

Title	Operate a root crop harvester		
Level	4	Credits	20

Purpose	People credited with this unit standard are able to: select and prepare root crop harvesting equipment and machinery; carry out field preparation; operate the root crop harvester; and carry out post-operational procedures.
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Classification	Rural Contracting > Agricultural Contracting
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Available grade	Achieved
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Pre-requisites	Class of driver licence and any driver licence endorsement appropriate for the vehicle being driven.
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Guidance Information

- Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with relevant legislative and industry requirements.
- Legislation and references relevant to this unit standard include:
 - Health and Safety at Work Act 2015, available from www.legislation.govt.nz;
 - *Land Transport Rule – Heavy Vehicles 2004*, available from www.nzta.govt.nz;
 - and all subsequent amendments and replacements.
- Definitions

Industry requirements refer to relevant policies, processes, methodologies, industry codes of practice, site specific health and safety plans, standard operating procedures, site safety plans, quality plans, work plans, traffic management plans, contract work programmes, job safety analysis, safe work method statements, job instructions, manufacturer's requirements, contract specifications, manuals, procedural documents.

Root crops refer to those crops that are harvested by being lifted from the soil as opposed to cut from the rest of the plant. They include plants such as potatoes, onions, and carrots.

Outcomes and performance criteria

Outcome 1

Select and prepare root crop harvesting equipment and machinery.

Performance criteria

- 1.1 Equipment and machinery appropriate for the work are selected.
- Range includes – attachments, wheel spacing;
may include – lifter, digger, harvester, transporter, containers,
tractor, wheels, tyres, attachments;
evidence of three pieces of equipment or machinery is required.
- 1.2 Selected equipment and machinery are checked for condition, damage, wear, and faults; problems are identified; and corrective action is taken.
- 1.3 Checks are made, and any necessary actions are taken, or adjustments made to ensure the mobile machinery complies with legal requirements for operator health and safety.

Outcome 2

Carry out field preparation.

Performance criteria

- 2.1 Crop is assessed for suitability to harvest in relation to maturity, foliage desiccation, soil structure and condition, moisture content, client requirements, and weather conditions.
- 2.2 Logistical readiness is established.
- Range requirements may include but are not limited to – access, fuel and oil supplies and storage, communications;
evidence of two requirements is required.
- 2.3 Hazards are identified and controlled.
- 2.4 Equipment is set up to meet the requirements of crop type and crop conditions.
- Range share depth, trash separation mechanism, riddles, screens, draught, wheel spacing;
crop container equipment – bags, boxes, or bulk transport.

Outcome 3

Operate the root crop harvester.

Performance criteria

- 3.1 Harvester is operated with minimal damage to the crop in accordance with client requirements.
- Range cutting, bruising.

- 3.2 Harvester is operated with minimal rubbish in yield in accordance with client requirements.
Range foreign matter, crop trash.
- 3.3 Harvester is operated with minimal crop wastage in accordance with client requirements.
Range crop on ground, unlifted crop.
- 3.4 Harvester is operated causing minimal soil compaction and field damage.
- 3.5 Truck or bin loading is carried out.
Range safety, minimal wastage, communication, load weight compliance.
- 3.6 Equipment and machinery are monitored during operation for condition, damage, wear, and faults, and are replaced, repaired and/or reported.

Outcome 4

Carry out post-operational procedures.

Performance criteria

- 4.1 Shut-down procedures are carried out.
- 4.2 Equipment is cleaned and, as required, treated.
- 4.3 Lubrication is carried out.
- 4.4 Any damage or faults including any missing, bent, broken, or loose parts are identified and are repaired, replaced, or reported.
- 4.5 Equipment and machinery are stored.
- 4.6 Documentation for the operation is completed in accordance with client requirements and is stored.

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	23 July 1996	31 December 2023
Review	2	5 January 1999	31 December 2023
Review	3	18 January 2000	31 December 2023
Review	4	31 October 2002	31 December 2023
Review	5	25 June 2007	31 December 2023
Review	6	26 August 2021	N/A

Consent and Moderation Requirements (CMR) reference	0101
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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 Connexis - Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.