



Australian Government

AHCTRF310 Monitor turf health

Release: 1

AHCTRF310 Monitor turf health

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 monitor the health and condition of sports turf playing surfaces.

The unit applies to individuals who monitor turf health under general direction and take responsibility for their own work. They use discretion and judgement in the selection, allocation and use of available resources and for solving problems.

No licensing, legislative or certification requirements 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. Prepare for monitoring activities	1.1 Establish the scope, regularity and time constraints for monitoring and reporting turf health 1.2 Identify turf grass species and assess common health issues attributed to the species 1.3 Identify plant health specialist advisor and determine their scope of support and sampling specifications 1.4 Identify and select tools and equipment required to monitor and

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	sample turf plant health according to specialist advice
2. Assess the health of turf grass area	2.1 Inspect and record signs and symptoms of abnormal turf grass health 2.2 Assess extent of turf grass health problem, and report according to workplace procedures 2.3 Conduct field diagnoses and tests to aid in identifying plant health issue 2.4 Collect, secure, label and despatch samples for laboratory testing according to specialist advisor specifications 2.5 Repair sample sites, clean tools and equipment and dispose of waste materials according to workplace and environmental procedures 2.6 Communicate with specialist advisors to establish diagnoses of plant health problem 2.7 Assess diagnoses and compare results with acceptable parameters 2.8 Prepare recommendations to address identified plant health problems
3. Monitor and report turf health and condition	3.1 Examine turf for poor health and substandard quality indicators in a scheduled manner 3.2 Identify poor turf health and deviations in turf quality according to expected sporting standards and workplace requirements 3.3 Compile examination results and report with recommendations

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 laboratory test procedures and results
Writing	Accurately document turf health assessment and recommendations using clear language, correct spelling, grammar and industry terminology

Skill	Description
Oral communication	• Use active listening skills • Interpret verbal and non-verbal communication
Numeracy	• Perform calculations to check test results

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCTRF310 Monitor turf health	AHCTRF304 Monitor turf health	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 AHCTRF310 Monitor turf health

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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 monitored the health of a warm and a cool season turf species and reported recommendations for turf health, including:

- established the scope and scheduling for monitoring turf health for a warm season turf grass species and the common health issues
- established the scope and scheduling for monitoring turf health for a cool season turf grass species and the common health issues
- identified turf health specialist advisors and their requirements to support monitoring procedures
- identified and selected tools and equipment required to monitor and sample turf health issues
- inspected and assessed turf grass for signs of common turf health problems and assessed the extent of the problems, including:
 - pests
 - diseases
 - nutritional
 - environmental causes
- conducted field tests to aid in diagnosing turf grass health issues, including:
 - pH
 - electrical conductivity (EC)
 - drainage and infiltration rate
 - soil temperature
- collected and despatched samples for laboratory testing and repaired sample sites
- assessed diagnosis from field and specialist advisor results and determined acceptable parameters
- prepared recommendations according to the sports play standards
- monitored turf grass during growing season.

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:

- 15 turf grass species or cultivars, their common name, genus and species, and growth habit, including warm and cool grass species
- importance of plant physiology in plant health, including:
 - photosynthesis
 - transpiration
 - structural components of turf grasses and relation to turf grass health
 - basic metabolic and physiological processes for disease resistance in turf grass
 - nutrients, nutrient uptake and role in plant growth
 - basic physiology processes for insect and disease resistant turf
 - basic endophyte infection of turf
 - allelopathy in turf grass species
- specialist advisors, their purpose and method of engagement to support turf health diagnosis
- turf grass species selection for plant health management, including:
 - disease tolerance
 - mowing height
 - playing requirements
 - dormancy
 - salinity
 - resilience, wear and recovery
 - water requirements
- turf grass species and common regional health issues, including:
 - basic biology, symptoms and controls of pests
 - basic biology, symptoms and controls of diseases
 - symptoms and controls of disorders, including soil condition, nutrition
 - environmental disorders (e.g. frost, poor drainage, shade)
- tools, equipment and process for diagnosing turf health and disorders
- expectations and quality indicators for turf grass and sports turf standards
- rates and recommended treatments to achieve optimum turf grass health objectives, including:
 - simple and compound fertilisers used in the turf industry and their effect on turf health
 - fertiliser types and nutrient release rates
 - common pesticide types and methods of application
 - external environment impact of treatments through leaching, excessive spraying, off target damage and overuse
 - interpretation of labels and safety data sheets for treatments
 - use of growth regulators and concept of 'growing degree days'

- calculating nutrient application according to fertiliser rates
- role of trace elements and nutrients required by turf grass plants, and symptoms of toxicities and deficiencies
- soil and plant tissue analysis for monitoring and managing turf health, including:
 - main elements of analysis
 - significance as indicators of nutritional deficiency and toxicity.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a sports turf facility or an environment that accurately represents workplace conditions
 - a sports play area with warm season turf grass species to monitor for health issues
 - a sports play area with cool season turf grass species to monitor for health issues
- resources, equipment and materials:
 - test equipment and resources for pH, soluble salts and soil moisture analysis
 - sampling equipment and materials for collecting, storing and despatching soil, plant, pest and disease test samples
 - examples of pests, diseases and disorders for identification purposes
 - turf health specialist advisory reports
- specifications:
 - workplace procedures and instructions related to monitoring turf health
- relationships:
 - specialist advisor
- timeframe:
 - a scheduled period of time for monitoring a turf grass area for health issues.

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

Links

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