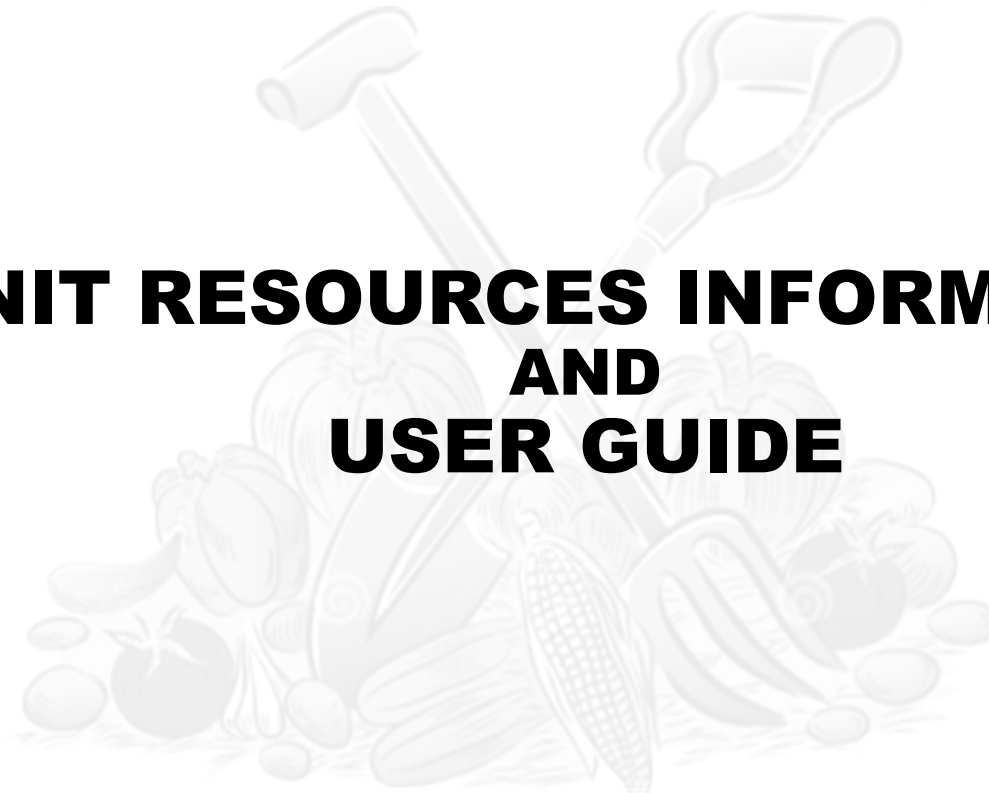


**Agriculture, Horticulture and Conservation and Land
Management Training Package**

CERTIFICATE II IN HORTICULTURE

AHC20422

**UNIT RESOURCES INFORMATION
AND
USER GUIDE**





LANE

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INTRODUCTION

Passing Lane Pty Ltd is pleased to introduce your school/institution to our vocational education and training unit resource packages.

AHC20422 - Certificate II in Horticulture

This document outlines the licensing terms and conditions of the unit resource packages.

It also provides basic information on how to use the materials.

Should you have any further questions or require any additional information do not hesitate to contact Passing Lane.

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INTRODUCTION-CONT'D

The Student/Trainee and the Teacher/Trainer manuals are developed to provide training content that addresses the specific 'Unit of Competency' as outlined on the following pages.

This unit manuals can be packaged with various manuals addressing other 'Units of Competency' in order to meet the 'Packaging Rules' of a particular Australian Training Package Qualification.

This resource has been designed to be delivered in a form that is conducive to the learning environment including:

- ☆ Online delivery
- ☆ Classroom delivery
- ☆ On the job training

The documents are designed in a 'landscape' format in order to make reading on a computer screen easier as well as reduces the need to scroll down pages. Documents can be easily printed if the learning environment requires the student or trainee to have hard copies of the learning materials.

The Student/Trainee and the Teacher/Trainer manuals are Portable Document Files (PDF) and are opened using Adobe Reader.



