

RTC2404A**Unit Descriptor****Unit Sector****Treat plant pests, diseases and disorders**

Treat plant pests, diseases and disorders

No sector assigned

ELEMENT**PERFORMANCE CRITERIA**

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| 1. Prepare to treat plant pests, diseases and disorders | 1.1 Plant pests, diseases and disorders which impact on commercial crops, gardens and turf, and natural areas are recognised by common name |
| | 1.2 Details of the plant pest, disease and disorder occurrence are recorded and reported to the supervisor |
| | 1.3 Treatment methods are selected in consultation with the supervisor |
| | 1.4 Equipment is selected and prepared for use according to enterprise guidelines and manufacturers specifications |
| | 1.5 Occupational Health and Safety hazards are identified, risks assessed and reported to the supervisor |
| 2. Apply treatments to plant pests, diseases and disorders | 2.1 Suitable personal protective equipment (PPE) is selected, used, maintained and stored |
| | 2.2 Treatments are prepared according to supervisor's instructions and manufacturers guidelines |
| | 2.3 Treatments are applied in such a way that non-target damage is minimised |
| | 2.4 Treatments are applied according to Occupational Health and Safety and regulatory requirements |
| 3. Carry out post treatment operations | 3.1 Equipment is shut down and cleaned with full consideration of environmental impacts |
| | 3.2 Treatment waste is disposed of causing minimal environmental damage |
| | 3.3 Records are maintained according to enterprise guidelines |

KEY COMPETENCIES

What processes should be applied to this competency standard? There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the key competencies, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

Key Competency	Example of Application	Performance Level
Communicating ideas and information	Relating to applying plant pest, disease and disorder treatments should be discussed with other members of the work team and the supervisor	1
Collecting analysing and organising information	Information will be collected by inspecting the plant pest or disease and the information gained will be recorded and discussed with the work team and supervisor; enterprise work procedures and control programs should be consulted, interpreted and applied with clarification from the supervisor where necessary	1
Planning and organising activities	Equipment, materials and work procedures for applying treatments will need to be arranged before and between work periods, and there may be some responsibility for coordinating work with others	1
Working with others and in teams	The application of treatments may involve working with other members of a team to complete the program and ensuring other activities are scheduled around the application of plant pest or disease treatments	1
Using mathematical ideas and techniques	In relation to calculating rates, and areas, will be required	1
Solving problems	May be demonstrated in cases of machinery malfunctions or chemical spillage	1
Using technology	May be applied in the preparation, use and maintenance of spray equipment	1

RANGE STATEMENT

Classification of plant pests, diseases and disorders

may include

- chewing, sucking and boring invertebrates, nematode, fungi, viruses, and bacteria
- disorders include toxic soil, air and water
- this unit excludes vertebrae pests, nutrient deficiencies and extreme environmental conditions

Details about the plant pest or disease	might include <ul style="list-style-type: none">• location and occurrence of plant pests, disease and disorders• possibility of off target damage and potential threats that the plant pest or disease may present to surrounding areas
Treatments	may include <ul style="list-style-type: none">• use of fertilisers, foliar nutrients, insecticides, fungicides, dips• release of biological agents, pheromone traps, baits, hormones• cultivation, slashing, cutting, burning and ripping
Equipment appropriate for treatment application	may include <ul style="list-style-type: none">• backpack sprayers• spray tanks, fertiliser spreaders• ladders, rippers, pesticide applicators and handsaws
Occupational Health and Safety hazards	may include <ul style="list-style-type: none">• use of hazardous chemicals• use of tractors and machinery• solar radiation• working from ladders
Occupational Health and Safety risks	may affect <ul style="list-style-type: none">• workers,• equipment• people and animals external to the workplace such as members of the public, wildlife, pets, bees, fish, birds• the environment
Personal Protective Equipment required to apply treatments	may include <ul style="list-style-type: none">• hat• rubber boots• chemical resistant overalls• gloves• goggles• respirator or facemask• sunscreen lotion

Occupational Health and Safety requirements

may include

- identifying hazards
- assessing and reporting risks
- cleaning, maintaining and storing tools and equipment
- appropriate use of personal protective equipment including sun protection and drinking to avoid dehydration
- safe operation of tools and equipment
- personal hygiene and reporting problems to supervisors
- appropriate use, maintenance and storage of personal protective equipment
- safety procedures in chemical handling and use
- safety procedures for the protection of others

