IN THE ENVIRONMENT COURT
AT AUCKLAND

I TE KŌTI TAIAO O AOTEAROA
KI TĀMAKI MAKAURAU

Decision [2021] NZEnvC 171

IN THE MATTER OF	an appeal under Clause 14 of Schedule 1 of the Resource Management Act 1991 (**the Act**)
AND	Topic 8 (Agrichemicals) of the Proposed Northland Regional Plan
BETWEEN	PUBLIC AND POPULATION HEALTH UNIT OF THE NORTHLAND DISTRICT HEALTH BOARD (ENV-2019-AKL-126) HORTICULTURE NEW ZEALAND (ENV-2019-AKL-116) Appellants
AND	NORTHLAND REGIONAL COUNCIL Respondent

Court:	Judge J A Smith Commissioner S C Myers
Hearing:	On the Papers
Last case event:	Memorandum of Northland Regional Council of 1 November 2021
Submissions:	M J Doesburg and E S Lake for Northland Regional Council (**the Council**) H A Atkins for Horticulture New Zealand (**Horticulture NZ**) W D McKean for the Public and Population Health Unit of Northland District Health Board (**NDHB**) S T Shaw for LMD Wheelers (s 274 Party) (**the Wheeler's**) H F Adams, A D Ross and C Smith in person (s 274 Parties)

P R Gardner for Federated Farmers of New Zealand (**Federated Farmers**) (s 274 Party)

Date of Decision: 3 November 2021

Date of Issue: 3 November 2021

ADDENDUM TO FINAL DECISION OF THE ENVIRONMENT COURT

A: The final decision omitted several minor changes the parties intended to include but were omitted from the provisions supplied to the Court.

B The proposed changes to the Topic 8 provisions are to be modified in accordance with the Council's proposed amendments, annexed hereto as **A**. The provisions as concluded in the Court's final decision of 15 October 2021 are otherwise unchanged.

B: Topic 8 (Agrichemicals) of the Proposed Northland Regional Plan is resolved in its entirety.

C: The directions as to costs are contained in the substantive final decision on this matter.

REASONS

Introduction

[1] This relates to additional alterations of a minor nature omitted from the changes supplied by the parties for the final decision of the Court, which was issued on 15 October 2021.[1] The changes do not appear to have been included in the draft provisions provided by the Council on 8 October 2021 or the memorandum

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1 *Public and Population Health Unit of the Northland District Health Board v Northland Regional Council* [2021] NZEnvC 162.

identifying the parties' final provisions of 8 September 2021.

[2] In its final decision, the Court concluded that the Plan should be modified in accordance with its findings. Parties were also provided with a brief opportunity to comment on the wording of the provisions outlined in Annexure A to that decision.

[3] The Council filed a memorandum with the Court on 1 November 2021, identifying four minor corrections that it considered should in the final provisions endorsed by the Court. These were not considered in our final decision. Those corrections include:

(a) Corrections to provide names and numbers for headings and sub-headings of Appendix H.XX;

(b) Minor consequential amendments to the footnotes in Rules C.6.5.1 and C.6.5.2 due to the proposed renaming of Appendix H.XX, to ensure the correct Appendix is referenced;

(c) Minor grammatical corrections in footnote two of the definition of "effective shelter"; and

(d) Corrections to minor cross-referencing errors that have arisen as a result of incorporating the Court's findings on Rule C.6.5.1 and Rule C.6.5.2.

[4] The Council also advise that they had sought responses from all parties involved in this matter. At the time of filing, the only parties who had responded were Refining NZ and the Wheeler's, who did not raise objections with the proposed amendments.

Evaluation

[5] Having considered the memorandum, we conclude that the minor corrections sought by the Council are appropriate. These corrections are intended to clarify the decision of the Court and do not raise anything contrary in that regard. Moreover, to date, no party has raised any objection to these proposed corrections, despite having an opportunity to comment. While not addressed expressly in the parties' memorandum filed prior to the final decision, these amendments appear

uncontroversial and do not affect the final decision nor the provisions previously agreed between parties.

