

Guide to agrichemical use in Resource Management Plans

Taranaki Region

As at June 2017

Disclaimer: This Guide is intended to assist users and applicators to understand the requirements relating to agrichemical use in the relevant regional plans in your Region. Every effort has been made to ensure the accuracy of this information but the responsibility for ensuring that the requirements of councils are met rests with the applicator and user of agrichemicals.

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1. Structure of plan requirements

Under the Taranaki Air Quality Plan, the following two types of agrichemical application are permitted activities ie you do not need a resource consent if you follow the rules:

- Rule 56 Discharge of agrichemicals production land
- Rule 57 discharge of agrichemicals public amenity areas or roadside or rail side verges

There are two different sets of rules, depending on where the applications is taking place.

If the rules cannot be met, then a resource consent under Rule 58 will be required from the Council.

As well as the rules, Schedule VI sets out requirements for qualification to meet the standard for the Plan. The requirements are summarised below. There is also Schedule VII which sets out best practice for agrichemical applications.

Application of agrichemicals direct to water for the purposes of controlling aquatic life is also a permitted activity under the Regional Fresh Water Plan for Taranaki if rules are met (Rule 32). If the rules cannot be met then a resource consent under Rule 44 will be required from the Council.

Definitions

Key words are identified in this Guide by *italics* and their formal definitions from the Plan are listed in section 8 of this Guide. The definition of *production land* is particularly important as it determines which rule will apply.

Status of plan

The Regional Air Quality Plan for Taranaki was reviewed in 2010 and became operative in July 2011. That means that it is beyond appeal and change and replaces the earlier Air Plan for the Taranaki Region.

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The link to the Taranaki Regional Council and plan on the website is:

https://www.trc.govt.nz/council/plans-and-reports/strategy-policy-and-plans/regional-air-quality-plan/

2. Specific notes for users

NZS8409:2004

Rules 56 and 57 require compliance with mandatory requirements in Sections 2, 5 and 6 and relevant appendices of NZS8409:2004 Management of Agrichemicals. Mandatory requirements are identified in NZS8409:2004 as **shall** statements. Users will need to reference NZS8409 and meet these requirements to be compliant with the rules for agrichemical use in the Taranaki Plan.

Onus of responsibility

An important issue in terms of compliance with a Regional Plan is to be clear as to 'who' is responsible for 'what'. Some plans have conditions (e.g. notification) which are the responsibility of the 'landowner or occupier'. Other conditions (e.g. records) may be the responsibility of the 'discharger' or 'applicator'. Sometimes it may be either 'landowner' or 'applicator'. Usually such terms are defined in the Plan so it is clear who should be undertaking particular activities. However there are times where it is not clear who should be carrying out a task. If the landowner or manager is the person undertaking the spraying then all the responsibility is with that person. However, it is recommended that where a landowner or manager engages or employs someone else to undertake the spraying that it is clearly set out who will undertake particular responsibilities required by the Plan. In the event of a spray drift incident the Council will be seeking to confirm who undertook such matters as notification or keeping of records. A paper trail in this respect will be useful.

In the Taranaki Air Plan some conditions (e.g. notification) are the responsibility of the 'landowner or occupier'. Other conditions (e.g. records) are the responsibility of the 'discharger'. Neither landowner or occupier and discharger are defined in the Plan so the common meaning will apply. Users need to make sure that the conditions have been met.

Adverse effects

A number of conditions require that specific adverse effects are avoided (e.g water bodies) The conditions do not set a setback distance or other direct controls – but the user must take steps to ensure that no adverse effects occurs as a result of agrichemicals getting into water. Just because there are no mandatory distances set does not mean that a user does not need to take care.

There is also a general adverse effects condition that includes electricity network and sensitive areas:

The discharge must not result in following effects at, or beyond, the boundary of the target property and on such parts of the electricity network that lie within the boundary of the premises:(premises) being sprayed including:

- Offensive or objectionable odour or dust,
- Ambient concentrations of noxious or dangerous contaminants such that any person, ecosystem
 or structure is, or is likely to be, adversely affected including any such adverse effects on sensitive
 areas.

