

<b>Title</b>	<b>Describe soil and foliar testing, and develop a nutrient management and annual fertiliser plan for a selected turf area</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of soil and foliar testing, and benefits of soil test interpretation methods; develop a nutrient management plan for a selected turf area; and plan, implement, and monitor an annual fertiliser programme for a selected turf area.
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<b>Classification</b>	Sports Turf > Sports Turf Management
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<b>Available grade</b>	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;
  - Hazardous Substances and New Organisms Act 1996;
  - Resource Management Act 1991;
  - and any subsequent amendments.
- 2 Definitions
 

*Selected turf area* – a fine turf area, minimum of 1 ha.

*Workplace procedures* – the procedures and standards set down by the client or employing organisation for the fertiliser programme. Workplace procedures should reflect equipment manufacturer’s requirements, territorial and local authority bylaws for nutrient inputs and current legislation.
- 3 Reference
 

*Code of Practice for Nutrient Management*, The Fertiliser Association of New Zealand, 2013, available from <http://www.fertiliser.org.nz>.
- 4 For the purposes of assessment:
  - evidence must be presented in accordance with workplace procedures.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of soil and foliar testing, and benefits of soil test interpretation methods.

**Performance criteria**

- 1.1 Assess soil and foliar testing processes and test interpretation in terms of their advantages and limitations.
- 1.2 Describe soil test interpretation methods in terms of the comparative benefits.
- Range minimum sufficiency level, base saturation.

**Outcome 2**

Develop a nutrient management plan for a selected turf area.

**Performance criteria**

- 2.1 Assess soil and tissue nutrient status of a selected turf area in terms of optimum nutrient ratios and levels for selected turf species.
- 2.2 Determine nutritional deficits or excesses from the analysis of foliage and soil sample results.
- 2.3 Determine kg/ha of nutrient necessary to meet nutrient requirements from foliage and soil sample results.
- 2.4 Develop a nutrient management plan in accordance with site and sport requirements, and any budget constraints.
- Range plan must include – clippings removal, drainage, growing media, impacts of wear and traffic, turf disease susceptibility growing season, impacts of local climate. environmental risk and mitigation.

**Outcome 3**

Plan, implement, and monitor an annual fertiliser programme for a selected turf area.

**Performance criteria**

- 3.1 Plan an annual fertiliser programme for a selected turf area in accordance with soil test results, site-specific information, the nutrient management plan, and any budget constraints.
- Range site-specific information – requirements of the sport, clippings removal, wear and traffic, turf species, drainage, growing media, disease susceptibility, length of growing season.
- 3.2 Plan an annual fertiliser programme in terms of kg/ha fertiliser necessary to meet nutrient requirements, and according to the nutrient management plan.
- Range application method, kg/ha nutrient, rate of application, timing, cost.
- 3.3 Implement the fertiliser plan and monitor and record nutrient applications.

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<b>Planned review date</b>	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	28 January 2021	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	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 the Primary Industry Training Organisation [standards@primaryito.ac.nz](mailto:standards@primaryito.ac.nz) if you wish to suggest changes to the content of this unit standard.