The latest Acrobat Reader software is available at no charge from the website <http://get.adobe.com/reader/>

INTRODUCTION—CONT'D

The Student/Trainee and the Teacher/Trainer manuals can be used on both PC and MAC platforms.

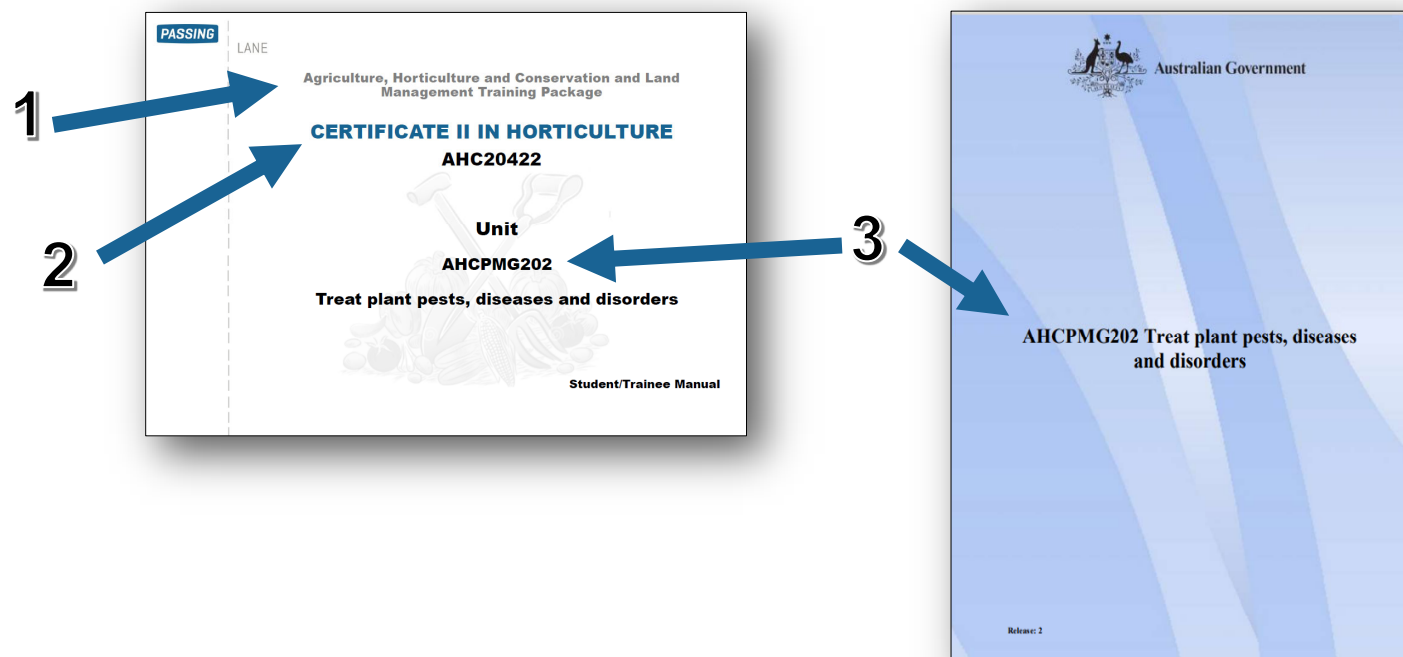
Generally, the materials are easily exported to most learning platforms.

The materials can also be printed and bound and handed out as hardcopies to each student or trainee.



MATERIALS CONTENT

The title page of both the Student/Trainee and the Teacher/Trainer manuals specify 1) the training package it has been developed for, 2) the qualifications which the content in each manual has been written for and 3) the specific unit the content is addressing.



MATERIALS CONTENT—CONT'D

The beginning of both manuals is the 'Unit of Competency Overview' page, which aligns directly (mirrors) with the endorsed 'Unit of Competency' in the training package.

This page is to let the readers know what the materials in the manuals are addressing.

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AHCPMG202 Treat plant pests, diseases and disorders Page 8

UNIT OF COMPETENCY OVERVIEW

The following pages are extracts from Training.gov.au website and outlines this specific 'Unit of Competency' including the 'Elements' and the 'Performance Criteria'. The content within this manual has been developed to address this unit.