[6] Accordingly, we confirm the proposed wording attached as **A** filed by the Council and incorporate these provisions into the final decision.

Outcome

[7] Accordingly:

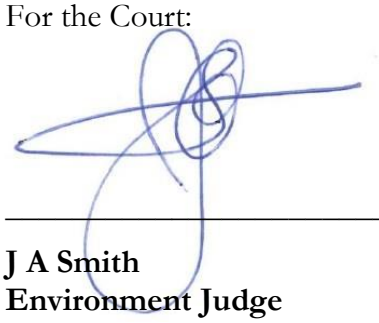
A: The final decision omitted several minor changes the parties intended to include but were omitted from the provisions supplied to the Court.

B: The proposed changes to the Topic 8 provisions are to be modified in accordance with the Council's proposed amendments, annexed hereto as A. The provisions as concluded in the Court's final decision of 15 October 2021 are otherwise unchanged.

C: Topic 8 (Agrichemicals) of the Proposed Northland Regional Plan is resolved in its entirety.

D: The directions as to costs are contained in the substantive final decision on this matter.

For the Court:



J A Smith
Environment Judge

Annexure A – Council's Proposed Changes to Provisions

The Council's proposed changes following the Court's decision of 15 October 2021 are shown highlighted yellow in underline and strikethrough.

Rule C.6.5.1 Application of agrichemicals – permitted activity

The discharge of an agrichemical into air or onto or into land is a permitted activity, provided:

1) for all methods (including hand-held spraying, ground-based spraying and aerial application):

aa) the applicator must:

i. take all practicable steps to ensure that agrichemicals are used appropriately and accurately, and are confined to target application areas;

ii. take all practicable steps to ensure that no adverse effects occur beyond the application area[1]; and

iii. ensure that relevant tolerable exposure limits (TELs) and environmental exposure limits (EELs) are not exceeded.

a) the discharge does not result in:

i. any noxious, dangerous, offensive or objectionable odour, smoke, spray or dust, or any noxious or dangerous levels of airborne contaminants beyond the boundary of the subject property or in the coastal marine area[1], or

ii. damage to any spray-sensitive areas beyond the boundary of the subject property or in the coastal marine area, and

b) there is no direct discharge into or onto water, and

c) notification is given, either:

i. other than for spraying in plantation forestry where notification must be given at least 24 hours and no more than 60 working days before spraying commences, neighbouring properties receive notification no less than 24 hours and no more than three weeks before the spraying activity is to take place, as set out in Table 11: Spraying notification requirements, or

ii. according to an alternative notification agreement, that meets the requirements of Table 11: Spraying notification requirements; and

d) if agrichemicals are applied within 100 metres of a public amenity area, prominent signs are placed prior to the commencement of the spraying and remain in place until spraying is complete. The signs must include the contact details of the property owner or applicator, details of the chemical to be sprayed, the time period during which the spraying is likely to take place, indication of any specific hazards and the application method. A record of the signage undertaken must be kept and made available to the Regional Council on request, and

e) for spraying by any method in public road corridors and rail corridors:

i. other than for handheld spraying of roadside boundary fence lines adjacent to private land, a public notice must be placed in a newspaper, or a letter drop made to properties within 30 metres (or 200 metres for aerial application) from the area to be sprayed, at least seven days and not more than one month before spraying is to take place, and

ii. the signs, public notice and letter drop must include the contact details of the property owner or applicator, details of the chemical to be sprayed, the time period during which the spraying is likely to take place, and the application method, and

iii. vehicles used for spraying must display prominent signs (front and back) advising that spraying is in progress, and

iv. a record of the signage undertaken must be kept and made available to the Regional Council on request.

