommodate the roots of the plant.
3. Demonstrate the correct method of holding the plant when pricking out.
4. Explain the reasons for the firming of the growth medium after planting.

Specific Outcome 4**Grow on plants to transplanting maturity.****Outcome Range:**

Hardening off, watering depth and frequency, modify light intensity, weeding.

Assessment Criteria

1. Explain the reasons for hardening off plants.
2. Describe the hardening off procedures.
3. Explain the reasons for altering the depth and frequency of watering.
4. Demonstrate an effective method of weeding plant containers.

Specific Outcome 5**Control pests in seedlings.****Outcome Range:**

Bacterial and fungal diseases, viral infections, insects.

Assessment Criteria

1. Describe the symptoms of bacterial and fungal diseases in seedlings.
2. Describe the signs of a viral infection.
3. Recognise the evidence of insect activity or damage to a plant.

Unit Standard Accreditation and Moderation Options

1. Internal moderation.
2. External moderation.
3. Moderation of assessment will be overseen by the relevant ETQA, according to the moderation guidelines in the relevant qualification the agreed ETQA procedures.
4. Internal assessment.
5. External assessment with the relevant registered/accredited industry body/ETQA.
6. An Assessor accredited by the relevant ETQA, will assess the Learner's competency.
7. Formative and summative assessment of qualifying Learners against this unit standard should be in alignment with the requirements of the NSB.
8. Practical assessment activities will be used that are appropriate to the contents in which the qualifying Learners are working.
9. Assessment will include self and peer assessment, practical and oral assessment, observations, questions and answers, etc.
10. Direct observation is required in simulated or actual work conditions.
11. Reporting skills are demonstrated by effective communication, using verbal and/or writing skills.
12. Assessments are to be structured to include formative and summative component, as well as the submission of a Portfolio of Evidence.
13. The assessment should ensure that all the specific outcomes, critical cross-field outcomes and embedded knowledge are assessed.
14. Specific outcomes must e assessed in their own right, through oral and practical evidence and cannot be assessed by observation only.
15. Essential embedded knowledge must be assessed in their own right, through oral and practical evidence and cannot be assessed by observation only.
16. Special outcomes and essential embedded knowledge must e assessed in relation to each other.
17. If qualifying Learners are able to explain the essential embedded knowledge, but are unable to perform the specific outcomes, then they should not be assessed as competent.
18. If qualifying Learners are able to perform specific outcomes, but are unable to explain the essential embedded knowledge, they should not be assessed as competent.
19. Evidence of the specified critical cross-field outcomes should be found, both in performance and in essential embedded knowledge.
20. Ass assessment activities must be fair, so that all Learners have equal opportunities. Activities must be free of gender, ethnic or other bias.
21. This unit standard can be assessed together with any other relevant registered unit standard.

Embedded Knowledge

Embedded knowledge is reflected within the assessment criteria of each specific outcome and must be assessed in its own right, through oral and written evidence. Observation cannot be the only assessment.

Critical Cross Field Outcomes

- Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made – specific outcome 3 and 5.
- Work effectively with others as a member of a team, group, organisation or community. Specific outcome embedded in the learning for this level of learner.
- Organise and manage oneself and one's activities responsibly and effectively. Specific outcome 2 and 5
- Collect, analyse, organise and critically evaluate information. Specific outcome 1, 2 and 5.
- Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentation. Specific outcome embedded in the learning for this level of learner.
- Use science and technology effectively and critically, showing responsibility toward the environment and health of others. Specific outcome 1, 2, 3, 4 and 5.
- Demonstrate an understanding of the world as a set of related systems by recognising that problem-solving contexts do not exist in isolation. Specific outcome 1, 2, 3 and 5.

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ASSESSMENT STRATEGY

UNIT STANDARD TITLE	Care for ornamental seedlings.	UNIT STANDARD NUMBERS	119686
LEVEL	NQF Level 1	TOTAL CREDIT VALUE	4
TARGET GROUP	<p>This standard is aimed at people who work in or intend to work within the Horticulture industry in general and as applied in a specific environment.</p> <p>Those learners who acquire the outcomes of this standard will be able to “grow on” seedlings in preparation for transplanting and the cultural practices for the care of the seedlings.</p> <p>The qualifying learner is able to:</p> <ul style="list-style-type: none"> • Maintain newly germinated seedlings. • Grow on seedlings. • Prick out seedlings. • Grow on plants to transplanting maturity. • Control pests in seedlings. 		

