

E34. Agrichemicals and vertebrate toxic agents

E34.1. Background

Agrichemicals are 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. Agrichemicals include agricultural compounds, but excludes fertilizers, vertebrate pest control products and oral nutrition compounds.

Vertebrate pest control products are referred to in the Plan as vertebrate toxic agents, which are substances used to eradicate, modify or control vertebrate animals such as possums, mustelids, rats, rabbits and deer.

Agrichemicals are used by most primary producers and in many domestic or amenity situations for weed, pest and disease control. When used correctly agrichemicals can make a positive contribution to sustainable land use. People can use agrichemicals provided they do not result in adverse effects on other people, the environment or property and are used safely and responsibly in accordance with best practice.

The Plan's approach to the management of agrichemicals is consistent with the requirements of specific standards and quality assurance systems and relies on the provisions of the New Zealand Standard - Management of Agrichemicals (NZS 8409: 2004). Meeting the requirements of this standard will ensure best management approaches to the use, application, storage and disposal of agrichemicals.

Vertebrate toxic agents are products that are designed to kill or control vertebrate pests such as rabbits and possums. For managing vertebrate toxic agents, compliance with the requirements set by the Environment Protection Authority (EPA) is also necessary.

Regulations to standardise and simplify the regulatory regime for vertebrate toxic agents were introduced on 20 February 2017. The regulations remove duplication between the RMA, the Hazardous Substances and New Organisms Act 1996, and the Agricultural Compounds and Veterinary Medicines Act 1997. Under the regulations, aerial or ground applications of brodifacoum, rotenone, or fluoroacetate to control vertebrate pests such as stoats, possums, rats and pest fish are exempt from Resource Management Act requirements.

E34.2. Objective [rp/rcp]

- (1) Human health and the environment are protected from adverse effects caused by the inappropriate application, handling, transport, storage or disposal of agrichemicals and vertebrate toxic agents.

E34.3. Policy [rp/rcp]

- (1) Avoid significant adverse effects, and minimise other adverse effects on the environment from the use of agrichemicals and vertebrate toxic agents including off-target spray drift, handling, storage, transport or disposal by all of the following:
 - (a) managing their application to prevent adverse effects on or near sensitive areas;

- (b) using where practicable, the least toxic and volatile agrichemical or vertebrate toxic agents with the most harmless adjuvant (substance used to improve their performance) suitable for the purpose;
- (c) applying agrichemicals and vertebrate toxic agents in accordance with the product's label, including specified rates of application;
- (d) using an application method that minimises spray drift, giving particular attention to all of the following:
 - (i) type of spray equipment used;
 - (ii) spray volume and droplet size;
 - (iii) direction of spraying;
 - (iv) height of release above the ground;
 - (v) weather conditions;
 - (vi) proximity to sensitive areas; and
 - (vii) separation distances; and
- (e) considering the benefits and costs of alternatives to the use of agrichemicals and vertebrate toxic agents for plant and animal protection.

(2) The aerial or ground applications of brodifacoum, rotenone, fluoroacetate. pre-feed or repellent to control vertebrate pests is exempt from the controls specified in the Resource Management (Exemption) Regulations 2017. This will create a more efficient regulatory framework by improving the effectiveness of pest control by reducing the risk in errors in operations; the risk of operational delays leading to pest control operations being less effective in protecting biodiversity; and inconsistent rules between regions impacting on the effectiveness of multi-region operations.

E34.4. Activity table

Table E34.4.1 Activity table specifies the activity status of the discharge of contaminants into the air, onto or into land and/or into water from agrichemicals and vertebrate toxic agents pursuant to section 15 of the Resource Management Act 1991.

