

Title	Plan, prepare to apply, and apply agrichemicals by aircraft		
Level	4	Credits	20

Purpose	<p>This unit standard is for people who apply agrichemicals, liquid fertilisers, or suspension fertilisers, by aircraft.</p> <p>People credited with this unit standard are able to: assess requirements for the work; plan and timetable the work; meet legal and safety requirements; and apply agrichemicals by aircraft.</p>
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Classification	Agriculture > Aerial Agrichemical Application
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Available grade	Achieved
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Guidance Information

- 1 Legislation and regulations relevant to this unit standard include but are not limited to:
Civil Aviation Act 1990, and relevant Rules;
Hazardous Substances and New Organisms Act 1996;
Health Act 1956;
Health and Safety in Employment Act 1992;
Resource Management Act 1991;
Local and Regional Authority regulations.
- 2 The New Zealand Standard applicable to this unit standard is NZS 8409:2004 *The management of agrichemicals*, available from <http://www.standards.co.nz>.
- 3 Definition
agrchemical – any substance, whether inorganic or organic, man-made or naturally occurring, modified or in its original state, that is used in any agriculture, horticulture or related activity, to eradicate, modify or control flora and fauna. For the purposes of aerial agrichemical application, it includes liquid fertilisers, and suspension fertilisers.

Outcomes and performance criteria

Outcome 1

Assess requirements for the work.

Performance criteria

- 1.1 Work to be accomplished is determined in accordance with client specifications.

Range objective of treatment, timing of treatment, target area, agrichemical(s).

- 1.2 Work is evaluated in terms of target area, terrain, water availability and quality, hazards, and susceptible crops and livestock.

Outcome 2

Plan and timetable the work.

Performance criteria

- 2.1 Application methods selected optimise agrichemical effectiveness and minimise the risk of contamination of off-target areas.

- 2.2 The factors that affect spray drift when applying agrichemicals by air are described.

Range droplet size, wind velocity, release height, temperature, inversion.

- 2.3 Planned application rate of chosen agrichemicals complies with the label recommendations.

Range rates per area, quantities of diluent.

- 2.4 Work pattern is determined which produces systematic agrichemical application over the entire target area.

- 2.5 Work pattern ensures that under and over-application is minimised, and takes account of potential hazards.

Range people, public amenities, non-target areas, timing of applications, water volume and flow rate, ground conditions, weather conditions, drift.

- 2.6 Timing of work, and order of operations, make effective use of staff resources and optimises agrichemical effectiveness.

Outcome 3

Plan for compliance with legal and safety requirements.

Performance criteria

- 3.1 Local and Regional Authority rules and regulations are identified, and compliance planned.

Range includes but is not limited to – permitted or recommended agrichemicals, consents or permits, spraying distances from watercourses.

- 3.2 Notification of interested and affected parties and placarding are planned in accordance with NZS 8409:2004.

Outcome 4

Apply agrichemicals by aircraft.

Performance criteria

- 4.1 Agrichemicals are applied in accordance with NZS 8409:2004, and Local and Regional Authority requirements.
- 4.2 Planned work pattern is followed with adjustments made to suit changing conditions, and to minimise spray drift.
- Range weather, proximity to people, proximity to animals, proximity to sensitive areas.
- 4.3 Targeting and coverage are in accordance with the established work pattern.
- 4.4 Agrichemicals are applied without wastage, or damage to equipment, property structures, or crops.
- 4.5 Safety precautions are observed at all times in accordance with NZS 8409:2004, and client's specifications.
- Range personal protective equipment, signage, vehicle safety lights, traffic, public notification, stock grazing.
- 4.6 Agrichemical application information is recorded in accordance with NZS 8409:2004, and Local and Regional Authority requirements.
- Range location, times, targets, agrichemicals used, quantities, application rates, additives used, equipment used, weather conditions, ground conditions.

Replacement information	This unit standard replaced unit standard 15597.
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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	27 May 2005	31 December 2022
Revision	2	15 August 2005	31 December 2022
Review	3	22 October 2020	31 December 2022

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>.

This unit standard is expiring