Context of Assessment	The Purpose of the Assessment
	<p>Range Addressed</p> <p>The range covered, refers to all the specific outcomes and assessment criteria as outlined by the unit standard.</p> <p>Candidates produce evidence that he/she can grow on and care for seedlings.</p>

	Assessment Approach
	<p>Assessment is focused on the applied competence of the learner and the relevant unit standard determines the assessment criteria.</p> <p>Summative Assessment This is a summative assessment and assesses Candidates taking part in the General Certificate in Ornamental Horticulture, at NQF Level 1.</p> <p>RPL This assessment may also be used to assess Candidates for RPL purposes</p> <p>Diagnostic The results from this assessment can also be used for the purpose of Gap Fill training and will assist in the development of the Workplace Skills Plan.</p> <p>Rating Learners are rated "Competent" or "Not Yet Competent".</p>

Assessment Instruments	
Types of Evidence	Assessment Method
Direct	Observation to determine practical competence. Questioning by means of an oral or written test to determine foundational and reflective competence.
Assessment Conditions	
<p>The collection of evidence for the purposes of this assessment will take place in either the candidate’s natural work environment or in the classroom. The candidate will be expected to fill a container with growing medium, hollow out a hole large enough to accommodate the roots of the plant, correct hold the plant when pricking out, correctly apply water to seedlings, weed plant containers, recognise insect activity or damage to a plant as stipulated by the Unit Standards specific outcomes, range statements and assessment criteria.</p>	

	Assessment Team
	<p>The assessment team consists of the following:</p> <ul style="list-style-type: none">▪ Evidence Collection Facilitator▪ Assessor▪ Internal Moderator (20% of all portfolios are moderated)▪ External Moderator (20% of portfolios are moderated)
	Special Assessment Needs
	<p>Special needs are dealt with in the Assessment Preparation Interview. Should the candidate present any special needs requests, the assessment will be adjusted, provided that the fairness, validity and reliability of the assessment are not compromised.</p> <p>In addition the knowledge test may be administered as a verbal or written assessment depending on the confidence and language levels of the candidates.</p>

ASSESSMENT PROCESS

The Steps:	How:
Prepare for the Assessment	<p>1. Review this assessment guide to:</p> <ul style="list-style-type: none"> ▪ Ensure that you understand all the requirements of the assessment in terms of evidence required to prove competence. ▪ Validate the assessment instruments against the candidate’s context. ▪ Ensure that you have familiarised yourself with all the policies and procedures referred to in the assessment guide. <p>2. Identify and prepare the candidate for the assessment by:</p> <ul style="list-style-type: none"> ▪ Conducting the “Assessment Preparation Interview, Sheet” where all the details regarding the assessment are discussed and agreed to by all parties. <p>OR</p> <ul style="list-style-type: none"> ▪ Provide the candidate with a letter detailing all the specifications covered in the “Assessment Preparation Interview Sheet.”
Conduct Assessment	<p>1. Review the assessment plan with the candidate.</p> <p>2. Collect the evidence in accordance with the instrument requirements.</p> <p>Please note that the checklist covers the following:</p> <p><u>Observation</u> This assessment requires the candidate to fill a container with growing medium, hollow out a hole large enough to accommodate the roots of the plant, correctly hold a plant when pricking out, correctly water seedlings, weed plant containers and recognise the evidence of insect activity or damage to a plant as outlined by specific outcome 2, 3, 4 and 5 as well as the relevant assessment criteria and range statements.</p> <p><u>Knowledge Questioning</u> This assessment covers all the specific outcomes, range statements and assessment criteria as outlined by the unit standard and may be conducted as a written or oral test.</p> <p>Gather, record and make judgments on all the evidence.</p>