Table E34.4.1 Activity table

Activity		Activity status
(A1)	The discharge from domestic applications of agrichemicals onto or into land for home and garden purposes that comply with Standard E34.6.1.1	P
(A2)	The discharge from non-domestic applications of agrichemicals onto or into land that comply with Standard E34.6.1.1 and Standard E34.6.1.2	P
(A3)	The discharge from land based application of vertebrate toxic	P

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	agents onto or into land or into water that comply with Standard E34.6.1.3	
(A4)	The discharge from the aerial application of vertebrate toxic agents into the air, onto or into land and/ or into water that comply with Standard E34.6.1.4	P
(A10)	The discharge of brodifacoum for the purpose of killing vertebrate pests that comply with Standard E34.6.1.7	P
(A11)	The discharge of rotenone for the purpose of killing introduced fish that comply with Standard E34.6.1.8	P
(A12)	The discharge of sodium fluoroacetate for the purpose of killing vertebrate pests that comply with Standard E34.6.1.9	P
(A13)	The discharge of any pre-feed for the purpose of killing vertebrate pests that comply with Standard E34.6.1.10	P
(A14)	The discharge of a repellent for the purpose of killing vertebrate pests that comply Standard E34.6.1.11	P
(A5)	The discharge from the application of agrichemicals directly into or onto water that comply with Standard E34.6.1.1 and Standard E34.6.1.5	P
(A6)	The discharge from the application of agrichemicals for biosecurity purposes into the air, onto or into land and/or into water that comply with Standard E34.6.1.1 and Standard E34.6.1.6	P
(A7)	The discharge from the application of agrichemicals and of vertebrate toxic agents that do not comply with Standard E34.6.1.1; Standard E34.6.1.2; Standard E34.6.1.3; Standard E34.6.1.4; Standard E34.6.1.5 or Standard E34.6.1.6	D
(A8)	The discharge from the aerial application of agrichemicals and vertebrate toxic agents in urban areas for non-domestic uses into the air, onto or into land and/or into water	D
(A9)	The discharge from the application of agrichemicals and vertebrate toxic agents not otherwise provided for	D

E34.5. Notification

- (1) Any application for resource consent for an activity listed in Table E34.4.1 Activity table above will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.
- (2) When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule [C1.13\(4\)](#).

E34.6. Standards

E34.6.1. Permitted activity standards

All activities listed as a permitted activity in Table E34.4.1 Activity table must comply with the following general and activity specific permitted activity standards except aerial or ground applications of brodifacoum, rotenone, fluoroacetate, pre-feed or repellent to control vertebrate pests.

E34.6.1.1. General standards for all permitted activities that discharge agrichemicals into the air, onto or into land and/or into water

- (1) The following standards apply to all permitted activities that discharge agrichemicals to air and land and including circumstances when it may enter water or water except aerial or ground applications of brodifacoum, rotenone, fluoroacetate, pre-feed or repellent to control vertebrate pests.
- (2) The discharge must not result in:
 - (a) any concentration of agrichemical beyond the boundary of the site or into water that is likely to cause, significant adverse effects on human health, ecosystems or property; or
 - (b) any offensive or objectionable odour, dust, vapour, droplets, visible emissions or particulate beyond the boundary of the site.
- (3) All necessary steps are taken to avoid, remedy, or mitigate any possible adverse effects beyond the boundary of the site.
- (4) The discharge is not directly into water, including the coastal marine area or a freshwater body, unless the chemical is approved by the Environmental Protection Authority for use over or into water bodies.
- (5) The discharge is not directly onto or into water used for a potable water supply including roofs used for water collection.
- (6) There is no aerial spraying in urban areas.
- (7) The agrichemical is used according to controls imposed by the Environmental Protection Authority.
- (8) The application rate is in accordance with the product label, manufacturer's recommendations, safety data sheets or a maximum application rate approved by the Environmental Protection Authority.
- (9) Applicators must keep all GPS records of aerial applications of agrichemicals for at least three years and provide these to the Council on request. The records must include the spray swaths and secondary flight paths.

E34.6.1.2. The discharge from non-domestic applications of agrichemicals onto or into land

- (1) Industry best practice must be used, including:
 - (a) the application of agrichemicals for non-domestic uses must comply with all of the following sections of the New Zealand Standard - Management of Agrichemicals (NZS 8409:2004):

