



Citrus Orchard Foreman Occupational Learning

Work Scenario Guide

B5: Pre-Planting Tree Management

Qualification:	110667 – Occupational Certificate: Orchard and Vineyard Foreman
Work Scenario:	B5: Pre-Planting Tree Management
Learning Area:	B: Lead the establishment of new citrus orchard
Scenario Description:	Young trees need to be carefully handled before being planted in the orchard, and you need to make sure that they are kept healthy before being planted, especially upon receipt from the nursery and during the transport to the orchard.

© Citrus Academy 2026

1st edition (06/2026)

Content originator:
Citrus Academy

Occupational alignment:
Ukudla Namanzi (Pty) Ltd

Disclaimer

By accepting this document and reading its contents you agree to be bound by the terms of this disclaimer.

The use of the contents of this document is at your own risk. Neither the Citrus Academy NPC nor Citrus Research International (Pty) Ltd or the Citrus Growers' Association NPC warrant that the content of this document is suitable for your intended use or that it is free of inaccuracies or omissions. The opinions and advice expressed in this document are not necessarily those of the Citrus Academy NPC, Citrus Research International (Pty) Ltd or the Citrus Growers' Association NPC. The Citrus Academy NPC, Citrus Research International (Pty) Ltd and the Citrus Growers' Association NPC, their directors, officers, employees, agents and contractors shall not be liable for any loss or damage of any nature suffered by any person as a direct or indirect result of the use of, or inability to use any advice, opinion or information contained in this document, or any misrepresentation, misstatement or omission, whether negligent or otherwise, contained in this document.

You indemnify the Citrus Academy NPC, Citrus Research International (Pty) Ltd and the Citrus Growers' Association NPC against any claim by any third party against the Citrus Academy NPC, Citrus Research International (Pty) Ltd or the Citrus Growers' Association NPC, their directors, officers, employees, agents or contractors arising from, or in connection with, the use of, or reliance on, the contents of this document. It is your responsibility to determine suitability of the contents of this document for your intended use.

Contents

Alignment Information	4
Qualification	4
Modules	4
Learning Outcomes	5
Chapter 1 Pre-Planting Tree Management	6
1. Pre-Planting	6
2. Selection of Healthy Plants	6
3. Plant Material Safekeeping	7

Alignment Information

Qualification

The content of this learner guide is aligned to the following occupational qualification:

SAQA QUAL ID	Qualification Title			
110667	Occupational Certificate: Orchard and Vineyard Foreman			
Originator				
Development Quality Partner – AgriSETA				
Primary Or Delegated Quality Assurance Functionary			NQF Sub-Framework	
-			OQSF - Occupational Qualifications Sub-Framework	
QUALIFICATION TYPE		FIELD		SUBFIELD
Occupational Certificate		Field 01 - Agriculture and Nature Conservation		Primary Agriculture
Abet Band	Minimum Credits	Pre-2009 NQF Level	NQF Level	Qual Class
Undefined	147	Not Applicable	NQF Level 04	Regular-ELOAC

Modules

The content of this learner guide is aligned to the following modules of the occupational qualification above.

Module Code	Module Title	Level	Credits
Knowledge Modules			
611202-001-00-KM-01	Plant Structure and Physiology	4	5
611202-001-00-KM-02	Vineyard or Orchard Establishment	3	2
611202-001-00-KM-03	Vineyard or Orchard Manipulation Processes	3	8
611202-001-00-KM-04	Harvesting	3	4
611202-001-00-KM-05	Basic Principles of Plant Nutrition	4	4
611202-001-00-KM-06	Crop Protection	3	3
611202-001-00-KM-07	Assets in Horticultural Production	3	2
611202-001-00-KM-08	Farm Business Management and Farming Process Management	4	8
611202-001-00-KM-09	Human Resource Management and Processes	4	8
611202-001-00-KM-10	Overseeing Farming Resource Utilisation	4	8
Practical Skill Modules			
611202-001-00-PM-01	Organise, Allocate and Monitor Availability and Productive Use of Resources	4	5
611202-001-00-PM-2a	Set Team and Individual Performance Goals to Enhancing Team Performance	4	10
611202-001-00-PM-2b	Control Vineyard or Orchard Practices	4	10

611202-001-00-PM-03	Supply Accurate Daily Orchard or Vineyard and Production Information	4	10
Work Experience Modules			
611202-001-00-WM-01	Vineyard or Orchard Resource Optimisation	4	20
611202-001-00-WM-02	Skilled and Motivated Work Team Output	4	20
611202-001-00-WM-03	Daily Orchard or Vineyard and Production Information Availability	4	20

Learning Outcomes

The content of this learner guide is aligned to the following learning outcomes of the modules above.

Knowledge Topics	
Outcome Code	Module Title
KM-02-KT04	Crop establishment
IAC0401	The handling of plant material from the nursery to the farm is described in terms of the impact it has on eventual young plant survival
IAC0402	The pre-planting storage and preparation of plant material is outlined in order to optimise for a maximum yield of young plants
Practical Skills	

Chapter 1

Pre-Planting Tree Management

learning outcomes

The content of this chapter is aimed at helping you to:

- Care for, handle and ensure the health of young trees before planting.