The Steps:	How:
<p align="center">Make assessment Decision</p>	<ol style="list-style-type: none"> 1. Make assessment decision and discuss the results with the learner in a face-to-face interview. 2. Ensure that your feedback is developmental and supportive in nature. 3. Advise the candidate on what action to follow in the event of a “Not-Yet-Competent”. 4. Advise the candidate on what action to take where he/she feels the need to appeal your decision. 5. Allow the candidate time to provide you with feedback relevant to the process. 6. Ensure the candidate counter-signs the “Assessment Decision” to indicate his/her agreement to the feedback and overall score. 7. Record the candidate’s feedback in this guide and ensure that it is provided to the person responsible for the quality assurance of assessment tools. 8. Handle any disputes and identify matter that requires contingency planning.
<p>Review the Assessment Process</p>	<p>Complete the “Assessment Review” documents and submit to the assessment co-ordinator.</p>

Assessor Signature		Date	
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ASSESSMENT CONFIRMATION

Dear : _____ (Candidate
Name & Surname)

This serves as a confirmation that your “**Assessment Preparation Interview**” will be conducted on the _____(date) at _____(venue).

We will discuss:

- The purpose of the assessment.
- The date, time and venue of your assessment.
- The context of the NQF.
- And select the Unit Standard against which you will be assessed.
- The credit value, level, of the unit standard against which you will be assessed.
- The assessment procedure.
- The assessment methods to be used in your assessment.
- How the evidence will be collected.
- What evidence you are required to present on the day, whether direct, historical or indirect.
- Your special requirements, whether medical or personal, that will affect the assessment procedure.
- And agree to feedback procedures.
- The moderation process.
- Appeals procedure.
- Agree to and sign the assessment plan.

Please do not hesitate to contact me should you have any further queries.

Thank you

Assessor Signature	_____	Date	_____
Candidate Signature	_____	Date	_____

ASSESSMENT PREPARATION INTERVIEW SHEET

	√	X	Contingency
<p>....., your assessment will be conducted at(time) on the(day) of(month) 200...(year) at(venue).</p> <ul style="list-style-type: none"> <i>(Allow the candidate to provide alternative dates, times or venues, where feasible.)</i> 			
<p>I will briefly explain the context of the NQF to you, to ensure that you understand the reasons for the assessment being conducted in this manner.</p>			
<p>You will be assessed against Unit Standard No: Care for ornamental seedlings</p> <p>@ NQF Level : 1</p>			
<p>The Unit Standard is worth 4 credits <i>(Where the assessment is not based on an NQF Standard, please explain to the candidate that this field will not be completed.)</i></p>			
<p>In order to determine your competence levels, we will be conducting the assessment using various methods:</p> <p>You will be required to produce the following evidence in order to demonstrate your competence:</p> <ul style="list-style-type: none"> <i>(Explain the evidence requirements in terms of the assessment criteria.)</i> <i>(Explain what documentary evidence the candidate should produce on the day of the assessment, i.e. historical evidence, indirect evidence.)</i> <p><u>Observation</u> Covers all the practical competence as outlined by the specific outcomes, assessment criteria and range statement of the unit standard.</p> <p><u>Knowledge Questionnaire</u> Covers all the foundational competence as outlined by the specific outcomes, range statement and assessment criteria of the unit standard.</p>			

	√	X	Contingency
<p>Please provide us with details regarding any special needs you may have.</p> <ul style="list-style-type: none"> <i>(Explain to the candidate that these special needs may be of a medical or personal nature, e.g. requiring an interpreter, making provision for guide dogs, etc.)</i> <i>(Explain to the candidate that these needs will be catered for, within the parameters of assessment validity, fairness, and reliability.)</i> 			
<p>You will be provided with detailed feedback regarding your performance on(date) by means of</p> <p><i>(Explain methods, i.e. written, interview.)</i></p> <ul style="list-style-type: none"> <i>(Explain how and when feedback will be provided – indicate to the candidate, at which intervals feedback will be provided, using the assessment instrument.)</i> <i>(Explain the Moderation Process.)</i> 			
<p>In the event that you are rated “Not-Yet-Competent”, you will be entitled to one (1) re-assessment opportunity.</p> <ul style="list-style-type: none"> <i>(Explain the re-assessment procedure in terms of remedial coaching, etc.)</i> 			
<p>You are entitled to lodge an appeal should you not be in agreement with the assessor’s decision.</p> <ul style="list-style-type: none"> <i>(Explain the appeals procedure to the candidate...see appeals procedure attached.)</i> 			
<p>Your assessment results will be forwarded to the following departments:</p> <ul style="list-style-type: none"> <i>(Advise candidate of rights in terms of confidentiality agreements.)</i> <i>(Advise candidate of storage procedures.)</i> 			
<p>You will be afforded an opportunity to provide the assessor with feedback regarding the assessment procedure, to assist us in improving our assessment practices.</p> <ul style="list-style-type: none"> <i>(Advise candidate that the Assessor Review Document should be returned, together with the signed Assessment Decision Form (this is where you would acknowledge feedback provided by the Assessor))</i> 			
Candidate’s declaration of understanding			
<p>I herewith declare that I am ready for the assessment and that we have reviewed the assessment plan. I understand the assessment process and am happy that the assessment will be conducted in a fair manner.</p>			