- (i) Safe Storage of Agrichemicals (Users) in Appendix L4;
 - (ii) Safe Use of Agrichemical Compounds and Plant Protection Products in Section 5.3;
 - (iii) Disposal of Agrichemicals and Containers (Normative) in Appendix S; and
 - (iv) Agrichemical Application Records Sheet in Appendix C9; and
- (b) following all instructions on the agrichemical label; and
- (c) being suitably qualified and/or have a quality management systems that has regular external audits.
- (2) A spray plan must be prepared annually for the area where the agrichemical will be applied. All of the following must be identified:
- (a) the sensitive areas that may be affected;
 - (b) any persons likely to be directly affected; and
 - (c) the affected persons to be advised and provided with the spray plan at least seven working days prior to the first application date. If spraying is in amenity areas or public places, as defined in New Zealand Standard -Management of Agrichemicals (NZS 8409:2004), then advising adjoining neighbours is not required.
- (3) Any person applying agrichemicals by a handheld application (a non-motorised sprayer carried on foot) must:
- (aa) hold a minimum qualification required in Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agent; or
 - (a) be under the supervision of person holding the minimum qualifications required in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#); and
 - (b) have received instruction on the New Zealand Standard - Management of Agrichemicals NZS 8409:2004 from a person holding the minimum qualifications in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#).
- (4) Any person applying agrichemicals who uses a motorised application method and is not an agrichemical contractor must:
- (a) hold a qualification that meets the minimum qualification requirements in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#); or

- (b) be under the direct supervision of someone who holds a higher qualification meeting the requirements in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#).
- (5) Any person undertaking ground based agrichemical application who is contracted to apply those agrichemicals must:
- (a) hold a qualification that meets the requirements for commercial contractors in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#); or
 - (b) hold a qualification that meets the minimum qualification requirements in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#) and be under the direct supervision of someone who holds a qualification that meets the requirements for commercial contractors in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#).
- (6) Any person undertaking aerial agrichemical application must:
- (a) ensure that the pilot holds a Pilot's Chemical Rating issued under Civil Aviation Rule Part 61; and
 - (b) ensure that the aircraft company/organisation has a quality management system that has regular external audits.
- (7) All mixing of agrichemicals must meet the requirements of the New Zealand Standard - Management of Agrichemicals (NZS 8409:2004, section 5.3.2 Handling and mixing agrichemicals). There must be no spillage into or onto soil or water.
- (8) Records must be kept in accordance with the requirements of the New Zealand Standard - Management of Agrichemicals (NZS 8409:2004, Appendix C9 Agrichemical Application Record Sheet) and must be made available to Council on request.
- (9) In addition to the requirements for all applications, where the discharge will occur adjacent to sensitive areas identified in the spray plan then Standards E34.6.1.2(10) to E34.6.1.2(16) must also be undertaken. Sensitive areas include all of the following:
- (a) dwellings;
 - (b) education facilities;
 - (c) marae and papakāinga;
 - (d) hospitals and aged-care facilities;

- (e) amenity areas and public places;
 - (f) sources of potable water including roof water collection;
 - (g) non-target crops, flora and fauna (such as bees) sensitive to agrichemicals and vertebrate toxic agents;
 - (h) certified organic farms and farms applying for certification; and
 - (i) freshwater systems, the coastal marine area and significant ecological areas as identified in the Significant Ecological Areas Overlay.
- (10) The landowner is responsible for notifying the application of agrichemicals where the application is adjacent to sensitive areas as outlined in Standard E34.6.1.2(9)(a) - (i) that are not public places, to any landowner or occupier of the sensitive area who has requested to be advised.
- (11) Any landowner or occupier of the sensitive area who has requested to be advised must be advised either by:
- (a) written, telephone or email notification of intent to spray at least 24 hours prior to the proposed application date, unless there is an alternative agreed timeframe between the parties; or
 - (b) where practical, publicly notify, by a method such as the local newspaper or letter drop, at least seven working days prior to, but no more than one month before, the application date.
- (12) Where the application is in or adjacent to sensitive areas as outlined in Standard E34.6.1.2(9)(a) - (i) that are amenity or public places as defined in New Zealand Standard - Management of Agrichemicals (NZS 8409:2004) then the notification of all persons likely to be affected by the application of agrichemicals must be undertaken as follows:
- (a) placing a public notice in a local newspaper or letter drop in the area to be sprayed at least seven working days prior to the application date;
 - (b) placing signs in the immediate vicinity of the spraying during the spray period and any required stand-down period afterwards, or where spraying is occurring on or alongside roads, any vehicle associated with the spraying must display a sign on the front and rear of the vehicle advising that spraying is occurring; and
 - (c) the landowner is responsible for notifying all persons likely to be affected by the application of agrichemicals; the landowner may contract out the responsibility for notification to the applicator.
- (13) A risk assessment prior to the application of agrichemical must be carried out to ensure adequate measures, including reference to Table G1 the

Drift hazard guidance chart in the New Zealand Standard - Management of Agrichemicals (NZS 8409:2004), are in place to avoid adverse effects on sensitive areas as outlined in Standard E34.6.1.2(9)(a) - (i).