It should be noted that while agrichemicals do have an odour, any complaint regarding odour would need to be assessed by Council officers as being 'offensive or objectionable' which are set out in 4.2.3 of the Plan. Key considerations would include the location of any activity and sensitivity of the receiving environment, reasonableness, and existing uses in the area.

Likewise a concentration of agrichemicals would need to be assessed as being 'noxious or dangerous' under 4.2.3. Consideration would include the frequency, intensity, duration and location of the exposure, the sensitivity of the receiving environment and advice from the Taranaki District Health Board Medical Officer of Health.

There is a general condition (clause j) that if there is an accidental or unintended discharge of agrichemicals to land or water then the Regional Council must be notified as soon as practicable.

Using this Guide

The summary tables below for each rule set out possible conditions that a Council may require in a permitted activity rule for agrichemical use. If a line is blank then it means that the Plan does not require anything on that issue.

3. Rule 56: Discharge of agrichemicals – production land

Permitted activity conditions	What the rule requires		
Type of use			
Area of use	Production land – as defined in the definitions		
Nature of applicator			
Certain agrichemicals			
Comply with manufacturer's instructions Rule 56 a)	Must not exceed rate or contravene any other requirement specified in manufacturer's instructions		
Drift beyond the boundary Rule 56 b)	There shall be no adverse effects from the discharge or drift of any agrichemical beyond the boundary of the subject property.		
Status of NZS8409 Rule 56 c)	All mandatory requirements of Sections 2, 5, and 6 and relevant Appendices of NZS8409:2004.		
Qualifications or training	User must be an appropriately qualified person or under direct supervision by having the following qualifications OR having a qualification that meets the requirements of Appendix VI of this Plan. (Refer to section 6 of this guide for Appendix VI requirements). 1. Ground applicator: GROWSAFE® Introductory Certificate or under direct supervision of person holding GROWSAFE® Applied certificate or GROWSAFE® Registered Chemical Applicators Certificate 2. Commercial spray operator EITHER: GROWSAFE® Registered Chemical Applicators Certificate		
Notification	OR: GROWSAFE® Introductory Certificate and under direct supervision of GROWSAFE® Registered Chemical Applicator Notification is not required where agrichemicals are applied with hand operated and manually pressurised and pump spray equipment. All other applications require notification as set out below: Notification is required to the following people and activities if they are located: • within 30 metres of area to be sprayed; OR • within 100 metres if aerial application. The landowner or occupier must give written or verbal notice to: • All occupied dwellinghouses • Owners or occupiers of properties • Sensitive crops and farming systems • Places of public assembly Notification is EITHER • A general notice before beginning of spray season;		

	 Not less than 2 hours and not more than 4 weeks prior to spraying. Notification must state: Areas to be sprayed Dates and times of spraying or factors that will determine when spraying will occur (to best extent possible) Agrichemicals to be used Measures undertaken to prevent or minimise spray drift from target area. If using the General notice before beginning of spray season it must include opportunity for those receiving the notice to request, and be 	
	given, further notice of individual applications prior to spraying being carried out. Notification is not required if owners or occupiers of dwellinghouses, properties or places of public assembly agree in writing that notification is not required.	
Spray Plan	As required in NZ8409:2004 5.3.4.3 and Appendix M4.	
Signage	As required in NZ8409:2004 5.3.3.1 and Appendix M.	
Records Rule 56 i)	 Discharger must keep records of: Name of user Agrichemical equipment used Methods of use including equipment applied Volume and concentration of <i>agrichemical</i> used Locality, area and date of application Location and nature of <i>sensitive areas</i> Weather conditions including wind speed and direction Any abnormal situation or incident. Records to be supplied to TRC on request. 	
Public amenity areas or sensitive areas Rule 56 e) Rule 56 d)	The discharge shall not adversely affect the suitability of <i>water</i> for water supply purposes. No ambient concentrations of noxious or dangerous contaminants such that any person, ecosystem or structure is, or is likely to be, adversely affected including any such adverse effects on <i>sensitive areas</i> .	
Storage	As required in NZ8409:2004 in Appendix L.	
Mixing sites	As required in NZ8409:2004 5.3.2 and in Appendix R.	
Applications to or near water Rule 56 e)	Discharge shall not cause or be likely to cause any adverse effects from deposition into a <i>river, lake, wetland</i> or other surface water body, including any drain which enters into a surface water body.	
Disposal	As required in NZ8409:2004 in Section 6 and Appendix S.	

