

Demonstrate knowledge of irrigation systems, and calculate soil moisture and water efficiency

Level 4

Credits 4

Purpose People credited with this unit standard are able to: demonstrate knowledge of irrigation systems; and calculate soil moisture and water efficiency.

Subfield Agriculture

Domain Farming Skills

Status Registered

Status date 23 April 2008

Date version published 23 April 2008

Planned review date 31 December 2012

Entry information Open.

Accreditation Evaluation of documentation and visit by NZQA, industry and teaching professional in the same field from another provider.

Standard setting body (SSB) Primary Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0052

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

None.

Elements and performance criteria

Element 1

Demonstrate knowledge of irrigation systems.

Performance criteria

1.1 Irrigation systems are compared in terms of costs and benefits.

Range borderdyke, spray, trickle.

- 1.2 Irrigation systems are described in terms of their comparative advantages and disadvantages.
- Range borderdyke, spray, trickle.
- 1.3 Irrigation water sources are described in terms of their suitability for irrigation.
- Range underground, river, dam, lake, regional supply.
- 1.4 Water extraction patterns are described in terms of plant type, soil type, and root zone.
- 1.5 Irrigation terms and principles are defined in accordance with their use in industry.
- Range evapo-transpiration, root zone, water-holding capacity, soil moisture deficit, trigger point, infiltration rate.

Element 2

Calculate soil moisture and water efficiency.

Performance criteria

- 2.1 Irrigation timings are calculated using given evapo-transpiration rates and soil moisture data.
- 2.2 The water efficiency is calculated for irrigation systems.
- Range evidence is required for at least two different irrigation systems.
- 2.3 Volume of water to be applied to a given area at a specific application rate is calculated.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

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