Table 11: Spraying notification requirements

Spraying method	Properties to be notified	Notification requirements
Hand-held spraying	Nil (unless a public amenity area or public road corridor or rail corridor under the specific requirements above).	Nil (unless a public amenity area or public road corridor or rail corridor under the specific requirements above).
Ground-based spraying	Any property with a spray-sensitive area within 50 metres of the spraying, including when spraying is taking place in public amenity areas but excluding when the spraying is taking place in a public road corridor or rail corridor.	Either: 1. Notification: a) is to be undertaken by the owner or occupier of the property where agrichemicals will be applied unless delegated to the applicator, management company, forest manager, or pack house operator, and b) is to be in writing (which can include email or other electronic means) or by telephone, and c) includes: i. the days and times during which the agrichemical application is likely to take place, including alternative days and times if the weather is unsuitable, and ii. the contact details of the owner or occupier of the property, or applicator, or management company forest manager, or packhouse operator, and iii. the details of agrichemicals being applied, and iv. indication of any specific hazards (including toxicity to bees), and v. the application method. 2. Alternative notification agreement: (a) Notification is undertaken according to a notification agreement with the
Aerial application	Any property with a spray-sensitive area within 200 metres of the spraying, including when spraying is taking place in public amenity areas, but excluding when the spraying is taking place in a public road corridor or rail corridor.	
Granules, gels and agrichemical baits	Any property with a spray-sensitive area within 30 metres of the agrichemical application, including when agrichemical application is taking place in public amenity areas, but excluding when the agrichemical application is taking place in a public road corridor or rail corridor.	

Spraying method	Properties to be notified	Notification requirements
		occupier. The notification agreement must: i. contain (as a minimum) method of notification and minimum time for notification prior to spraying ii. be recorded in writing and signed by all parties iii. be reviewed and re-signed annually.

2) for ground-based spraying and aerial application:

(a) the activity is undertaken in accordance with the following sections of the New Zealand Standard Management of Agrichemicals (NZS8409:2004) as it relates to the management of the discharge of agrichemicals:

i. Use – Part 5.3, and

ii. Storage – Appendix L4, and

iii. Disposal – Appendix S, and

iv. Records – Appendix C9, and

(b) a Spray Plan must be prepared annually for the area where agrichemical is to be applied, which shall be made available to the Council and the occupiers of spray-sensitive areas on request;

(c) where the activity is undertaken within 100 metres of a spray-sensitive area or 300 metres for aerial application:

i. every spray activity must be undertaken in accordance with a risk assessment, that is recorded in a spray diary or equivalent and made available to the Council and the occupiers of spray-sensitive areas on request;

ii. the risk assessment must be carried out prior to the application to determine the site characteristics on the day, particularly wind speed and wind direction, the level of risk present, and use of appropriate methods to address that risk. Where the risk of off target spray movement cannot be addressed, agrichemical application must not be undertaken;

iii. the applicator must re-evaluate the risk assessment during the spray application to assess whether the conditions have changed and ensure that the application methods and drift mitigations are still appropriate;

iv. the activity must be undertaken in accordance with the risk assessment,-and the Spray Plan;

v. agrichemical application must not occur if wind speeds are greater than 5m/s plus gusts and wind direction is towards a spray-sensitive area; and

vi. the following requirements must be met:

Wind speed[2]	Wind direction	Buffer distance requirement	Additional requirements to be assessed
Ground-based – low risk			
1-3 m/s	Wind away from spray-sensitive area	nil	nil
Ground-based – assessed risk			
0-1 m/s	Any wind direction (not inversion conditions)	There is a buffer distance on all boundaries of the target application area of at least: Boom spraying • 2 m with effective shelter, or • 10 m without effective shelter. Airblast spraying • 10m with effective shelter, or • 30m without effective shelter.	• The buffer distance to be observed on all boundaries of the target application area and whether effective shelter is present • Height of spray release and risk of spray drift (for boom or blast spraying release should be no higher than 1m below the top of the shelter to prevent spray drift) • Sensitivity of receivers • Toxicity of spray • Use of agrichemical direct application methodology (e.g. shrouds).
1-5 m/s	Wind toward spray-sensitive area	There is a buffer distance on the downwind boundary of the target application area of at least: Boom spraying • 2 m with effective shelter, or • 10 m without effective shelter Airblast spraying • 10m with effective shelter, or • 30m without effective shelter.	• The buffer distance to be observed on the downwind boundary of the target application area and whether effective shelter is present • Height of spray release and risk of spray drift (for boom or blast spraying release should be no higher than 1m below the top of the shelter to prevent spray drift) • Spray quality • Sensitivity of receivers • Toxicity of spray • Use of agrichemical direct application methodology (e.g. shrouds).
3-6 m/s	Wind away from spray-sensitive area	nil	• Height of spray release and the risk of spray drift (for boom or blast spraying release should be no higher than 1m below the top of the shelter to prevent spray drift) • Spray quality • Sensitivity of receivers • Toxicity of spray