1. Pre-Planting

Now that you have planned out and prepared the orchard for planting, you are ready to begin planting. Plant material (young trees) should be ordered from a certified nursery at least one-and-a-half to two years in advance of the intended planting date. You must specify the cultivar and rootstock you have selected when ordering the trees.

A representative from your farm should visit the nursery during the period between ordering and receiving your trees. These visits are used to ensure that the plants are true to type, that the nursery practices are in order and to a high standard, and that proper pest and disease control measures are followed.

The nursery trees must not be delivered to the farm too long before actual planting. Ideally, and this should be the case when working with a reputable nursery, the trees must be inspected in the nursery before delivery to make sure that the trees are in a good condition before being transported.

Trees that have been grown in containers can theoretically be planted at any time during the year. In most areas, the normal planting period is between mid-August and the end of November, after the soil has warmed up after the winter and before the worst heat of the summer. This also provides the newly planted trees with the best opportunity for rapid development and growth during the warm summer months.

2. Selection of Healthy Plants

It is especially important to be able to recognise healthy plants. When the plants are delivered from the nursery there are a number of qualities to check for before planting, as it is a waste of time and money to plant low-quality trees. If any of the nursery trees do not meet these basic requirements upon arrival, it is very important that you tell senior management, so that the nursery can be contacted for a replacement or refund if necessary.

Firstly, all your young trees must be healthy, in all respects, and without physical damage. By healthy we mean that they should be free of any diseases or pests, and that they should be well watered, and well fed (in terms of nutrients). Look for the usual symptoms of pests or diseases or malnutrition, it may be necessary to collaborate with your pest and disease managers on the farm to help spot symptoms you may not know to look for.

The stems of all the trees must be straight, with the bud union at least 200mm above soil level. Your trees must also have a well-developed root system, as this will help to minimise the effects of root shock. Finally, trees must be 21 months or younger after budding, and 30 months or younger after seed germination. Trees should ideally still be in rest when planted, because actively growing trees require more care following planting.

3. Plant Material Safekeeping

Most trees received from nurseries are grown in plastic bags in a pathogen-free growth medium in a controlled environment. Ideally, the young tree should never have experienced moisture stress during the period leading up to planting. The plants are watered well before leaving the nursery to ensure that the growth medium does not dry out during transport to the farm. Avoiding moisture stress is a major way of ensuring that the tree will start to develop feeder roots and grow well as soon as possible after planting.

Great care must be taken during transport that the trees are not exposed to hot, dry, or windy conditions. Trees should ideally be transported in an enclosed vehicle. Damage to or loss of leaves during transport will limit the growth potential of the tree.

On arrival at the farm, the trees must be watered and then kept moist in their bags until they are planted. The roots of the plants must not be allowed to dry out at any time. Dried out roots severely affect development of new roots after planting, and therefore the rapid growth required of the newly planted trees.

A few nurseries produce bare-root trees. Bare-root trees are trees from open ground nurseries that are removed, or lifted, from the soil just prior to transport to the farm for planting. This is not common practice, because it is much easier to control all the factors affecting the development of nursery trees and produce quality trees in containers. Extra care should be taken with bare-root trees after removal from the soil at the nursery to prevent drying out of the roots.

To prevent drying out, bare-root trees are normally bundled in multiples of 25 or 50 just after being removed from the soil, and the roots are immediately covered in an absorbent material such as hessian, which is then kept moist until planting. Bare-root trees must be transplanted immediately, prior to the first spring flush. Depending on the area and cultivar, this can be between the beginning of September and the end of October.

If it is not possible to transplant bare-root trees immediately, the main challenge is to prevent the roots from drying out. In this undesirable situation, the trees should be removed from the protective packaging and layered in a trench with the roots completely covered with soil to keep them in a moist environment.

If kept like this for too long, feeder roots will start to form, and the trees will start to grow. The carbohydrate reserves of the young tree are used in the process and when eventually planted, this loss in reserves will result in poor growth.

summary

Chapter 1 – Pre-Planting Tree Management

- Plant material (young trees) should be ordered from a certified nursery at least one-and-a-half to two years in advance of the intended planting date.
- A representative from your farm should visit the nursery during the period between ordering and receiving your trees.
- In most areas, the normal planting period is between mid-August and the end of November.
- If any nursery trees are not healthy upon arrival, you need to tell senior management as soon as possible.
- Your young trees must be healthy, free of any diseases or pests, well-watered, and well-fed (in terms of nutrients).

- The stems of all the trees must be straight, with the bud union at least 200mm above soil level.
- Your trees must also have a well-developed root system, as this will help to minimise the effects of root shock.
- Trees must be 21 months or younger after budding, and 30 months or younger after seed germination.
- Avoiding moisture stress is a major way of ensuring that the tree will start to develop feeder roots and grow well as soon as possible after planting.
- After arriving at the farm, the roots of the plants must not be allowed to dry out at any time.
- Bare-root trees are trees from open ground nurseries that are removed, or lifted, from the soil just prior to transport to the farm for planting.
- Extra care should be taken with bare-root trees after removal from the soil at the nursery to prevent drying out of the roots.

assessment activities

- ✓ **Activity P1:** Complete this activity to test your knowledge of pre-planting tree management.
- ✓ **Activity F1:** Complete this activity to test your knowledge of the entire module.