4. Rule 57: Discharge of agrichemicals – public amenity areas or roadside or railside verges

Permitted activity conditions	What the rule requires		
Type of use			
Area of use	Public amenity areas or roadside or railside verges – as defined in the definitions		
Nature of applicator			
Certain agrichemicals			
Comply with manufacturer's instructions Rule 57 a)	Must not exceed rate or contravene any other requirement specified in manufacturer's instructions.		
Drift beyond the boundary Rule 57 d)	There shall be no adverse effects from the discharge or drift of any agrichemical beyond the boundary of the subject property.		
Status of NZS8409 Rule 57 b)	All mandatory requirements of Sections 2, 5, and 6 and relevant Appendices of NZS8409:2004. See note in 2 above.		
Qualifications or training	User must be an appropriately qualified person or under direct supervision by having the following qualifications or having a qualification that meets the requirements of Appendix VI of this Plan. (Refer below for Appendix VI requirements). 1. Commercial spray operator EITHER: GROWSAFE® Registered Chemical Applicators Certificate OR: GROWSAFE® Introductory Certificate and under direct supervision of GROWSAFE® Registered Chemical Applicator		
Notification Rule 57 h)	Landowner, manager or contractor must give <i>public notice</i> of intention to spray not less than 4 weeks and not more than 6 months prior to spraying.		
	Public notice is to include:		
	 Areas to be sprayed Dates and times of spraying (to best extent possible) Agrichemicals to be used Measures to be adopted to prevent or minimise spray drift from the target area. 		
Spray Plan	As required in NZ8409:2004 5.3.4.3 and Appendix M4.		
Signage Rule 57 i) and j)	Except for spraying along the verges of public roads, the discharger must place signs clearly visible to the public at all points where the public commonly have entry to the area being sprayed. Signs must include the words "CAUTION - SPRAYED AREA", and remain in place until the re-entry period for that particular chemical has expired		
	Where spraying occurs along the verges of public roads, vehicles associated with the spraying must display signs (front and back) stating "CAUTION - SPRAYING IN PROGRESS"		

Records Rule 57 k)	 The discharger must keep records of: Name of user Agrichemical equipment used Methods of use including equipment calibration details Type of each agrichemical applied Volume and concentration of agrichemical used Locality, area and date of application Location and nature of <i>sensitive areas</i> Weather conditions including wind speed and direction Any abnormal situation or incident. Records to be supplied to TRC on request. 		
Public amenity areas or sensitive areas Rule 57 g) Rule 57 c)	The discharge shall not adversely affect the suitability of <i>water</i> for water supply purposes. No ambient concentrations of noxious or dangerous contaminants such that any person, ecosystem or structure is, or is likely to be, adversely affected including any such adverse effects on <i>sensitive areas</i> .		
Storage	As required in NZ8409:2004 in Appendix L.		
Mixing sites	As required in NZ8409:2004 5.3.2 and in Appendix R.		
Applications to or near water Rule 57 e) and g)	Discharge shall not cause or be likely to cause any adverse effects from deposition into a <i>river</i> , <i>lake</i> , <i>wetland</i> or other surface water body, including any drain which enters into a surface water body. The discharge shall not adversely affect the suitability of water for water supply purposes.		
Disposal	As required in NZ8409:2004 in Section 6 and Appendix S.		

