
FRUIT PRODUCTION
Train and prune fruit trees

level:	4
credit:	5
planned review date:	July 2009
sub-field:	Horticulture
purpose:	This unit standard is for people working in fruit production. People credited with this unit standard are able to: identify the main fruit tree training systems and tree parts; train and prune a tree between newly planted and three years old; prune a mature tree according to a training system; and dispose of prunings.
entry information:	Open.
accreditation option:	Evaluation of documentation and visit by NZQA, industry and teaching professional in the same field from another provider.
moderation option:	A centrally established and directed national moderation system has been set up by the New Zealand Horticulture Industry Training Organisation.
special notes:	<ol style="list-style-type: none">1 <i>Workplace procedures</i> 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, and the Resource Management Act 1991.3 Equipment may include but is not limited to electronic, hydraulic, pneumatic and hand secateurs, pruning saws, sharpening stone, file, scabbard or pouch, loppers, air compressors.

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Elements and Performance Criteria

element 1

Identify the main fruit tree training systems and tree parts.

performance criteria

- 1.1 Main forms of fruit tree training systems are identified.

Range: may include but is not limited to – axis, single leader, vase shaped, Tatura trellis, Lincoln canopy, Ebro-espalier, A- or Y-frame.
- 1.2 Limbs with a strong crotch angle are identified.
- 1.3 Leaders, fruit arms, and laterals are identified, and the differences between fruit and vegetative buds are distinguished.
- 1.4 Apical bud is identified and the effects of apical dominance are explained.

element 2

Train and prune trees between newly planted and three years old.

performance criteria

- 2.1 Materials, tools, and equipment appropriate to the task being undertaken are selected.
- 2.2 Training aids are used to train shoots into the position required by the training system, structural parts are defined, and apical dominance is maintained.

Range: training aids may include but are not limited to – string, wires, plastic ties.
- 2.3 Dead, diseased, or pest infested wood is removed in accordance with workplace procedures.
- 2.4 Branches that have an unsuitable crotch angle, are not wanted for framework development, and that are not wanted for temporary fruiting wood are removed.

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- 2.5 Training aids are monitored for effectiveness, adjustments made as necessary, and removed before they damage the bark of the tree.

element 3

Prune a mature tree according to a training system.

performance criteria

- 3.1 Materials, tools, and equipment appropriate to the task being undertaken are selected.
- 3.2 Fruitful and unfruitful wood are distinguished, and unfruitful wood removed in accordance with target crop loading.
- 3.3 Trees are pruned to maximise fruit quality and quantity of the desired size range.
- Range: enhanced light penetration, spray penetration and coverage, worker access, crop load targets.
- 3.4 Diseased, damaged, or pest-infested wood is removed in accordance with workplace procedures.
- 3.5 Biennial bearing cycles are recognised, if relevant, and remedial pruning is undertaken in accordance with target crop loading.
- 3.6 Hygiene and other disease prevention measures are undertaken, and large cuts are treated or not treated, in accordance with workplace procedures.
- 3.7 Large limbs are removed causing minimal damage to the remaining tree parts.
- 3.8 Trees are summer pruned in accordance with the crop type and cultivar.
- Range: enhanced fruit colour, maturation, reduce tree vigour.

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element 4

Dispose of prunings.

performance criteria

- 4.1 Management options for pruning disposal that comply with local authority requirements and workplace procedures are identified.
- 4.2 Prunings are removed from the orchard and disposed of, or mulched on site, in accordance with workplace procedures.

Comments on this unit standard

Please contact New Zealand Horticulture Industry Training Organisation <http://www.hortito.org.nz> if you wish to suggest changes to the content of this unit standard.

Please Note

Providers must be accredited by the Qualifications Authority or a delegated inter-institutional body before they can register credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority 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 providers wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

This unit standard is covered by AMAP 0032 which can be accessed at <http://www.nzqa.govt.nz/site/framework/search.html>.