

## Guide to agrichemical use in Resource Management Plans

### Hawkes Bay 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 Hawkes Bay Regional Resource Management Plan, the following two methods of agrichemical application are permitted activities, ie you do not need a resource consent if you follow the rules:

- Rule 9 Small scale application of agrichemicals
- Rule 10 Widespread application of agrichemicals

#### 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 ***hand held appliance*** is particularly important as it determines which rule will apply.

#### Status of plan

The Hawkes Bay Regional Resource Management Plan is Operative meaning that the current version cannot be changed except through a publicly notified Plan Change.

The link to the Hawkes Bay Regional Council website and the rules in the plan is:

<http://www.hbrc.govt.nz/LinkClick.aspx?fileticket=lq8FMVo%2fs50%3d&tabid=270&mid=1293>

#### 2. Specific notes for users

##### 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.

#### **NZS8409:2004**

Rule 10 requires that the application is undertaken in accordance with the mandatory requirements in Sections 2, 5 and 6 of NZS8409:2004 Management of Agrichemicals. Mandatory requirements are identified in NZS8409 as shall statements. Users will need to reference NZS8409:2004 and meet these requirements to be compliant with the rules for agrichemical use in the Hawkes Bay Regional Resource Management Plan.

#### **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 9: Small scale application of agrichemicals

Permitted activity conditions	What the rule requires
Type of use	This rule applies to: <ul style="list-style-type: none"> <li>• Use for domestic purposes</li> <li>• Licensed animal remedies</li> <li>• Use by a <b>hand held appliance</b></li> </ul>
Area of use	
Nature of applicator	
Certain agrichemicals	Excludes the use of any agrichemicals approved for aquatic use. Refer to Rule 10 for discharges onto surface water.
Comply with manufacturer's instructions Rule 9 a)	The discharge shall be undertaken in a manner which does not exceed any rate, or contravene any other requirement specified in the agrichemical manufacturer's instructions.
Drift beyond the boundary Rule 9 b)	There shall be no discharge or drift of any agrichemical beyond the boundary of the subject property.
Status of NZS8409 Rule 9 d)	Where used for purposes other than domestic purposes the discharge shall be undertaken in accordance with all mandatory requirements set out in Section 2, 5 and 6 of NZS8409:2004 Management of Agrichemicals.
Qualifications or training	
Notification	
Spray Plan	
Signage	
Records	
Public places or amenity areas or sensitive areas	
Storage	
Mixing sites	
Applications to or near water Rule 9 c)	The discharge shall not result in any agrichemical entering a <b>water body</b> .
Disposal	

