

RTC3404A**Unit Descriptor****Unit Sector****Control plant pests, diseases and disorders**

Control plant pests, diseases and disorders

No sector assigned

ELEMENT**PERFORMANCE CRITERIA**

- | | |
|--|---|
| 1. Assess pests and disease infestation | 1.1 Scope and size of the infestation is assessed
1.2 Plants pests, diseases and disorders and beneficial organisms are identified and reported or recorded in field notes
1.3 Levels of pest infestations tolerated by the client, market or environment are identified from the Integrated Pest Management (IPM) strategy |
| 2. Plan the implementation of control measures | 2.1 Control measures suitable for the infestation are selected from Integrated Pest Management strategy
2.2 Tools, equipment and machinery are selected for each work activity according to enterprise work procedures
2.3 Occupational Health and Safety hazards are identified, risks assessed, controls implemented and reported to the supervisor
2.4 Suitable safety equipment and personal protective equipment (PPE) are selected, used, maintained and stored
2.5 Control measures selected need to be in full consideration of Occupational Health and Safety and environmental implications |
| 3. Implement control measures | 3.1 Enterprise work team, contractors and Integrated Pest Management product suppliers are coordinated in a sequential, timely and effective manner in consultation with the supervisor
3.2 Control measures are implemented according to the Integrated Pest Management standards or industry Code of Practice
3.3 Implementation of Integrated Pest Management activities is undertaken according to Occupational Health and Safety requirements
3.4 A clean and safe work area is maintained throughout and on completion of each activity
3.5 Records are maintained as required by legislation and enterprise guidelines |
| 4. Monitor control methods | 4.1 Control methods are monitored to identify side effects to other plants, animals or external environment
4.2 Effectiveness of control methods are assessed in reference to specified industry, Occupational Health and Safety and enterprise standards
4.3 Adjustments to Integrated Pest Management control methods are implemented where necessary to meet enterprise specifications |

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	Written, oral and telecommunication of ideas and information relating to Integrated Pest Management implementation, activities and problem encountered will be required with the supervisor, work group, contractors or consultants	2
Collecting analysing and organising information	Enterprise work procedures and Integrated Pest Management program should be consulted, interpreted and applied to coordinate plant pest, disease and disorder control activities with further clarification sought from the supervisor, contractors or consultants where necessary	2
Planning and organising activities	Work activities for the work group, contractors and self will be planned prior to and adjusted during implementation of the Integrated Pest Management program	3
Working with others and in teams	Implementation of the Integrated Pest Management program will involve facilitating and leading members of a team to complete Integrated Pest Management activities, and meet Integrated Pest Management standards and specifications on time and budget	2
Using mathematical ideas and techniques	Will be required to implement the spatial and logistical and quantitative requirements of the Integrated Pest Management program	2
Solving problems	Site contingencies, personnel difficulties, control and timeline failures and identifying, assessing and controlling hazards may require problem solving techniques	2
Using technology	Technological understanding will be required to access and apply Integrated Pest Management specifications to work activities, undertake Integrated Pest Management activities, communicate and take records	2

RANGE STATEMENT

Plant pests, disease and disorders

which

- present a potential risk for the enterprise, industry or environment
- are notifiable to authorities
- are part of a local, regional, state or national strategy

Beneficial organisms

may include

- volunteer or cultivated plants, insects, spiders and microorganisms that out-compete
- parasitise or predate on the pests and disease relevant to the Integrated Pest Management program

Control measures

employed as part of and Integrated Pest Management program may include

- targeted chemical application
- the application of non-chemical controls including organically or naturally ingredient based sprays
- controlled release of predatory organisms
- the application of cultural control methods including removal and disposal of plant pests, diseases and disorders

Tools, equipment and machinery

which may be required may include

- standard tools, such as
 - gardening implements
 - mechanised and manually operated spray applicators and cultivators
 - tractors and trailed equipment may be required
- monitoring equipment for the implementation of an Integrated Pest Management program may include
 - insect traps
 - soil
 - fertiliser and plant tissue test kits
 - sampling equipment

