

Title	Describe, select, set up, and operate specialist sports turf machinery and equipment, and small engines		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: describe the function and operation of sports turf machinery and equipment; select, set up, operate, service, and house a range of sports turf machinery and equipment; and check and service two-stroke and four-stroke small engines used in sports turf operations.
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Classification	Sports Turf > Sports Turf Management
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Available grade	Achieved
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Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
 - Health and Safety at Work Act 2015; and any subsequent amendments.
- 2 Definition

Workplace procedures – refer to the written policies and procedures set by the client or employing organisation for the operation, maintenance, and storage of sports turf equipment. Workplace procedures should reflect equipment manufacturer’s requirements, and current legislation.
- 3 For the purposes of assessment:
 - evidence must be presented in accordance with workplace procedures.

Outcomes and performance criteria

Outcome 1

Describe the function and operation of sports turf machinery and equipment.

Performance criteria

- 1.1 Describe horizontal and vertical mowing machinery in terms of its function and operation in the sports turf industry.

Range machinery must include but is not limited to – reel, rotary, flail, cord trimmer, groomers, verticutters, dethatchers, groovers.

- 1.2 Describe turf conditioning and aeration equipment in terms of its function and operation in the sports turf industry.
- Range at least five of – spikers, slicers, verti-drain, corers, vibramoles, mole ploughs, water injection, borers, drillers, subsoilers, gas injectors, sprayable soil conditioners.
- 1.3 Describe seedbed cultivation equipment in terms of its function and operation in the sports turf industry.
- Range at least five of – rotary hoes, power harrows, harrows, discs, ploughs, spring tyne cultivators, scarifiers, groovers.
- 1.4 Describe spreaders, seeders and planters in terms of their function and operation in the sports turf industry.
- Range at least three of – drop spreaders, rotary spreaders, seed broadcasters, seed drills, spriggers.
- 1.5 Describe turf tractors and utility vehicles in terms of their function and operation in the sports turf industry.
- 1.6 Describe surface preparation machinery and equipment in terms of their function and operation in the sports turf industry.
- Range machinery and equipment must include but is not limited to – rollers, sweepers, line markers, turf cutters, water removers, covers.
- 1.7 Describe surface performance measurement equipment in terms of its function and operation in the sports turf industry.
- Range at least two of – clegg hammer, stimp meter, straight edge, ball roll devices.

Outcome 2

Select, set up and operate a range of sports turf machinery and equipment.

Range at least three of – mowing equipment, turf conditioning and aerating equipment, seedbed cultivation equipment, spreaders and seeders, surface preparation machinery and equipment.

Performance criteria

- 2.1 Select and set up equipment suitable for the site, ground conditions and sports turf specifications.
- 2.2 Carry out pre-operation checks.
- Range pre-operation checks include but are not limited to – lubrication, fuel, water, tyres, freedom from obstructions, wear.

- 2.3 Operate machinery and equipment in a safe and controlled manner, and monitor for performance and efficiency.
- 2.4 Recognise and minimise risk to self, other people, and the environment.

Outcome 3

Service and house a range of sports turf machinery and equipment.

Performance criteria

- 3.1 Service and house machinery and equipment.

Range at least three of – mowing equipment, turf conditioning and aerating equipment, seedbed cultivation equipment, spreaders and seeders, surface preparation machinery and equipment.

Outcome 4

Check and service two-stroke and four-stroke small engines used in sports turf operations.

Range may include but is not limited to – lawnmower, weed eater, hedge trimmer, compactor;
evidence of one two-stroke and one four-stroke engine is required.

Performance criteria

- 4.1 Record equipment used, and maintenance actions in logbook or equivalent recording system.
- 4.2 Determine engine fuel and oil requirements for specific engines.
Range fuel and oil level, fuel and/or oil type.
- 4.3 Refuel engines according to the manufacturer's recommendations.
- 4.4 Clean, check and adjust air filters and spark plugs according to the manufacturer's recommendations.
- 4.5 Change engine oil according to the manufacturer's recommendations.
- 4.6 Identify risks of harm or illness for each small engine and describe methods to eliminate or minimise the risks.

Replacement information	This unit standard replaced unit standard 1153.
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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	24 June 2021	N/A

Consent and Moderation Requirements (CMR) reference	0052
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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.