#### 4. Rule 10: Widespread application of agrichemicals

Permitted activity conditions	What the rule requires
Type of use	Widespread – i.e. not using <b>handheld appliances</b>
Area of use	
Nature of applicator	Applies to all users other than for <b>domestic purposes</b>
Certain agrichemicals	
Comply with manufacturer's instructions Rule 10 a)	The discharge shall be undertaken in a manner which does not exceed any rate, or contravene any other requirement specified in the agrichemical manufacturer's instructions.
Drift beyond the boundary Rule 10 e)	No <b>agrchemical</b> shall be deposited on any roof, or structure used as catchment for water supply other than in condition f) – for unwanted aquatic plants.  The plan contains an Advisory Note to provide guidance for assessing spray drift hazard, including Table G1 from NZS8409:2004. (See below)
Status of NZS8409 Rule 10 b)	The discharge shall be undertaken in accordance with all mandatory requirements set out in Section 2, 5 and 6 of NZS8409:2004 Management of Agrichemicals.
Qualifications or training Rule 10 c)	Qualifications are required that meet the requirements set out in Appendix XI: (See below).  <b>Commercial user</b> – meets requirements of Appendix XI or be under direct supervision of a person holding that qualification. A GROWSAFE® Introductory Certificate meets these requirements.  <b>Contractor</b> – meets requirements of Appendix XI. A GROWSAFE® Registered Chemical Applicators Certificate meets these requirements.  <u>Employee of contractor</u> - meets requirements of Appendix XI or be under training for a valid qualification. A GROWSAFE® Applied Certificate meets these requirements.  <u>Pilots</u> undertaking aerial application shall hold a GROWSAFE® Pilot Agrichemical Rating.
Notification	Either the property owner, manager or contractor shall notify the agrichemical discharge as follows: <ul style="list-style-type: none"> <li>• Where the application is on private land within 50 metres of an adjacent property where agrichemical applications occur: <ul style="list-style-type: none"> <li>• more than 2 times a year; and</li> <li>• where spray drift cannot be avoided.</li> <li>• notification shall be by preparing a property spray plan to be provided on request to adjacent owners or occupiers or HBRC. Details of spray plan requirements are set out below.</li> </ul> </li> <li>• Where the application is on <b>public land</b> notification shall be given: <ul style="list-style-type: none"> <li>• to land occupiers adjacent to the intended application</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>not more than 6 months prior and not less than 1 month prior to the application</li> <li>by newspapers or by door to door advice.</li> <li>Where an application may affect bee keeping prior notification shall be given to affected parties.</li> </ul>
Spray Plan Rule 10 h)	A spray plan as in NZS8409:2004 Appendix M4 is required for notification for private land. (See below for details.)
Signage Rule 10 h) ii) and iii)	<p><u>Private land</u></p> <p>Signage is required where agrichemical application is within:</p> <ul style="list-style-type: none"> <li>10 m of public land where there is a shelter belt giving effective protection; or</li> <li>30 m of public land where there is no shelter belt.</li> </ul> <p><b><u>Public land</u></b></p> <p>Signs shall be used to clearly indicate agrichemical use. (Refer to requirements in NZ8409:2004 5.3.3.1 and Appendix M.)</p>
Records	As required in NZ8409:2004 in Section 2.6.2 and 2.7.
Public places or amenity areas or sensitive areas	Refer to notification and signage requirements above.
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 10 f)	<p>Discharges onto land or onto water for controlling unwanted aquatic plants the discharge:</p> <ul style="list-style-type: none"> <li>Must be approved for aquatic use by ERMA</li> <li>Must not exceed quantity and concentrations required for that purpose</li> <li>Shall not include disposal of agrichemical to water</li> <li>Discharger must notify 1 week prior to proposed discharge: <ul style="list-style-type: none"> <li>those taking water for domestic supplies within 1 km downstream of proposed discharge; and</li> <li>holders of resource consents for the taking of water for public water supply purposes downstream of proposed discharge</li> </ul> </li> </ul> <p>For <b><i>aerial discharges</i></b> all reasonable measures shall be taken to prevent any discharge of agrichemicals within 20m of:</p> <ul style="list-style-type: none"> <li>a continually flowing river with a bed width or 3m or more</li> <li>any <b><i>lake</i></b> or <b><i>wetland</i></b>.</li> </ul>
Disposal	Rule 10 doesn't cover disposal of agrichemical containers.

## 5. Appendix XI: Performance Requirements for qualifications to apply agrichemicals

Rule 10 c) requires training requirements for both **commercial users** and **contractors** and refers to the performance requirements in Appendix XI. A user will need to determine the appropriate requirements given the nature of the work being undertaken.

### **Commercial user**

The minimum training programme for commercial users 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.

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.

An example of a qualification that meets these requirements is the GROWSAFE® Introductory Certificate.

### **Contractor Employee**

The minimum programme for contract use of agrichemicals (animal and plant health products) where agrichemicals are applied for hire or reward (both ground and aerial application) shall include those matters listed for commercial users and these additional matters:

- First aid, health and safety, and emergency response.
- Environmental effects, including spray drift minimization.
- 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.

An example of a qualification that meets these requirements is the GROWSAFE® Applied Certificate.

## 6. Agrichemical Spray Drift Hazard

The Hawkes Bay Regional Resource Management Plan includes Table G1 from NZS8409:2004 which details the factors that contribute to spray drift, the potential drift hazard scale and comments as to how to address the factors. The chart is provided to assist users when completing a spray plan to identify factors that could increase risk of off target spray drift and users should take the chart into account when completing a spray plan. The Advisory Note in the Plan states that dischargers should note that adequate notification of those who may be at risk enables them to take precautionary action which can reduce the potential effects of spray drift.

Factor	Potential Drift Hazard Scale		Comment
	High	Low	
Wind speed	Zero/very low (<1 m/s) or greater than 6 m/s	Steady (1-3 m/s)	Measurement or estimate using smoke
Wind direction	Unpredictable	Predictable, and away from sensitive areas	Use smoke to indicate
Humidity	Low (delta T>8C)	High (delta T<4C)	Measure using whirling psychrometer.
Atmospheric stability	Inversion layer present	Inversion layer not present	Use cold smoke to indicate
Maximum height of release	>1.5m above the target	<0.5m above the target	Application technique (see Appendix Z of Agrichemical Users' Code of Practice)
Particle droplet size	<50 microns diameter	>250 microns diameter	See Appendix Z of Agrichemical Users' Code of Practice
Volatility	High (vapour pressure >10 mPa)	Low (vapour pressure <0.1 mPa)	Check label
Sensitive area	Close (<100 m away)	More than 1 km distant	Identify on property spray checklist
Buffer zone	None.	Yes (>100 m)	
Shelter belts	No shelter	Live shelter, >3m high and 1m thick	Not for herbicides.
Toxicity	Scheduled agrichemicals	Unscheduled agrichemicals	Check label