- (14) Agrichemicals must only be applied when the wind direction is away from the sensitive area as outlined in Standard E34.6.1.2(9)(a) - (i).
- (15) The application equipment must produce a spray quality no smaller than "coarse" according to Appendix Q Application Equipment in the New Zealand Standard - Management of Agrichemicals (NZS 8409:2004).
- (16) The person applying the agrichemicals must demonstrate necessary steps are taken to avoid off-target spray drift with reference to Appendix G Spray Draft Hazard and Weather Conditions (Informative) of the New Zealand Standard - Management of Agrichemicals (NZS 8409:2004), and record each steps. Steps may include any of the following:
 - (a) adding a spray-drift reduction adjuvant to the spray;
 - (b) reducing the spray release height;
 - (c) increasing the droplet size (spray quality); or
 - (d) using spray-modelling software.

E34.6.1.3. The discharge from land based application of vertebrate toxic agents onto or into land or into water

- (1) The application of vertebrate toxic agents must comply with all requirements for the use of the vertebrate toxic agent by the Environmental Protection Agency.
- (2) There must be no discharge of vertebrate toxic agents beyond the boundary of the property or application area.

E34.6.1.4. The discharge from the aerial application of vertebrate toxic agents into the air, onto or into land and/or into water

- (1) The application of vertebrate toxic agents must comply with all requirements for the use of it by the Environmental Protection Agency.
- (2) Best management practice must be followed to prevent the discharge of vertebrate toxic agents:
 - (a) beyond the boundary of the property or application area; and
 - (b) over lakes, or a wetland of greater than 1ha.
- (3) If there will be discharge of vertebrate toxic agents within 50m of a sensitive area as outlined in Standard E34.6.1.2(9)(a) - (i) the person responsible for the sensitive area (landowner) and any occupiers of the area must be advised at least seven working days prior to, but no more

than one month before, the application date. All of the following information must be provided to occupiers and landowners:

- (a) the application date and duration;
 - (b) the trade name and the chemical name of the vertebrate pest control product to be used;
 - (c) the method of application including whether the aircraft will be fixed wing or a helicopter;
 - (d) details of all safety precautions that will be taken; and
 - (e) the name and contact phone number of those carrying out the application.
- (4) Records of consultation and information provided must be kept and made available to Council on request.
- (5) The operators must keep all GPS records of aerial vertebrate toxic agent applications for at least three years and provide these to the Council on request. The records must include the spray swaths and secondary flight paths.
- (6) The pilot must hold a Pilot's Chemical Rating issued under Civil Aviation Rules Part 61 Pilot Licences and Ratings and the aircraft company/organisation must have a quality management system that has regular external audits.

Note 1

Best management practices may include the use of GPS technology or direct boundary supervision by qualified people.

Note 2

Permission is required from the Department of Conservation for any vertebrate toxic agent operation that is undertaken on land administered or managed by the Department of Conservation.

Note 3

Permission is required from the Medical Officer of Health whenever certain vertebrate toxic agents are used or applied in a catchment area from which water is drawn for human consumption, or in any area where there is a risk to public health, for example in places where the public has access as of right (e.g. parks).

E34.6.1.7 The discharge of brodifacoum

- (1) The discharge of brodifacoum (as defined in the Resource Management (Exemption) Regulations 2017) is for the purpose of killing vertebrate pests.

- (2) The discharge of brodifacoum is into or onto any of the following land, or into any water or air above, on, or in that land:
 - (a) land protected by predator-proof fencing; or
 - (b) an island of New Zealand other than the North Island or South Island.
- (3) The person who discharges the brodifacoum complies with the conditions in Schedule 2 to the Resource Management (Exemption) Regulations 2017.