AHCPMG202 TREAT PLANT PESTS, DISEASES AND DISORDERS

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to treat plant pests, diseases and disorders	1.1 Identify and record details of pest, disease or disorder and confirm with supervisor according to workplace procedures 1.2 Discuss and select appropriate control technique with the supervisor 1.3 Perform calculations according to control option and treatment requirements and confirm with supervisor 1.4 Select and prepare equipment for use according to workplace procedures, supervisor instructions and manufacturer specifications 1.5 Secure treatment area according to health and safety in the workplace procedures and supervisor instructions 1.6 Identify health and safety hazards and risks in the workplace and apply appropriate controls according to supervisor instructions
2. Apply treatments to plant pests, diseases and disorders	2.1 Identify, select, fit and use personal protective equipment according to according to workplace procedures and manufacturer instructions 2.2 Prepare treatments according to supervisor's instructions, chemical label instructions, safety data sheets and manufacturer instructions 2.3 Apply treatments to minimise damage and exposure to off-target species according to workplace procedures, health and safety in the workplace and environmental legislative and regulatory requirements
3. Carry out post treatment operation	3.1 Clean and store personal protective equipment and application equipment according to workplace and environmental procedures 3.2 Dispose of treatment waste according to environmental procedures 3.3 Maintain records according to workplace procedures and legislative and regulatory requirements

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Student | Trainee Manual
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AHCPMG202 Treat plant pests, diseases and disorders Date this document was generated: 21 February 2023

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to treat plant pests, diseases and disorders	1.1 Identify and record details of pest, disease or disorder and confirm with supervisor according to workplace procedures 1.2 Discuss and select appropriate control technique with the supervisor 1.3 Perform calculations according to control option and treatment requirements and confirm with supervisor 1.4 Select and prepare equipment for use according to workplace procedures, supervisor instructions and manufacturer specifications 1.5 Secure treatment area according to health and safety in the workplace procedures and supervisor instructions 1.6 Identify health and safety hazards and risks in the workplace and apply appropriate controls according to supervisor instructions
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3. Carry out post treatment operation	3.1 Clean and store personal protective equipment and application equipment according to workplace and environmental procedures 3.2 Dispose of treatment waste according to environmental procedures 3.3 Maintain records according to workplace procedures and legislative and regulatory requirements

Approved Page 2 of 4
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MATERIALS CONTENT—CONT'D

The manuals contain detailed information aligned specifically to the 'Unit of Competency' and the unit's 'Elements' and 'Performance Criteria'.

The 'Table of Contents' for both manuals show that each section title is the 'Unit of Competency' 'Element'.

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TABLE OF CONTENTS

Introduction	Page 5
Unit of Competency Overview	Page 8
Section One Prepare to treat plant pests, diseases and disorders	Page 10
Section Two Apply treatments to plant pests, diseases and disorders	Page 70
Section Three Carry out post treatment operation	Page 95
Self Assessment	Page 114

Section One

Prepare to Treat Plant Pests, Diseases and Disorders

AHCPMG202 Treat plant pests, diseases and disorders

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to treat plant pests, diseases and disorders	1.1 Identify and record details of pest, disease or disorder and confirm with supervisor according to workplace procedures 1.2 Discuss and select appropriate control technique with the supervisor 1.3 Perform calculations according to control option and treatment requirements and confirm with supervisor 1.4 Select and prepare equipment for use according to workplace procedures, supervisor instructions and manufacturer specifications 1.5 Secure treatment area according to health and safety in the workplace procedures and supervisor instructions 1.6 Identify health and safety hazards and risks in the workplace and apply appropriate controls according to supervisor instructions
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Page 2 of 4
Skills Report

MATERIALS CONTENT—CONT'D

In each section the content is broken down into sub-sections and the titles for each sub-section is the same as the 'Element's' 'Performance Criteria'.

Section One

Prepare to Treat Plant Pests, Diseases and Disorders

AHCPMG202 Treat plant pests, diseases and disorders Page 13

DISEASE OR DISORDER AND CONFIRM WITH SUPERVISOR

ACCORDING TO WORKPLACE PROCEDURES

Australia's agricultural industry is comprised of grains, grasses, fruit, vegetables, nuts, flowers, turf and nursery products (known as horticulture).