## 7. Spray Plan requirements

Rule 10 h) requires that a spray plan in accordance with NZS8409:2004 Management of Agrichemicals be completed where the application is within 50 metres of an adjacent property.

The requirements for a spray plan are set out in Appendix M4 NZS8409: 2004. A template for a Property Spray Plan based on Appendix M4 can be found on the GROWSAFE® website: [www.growsafe.co.nz](http://www.growsafe.co.nz).

1. A plan or map detailing location of any sensitive areas
2. Crops to be sprayed
3. Types of agrichemicals that are likely to be used during the year and times of year that spraying is likely to occur
4. Strategies to be used to avoid spraydrift on sensitive areas – e.g. application techniques such as large droplet size, hand application, not spraying outside rows, turning machinery off when turning, having no-spray buffer zone areas, only spraying when the wind is in the specified direction, having personnel monitoring boundaries during the application, lists or people (and their contact phone number) who want to get a phone call just prior to any spraying, any other mutually agreed strategies to manage any risk.
5. Name of person carrying out agrichemical application and confirmation of their current qualifications
6. Particular weather conditions which may increase potential drift hazard
7. Indications of agrichemicals to be used that may present a specific hazard (e.g. bee toxicity).

## 8. Definitions

**Aerial discharge** – the discharge of a substance from an aircraft

**Agrichemical** - any substance, whether inorganic or organic, man-made or naturally occurring, modified or in its original state, that is used to eradicate, modify or control flora and fauna, excluding fertiliser and pheromones.

**Agrichemical spray drift** - the airborne movement of agrichemicals, as droplets, vapour or solid particles, onto a non-target area.

**Animal remedy** - any drug, medicine, remedy or therapeutic preparation, or any biochemical substances for:

- (a) curing, diagnosing, treating, controlling or preventing any disease in animals, or
- (b) destroying or preventing parasites on or in animals, or
- (c) maintaining or improving the health, condition, productivity or appearance of any animals, or
- (d) capturing or immobilising any animal.

**Commercial user** for the purpose of provisions relating to the application of agrichemicals - any person, group or organisation using agrichemicals in the course of their business activities. It includes any council or local authority managing the use of agrichemicals in public places and amenity areas, roadside, waterways and on noxious weeds.

**Contractor** - any person or organisation who by agreement with the owner, occupier or manager of any land, undertakes activities for hire or reward. It does not include an employee, owner, occupier or manager.

**Domestic purposes** – the use of agrichemical by a person, group or organisation in a private capacity, who do not use agrichemical in the course of their business activities.

**GROWSAFE Introductory Certificate** - a certificate which is administered by the New Zealand Agrichemical Education Trust, and awarded for successful completion of the GROWSAFE Introductory Course.

**Hand-held appliance** in relation to agrichemicals - a knapsack sprayer, a handgun sprayer, a motorised knapsack sprayer, or a hand-held sprayer with a rate and volume of application no greater than these devices.

**Pilots chemical rating** - a rating which is administered by the Civil Aviation Authority, and is awarded to pilots involved in the aerial application of agrichemicals.

**Public land** - land to which the public has free access at the time an activity is undertaken in accordance with a rule in this Plan.

**Registered chemical applicator** - any person who is, for the time being, recognised as a registered chemical applicator in accordance with the scheme of registration conducted by the New Zealand Agrichemical Education Trust.

**Spray** in relation to agrichemicals - the discharge into the air of agrichemicals whether in liquid, emulsified, mist, granular, powdered, pelletised or any other physical form or forms. 'Spraying' has a corresponding meaning.

**Subject property** - the legally defined property, whether private land or public land, within which the subject activity occurs and includes all land that is under common ownership.

**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.

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.

For the purposes of this Plan the term 'wetland' does NOT include:

- Wet pasture
- Artificial wetland used for wastewater or stormwater treatment
- Farm dams and detention dams
- Land drainage canals and drains
- Reservoirs for firefighting, domestic or municipal water supply
- Temporary ponded rainfall
- Artificial wetland created for beautification purposes.