Regulatory requirements

may include

- the use and disposal of chemicals, record keeping
- transport of chemicals, and access to area

Environmental impacts

may include

- leaching and contamination of the water table
- soil contamination, spray drift
- damage to off target organisms
- contaminated produce
- surface run off, changes in soil structure

Records that need to be kept when treating plant pests, diseases and disorders

may include

- name of operator
- treatments applied
- rate
- date
- settings of equipment
- plant pest's numbers
- numbers of beneficial organisms

The sport and recreation industry**covers**

- industry sectors of community recreation, fitness, outdoor recreation and sport
- significant roles played by activity organisations, industry peak bodies, professional organisations
- large volunteer base
- high turnover of volunteers
- high levels of part time and casual employment
- irregular working hours
- relatively few professional positions
- workforce employed mostly in operational positions
- mainly small business or self-employed personnel
- slow to take up technology
- over 2/3 of the sport and recreation industry have no formal/recognised qualifications
- significant reliance upon industry credentials and involvement in the activity itself

EVIDENCE GUIDE**Critical aspects of evidence to be considered**

- Assessment must confirm sufficient knowledge in treating plant pests, diseases and disorders
- Assessment of performance should be over a period of time covering all categories from the Range Statements applicable to the learner's work environment
- In particular, assessment must confirm the ability to
 - recognise and appropriately treated common plant pests, diseases and disorders
 - transfer the skills and knowledge required to treat plant pests, diseases and disorders to a different work environment, eg, this could include different plant pest and diseases, locations and treatment techniques

Interdependent assessment of units

- This unit must be assessed after attainment of competency in the following unit(s)
 - Nil
- This unit must be assessed in conjunction with the following unit(s)
 - Nil
- For the purpose of integrated assessment, this unit may be assessed in conjunction with the following unit(s)
 - Nil

Required knowledge and skills

- Required knowledge
 - Recognition of common plant pests, diseases and disorders for a particular enterprise/situation
 - Different types of control measures and their principles
 - Modes of action of different chemicals
 - Legislation relation to the use of chemicals for plant pest, disease and disorder control
 - Occupational Health and Safety legislative requirements and Codes of Practice
 - Correct wearing/fit of personal protective equipment
- Required skills
 - Read and interpret chemical labels, Material Safety Data Sheets (MSDS), manufacturers specifications for setting up equipment, and maintain spray records
 - Prepare to treat plant pests and diseases
 - Apply plant pest, disease and disorder treatments
 - Carry out post treatment operations
 - Wear personal protective equipment appropriate to task

Resource implications

- Physical resources - assessment of competency requires access to
 - personal protective equipment
 - equipment
 - appropriate documentation and resources normally used in the workplace
- Human resources - assessment of this competency will require human resources consistent with those outlined in the Assessment Guidelines. That is, assessors (or persons within the assessment team) should
 - be competent in this unit
 - be current in their knowledge and understanding of the industry through provision of evidence of professional activity in the relevant area
 - have attained the National Competency Standards for Assessment: BSZ401A, BSZ402A and BSZ403A

Consistency in performance

- Competence in this unit must be assessed over a period of time in order to ensure consistency of performance over the Range Statements and contexts applicable to the work environment

Context for assessment

- This unit of competency must be assessed in the context of a sport or recreation activity. For valid and reliable assessment the sport or recreation activity should closely replicate the work environment. The environment should be safe with the hazards, circumstances and equipment likely to be encountered in a real workplace
- Assessment of this unit of competence will usually include observation of processes and procedures, oral and/or written questioning on required knowledge and skills and consideration of required attitudes
- Where performance is not directly observed and/or is required to be demonstrated over a "period of time" and/or in a "number of locations", any evidence should be authenticated by colleagues, supervisors, clients or other appropriate persons

Essential Assessment Information

There is **essential information about assessing this competency standard for consistent performance and where and how it may be assessed** , in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to the **Assessment Guidelines** . Further advice may also be sought from the relevant **sector booklet** .