√	X	Contingency
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Assessor Signature _____

• Date _____

Candidate Signature _____

Date _____

COMPETENCE JUDGEMENT

OVERALL COMPETENCE RECORD

Candidate		Assessor	
Venue		Date	
Unit Standard	Care for ornamental seedlings.		

Evidence evaluation	Relevant	Valid	Authentic	Consistent	Current	Sufficient
Observation Checklist						
Knowledge Questionnaire Checklist						

EVIDENCE SUMMARY

TYPES OF EVIDENCE	ASSESSMENT METHODS	FEEDBACK	REQUIREMENTS MET	
			YES	NO
DIRECT	OBSERVATION			
DIRECT	KNOWLEDGE QUESTIONNAIRE			

ADDITIONAL FEEDBACK FROM ASSESSOR

ASSESSMENT DECISION

The candidate has submitted evidence that is valid, relevant, current, sufficient and authentic against the listed specific outcomes and covered all range statements. (Yes/No)	
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The candidate is competent in all the assessment criteria listed. (Yes/No)	
--	--

The candidate is not yet competent in the following criteria:	The following items needed some corrective action or improvement:

RE-ASSESSMENT DECISION

The candidate has submitted additional evidence that was required. The evidence is valid, relevant, sufficient and authentic against the listed specific outcomes and covered all range statements. (Yes/No)	
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The candidate is competent in all the assessment criteria listed. (Yes/No)	
--	--

Assessor's name, surname and signature	Date

Declaration by candidate
I,declare that I am satisfied that the feedback given to me by the Assessor was relevant, sufficient and done in a constructive manner. I accept the assessment decisions and have no further questions relating to this particular assessment process.

Candidate	Date	Assessor	Date	Moderator	Date
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APPEALS APPLICATION

Candidate		Application Date	
Assessor		Assessment Date	
Assessment Venue			

Unit Standard against which you were assessed	Care for ornamental seedlings.		
	Number 119686	NQF Level 1	Credits 4

What was the purpose of the assessment?	
Explain how you were assessed?	
List the reasons why you disagree with the assessment decisions.	
Which one of the following options could resolve the matter?	<input type="checkbox"/> <i>Another Assessor</i> <input type="checkbox"/> <i>Different Assessment Instrument</i> <input type="checkbox"/> <i>Different Assessment Method</i> <input type="checkbox"/> <i>Different Venue for Assessment</i> <input type="checkbox"/> <i>Different Time</i>
List any special needs you may have.	

Candidate signature _____ Date _____
 Moderator signature _____ Date _____

ASSESSMENT REVIEW

Candidate		Assessor	
Venue		Review date	
Unit standard	Care for ornamental seedlings.		
Review Dimension	ASSESSOR	CANDIDATE	ACTION
The principles/criteria for good assessment were achieved.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
The assessment related to the registered unit standard.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
The assessment was practicable.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
It was time efficient and cost-effective and did not interfere with my normal responsibilities.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
The assessment instruments were fair, clear and understandable.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
The assessment judgements were made against set requirements.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
The venue and equipment were functional.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
Special needs were identified and assessment plan was adjusted.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
Feedback was constructive against the evidence required.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
An opportunity to appeals was given.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
The evidence was recorded.	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	<input type="checkbox"/> Agree <input type="checkbox"/> Disagree	
CANDIDATES DECLARATION OF UNDERSTANDING			
I am aware of the moderation process and understand that the moderator could declare the assessment decision invalid			
Candidate	Date	Assessor	Date
Moderator	Date		

INSTRUCTIONS TO THE LEARNER

Your assessment is divided into two parts.