However, like all intensive farming practises agricultural and horticultural farmers face threats to their livelihoods from a range of plant pests, diseases and disorders.

In this section we will look these by common names, what they are as well as how they affect plants.

The Department of Agriculture, Fisheries and Forestry website is a great source of information on this topic.

<http://www.agriculture.gov.au/pests-diseases-weeds/plant>

Australian Government
Department of Agriculture,
Fisheries and Forestry

This website lists common pests and diseases that can affect grain and grass crops, fresh fruit and vegetables and over the next few pages we will review those pests and diseases.

Student / Trainee Manual Copyright 2024

AHCPMG202 Treat plant pests, diseases and disorders Date this document was generated: 22 February 2023

AHCPMG202 Treat plant pests, diseases and disorders

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes:	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare to treat plant pests, diseases and disorders	1.1 Identify and record details of pest, disease or disorder and confirm with supervisor according to workplace procedures 1.2 Discuss and select appropriate control technique with the supervisor 1.3 Perform calculations according to requirements and confirm 1.4 Select and

The manual's information is supported with graphics, charts, tables, photos and drawings.

MATERIALS CONTENT-CONT'D

As earlier mentioned, the materials are vocational education and training unit resources in the form of Student/Trainee and the Teacher/Trainer manuals.

We will go through each in more detail.

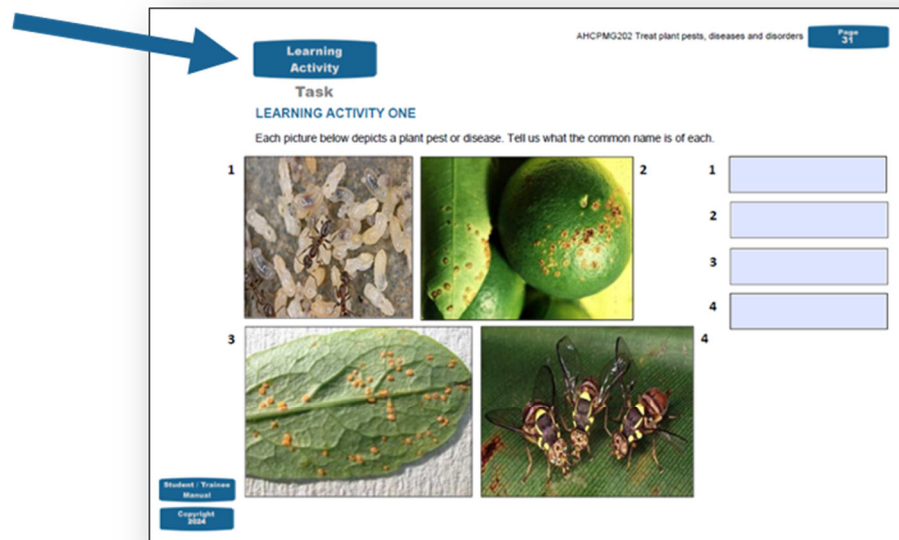
STUDENT/TRAINEE MANUAL

The 'Student/Trainee Manual' could be likened to a textbook.

The manuals contain detailed information aligned specifically the 'Unit of Competency' and the unit's 'Elements' and 'Performance Criteria' and are supported with graphics, charts, tables, photos and drawings.

The manuals contain a series of 'Learning Activities'.

Each learning activity is identified with the following icon.



**Learning
Activity**

MATERIALS CONTENT-CONT'D

Learning activities come in the following forms.

- ☆ Questions
- ☆ Research
- ☆ Tasks
- ☆ Interviews

Questions

Questions would relate to the information presented on previous pages.

Research

This type of learning activity would require the student or trainee to locate information by using research methods. The information they would be required to locate would be in line and/or support the information that the manual had outlined in previous pages.



Learning
Activity

Research

Tasks

This learning activity type would require the student/trainee to actually do or undertake something and would be reinforcing the knowledge they have gained from reading the manual's previous pages.