E34.6.1.8 The discharge of rotenone

- (1) The discharge of rotenone (as defined in the Resource Management (Exemption) Regulations 2017) is for the purpose of killing introduced fish.
- (2) The discharge is into a water body whose surface, during the discharge:
 - (a) is less than 1 hectare in area; and
 - (b) is not connected to a river or an artificial watercourse.
- (3) The person who discharges the rotenone is, or is acting for the Department of Conservation or the Ministry for Primary Industries.
- (4) The person who discharges the rotenone has first consulted the relevant Fish and Game Council about the discharge.
- (5) The person who discharges the rotenone complies with the conditions in Schedule 2 to the Resource Management (Exemption) Regulations 2017.

E34.6.1.9 The discharge of sodium fluoroacetate

- (1) The discharge of sodium fluoroacetate (as defined in the Resource Management (Exemption) Regulations 2017) is for the purpose of killing vertebrate pests.
- (2) The person who discharges the sodium fluoroacetate complies with the conditions in Schedule 2 to the Resource Management (Exemption) Regulations 2017.

E34.6.1.10 The discharge of any pre-feed

- (1) The discharge of any pre-feed (as defined in the Resource Management (Exemption) Regulations 2017) where the person who discharges the pre-feed complies with the conditions in Schedule 2 to the Resource Management (Exemption) Regulations 2017.

E34.6.1.11 The discharge of a repellent

- (1) The discharge of a repellent (as defined in the Resource Management (Exemption) Regulations 2017) where the person who discharges the repellent complies with the conditions in Schedule 2 to the Resource Management (Exemption) Regulations 2017.

E34.6.1.5. The discharge from the application of agrichemicals directly into or onto water

- (1) The substances, including any adjuvants, must be approved by the Environmental Protection Authority for discharge directly into or onto water and the discharge must comply with all the requirements made by the Environmental Protection Authority including the requirements covering the person in charge, training, signage, storage, emergency management.
- (2) The person undertaking the discharge direct to water must notify:
 - (a) every person taking water for potable supply within 1km downstream of proposed discharge at least 12 hours prior to discharge occurring; and
 - (b) every resource consent holder for taking of water for public potable water supply purposes downstream of proposed discharge at least one week before commencing discharge.
- (3) Discharge of agrichemicals directly into or onto water must be undertaken by persons who:
 - (a) hold a qualification that meets the requirements for commercial contractors in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#); or
 - (b) hold a minimum qualification meeting the requirements in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#) and be under the direct supervision of someone who holds a qualification that meets the requirements for commercial contractors in [Appendix 18 Qualifications required for the application of agrichemicals and vertebrate toxic agents](#).
- (4) For the discharge of agrichemicals directly into or onto water by aerial application:
 - (a) the pilot must hold a Pilot's Chemical Rating Certificate issued under Civil Aviation Rule Part 61 Pilot Licences and Ratings; and
 - (b) the application company/organisation must have a quality management system that has regular external audits.

- (5) Where the discharge is occurring in a public place, signs must be placed within the immediate vicinity of the discharge prior to commencing and maintained until the discharge has ceased.
- (6) All users must keep records consistent with Agrichemical Application Records Sheet in Appendix C9 of the New Zealand Standard - Management of Agrichemicals (NZS 8409:2004) as evidence and information that provides an authentic record to verify that the application of agrichemical(s) directly into or onto water has been carried out in accordance with these provisions. Such records must be provided to the Council when requested.

E34.6.1.6. The discharge from the application of agrichemicals for biosecurity purposes into the air, onto or into land and/or into water

- (1) The application of agrichemicals for biosecurity purposes must be in accordance with the Biosecurity Act 1993.
- (2) A copy of the public notice or declaration given by the responsible minister must be provided to the Council at least 48 hours prior to any application occurring, and the Council is advised of all of the following:
 - (a) organism to be eradicated;
 - (b) principal actions that are to be taken in the attempt to eradicate the organism;
 - (c) geographical area of the intended application;
 - (d) duration of the application;
 - (e) name of the agrichemical to be used;
 - (f) rate and method of application;
 - (g) details of all safety precautions that will be taken; and
 - (h) the name and contact phone number of those carrying out the application.

E34.7. Assessment – controlled activities

There are no controlled activities in this section.

E34.8. Assessment – restricted discretionary activities

There are no restricted discretionary activities in this section.

E34.9. Special information requirements

There are no special information requirements this section.