

## Achievement Standard

<b>Subject Reference</b>	Agricultural and Horticultural Science 1.10		
<b>Title</b>	Demonstrate knowledge of horticultural plant management practices and related plant physiology		
<b>Level</b>	1	<b>Credits</b>	5
		<b>Assessment</b>	External
<b>Subfield</b>	Science		
<b>Domain</b>	Agricultural and Horticultural Science		
<b>Status</b>	Registered	<b>Status date</b>	17 December 2010
<b>Planned review date</b>	31 December 2020	<b>Date version published</b>	5 February 2015

This achievement standard involves demonstrating knowledge of horticultural plant management practices and related plant physiology.

### Achievement Criteria

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> <li>Demonstrate knowledge of horticultural plant management practices and related plant physiology.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate in-depth knowledge of horticultural plant management practices and related plant physiology.</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate comprehensive knowledge of horticultural plant management practices and related plant physiology.</li> </ul>

### Explanatory Notes

- This achievement standard is derived from *The New Zealand Curriculum*, Learning Media, Ministry of Education, 2007, and based on the outcomes in the *Teaching and Learning Guide for Agricultural and Horticultural Science*, Ministry of Education, at <http://seniorsecondary.tki.org.nz/>.
- Demonstrate knowledge* involves describing horticultural plant management practices and related plant physiology and/or growing conditions.  
  
*Demonstrate in-depth knowledge* involves explaining why horticultural plant management practices or steps within practices are carried out.  
  
*Demonstrate comprehensive knowledge* involves applying knowledge of horticultural plant management practices to given situations. This may involve comparing and contrasting or justifying management practices.
- Horticultural plant management practices* are actions carried out by the grower to enhance production. These may include cultivation, training (staking, thinning,

disbudding, stopping and pruning), providing shelter, nutrient application, irrigation and weed, pest and disease control (physical, chemical, biological and Integrated Pest Management (IPM)).

- 4 *Plant physiology* is limited to the processes of photosynthesis, respiration and transpiration, and the related internal and external plant structures.
  - 5 Growing conditions are those necessary to maintain healthy plants and refer to light, water, temperature, humidity, oxygen and carbon dioxide, nutrients, absence of weeds, pests and diseases.
  - 6 Assessment Specifications for this achievement standard can be accessed through the Agricultural and Horticultural Science Resources page found at <http://www.nzqa.govt.nz/qualifications-standards/qualifications/ncea/ncea-subject-resources/>.
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### Quality Assurance

- 1 Providers and Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against achievement standards.
- 2 Accredited providers and Industry Training Organisations assessing against achievement standards must engage with the moderation system that applies to those achievement standards.

Accreditation and Moderation Action Plan (AMAP) reference

0233