Occupational health and safety hazards

may include

- chemicals and hazardous substances
- manual handling
- falling branches
- overhead powerlines
- operating machinery tools and equipment
- noise
- dust
- solar radiation

Personal protective equipment

may include

- hat
- boots
- overall
- gloves
- goggles
- respirator or face mask
- hearing protection
- sunscreen lotion

Environmental implicationsassociated with controlling plant pests, diseases and disorders
may include

- beneficial environmental impacts
 - where reduced and informed targeting of chemicals, fertilisers and water to the site and recycling within the system, result in minimal escape of contaminants to the external environment
 - beneficial impacts may also result from improved production, healthier ecosystems, more efficient water and nutrient utilisation, and reduced pest numbers
- detrimental environmental impacts
 - may arise where Integrated Pest Management activities produce excess noise, dust or water, or the systems do not function effectively because of inadequate implementation techniques

IPM standards

may include

- those established by registered industry associations, clients or markets of the enterprise, land management agencies or quality assurance program

Occupational Health and Safety requirements

may include

- identifying hazards
- assessing risks and implementing controls
- cleaning, maintaining and storing tools, equipment and machinery
- appropriate use, maintenance and storage of Personal Protective Equipment including
 - sun protection
 - safe operation of tools, equipment and machinery
 - safe handling
 - basic first aid
 - personal hygiene
 - reporting problems to supervisors and safety procedures for the protection of others

Maintaining clean and safe work areas

may include tasks

- disabling unused tools, equipment and machinery and storing neatly out of the way of Integrated Pest Management activities
- safely storing neatly out of the way of Integrated Pest Management activities
- safely storing materials on site, and swiftly and efficiently removing and processing debris and waste from the work area

Records

for controlling plant pests, diseases and disorders may include

- types of plant pests, diseases and disorders and beneficial organisms present,
- numbers of pests and beneficial organisms present
- treatments applied
- date of application
- application rates
- success of treatments
- economic thresholds
- accident and dangerous occurrence records

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 implementing and integrated pest management (IPM) program
- 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
 - prepare for Integrated Pest Management activities
 - coordinate work activities
 - monitor and apply control methods to pests or diseases within the parameters of Integrated Pest Management standards and specifications
- transfer the skills and knowledge required to control plant pests, diseases and disorders to a different work environment, eg, this could include different plant pests, diseases and disorders, enterprise situations and control methods

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
 - Pests and disease recognition
 - Economic, aesthetic or environmental thresholds for a range of plant pests, diseases and disorders
 - Chemical, biological and cultural control methods and treatments available to the enterprise within the parameters of an Integrated Pest Management program
 - Range and use of tools, equipment and machinery available to the enterprise for implementing the control measures
 - Range of site monitoring and analysis techniques that may be used to implement and Integrated Pest Management program
 - Association of Integrated Pest Management methods with site limitations, environmental implications, end market and production or environmental objectives for the site
 - Occupational Health and Safety responsibilities for employees and employers
 - Occupational Health and Safety procedures
 - Occupational Health and Safety legislative requirements including hazardous substances regulations and Codes of Practices
 - Correct wearing/fit of personal protective equipment
- Required skills
 - Recognise a range of pests, diseases and beneficial organisms within a particular enterprise
 - Communicate with work team members, supervisors, contractors and consultants
 - Interpret and apply the Integrated Pest Management Program
 - Utilise proforma reporting, analysis and work procedure documents
 - Understand Integrated Pest Management symbols and information
 - Interpret and apply Integrated Pest Management program spatial and logistical specifications
 - Interpret and apply test results, and calculate the quantities and application rates of control materials
 - Coordinate work groups, contractors and own activities to sequentially and effectively complete Integrated Pest Management activities in a timely and cost effective manner

Resource implications

- Physical resources - assessment of this competency requires access to
 - tools, equipment and machinery
 - personal protective 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 Guideline**s. Further advice may also be sought from the relevant **sector booklet**.