

Title	Chemically thin fruit to optimise crop loading		
Level	4	Credits	5

Purpose	This unit standard is for people working in fruit production. People credited with this unit standard are able to: recognise when crop loading indicates that fruit needs thinning; chemically thin fruit; and record results of the fruit thinning operation and evaluate its effectiveness.
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Classification	Horticulture > Fruit Production
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Available grade	Achieved
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Entry information	
Recommended skills and knowledge	Unit 21562, <i>Identify and interpret agrichemical product information</i> ; and Unit 21563 <i>Demonstrate knowledge of the HSNO Act, and NZS 8409:2004 for the use of agrichemicals</i> .

Explanatory notes

- 1 *Workplace procedures* refer to verbal or written instructions to staff on procedures for the worksite and equipment.
- 2 Legislation relevant to this unit standard includes but is not limited to the Health and Safety in Employment Act 1992, the Resource Management Act 1991, and the Hazardous Substances and New Organisms Act 1996. Licensing requirements relevant to this unit standard include, but are not limited to, the class of driver licence appropriate to the vehicle used.
- 3 Work may involve exposure to chemical, dangerous, or hazardous substances. Safety procedures are observed in accordance with NZS 8409:2004 *Management of Agrichemicals*, available from Standards New Zealand <http://standards.co.nz>, or the NZ Agrichemical Education Trust <http://growsafe.co.nz>.

Outcomes and evidence requirements

Outcome 1

Recognise when crop loading indicates that fruit needs thinning.

Evidence requirements

- 1.1 Biennial bearing cycle is described in terms of crop loading.
- 1.2 Plants in a biennial bearing cycle are recognised and the place in the cycle is stated.
- 1.3 Crop loading is assessed in relationship to target fruit size and climatic pattern for the season.

Outcome 2

Chemically thin fruit.

Evidence requirements

- 2.1 Materials, tools, equipment, and machinery appropriate to the task being undertaken are selected.
- 2.2 Agrichemicals, rates, and additives selected are suitable for each cultivar, and are assessed in relation to historical records for the crop.
- 2.3 Selected time to spray is consistent with cultivar and spray type.

Range stage of crop growth, present weather conditions, weather forecast.
- 2.4 Pre-operational and safety checks are carried out on tools, equipment, and machinery in accordance with manufacturer's specifications and workplace procedures.
- 2.5 Thinning sprays are applied in accordance with manufacturer's guidelines for the spray type and to meet cultivar type.
- 2.6 Tools, equipment, and machinery are cleaned and maintained in accordance with workplace procedures.

Outcome 3

Record results of the fruit thinning operation and evaluate its effectiveness.

Evidence requirements

- 3.1 Thinning activities are reported and recorded in accordance with regulatory requirements and workplace procedures.

Range date, stage of crop growth, spray materials and rates used, weather conditions before, during, and after application, changes to sprayer calibration, any trees and/or plants left unsprayed as controls.

- 3.2 Effectiveness of chemical thinning is assessed in terms of comparisons of crop loading between sprayed areas and unsprayed areas.

Replacement information	This unit standard and unit standards 776, 804, 834, 19926, 19927, 19933, 19934, 19935, 21216, 21958, 22184 were replaced by unit standard 29893.
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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 November 1997	31 December 2020
Revision	2	19 July 2001	31 December 2020
Review	3	27 July 2005	31 December 2020
Revision	4	24 February 2006	31 December 2020
Review	5	16 February 2017	31 December 2020

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>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR 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.