In the **practical assessment activity** the assessor will ask you to:

- Choose a container or tray and fill it with a growing medium.
- You will then be asked to:
 - Hollow out a hole large enough to accommodate the roots of the seedling.
 - Show how you hold the plant while you were pricking out.
 - Water your seedlings.
- You will then be asked to weed seedling containers or trays.
- The assessor will then show you four containers and you need to identify which of them have signs of insect activity or damage to the seedlings.

After your practical assessment, the assessor will administer either a written or oral **knowledge test** and you can choose whether you want to answer the questions verbally or in writing.

- This assessment test is made up of 14 questions.
- Before answering the questions, take your time and read each question carefully to make sure that you understand the question.
- Please make sure that you answer all the questions.
- There is no time limit so you can take as long as you need to complete the questions.
- The assessor will contact you within the next five days to give you feedback on your assessment.

Knowledge Questions

Candidate	
Venue	
Assessor	
Score	
Percentage	

Questions

1. Explain why it is important to maintain a level of humidity in the seedling environment.

Questions

2. Explain how you can encourage your seedlings roots to develop by cutting down on how often you water them.

3. Explain why you need to increase the light intensity when you are looking after seedlings.

Questions

4. Explain the process of increasing temperature ranges for acclimatization.

5. Describe the environmental test procedures.

Questions

6. Explain why you need to regularly fertilizer your seedlings.

7. Describe the procedures for the fertilizing of seedlings.

Questions

8. Explain when you should 'prick out'.

9. Explain why you need to firm the growing medium after you have planted your seedlings.

Questions

10. Why do you need to harden off plants?

11. Describe the hardening off procedures.

12. Explain why you need to change the depth and frequency of watering your seedlings.

Questions

13. Describe the symptoms of bacterial and fungal diseases in seedlings.

14. Describe the signs of a viral infection.

ASSESSMENT

INSTRUMENT

OBSERVATION CHECKLIST

Candidate © Name & Surname		Assessor Name & Surname	
Venue		Time	
Title	Care for Ornamental Seedlings	Unit Std No	119686

S/O	A/C	Items Criteria / Evidence Requirements	Yes	No	Comment
3. Prick out seedlings.	Did the candidate correctly:				
	3.1	<ul style="list-style-type: none"> • Fill a container with growing medium? 			
	3.2	<ul style="list-style-type: none"> • Hollow out a hole large enough to accommodate the roots of the plant? 			
	3.3	<ul style="list-style-type: none"> • Hold the plant while 'pricking out?' 			
2. Growing on of seedlings.	2.2	<ul style="list-style-type: none"> • Water the seedlings. 			
4. Grow on plants to transplanting maturity.	4.3	<ul style="list-style-type: none"> • Weed plant containers. 			

5. Control pests in seedlings.	5.3	<ul style="list-style-type: none">• Recognise evidence of insect activity or damage.			
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KNOWLEDGE QUESTIONS CHECKLIST

Candidate Name & Surname		Assessor Name & Surname	
Venue		Time	
Title	Care for ornamental seedlings	Unit Std No	119686

S/O	A/C	Questions Criteria / Evidence Requirements	Candidates Response	Candidate is Competent or Not Yet Competent
<p>1. Maintain newly germinated seedlings.</p>	<p>1.1.</p>	<p>1. Explain why it is important to maintain a level of humidity in the seedling environment.</p>		
	<p>1.2.</p>	<p>2. Explain how you can encourage your seedling's roots to develop by cutting down on how often you water them.</p>		
	<p>1.3.</p>	<p>3. Explain why you need to increase the light intensity when you are looking after seedlings.</p>		
	<p>1.4.</p>	<p>4. Explain the process of increasing temperature ranges for acclimatization.</p>		

S/O	A/C	Questions Criteria / Evidence Requirements	Candidates Response	Candidate is Competent or Not Yet Competent
2. Growing on of seedlings.	2.1.	5. Describe the environmental test procedures.		
	2.3.	6. Explain why you need to regularly fertilizer your seedlings.		
	2.4.	7. Describe the procedures for fertilizing of seedlings.		
	2.5	8. Explain why you should 'prick out'.		
3. Prick out seedlings.	3.4.	9. Explain why you need to firm the growing medium after you have planted your seedlings.		