[2] Refer to Appendix ~~H.X~~ H.10.1 for measurement of wind speed requirements.

Aerial spraying – assessed risk			
0-1 m/s	Any wind direction (not inversion conditions)	There is a buffer distance on all boundaries of the target application area of at least: • 100m with effective shelter, or • 300m without effective shelter.	• The buffer distance to be observed on all boundaries of the target application area and whether effective shelter is present • Height of spray release and risk of spray drift (release should no higher than 1m below the top of the shelter to prevent spray drift) • Sensitivity of receivers • Toxicity of spray • Spray quality is as coarse as possible
1-5 m/s	Wind away from spray-sensitive area	nil	• Height of spray release and risk of spray drift (release should no higher than 1m below the top of the shelter to prevent spray drift) • Sensitivity of receivers • Toxicity of spray • Spray quality being as coarse as possible
1-3m/s	Wind toward spray-sensitive area	There is a buffer distance on the downwind boundary of the target application area of at least: • 100 m with effective shelter, or • 300 m without effective shelter.	• The buffer distance to be observed on the downwind boundary of the target application area and whether effective shelter is present • Height of spray release and risk of spray drift (release should be no higher than 1m below the top of the shelter to prevent spray drift) • Sensitivity of receivers • Toxicity of spray • Spray quality being as coarse as possible
greater than 3m/s-5m/s	Wind toward spray-sensitive area	There is a buffer distance on the downwind boundary of the target application area of at least: • 100 m with effective shelter, or • 300 m without effective shelter.	• Spray quality being as coarse as possible • Height of spray release and risk of spray drift (release should be no higher than 1m below the top of the shelter to prevent spray drift) • Implement spray drift mitigation controls identified in risk assessment

(d) agrichemical application must not occur if:

i. wind speeds[3] are greater than 6m/s plus gusts; or

[3] Refer to Appendix ~~H.X~~ H.10.1 for measurement of wind speed requirements.

ii. wind speeds[4] are between 0-1m/s and inversion conditions are present or likely to be present during application;

(e) the buffer distance requirements in (2) above do not apply to agrichemical application if the occupier of the spray-sensitive area has provided written approval for the type and method of agrichemical application, and:

i. the written approval is re-signed annually; and

ii. the occupier is provided with a copy of the annual spray plan; and

iii. the written approval has not been withdrawn, withdrawal only being effective if three months' notice has been provided;

(f) agrichemical application undertaken in a fully enclosed environment that remains enclosed during and immediately after spraying (for example a greenhouse) is not subject to the requirements in (2) above.

Agrichemical application that does not meet all of the requirements under (2) above is a discretionary activity under Rule C.6.5.5.

3) for ground-based spraying:

a) an applicator who is a contractor holds a current GROWSAFE Registered Chemical Applicators Certificate or a qualification that meets the requirements of Appendix H.~~X~~10.3 of this plan, and

b) an applicator who is not a contractor holds a current GROWSAFE Standard Certificate (or its equivalent) or is under direct supervision of a person with a GROWSAFE Registered Chemical Applicators Certificate or GROWSAFE Advanced Certificate or a qualification that meets the requirements of Appendix H.~~X~~10.3 of this plan, and

4) for aerial application:

a) an applicator holds a current GROWSAFE Pilot Agrichemical Rating Certificate issued by the Civil Aviation Authority of New Zealand, and

5) for agrichemicals containing 2,4-D:

a) the agrichemical is non-volatile or is slightly low volatile[2], or
b) application is by hand-held spraying, or
c) application by ground-based spraying or aerial application only occurs between 1 May and 31 August.