Interviews

This learning activity type would require the student/trainee to interview person(s) in an actual workplace environment or a person(s) who are experienced in the industry sector which the student/trainee is currently undergoing training.

The student/trainee is made aware of the type of learning activity by noting the learning activity type displayed under the learning activity icon.

MATERIALS CONTENT—CONTID

The learning activities in the Student/Trainee manuals are 'Form Enabled' so that if the resources delivered are online, the activities can be filled in using the computer keyboard.

The student or trainee would simply place the cursor in the field and click once with the mouse.

Seconds later the blue colour disappears and the student enters his/her answers into the field .

Learning Activity Task
LEARNING ACTIVITY ONE
Each picture below depicts a plant pest or disease. Tell us what the common name is of each.

1 2 3 4

1 Student/trainee types in their answer in the text box
2
3
4

Student - Trainee Manual

When the student or trainee leaves the filled in field to move on to the next field, the previous field returns to a blue colour.

IT IS VERY IMPORTANT THAT THE MANUAL IS SAVED REGULARLY.

It is recommended that the student or trainee set up a 'Student/Trainee' folder on their computer and saves their manuals to that folder.

The **'first'** SAVE will have the software will ask if you wish to replace the file and the student/trainee would click YES.

Saving does not prevent the student or trainee from going back to previous fields to make changes.

After the 'first' SAVE, the student or trainee would need to use the **'SAVE AS'** function.

MATERIALS CONTENT—CONT'D

Self Assessment

At the end of each manual is a series of questions that the student or trainee should review and answer.

This self assessment is to ensure in the student's or trainee's mind that they have reviewed and understood the information that was presented in the manual.

If they are unsure of their understanding in any of the topics reviewed, they are encouraged to go back and review the information again and/or seek the assistance of their teacher or trainer.

TEACHER/TRAINER MANUAL

The Teacher/Trainer manuals have exactly the same content as the Student/Trainee manuals.



The only differences are the explanatory introduction pages and after each learning activity there are 'Teacher/Trainer Guidance Notes'. These provide the answers to the 'Learning Activities' as well as some notes on how to assess the student/trainee's submission to each learning activity.



Learning Activity

Task

LEARNING ACTIVITY ONE

Each picture below depicts a plant pest or disease. Tell us what the common name is of each.

1  2 

3  4 

1

2

3

4

TEACHER / TRAINER GUIDANCE NOTES

1) Ants
2) Citrus Canker
3) Rust
4) Fruit Fly

Teacher/Trainer Manual
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AHCPMG202 Treat plant pests, diseases and disorders Page 31



POWERPOINT SLIDE PRESENTATIONS

Each Passing Lane unit resource comes with a PowerPoint slide presentation.

Each slide is mapped to a specific page in the Student/Trainee manual.

The slide is only a summary of the manual page content and is used by teachers or trainers as a support training aid in classroom training delivery or online training.

The PowerPoint slide presentation is supplied as a 'Show'.

This means the PowerPoint file has the PowerPoint launch software embedded in the file so the student, trainee, teacher or trainer does not require the PowerPoint application software to view.



POWERPOINT SLIDE PRESENTATIONS—CONT'D

The slides are initially listed in a **'Table of Contents'** and the slide names in the Table of Contents are **hyperlinked** to the relevant slide.

This allows the teacher or trainer to easily jump ahead to a specific subject or go back where they may have left off earlier.

On the top right hand corner is an icon of the Table of Contents that is **hyperlinked** back to the Table of Contents.

Table of Contents

Slide		Slide	
	Section One		Section Two
04	Common Plant Pests and Diseases	15	Personal Protection Equipment
05	Recording Details of Plant Pests/Diseases	16	Preparing Treatments
06	Control Methods	17	SDS/MSDS
07	Regulating Control Requirements	18	User Permit
08	Run-Off	19	Environmental Impact Prevention Measures
09	Tools and Equipment	21	Section Three
10	Preparing Application Equipment	22	Cleaning Equipment
11	Securing Treatment Area	23	Triple Rinse
12	Hazards and Risks	24	Storing of Chemicals and Equipment
13	Controlling Hazards and Risks	25	Cleaning and Storing PPE
		26	Disposing Waste Materials
			Record Keeping Requirements
			End of Unit

