



Australian Government

AHCTRF403 Develop a sports turf maintenance program

Release: 1

AHCTRF403 Develop a sports turf maintenance program

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 4.0.

Application

This unit of competency describes the skills and knowledge required to develop a sports turf maintenance program, prepare implementation documents, communicate the program to work team and key stakeholders and review and update the program.

The unit applies to individuals who apply specialist skills in turf maintenance to provide solutions to technical and unpredictable problems. They work autonomously, and instruct and monitor the work of others within a team. They use discretion and judgment in the selection, allocation and use of available resources.

No licensing, legislative or certification requirements to apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Turf (TRF)

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. Determine soil properties and plant health	1.1 Develop a soil and plant tissue testing program 1.2 Monitor testing activities against testing program and initiate remedial action where activity does not comply 1.3 Assess and interpret test results with due consideration of influencing factors, and record results 1.4 Compare tests results with cultural requirements of turf grass

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	species and determine nutritional status of the soil according to accepted industry standards
2. Identify the requirements of a sports turf maintenance program	2.1 Establish turf grass optimum presentation characteristics according to client requirements and industry best practice 2.2 Identify financial constraints for the turf area 2.3 Identify maintenance requirements for varying conditions of turf growing cycle 2.4 Select turf maintenance practices to maintain turf health according to sports turf standards of presentation 2.5 Identify and verify availability of resources, tools, equipment and machinery required for the sports turf maintenance program 2.6 Assess requirements and constraints, and document a sports turf playing surface maintenance program
3. Prepare and document the sports turf maintenance program	3.1 Prepare detailed plan, specifications and budget according to requirements of program 3.2 Develop and document on-site procedures and schedules for the sports turf maintenance program 3.3 Develop contingencies to ensure deadlines are met according to client and play requirements
4. Communicate sports turf maintenance program to key stakeholders	4.1 Instruct work team and key stakeholders on turf maintenance program and procedures 4.2 Monitor implementation of turf maintenance program, and provide feedback to work team and stakeholders
5. Review the sports turf maintenance program	5.1 Monitor performance of program against workplace standards, and record discrepancies 5.2 Review the sports turf maintenance program to ensure it remains responsive to changing conditions 5.3 Adjust and make changes to the program to overcome discrepancies in program outcomes 5.4 Document and report remedial action and changes to maintenance program

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret complex technical documents related to sports turf maintenance programs
Writing	Use language appropriate for work team when creating workplace procedures
Oral communication	Consider target audience when presenting complex information to work team and key stakeholders
Numeracy	Perform calculations to analyse budget information, interpret tests and results and develop schedule for maintaining sports turf

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCTRF403 Develop a sports turf maintenance program	AHCTRF401 Develop a sports turf maintenance program	Performance criteria clarified Foundation skill added Performance evidence, knowledge evidence and assessment conditions expanded	Equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCTRF403 Develop a sports turf maintenance program

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has prepared a sports turf maintenance program for play on at least one of the following:

- a single hole for a golf course with tees and surrounds, rough, fairway and green
- a bowling green
- a cricket ground with wicket surface and outfield
- a sports field for one of Australian Rules football, soccer, rugby, lacrosse or polo
- a horse race track
- a turf farm
- a lawn tennis court
- a croquet lawn
- other natural sports turf surface.

The sports turf maintenance program must:

- include a twelve month cycle for the sports turf playing surface
- specify all maintenance practices, including:
 - irrigation
 - mowing and rolling
 - fertiliser applications
 - pesticide applications to treat pests, diseases and weeds
 - plant growth regulator applications
 - renovation practices
 - surface set-up standards and player expectations
- be implemented for a period of no less than eight weeks to verify the performance outcomes documented in the program.

There must also be evidence that the individual has:

- prepared an annual sports turf maintenance program according to budget

- assessed and incorporated into maintenance program the following: test results, optimum performance characteristics, financial constraints and resource implications
- scheduled activities and informed key stakeholders and work team of their respective roles and responsibilities
- monitored and reviewed the program to ensure program outcomes are achieved
- implemented appropriate course of action to overcome program deficiencies
- documented and reported actions and changes to maintenance program.

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:

- biological principles and processes of a range of sports turf species for playing surfaces, including:
 - growth habits and cultural requirements of turf grass species and cultivars under varying soil and environmental conditions
 - maintenance requirements and practices for specific turf plant species and cultivars after initial establishment
 - nutrients required by specific turf plant species and cultivars, and the effects of nutrient deficiency and toxicity on individual plant species and cultivars, including symptoms
 - plant diseases, pests and disorders and weeds of specific turf plant species and cultivars
- site evaluation techniques, including analysis of the condition of soils, plants and the site for turf maintenance activities, including:
 - soil ameliorants required to treat common soil problems
 - the characteristics of soil and other growth media
 - types and functions of additives used to enhance the nutrition available for specific turf plant species and cultivars
 - the main simple and compound fertiliser products available
- design and development of maintenance programs within turf grass requirements, including:
 - requirements to build healthy turf to meet national or international standards
 - standards and player expectations of the playing surface
 - availability of equipment and materials
 - financial resources
- soil and plant testing programs and their development, including:
 - types of soil and plant tissue tests used in turf management
 - field testing activities
 - off-site and laboratory testing activities and the role of consultants
 - scheduling and timing of tests for optimum results
 - sampling techniques for soils and plant tissue

- interpretation of soil and plant test results, including:
 - impact of the seasons on results
 - expected results for turf species and cultivars
 - importance of using and maintaining historical records
- turf grass species and their cultural requirements and the implication for a maintenance program, including:
 - irrigation methods and water budget
 - mowing and rolling methods, including frequency for turf play surface requirements
 - fertiliser and ameliorant application timing and impact on turf health and growth
 - pests and disease control, including pesticide application
 - impact and management of plant growth regulators and their application to turf grass
 - planned maintenance for renovation of worn and damaged surfaces
 - maintenance implications for setting up for sports play
- management of unexpected activities and outcomes, including:
 - developing contingencies to manage unpredictable situations
 - managing adverse climatic conditions
 - adverse or unplanned turf usage
- record keeping and reporting procedures and practices.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - access to a sports turf facility or an environment that accurately represents workplace conditions on which to implement and monitor a maintenance program, and at least one of the sports turf surfaces stipulated in the performance evidence
- resources, equipment and materials:
 - access to national and international sports turf industry standards
 - access to player and user expectations for playing surface
 - access to soil and plant tissue analysis reports for interpretation
- specifications:
 - workplace documents, including procedures and brief related to development of a sports turf maintenance program, including a maintenance budget and list of the equipment, machinery and human resources available
- relationships:
 - work team
- timeframe:
 - maintenance program must span 12 months
 - implementation of a minimum of 8 weeks to verify the program outcomes.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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