Notes:

In addition to the requirements of Rule C.6.5.1 the agrichemical must be approved for its intended use by the Environmental Protection Authority under the Hazardous Substances and New Organisms Act 1996 and all other conditions set for its use must be complied with.

In relation to a non-aerial application, the applicator must hold an Agrichemical Certified Handler certificate (Worksafe New Zealand) where required by any Environmental Protection Authority approval for the agrichemical under the Hazardous Substances and New Organisms Act 1996, or equivalent as recognised and required by the Environmental Protection Authority or Ministry for

[4] Refer to Appendix ~~H.X~~ H.10.1 for measurement of wind speed requirements.

Business Innovation and Employment, and be able to demonstrate competency using agrichemicals to avoid adverse impacts.

In relation to aerial application, the applicator and ground crew must hold qualifications and competencies as required by Environmental Protection Authority and Worksafe New Zealand.

For the avoidance of doubt this rule covers the following RMA activities:

- Discharge of an agrichemical onto or into land or into air (s15(1) and s15(2A)).

[1] Refer to Appendix H.7 Interpretation of noxious, dangerous, offensive and objectionable effects.

[2] Vapour pressure less than 1 x 10-4mmHg

Rule C.6.5.2 Application of agrichemicals into water – permitted activity

The discharge of an agrichemical into water is a permitted activity provided:

1) other than for the control of plant pest species listed in the Regional Pest Management Plan or the National Pest Plant Accord, there is no discharge into coastal water, and

2) the discharge does not cause, beyond the zone of reasonable mixing in the receiving waters from the point of discharge:

   a) the production of conspicuous oil or grease films, scums or foams, of floatable or suspended materials, or

   b) an increase in the temperature by more than three degrees Celsius, or

   c) the pH to fall outside the range of 6.5 - 8.5 or change the pH by more than one pH unit, or

   d) the dissolved oxygen to be less than five milligrams per litre, or

   e) any conspicuous change in the colour or visual clarity, or

   f) the rendering of fresh water unsuitable for consumption by farm animals if the water is used for stock drinking water, and

3) an applicator holds a recognised application qualification (GROWSAFE with an aquatic component or a qualification that meets the requirements of Appendix H.~~¥~~10.3 of this plan, and

4) the activity is undertaken in accordance with the following sections of the New Zealand Standard. Management of Agrichemicals (NZS 8409:2004) as it relates to the management of the discharge of agrichemicals:

   a) Use – Part 5.3, and

   b) Storage – Appendix L4, and

   c) Disposal – Appendix S, and

   d) Records – Appendix C9, and

5) where the activity is undertaken within 100 metres of a spray-sensitive area or 300 metres for aerial application:

   a) every spray activity must be undertaken in accordance with a risk assessment, that is recorded in a spray diary or equivalent and made available to the Council and the occupiers of spray-sensitive areas on request;

   b) the risk assessment must be carried out prior to the application to determine the site characteristics on the day, particularly wind speed and wind direction, the level of risk present, and use of appropriate methods to address that risk. Where the risk of off target spray movement cannot be addressed, agrichemical application must not be undertaken;

c) the applicator must re-evaluate the risk assessment during the spray application to assess whether the conditions have changed and ensure that the application methods and drift mitigations are still appropriate;

d) the activity must be undertaken in accordance with the risk assessment and the Spray Plan;

e) agrichemical application must not occur if wind speeds are greater than 5m/s plus gusts and wind direction is towards a spray-sensitive area; and

f) the following requirements must be met:

