

## Calculate production targets for forestry operations

**Level** 5

**Credits** 5

**Purpose** People credited with this unit standard are able to: demonstrate knowledge of time standards for the calculation of production targets for forestry operations; calculate production targets for forestry operations using supplied time standards; and describe the use of production studies for resolving production and unit rate issues.

**Subfield** Forestry

**Domain** Forest Operations Management

**Status** Registered

**Status date** 16 October 2009

**Date version published** 16 October 2009

**Planned review date** 31 December 2014

**Entry information** Recommended: Unit 1125, *Plan and implement forest inventories to obtain information for forest management* or, demonstrate equivalent knowledge and skills.

**Accreditation** Evaluation of documentation and visit by NZQA and industry.

**Standard setting body (SSB)** Forest Industries Training and Education Council (FITEC)

**Accreditation and Moderation Action Plan (AMAP) reference** 0173

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

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### Special notes

- 1 Reference to *BS100 rating* in this unit standard refers to the 'British Standard 100 Rating Scale', which originates from British Standard 3138:1992 *Glossary of terms used in management services* and is endorsed by the Standards Association of New Zealand. Reference to the term *qualified worker* in this unit standard has the same meaning as in the *Glossary of terms used in management services*. This document is published by the British Standards Institute, and is available on the internet at: <http://www.bsigroup.com/en/Standards-and-Publications>.

- 2 The reference texts for this unit standard are:  
Colley, M. *Forestry handbook / New Zealand Institute of Forestry Inc.* (4<sup>th</sup> ed). (2005).  
Christchurch: New Zealand Institute of Forestry Inc.  
Riddle, A. *Business Management for Logging.* (1994) New Zealand. Rotorua, NZ:  
Logging Industry Research Organisation, available from Scion, Te Papa Tipu  
Innovation Park, 49 Sala Street, Private Bag 3020, Rotorua 3046, New Zealand.

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## Elements and performance criteria

### Element 1

Demonstrate knowledge of time standards for the calculation of production targets for forestry operations.

#### Performance criteria

- 1.1 Uses of time standards in forestry operations are described in accordance with the reference texts.
- Range work measurement, production target calculations, estimates for contract operations, tendering for forestry contracts, setting targets for incentive payment schemes, comparing alternative work methods and equipment.
- 1.2 Terms used in time standards are described in accordance with the reference texts.
- Range work cycles, elements, observed time, BS100 rating, qualified worker, basic time, frequency, allowances, standard time.

### Element 2

Calculate production targets for forestry operations using supplied time standards.

#### Performance criteria

- 2.1 Factors affecting worker production in the field are identified.
- Range hindrances, access, slope, branching, tree size, soil type, environmental protection areas, crop tree quality, equipment.
- 2.2 Allowances are applied to time standards in accordance with the reference texts.
- Range rest, special, contingency, management allowances.
- 2.3 Targets are calculated for forestry operations from information gathered from field assessment, in accordance with the reference texts.
- Range planting, manual releasing, hand fertilising, low pruning, medium pruning, high pruning, thinning to waste.

- 2.4 The effect of operational variables on production targets is calculated in accordance with the reference texts.
- Range hindrance, access, branching, cultivation technique.
- 2.5 Manual and computerised methods of calculating targets are described in accordance with the reference texts.
- 2.6 Levels of accuracy are fit for purpose according to the reference texts.
- Range time standards, allowances, targets calculated, unit rates.

### Element 3

Describe the use of production studies for resolving production target and unit rate issues.

#### Performance criteria

- 3.1 The causes of low productivity and the non-achievement of production targets in forestry operations are explained.
- Range access, topography, planning, supervision, weather, equipment.
- 3.2 The use of production studies for resolving unit rate queries is explained in accordance with the reference texts.
- 3.3 The tabulated results of a given forest operation production study are processed and recommendations made on the appropriateness of the production target for that operation in accordance with the reference texts.

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#### 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.

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#### Comments on this unit standard

Please contact the Forest Industries Training and Education Council (FITEC) [info@fitec.org.nz](mailto:info@fitec.org.nz) if you wish to suggest changes to the content of this unit standard.