

Title	Develop a plan to optimise efficiency of a post-harvest system, and manage its implementation and review		
Level	5	Credits	15

Purpose	People credited with this unit standard are able to: identify operational areas and describe the relationships between post-harvest operational areas in adding value to a horticulture product; identify the procedures which guide post-harvest operational areas to optimise efficiency; develop a plan to optimise the efficiency of elements within a post-harvest operational area; manage the implementation of a plan to optimise the efficiency of elements within a post-harvest operational area; and review the plan and make recommendations for improvement.
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Classification	Horticulture > Production Horticulture
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Available grade	Achieved
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Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
 - Health and Safety at Work Act 2015; and any subsequent amendments.
- 2 All evidence presented in this unit standard must be in accordance with workplace procedures.
- 3 The regional and territorial authorities throughout New Zealand may have differing regulatory requirements. Any plan developed in Outcome 3 must comply with regional or territorial regulatory requirements.
- 4 Definitions

Continuous improvement methods and tools may refer to a flow chart, check sheet, control chart, histogram, fishbone diagram, Pareto chart, root cause, sampling, A4 story board, 5 Whys technique, PDCA (plan-do-check-act) cycle, The Five Ss method, value stream mapping.

Elements refer to individual components which make up each operational area (e.g. Grading involves blemish grading and defect sorting).

Plan refers to a document detailing steps for an aspect of the operation. It must be consistent with the regulatory requirements and quality standards of the target customer and with health and safety legislation.

Post-harvest operational areas refer to separate operational areas within the post-harvest enterprise (e.g. grading, packing, cool store).

Post-harvest system may vary according to type of crop.

Process components refer to components which may have an impact on the effectiveness of elements to achieve workplace quality management systems (e.g. input computer instructions into defect sorter or blemish grader, produce handling procedures apply with food safety standards).

Specified market refers to a post-harvest enterprise handling produce with specific customer regulatory requirements and quality standards.

- 5 Crop refers to any commercial horticulture crop from the following sectors: fruit, vegetable.

Outcomes and performance criteria

Outcome 1

Identify operational areas and describe the relationships between post-harvest operational areas in adding value to a horticulture product.

Performance criteria

- 1.1 Identify operational areas within a post-harvest system and describe their relationships between post-harvest operational areas in adding value to a horticulture product for a specified market.

Outcome 2

Identify the procedures which guide post-harvest operational areas to optimise efficiency.

Performance criteria

- 2.1 Identify the procedures which guide operational areas to optimise efficiency, and their interrelationships, throughout the post-harvest process.

Outcome 3

Develop a plan to optimise the efficiency of elements within a post-harvest operational area.

Performance criteria

- 3.1 Identify elements within a post-harvest operational area.
- 3.2 Identify procedures to monitor the efficiency of elements within a post-harvest operational area against the workplace quality management systems.
- 3.3 Identify process components for elements within an operational area that have an impact on the quality management system.
- 3.4 Plan to identify continuous improvement opportunities using methods and/or tools to optimise the efficiency of elements within an operational area.

Range evidence of two methods and/or tools is required.

Outcome 4

Manage the implementation of a plan to optimise the efficiency of elements within a post-harvest operational area.

Performance criteria

- 4.1 Monitor the efficiency of process components against the achievement of workplace quality management systems.
- 4.2 Manage contingencies.
- Range evidence of contingencies may include but are not limited to – equipment breakdown, harvest delays, storage capacity, labour availability, crop maturity, specification change; evidence of three contingencies is required.
- 4.3 Manage procedures to rectify non-conformance of elements affecting the product.
- 4.4 Apply continuous improvement methods and/or tools in the implementation of the plan.

Outcome 5

Review the plan and make recommendations for improvement.

Performance criteria

- 5.1 Analyse plan against the quality management system.
- 5.2 Make recommendations for improvements to the plan.
- 5.3 Apply continuous improvement methods and/or tools in the review of the plan.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 February 2017	31 December 2023
Review	2	16 December 2021	N/A

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>.

Comments on this unit standard

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.