Wind speed[5]	Wind direction	Buffer distance requirement	Additional requirements to be assessed
Ground-based – low risk			
1-3 m/s	Wind away from spray-sensitive area	nil	nil
Ground-based – assessed risk			
0-1 m/s	Any wind direction (not inversion conditions)	There is a buffer distance on all boundaries of the target application area of at least: Boom spraying • 2 m with effective shelter, or • 10 m without effective shelter. Airblast spraying • 10m with effective shelter, or • 30m without effective shelter.	• The buffer distance to be observed on all boundaries of the target application area and whether effective shelter is present • Height of spray release and risk of spray drift (for boom or blast spraying release should be no higher than 1m below the top of the shelter to prevent spray drift) • Sensitivity of receivers • Toxicity of spray • Use of agrichemical direct application methodology (e.g. shrouds).
1-5 m/s	Wind toward spray-sensitive area	There is a buffer distance on the downwind boundary of the target application area of at least: Boom spraying • 2 m with effective shelter, or • 10 m without effective shelter Airblast spraying • 10m with effective shelter, or	• The buffer distance to be observed on the downwind boundary of the target application area and whether effective shelter is present • Height of spray release and risk of spray drift (for boom or blast spraying release should be no higher than 1m below the top of the shelter to prevent spray drift) • Spray quality • Sensitivity of receivers • Toxicity of spray

[5] Refer to Appendix ~~H.X~~ H.10.1 for measurement of wind speed requirements.

		• 30m without effective shelter.	• Use of agrichemical direct application methodology (e.g. shrouds).
3-6 m/s	Wind away from spray-sensitive area	nil	• Height of spray release and the risk of spray drift (for boom or blast spraying release should be no higher than 1m below the top of the shelter to prevent spray drift) • Spray quality • Sensitivity of receivers • Toxicity of spray
Aerial spraying – assessed risk			
0-1 m/s	Any wind direction (not inversion conditions)	There is a buffer distance on all boundaries of the target application area of at least: • 100m with effective shelter, or • 300m without effective shelter.	• The buffer distance to be observed on all boundaries of the target application area and whether effective shelter is present • Height of spray release and risk of spray drift (release should no higher than 1m below the top of the shelter to prevent spray drift) • Sensitivity of receivers • Toxicity of spray • Spray quality is as coarse as possible
1-5 m/s	Wind away from spray-sensitive area	nil	• Height of spray release and risk of spray drift (release should no higher than 1m below the top of the shelter to prevent spray drift) • Sensitivity of receivers • Toxicity of spray • Spray quality being as coarse as possible
1-3m/s	Wind toward spray-sensitive area	There is a buffer distance on the downwind boundary of the target application area of at least: • 100 m with effective shelter, or • 300 m without effective shelter.	• The buffer distance to be observed on the downwind boundary of the target application area and whether effective shelter is present • Height of spray release and risk of spray drift (release should be no higher than 1m below the top of the shelter to prevent spray drift) • Sensitivity of receivers • Toxicity of spray • Spray quality being as coarse as possible
greater than	Wind toward spray-sensitive area	There is a buffer distance on the downwind	• Spray quality being as coarse as possible

3m/s-5m/s		boundary of the target application area of at least: • 100 m with effective shelter, or • 300 m without effective shelter.	• Height of spray release and risk of spray drift (release should be no higher than 1m below the top of the shelter to prevent spray drift) • Implement spray drift mitigation controls identified in risk assessment

(g) agrichemical application must not occur if:

i. wind speeds[6] are greater than 6m/s plus gusts; or

ii. wind speeds[7] are between 0-1m/s and inversion conditions are present or likely to be present during application;

(h) the buffer distance requirements in (~~2~~5) above do not apply to agrichemical application if the occupier of the spray-sensitive area has provided written approval for the type and method of agrichemical application, and:

i. the written approval is re-signed annually; and

ii. the occupier is provided with a copy of the annual spray plan; and

iii. the written approval has not been withdrawn, withdrawal only being effective if three months' notice has been provided;

(i) agrichemical application undertaken in a fully enclosed environment that remains enclosed during and immediately after spraying (for example a greenhouse) is not subject to the requirements in (~~2~~5) above.