S/O	A/C	Questions Criteria / Evidence Requirements	Candidates Response	Candidate is Competent or Not Yet Competent
<p>4. Grow on plants to transplanting maturity.</p>	4.1.	<p>10. Why do you need to harden off plants?</p>		
	4.2.	<p>11. Describe the hardening off procedures.</p>		
	4.3	<p>12. Explain why you need to change the depth and frequency of watering your seedlings.</p>		
<p>5. Control pests in seedlings.</p>	5.1.	<p>13. Describe the symptoms of bacterial and fungal diseases in seedlings.</p>		
	5.2.	<p>14. Describe the signs of a viral infection.</p>		

Aligned with Unit Standard:

Unit Standard Title :	Care for Ornamental Seedlings
NQF Level :	1
Credits :	4
Purpose :	This unit standard is for people employed within the Ornamental Horticulture and landscaping industry that need to care for seedlings and 'grow-on' seedlings in preparation for transplanting.
Learning assumed to be in place	Demonstrate knowledge of communication and Numeracy at Abet level 3.

Practical Competence (Specific Outcomes)	Foundational Competence (Knowledge)	Reflective Competence
<p>Maintain newly germinated seedlings</p>	<ul style="list-style-type: none"> ▪ Explain the importance of maintaining a level of humidity in the seedling environment. ▪ Explain the effect on root development by decreasing the frequency of watering. ▪ Describe the reasons for increasing the light intensity. ▪ Explain the process of increasing temperature ranges for acclimatization. <p>Range: Gradual introduction of hardening off procedures including i.e. reducing humidity, decreasing watering frequency, increasing light intensity, increasing temperature ranges, air movement.</p>	<ul style="list-style-type: none"> ▪ Work effectively with others as a member of a team, group, organisation or community. ▪ Collect, analyze, organise and critically evaluate information. ▪ Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentations. ▪ Use science and technology effectively and critically showing responsibility towards the environment and health of others ▪ Demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation.
<p>Growing on of seedlings.</p> <ul style="list-style-type: none"> • Demonstrate the correct application of water to seedlings. • Demonstrate the 	<ul style="list-style-type: none"> ▪ Explain the need for regular fertilizing. ▪ Demonstrate the procedures for the fertilizing of seedlings. ▪ Indicate the stage of maturity, when 'pricking out' can be performed. <p>Range :</p>	<ul style="list-style-type: none"> ▪ Work effectively with others as a member of a team, group, organisation or community. ▪ Organise and manage oneself and one's activities responsibly and effectively ▪ Collect, analyze, organise and critically evaluate information. ▪ Communicate effectively using visual,

Practical Competence (Specific Outcomes)	Foundational Competence (Knowledge)	Reflective Competence
<p>environmental test procedures.</p>	<p>Monitor environmental conditions, apply appropriate watering, fertilize at correct intervals, monitor growth, pricking out.</p>	<p>mathematical and/or language skills in the modes of oral and/or written presentations.</p> <ul style="list-style-type: none"> ▪ Use science and technology effectively and critically showing responsibility towards the environment and health of others. ▪ Demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation.
<p>Prick out seedlings.</p> <ul style="list-style-type: none"> • Demonstrate filling of a container with growing medium. • Demonstrate the hollowing out of a hole large enough to accommodate the roots of the plant. • Demonstrate the correct method of holding the plant when 'pricking out'. 	<ul style="list-style-type: none"> ▪ Explain the reasons for the firming of the growth medium after plants. <p>Range: Growing medium, hole for roots, containers, handle seedling by leaves, firming media around roots.</p>	<ul style="list-style-type: none"> ▪ Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made. ▪ Work effectively with others as a member of a team, group, organisation or community. ▪ Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentations. ▪ Use science and technology effectively and critically, showing responsibility towards the environment and health of others. ▪ Demonstrate an understanding of the world as a set of related systems by recognizing that problem-solving contexts do not exist in isolation.
<p>Grow on plants to transplanting maturity.</p>	<ul style="list-style-type: none"> ▪ Explain the reasons for hardening off plants. ▪ Describe the hardening off procedures. 	<ul style="list-style-type: none"> ▪ Work effectively with others as a member of a team, group, organisation or community. ▪ Communicate effectively using visual,