Next ►

Common Plant Pests and Diseases

Common plant pests and diseases can include:

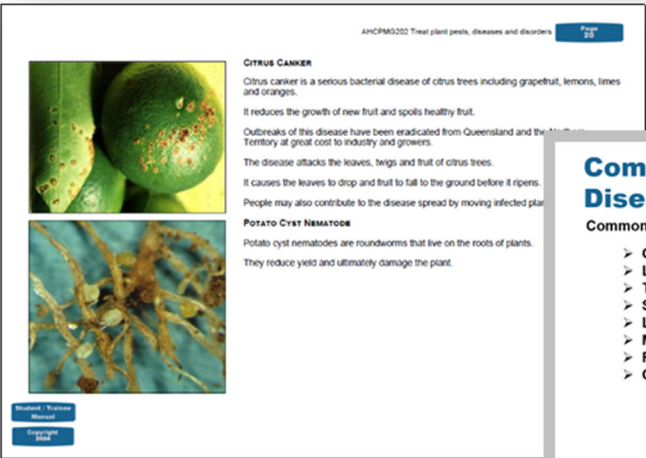
- Cover bunt
- Loose smut
- Take-all
- Septoria tritici blotch
- Leaf scald
- Mango seed weevil
- Fruit fly
- Citrus canker

Treat plant pests, diseases and disorders 2

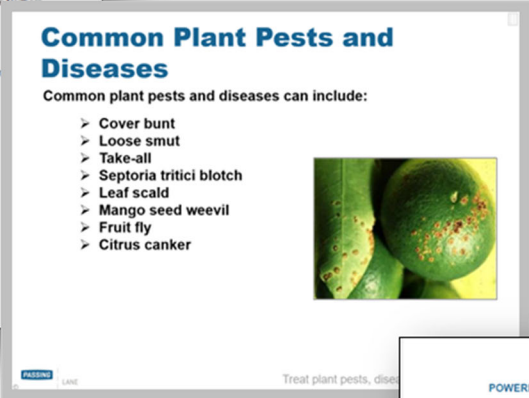
Treat plant pests, diseases and disorders 4

POWERPOINT SLIDE PRESENTATIONS—CONT'D

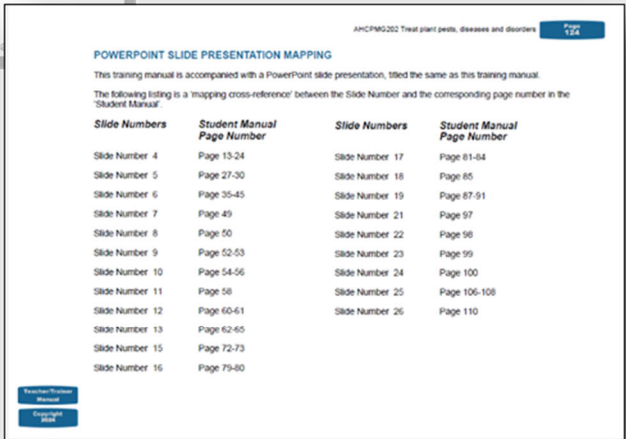
Each slide is ‘mapped’ to a specific page in the ‘Student/Trainee’ manual. This mapping is in the Teacher/Trainer manual at the end of the document.



Student/Trainee Manual



Slide Presentation



Teacher/Trainer Manual

ASSESSMENT MAPPING UTILITIES

Passing Lane does not provide assessment tools as this is the responsibilities of the registered training organisation under the rules of ASQA.

However, Passing Lane does offer an 'Assessment Mapping Utility' for each student/trainee manual.

The mapping utility document outlines where the student/trainee manual content addresses the 'Element' and each 'Performance Criteria' by page number(s).