5. Regional Fresh Water Plan for Taranaki (2001) Rule 32: Discharge of aquatic herbicides onto or into surface water (excluding the wetlands listed in Appendix IIA)

Permitted activity conditions	What the rule requires	
Type of use	Purpose of eradicating, modifying or controlling unwanted aquatic plants and shall not exceed the quantity, concentration or rate necessary.	
Area of use	Discharges to wetlands listed in Appendix IIA will require resource consent.	
Nature of applicator		
Certain agrichemicals	Aquatic herbicides approved for use under section 21 of the Pesticides Act 1979 or HSNO Act 1996.	
Comply with manufacturer's instructions	Must be undertaken in accordance with manufacturer's instructions and any relevant regulations	
Drift beyond the boundary	Must adopt best practicable option to prevent or minimise any adverse effects beyond the boundary of the target property or other non-target areas within the boundary of the property.	
Status of NZS8409		
Qualifications or training		
Notification	Discharger shall notify TRC as soon as practicable in the event of accidental or unintended discharge of herbicides.	
Spray Plan		
Signage		
Records	 Discharger must keep records of: Name of applicator Agrichemical equipment used Methods of use including equipment calibration details Type of each <i>agrichemical</i> applied Volume and concentration of agrichemical used Locality, area and date of application Location and nature of <i>sensitive areas</i> Weather conditions including wind speed and direction Any abnormal situation or incident. 	
Public amenity areas or sensitive areas		
Storage		
Mixing sites		
Applications to or near water	Shall be no adverse effects on any take for potable or water supply or any take under a resource consent or take permitted by Rule 15 of Fresh Water Plan.	

	 Discharge shall not give rise to any or all of the following effects in the receiving water after reasonable mixing: Production of any conspicuous oil or grease films, scums or foams or floatable or suspended materials Any conspicuous change in colour or visual clarity Any emission of objectionable odour The rendering of fresh water unsuitable for consumption by farm animals Any significant adverse effects on aquatic life
Disposal	

6. Appendix VI Training requirements for qualifications to apply to agrichemicals

The following are the training requirements for an applicator to comply with the conditions of Rule 56 (f) (iv) and Rule 57 (e) (iii) if the specific qualifications are not held.

The minimum training programme for applicators of agrichemicals shall include:

Knowing and being able to describe:

- The hazard classifications of agrichemicals to be used.
- The adverse effects that could be caused by the agrichemicals to be used.
- His or her obligations and liabilities under Acts of Parliament relative to the agrichemicals to be used and their use.
- Which regulations apply in respect of those agrichemicals, and where those regulations can be obtained (including the local regional air quality plan).
- The content of NZS 8409:2004 Management of Agrichemicals.
- The precautions required to prevent injury to a person or damage to the environment (including property) by any agrichemicals to be used.
- The procedure to adopt in an emergency involving the agrichemicals to be used.
- First aid, health and safety, and emergency response.
- Environmental effects, including spray drift minimisation.
- Notification requirements, including signage.
- Product label interpretation.
- Protective equipment selection and use.
- Transport, storage and disposal of agrichemicals.
- Selection, calibration and operation of application equipment for specific operations.

Knowing and being able to demonstrate:

 A working knowledge of the operating equipment (including protective equipment and clothing) necessary to manage the agrichemicals being used.

7. Spray plan requirements

Rules 56 and 57 require that a spray plan in accordance with Appendix M4 of NZS8409:2004 Management of Agrichemicals be completed.

A template for a Property Spray Plan based on Appendix M4 can be found on the GROWSAFE® website: www.growsafe.co.nz.

The Spray Plan should be prepared by the owner, occupier or manager of the property and include the following:

- 1. Address and phone of property owners/occupiers, property manager and registered chemical applicators.
- 2. Address and phone number of neighbours and status (owner/occupier)
- 3. Roads adjacent to the property boundary and roads used for school bus routes
- 4. Identification of area to be sprayed, size of area and target (e.g. crops) to be sprayed
- 5. Types of agrichemicals that are likely to be used during the year, classifications, potential hazard and times of year that spraying is likely to occur
- 6. Description and location of any sensitive areas
- 7. Strategies to be used to avoid spraydrift on sensitive areas
- 8. Factors to be considered before spraying (e.g. weather conditions)
- 9. Factors that may increase spray hazard potential (refer to Potential Spray Drift Hazard Chart from NZS8409:2004 Appendix G).