Practical Competence (Specific Outcomes)	Foundational Competence (Knowledge)	Reflective Competence
<ul style="list-style-type: none"> • Demonstrate an effective method of weeding plant containers. 	<ul style="list-style-type: none"> ▪ Explain the reasons for altering the depth and frequency of watering. <p>Range: Hardening off, watering depth and frequency, modify light intensity, weeding.</p>	<ul style="list-style-type: none"> ▪ mathematical and/or language skills in the modes of oral and/or written presentations. ▪ Use science and technology effectively and critically, showing responsibility towards the environment and health of others. ▪ Demonstrate an understanding of the world as a set of related systems by recognizing that problem-solving contexts do not exist in isolation.
<p>Control pests in seedlings.</p> <ul style="list-style-type: none"> • Recognise the evidence of insect activity or damage to a plant. 	<ul style="list-style-type: none"> ▪ Describe the symptoms of bacterial and fungal diseases in seedlings. ▪ Describe the signs of a viral infection. <p>Range: Bacterial and fungal diseases, viral infections, insects.</p>	<ul style="list-style-type: none"> ▪ Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made. ▪ Work effectively with others as a member of a team, group, organisation or community. ▪ Organise and manage oneself and one's activities responsibly and effectively ▪ Collect, analyze, organise and critically evaluate information. ▪ Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written presentations. ▪ Use science and technology effectively and critically showing responsibility towards the environment and health of others. ▪ Demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation.

S/O	A/C	Evidence Required	Sources of Evidence	Assessment Method	Bloom Level
1	1 – 4	<ul style="list-style-type: none"> ▪ Look after newly germinated seedlings. ▪ Explain the importance of maintaining a high level of humidity in the seedling environment. ▪ Explain the effect of root development by decreasing the frequency of watering. ▪ Describe the reasons for increasing the light intensity. ▪ Explain the process of increasing temperature ranges. 	<p>A variety of newly germinated ornamental seedlings in containers. Workplace procedures.</p>	<p>Activity – Maintain newly germinated seedlings. Knowledge questionnaire</p>	<p>Blooms Cognitive Domain: Application level</p>
2	1 – 4	<ul style="list-style-type: none"> ▪ Grow on of seedlings by monitoring environmental conditions, applying appropriate watering, fertilizing at correct intervals, monitor growth and pricking out. ▪ .Describe the environmental test procedures. ▪ Explain the need for regular fertilizing. ▪ Explain the stage of maturity, when ‘pricking out’ can be performed. 	<p>Germinated ornamental seedlings. Workplace procedures.</p>	<p>Activity – grow on of seedlings. Knowledge questionnaire</p>	<p>Blooms Cognitive Domain – Application level</p>

S/O	A/C	Evidence Required	Sources of Evidence	Assessment Method	Bloom Level
3	1 – 4	<ul style="list-style-type: none"> ▪ Prick out seedlings, demonstrating the correct method of holding the plant. ▪ Fill containers with growing medium. ▪ Hollow out a hole large enough to accommodate the roots of the plant. ▪ Explain the reasons for firming of the growth medium after planting. 	Ornamental seedlings. Containers. Growth medium. Workplace procedures.	Activity – Prick out seedlings Knowledge questionnaire	Blooms Cognitive Domain – Application level
4	1 - 3	<ul style="list-style-type: none"> ▪ Harden seedlings by decreasing the frequency and depth of watering, modifying light intensity. ▪ Weed plant containers. ▪ Describe the procedures to be followed to harden off seedlings. 	Ornamental seedlings. Weeding tools. Workplace procedures. Watering schedules.	Activity – Harden off seedlings. Activity – weed seedling containers Knowledge questionnaire	Blooms Cognitive Domain – Application level

S/O	A/C	Evidence Required	Sources of Evidence	Assessment Method	Bloom Level
5	1 – 3	<ul style="list-style-type: none"> ▪ Identify bacterial and fungal diseases in seedlings. ▪ Identify viral infections in seedlings. ▪ Identify insect activity or damage to a plant. ▪ Control pests in seedlings. ▪ Describe the symptoms of bacterial and fungal diseases in seedlings. ▪ Describe the signs of a viral infection. 	<p>A variety of the most common forms of bacterial and fungal affected seedlings.</p> <p>A variety of the most common viral infected seedlings.</p> <p>A variety of the most common insects and damaged plants.</p>	<p>Activity – Identify and control common pests and diseases in seedlings.</p> <p>Knowledge questionnaire</p>	<p>Blooms Cognitive Domain – Application level</p>