Agrichemical application that does not meet all of the requirements under (~~2~~5) above is a discretionary activity under Rule C.6.5.5.

6) notification is given either:

a) other than for spraying in plantation forestry where notification must be given at least 24 hours and no more than 60 working days before spraying commences, every person taking water for potable supply within one kilometre downstream of the proposed discharge is notified no less than 24 hours and no more than two weeks prior to the proposed commencement of any spraying, and

b) every holder of a resource consent for the taking of water for water supply purposes downstream of the proposed discharge is notified at least seven days before the discharge, and

c) notification must be undertaken by the owner or occupier of the property to be sprayed, unless delegated to the applicator, management company, forest manager or packhouse operator, and must be in writing (which can include email or other electronic means) or by telephone, and

d) notification must include:

[6] Refer to Appendix ~~H.X~~ H.10.1 for measurement of wind speed requirements.
[7] Refer to Appendix ~~H.X~~ H.10.1 for measurement of wind speed requirements.

i. the days and times during which the spraying is likely to take place, including alternative days and times if the weather is unsuitable, and

ii. the contact details of the property owner or applicator, and

iii. the details of agrichemicals being sprayed, and

iv. an indication of any specific hazards (including toxicity to bees), and

v. the application method, ~~and~~or

e) notification is undertaken according to a notification agreement with the occupier. The notification agreement must:

i. contain (as a minimum) method of notification and minimum time for notification prior to spraying

ii. be recorded in writing and signed by all parties

iii. be reviewed and re-signed annually; and

7) in addition, for aerial application into water:

a) an applicator holds a current GROWSAFE Pilot AgricChemical Rating Certificate (or equivalent qualification) issued by the Civil Aviation Authority of New Zealand, and

b) there is no aerial application in urban areas, and

8) if agrichemicals are applied within 100 metres of a public amenity area, prominent signs are placed prior to the commencement of the spraying and remain in place until spraying is complete. The signs must include the contact details of the property owner or applicator, details of the chemical to be sprayed, the time period during which the spraying is likely to take place, an indication of any specific hazards (including toxicity to bees), and the application method. A record of the signage undertaken must be kept and made available to the Regional Council on request, and

9) in addition, for spraying by any method in public road corridors or rail corridors:

a) prominent signs are placed at the beginning and end points of the area to be sprayed, prior to the commencement of the spraying, and remain in place until spraying is complete, and

b) a public notice must be placed in a newspaper or a letter drop made to properties within 30 metres (or 200 metres for aerial application) from the area to be sprayed at least seven days and not more than one month before spraying is to take place, and

c) the signs, public notice and letter drop must include the contact details of the property owner or applicator, details on the agrichemical to be sprayed, the time period during which the spraying is likely to take place, an indication of any specific hazards (including toxicity to bees), and the application method, and

d) vehicles used for spraying must display prominent signs (front and back) advising that spraying is in progress, and

e) a record of the signage undertaken must be kept and made available to the Regional Council on request.

Notes:

In addition to the requirements of Rule C.6.5.2, the agrichemical must be approved for its intended use by the Environmental Protection Authority under the Hazardous Substances and New Organisms Act 1996 and all other conditions set for its use must be complied with.

In relation to a non-aerial application, the applicator must hold an Agrichemical Certified Handler certificate (Worksafe New Zealand) where required by any Environmental Protection Authority approval for the agrichemical under the Hazardous Substances and New Organisms Act 1996, or equivalent (as recognised and required by Environmental Protection Authority or Ministry for Business Innovation and Employment) and be able to demonstrate competency using agrichemicals to avoid adverse impacts.

In relation to an aerial application, the applicator and ground crew must hold qualifications and competencies as required by the Environmental Protection Authority and Worksafe New Zealand.

For the avoidance of doubt this rule covers the following RMA activities:

- Discharge of an agrichemical into water (s15(1)).