8. Definitions

Agrichemicals - any substance, whether inorganic or organic, human-made or naturally occurring, modified or in its original state, that is used on production land or within public amenity areas, including parks, reserves, pedestrian walkways, beaches and foreshore areas, road and railside verges or on, over, onto or into water to eradicate, modify or control flora and fauna. For the purposes of this Plan 'agrichemicals' do not refer to chemicals used to treat water intended for use in municipal supply or industrial processes (i.e. cooling systems, boilers, abstraction for consumptive use) while not part of a water body, nor do agrichemicals include vertebrate toxic agents (VTA's) or oral nutrition compounds or fertilisers.

Place of public assembly - land or buildings which are used in whole or in part for the assembly or gathering of people for such purposes as meetings, conferences, worship, entertainment, recreation, celebration, education of similar purposes and includes such buildings associated with public or private hotels, travellers' accommodation and marae.

Premises - the legally defined property, whether private land or public land, within which the subject activity occurs.

Production land:

- a) any land and auxiliary buildings used for the production (but not processing) of primary products (including agricultural, pastoral, horticultural and forestry products);
- b) does not include land or auxiliary buildings used or associated with prospecting, exploration or mining for minerals, and 'production' has a corresponding meaning.

Public amenity areas - those areas to which the public have right of access under any statute, regulation, law or by-law, including:

- a) Crown and Council properties, reserves, gardens, parks and airfields;
- b) grasslands, sportsgrounds and recreational turfs;
- c) forest and bush areas;
- d) road verges and embankments, pedestrian walkways, malls and precincts;
- e) beaches, beach reserves, and adjacent foreshore areas.

Public notice - a notice published in a newspaper circulating in the entire area likely to be affected by the proposal to which the notice relates.

Sensitive areas - areas that have within them uses or values or activities that are more susceptible to adverse effects than other uses or values or activities and include occupied dwelling houses, public amenity areas, places of public assembly, water bodies used for public water supply, any water body, wetlands, sensitive crops or farming systems, public roads and any place, area or feature of special significance to tangata whenua. For the purposes of this Plan 'sensitive activities' means the activities that occur within sensitive areas as listed above.

Spray - the discharge into the air of agrichemicals whether in liquid, emulsified, mist, granular, powdered, pelletized or any other physical form or forms and from any source whether moveable or not, and `Spraying' has a corresponding meaning.

Water - water in all its physical forms whether flowing or not and whether over or under the ground.

Water body - fresh water or geothermal water in a *river*, *lake*, stream, pond, *wetland*, or aquifer, or any part thereof, that is not located within the coastal marine area (RMA definition).

Note: The definition of water body is further defined in the definitions of river, lake and wetland:

- River a continually or intermittently flowing body of fresh water; and includes a stream and
 modified watercourse; but does not include any artificial watercourse (including an irrigation
 canal, water supply race, canal for the supply of water for electricity power generation, and farm
 drainage canal)
- Lake a body of fresh water which is entirely or nearly surrounded by land
- Wetland includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions

9. Appendix VII: Good agrichemical spray management practices

This Appendix is based on information contained in New Zealand Standard 8409: 2004 Management of Agrichemicals, produced by Agrichemical Education Trust and Standards New Zealand and the Growsafe Introductory Manual 2007, developed by the New Zealand Agrichemical Education Trust. It has been included in the Plan in a simple and convenient form for general public information and education purposes. The information contained in this Appendix also provides general guidance on the best practicable option for preventing or minimising adverse effects on the environment of agrichemical spraying. It also provides a general indication of the nature of the conditions that might be attached to a resource consent for the spraying of agrichemicals.

Nothing in this Appendix shall amend or detract from any responsibility or requirement applying under the Hazardous Substances and New Organisms Act 1996 or the Agricultural Compounds and Veterinary Medicines Act 1997 or any amendment or regulation made under those Acts.