PASSING LANE

Passing Lane Assessment Mapping Utility Document

AHCPMG202 Treat plant pests, diseases and disorders

Unit of Competency (1) Element - Student/Trainee Manual Page Number

1. Prepare to treat plant pests, diseases and disorders - **Page 11**

Unit of Competency Performance Criteria - Student/Trainee Manual Page Number

- 1.1 Identify and record details of pest, disease or disorder and confirm with supervisor according to workplace procedures - **Page 13**
- 1.2 Discuss and select appropriate control technique with the supervisor - **Page 35**
- 1.3 Perform calculations according to control option and treatment requirements and confirm with supervisor - **Page 49**
- 1.4 Select and prepare equipment for use according to workplace procedures, supervisor instructions and manufacturer specifications - **Page 52**
- 1.5 Secure treatment area according to health and safety in the workplace procedures and supervisors instructions - **Page 58**
- 1.6 Identify health and safety hazards and risks in the workplace and apply appropriate controls according to supervisor instructions - **Page 60**

Unit of Competency (2) Element - Student/Trainee Manual Page Number

2. Apply treatments to plant pests, diseases and disorders - **Page 71**

Unit of Competency Performance Criteria - Student/Trainee Manual Page Number

- 2.1 Identify, select, fit and use personal protective equipment according to according to workplace procedures and manufacturer instructions - **Page 72**
- 2.2 Prepare treatments according to supervisor's instructions, chemical label instructions, safety data sheets and

ASSESSMENT MAPPING UTILITIES—CONT'D

The mapping utility document also outlines where the student/trainee manual content addresses the 'Performance Evidence and Knowledge Evidence' requirements.

Unit of Competency Performance Criteria - Student/Trainee Manual Page Number

- 1.1 Identify and record details of pest, disease or disorder and confirm with supervisor according to workplace procedures - **Page 13**
- 1.2 Discuss and select appropriate control technique with the supervisor - **Page 35**
- 1.3 Perform calculations according to control option and treatment requirements and confirm with supervisor - **Page 49**
- 1.4 Select and prepare equipment for use according to workplace procedures, supervisor instructions and manufacturer specifications - **Page 52**
- 1.5 Secure treatment area according to workplace procedures, supervisor instructions and manufacturer specifications - **Page 52**
- 1.6 Identify health and safety requirements - **Page 52**

Unit of Competency Knowledge Evidence - Student/Trainee Manual Page Number

Unit of Competency (2) Elements

2. Apply treatments to plant pests

Unit of Competency Performance Criteria

- 2.1 Identify, select, fit and use equipment according to manufacturer instructions
- 2.2 Prepare treatments according to manufacturer instructions
- 2.3 Apply treatments to minimise health and safety in the workplace

Unit of Competency Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- > common pests, diseases and disorders identification - **Pages 13-20**
- > pests, diseases and disorders and dissemination method common to work area - **To be questioned by teacher/trainer**
- > pests, diseases and disorders treatment options, including:
 - > cultural - **Page 45 and; To be questioned by teacher/trainer**
 - > chemical - **Page 45 and; To be questioned by teacher/trainer**
 - > mechanical - **To be questioned by teacher/trainer**
 - > biological - **Page 45 and; To be questioned by teacher/trainer**
 - > Integrated Pest Management - **Page 45**
- > basic environmental considerations when using chemicals for treating pests, diseases and disorders, including:
 - > spray drift and off target damage - **Pages 56,62,65**
 - > inversion - **Page 90**
 - > re-entry period - **Page 58 and; To be questioned by teacher/trainer**
 - > residues - **Pages 52,54,100-107**
 - > chemical handling - **Pages 60,81,89 and; To be questioned by teacher/trainer**
- > regulatory requirements and responsibilities when applying control measures - **Pages 87-90**

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The Passing Lane licence agreement allows the Passing Lane materials to be modified or contextualised to suit the teaching/training environment.

This includes adding or deleting written content, adding school or institution's logos and adding your own pictures or graphics.

Graphics, pictures or illustrations in the original materials can be removed, but not used elsewhere or modified.

The PDFs can be converted to WORD files using PDF conversion tools that are readily available on the market.



UPDATES AND UPGRADES

On occasions the training packages will be updated and if the updates are minor, Passing Lane updates the materials and the updated materials are provided free to those holding a current user licence.

If the training package changes are substantial, Passing Lane will update the materials.

However, there would be a small upgrading fee charged to those schools or institutions wanting to upgrade their materials.