Definitions

Spray-sensitive area

1. residential buildings and associated garden areas, and
2. schools, hospital buildings and care facilities and grounds, and
3. amenity areas where people congregate including parks and reserves, and
4. community buildings and grounds, including places of worship and marae, and
5. certified organic farms, and
6. orchards, crops and commercial growing areas, and
7. water bodies used for the supply of drinking water and for stock drinking, and
8. natural wetlands and significant areas of indigenous vegetation and habitats of indigenous fauna as defined in the Regional Policy Statement for Northland, and
9. roofing for the collection of drinking water; and
10. apiaries.

Effective shelter

Effective shelter must:

1. be taller (at least >1 metre) than the height of the spray plume[1] when the plume interacts with the shelter; and
2. have foliage that is continuous from top to bottom; and
3. achieve in the order of 50% optical and aerodynamic porosity;[2] and
4. have a high surface area (note that fine needles are more effective at collecting fine spray than broad leaves); and
5. not be deciduous; and
6. have a minimum height of 3.5 metres; and
7. have a width to height ratio of 1:3.5.

Note: Artificial shelter may also be useful in reducing spray drift (for example overhead hail netting for kiwifruit and apples).

[1] NB: This is the not necessarily the same as the projected height (at point of discharge) as it will typically rise if it drifts.

[2] The thicker the shelter belt the better, (e.g. multiple lines of plants). Optically you can't see through it but it's still aerodynamically porous.

Buffer

Buffer means a specified horizontal distance from a downwind spray-sensitive area, measured from the downwind edge of the application area closest to the spray-sensitive area.

Away from

"Away from" means not towards

Risk Assessment

An assessment of the proposed agrichemical application to identify risks of off-target spray movement and risks to spray-sensitive areas and measures to address those risks and determine if agrichemical application can be done safely and effectively given the conditions on-site at the time.

After considering the spray plan, the risk assessment must include an assessment of the matters listed in Appendix H.~~XX~~10.2 Risk assessment.

~~Appendix~~ H.~~XX~~ 10 Agrichemical requirements

H.10.1 *Measurement of wind speed*

~~How to measure wind speed~~

1. Wind speed and wind direction measurement for both risk assessment and *during spraying operations* must be measured:
    i. onsite;
    ii. at the observed maximum projected height of the spray plume (maximum 1 m above the target), or at the release height of the spray for downward projected nozzles, at the downwind edges of sprayed areas closest to potential spray-sensitive areas;
    iii. using an electronic/digital monitoring device which produces an electronic or printed record, for spraying operations on sites greater than 100m^2,
2. Wind speed and wind direction for a risk assessment must be averaged over a 10-minute period and during spraying operations wind speed and wind direction must be averaged over at least a 5-minute period.
3. Wind gust should be measured as the strongest consecutive 3 second reading in any 60 second period.

H.10.2 Risk assessment

A risk assessment for the application of agrichemicals must, after considering the spray plan, include an assessment of the following:

1. Confirmation of the target application area;
2. Appropriateness of product for the weed, pest, or crop;
3. Location of spray-sensitive areas;
4. Weather conditions (wind speed, wind direction, humidity and temperature, atmospheric stability);
5. Appropriateness of particle size and release height, particularly in relation to spray-sensitive areas and buffer zones;
6. Presence and condition of shelter belts;
7. Fit for purpose equipment and personal protective equipment;
8. Confirmation that notification has been carried out and required signage is in place (see C3 and C4);
9. Confirmation that any relevant regulatory requirements can be complied with;

10. Confirmation that all other risk factors, including those identified in the spray plan, are being managed in accordance with the spray plan;
11. Toxicity of the agrichemical to be applied;
12. Application rate;
13. Volatility;
14. Timing and duration of operation; and
15. Type of spray-sensitive area and sensitivity of persons/animals/vegetation potentially exposed.
16. The likelihood of spray drift occurring.
17. The ways of eliminating the risk of spray-drift occurring and selection of the practicable steps to ensure that agrichemicals are confined to target application areas