

Title	Design and implement a weed control programme for a sports turf surface		
Level	5	Credits	8

Purpose	People credited with this unit standard are able to: identify factors influencing the spread and control of turf weeds, and strategies for management of turf weeds; evaluate the effectiveness of herbicides for the control of weeds in given situations; and design a weed control programme for a sports turf organisation; and implement the weed control programme for a sports turf organisation.
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Classification	Sports Turf > Sports Turf Weeds and Pests
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Available grade	Achieved
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Guidance Information

- 1 Legislation and standard relevant to this unit standard includes but is not limited to:
 - Resource Management Act 1991;
 - Hazardous Substances and New Organisms Act 1996;
 - Health and Safety at Work Act 2015;
 - NZS 8409:2004 *Management of agrichemicals*;
 - and any subsequent amendments.
- 2 Definition
Workplace procedures – the procedures and standards set down by the client or employing organisation for weed control. Workplace procedures should reflect current legislation.
- 3 For the purposes of assessment:
 - evidence submitted for assessment includes the assessment of weed control needs of an operational sports turf organisation
 - evidence must be presented in accordance with workplace procedures.

Outcomes and performance criteria

Outcome 1

Identify factors influencing the spread and control of turf weeds, and strategies for management of turf weeds.

Performance criteria

1.1 Identify significant factors that influence the spread of turf weeds.

Range significant factors include but are not limited to – type of weed and its characteristics, origin, ecological succession, entry and dispersal, legislation governing spread and prevention, factors determining flora, life cycle.

1.2 Identify how key biological factors influence the control of turf weeds.

Range key factors may include but are not limited to – biological control principles and control programmes, soil seed bank, competitive ability, allelopathy, flowering and seed setting, seed numbers, dispersal, dormancy, weed seed germination, sexual and vegetative reproduction, perennial versus annual growth habit; evidence of at least two is required.

1.3 Describe strategies which may be used in the management of turf weeds.

Range strategies may include but are not limited to – soil shading, germination periodicity, use of artificial media, selection and timing of cultivation methods, dormancy management, stale seedbed technique, artificial reduction of weed and seed population, integrated weed control; evidence of at least two is required.

Outcome 2

Evaluate the effectiveness of herbicides for the control of weeds in given situations.

Performance criteria

2.1 Identify significant details of herbicide toxicity in given situations, and the relevance of related standards.

Range significant details include but are not limited to – hazard classes, on site history and use, user safety, NZS 8409, current legislation.

2.2 Identify types and common trade names of herbicides used, and key aspects of their use, for given situations.

Range types may include but are not limited to – selective and non-selective, contact, translocated, residual; evidence of at least two is required; key aspects of their use for a given situation may include but are not limited to – timing of application, application techniques, mode of action, formulation and active ingredient, appropriate surfactants, effects of spray drift; evidence of at least five is required.

2.3 Identify significant factors in the behaviour of herbicides in plants and soil for given situations.

Range significant factors may include but are not limited to – interception and uptake, entry and transport, formulation and weather factors, selectivity versus broad spectrum targeting, absorption, volatilisation, leaching and degradation, effect on soil organisms, residual effect; evidence of at least two is required.

2.4 Identify key requirements for successful use of a range of herbicide application methods for given situations.

Range application methods may include but are not limited to – boom spraying equipment and its calibration, knapsack spraying equipment and its calibration; evidence of at least two is required.

2.5 Describe significant economic considerations in weed control for given situations.

Range significant economic considerations may include but are not limited to – sward cover, composition and quality; competition, thresholds for non-desired species; evidence of at least two is required.

Outcome 3

Design a weed control programme for a sports turf organisation.

Performance criteria

3.1 Analyse organisation's records to identify current weed control methods, status of control programme, and current management methods.

3.2 Design the weed control programme based on at least two information sources which are relevant and applicable to the organisation's requirements and using industry accepted procedures and formats for programme design.

Range information sources may include but are not limited to – commercial documents and publications, research documents and publications; legislation and/or regulation compliance; Includes – justification and alternative controls, herbicide resistance, implementation schedule, basic cost/benefit analysis, health and safety considerations.

Outcome 4

Implement the weed control programme for a sports turf organisation.

Performance criteria

- 4.1 Implement the programme.
- 4.2 Identify any issues; implement adjustments to programme as required, and document changes.

Replacement information	This unit standard replaced unit standard 4275.
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Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 March 2006	31 December 2019
Review	2	25 January 2018	31 December 2022
Review	3	28 January 2021	N/A

Consent and Moderation Requirements (CMR) reference	0037
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Primary Industry Training Organisation standards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.