Compliance with Section 6 to 10 of the Growsafe Introductory Manual 2007, or with other documented instructions on discharge of agrichemicals giving an equivalent degree of environmental protection that are provided to the Taranaki Regional Council, will be taken as demonstrating the adoption of best practicable option to prevent or minimise any adverse effects of spray beyond the boundary of the target property or other non-target areas or species within the boundary of the property.

Any person discharging agrichemical sprays:

- Should undertake an accredited or recognised course in the use of agrichemical sprays, such as a GROWSAFE® Introductory Certificate (for ground based applications), or a GROWSAFE® Registered Chemical Applicator's Certificate (for commercial spray operators), and any pilot undertaking aerial application shall hold as a minimum, a current Pilot Chemical Rating Certificate issued by Civil Aviation Authority (CAA), or other similar qualifications that meet the requirements of Appendix VI.
- Should not spray if the wind speed over the area to be sprayed is less than one metre per second (3 kilometres per hour) and droplet size is less than 50 micron, or greater than six metres per second (15 kilometres per hour).
- Should not spray upwind of the following sensitive areas:
 - occupied dwellinghouse
 - public amenity areas
 - places of public assembly
 - water bodies used for public water supply
 - sensitive crops or farming systems such as organic farms
 - places, areas or features of special significance to tangata whenua
 - wetlands
 - other water bodies
 - public roads

unless the buffer zones set out in this Appendix are observed and unless additional techniques for minimising spray drift beyond the boundary of the property or other non-target areas, as set out in this Appendix, are given effect to (refer to Table 1 page 180).

- Should have particular regard to wind speed and direction during the application of spray.
- Should discharge sprays during periods of positive air movement away from sensitive receiving environments (as described above).
- Should have particular regard to selection of nozzle size and pressure of spray units, to prevent or minimise the potential for spray drift.

- Should dilute spray solutions to the proper concentration for application.
- Should dispose of surplus spray solution and spray containers according to recommendations of the manufacturer or supplier, as stated in the directions on the product container label.
- Should keep specific records of the type of each spray applied, the volume of spray used, the volume of product concentrate used, the date, and the locality.
- Should maintain boundary shelter belts in good condition to a height of at least 3.5 4 metres and a depth of at least 1.0 metre at any time spraying is undertaken of shrubs, trees, or vines.
- Should use only those agrichemicals currently licensed for use.
- Should apply sprays strictly in accordance with the manufacturer's instructions, as stated on the product container label.
- Should preferably use sprays of low volatility or low toxicity.
- In the case of discharge from a vehicle or by a pedestrian, should discharge at a height less than 1.5 metres above the target, and preferably less than 0.5 metres above the target.
- Should use equipment generating a droplet size greater than 50 microns in diameter, and preferably greater than 200 microns.
- Should observe the minimum buffer zones set out in Table 1 (below), in conjunction with the other methods outlined in this Appendix.

It is vital that the guidelines given in Table 1 below are regarded as that – guidelines, which represent the best estimate for three typical application types. Buffer zones, with or without shelter belts, merely provide an opportunity for concentrations of agrichemicals to fall sufficiently so that the risk to sensitive areas beyond the buffer zone becomes acceptable (i.e. environmental exposure levels are not exceeded). Depending on the particular circumstances however, there is no guarantee that this can be achieved. Therefore buffer zones are only one of many methods to manage and reduce drift hazards.

Table 1 gives suggested distances between downwind edge of the target area and the sensitive area. These are for quidance only.

Table 1: Minimum buffer zones

Application method	Buffer zone	
	With shelter	Without shelter
Spray discharge direction vertically downwards	2m	10m
Spray discharge direction horizontal or upwards or from air blast or vortex sprayers	10m	30m
Aerial application	100m	300m

Note: This table is a guide only. The suggested distances are minimum distances and are subject to:

- a) the proper calibration and use of the spray equipment, and
- b) all other appropriate strategies being observed to reduce spray drift hazard.