

Guidelines for managing leftover spray mixes, rinsings and washings from agricultural spraying

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These guidelines are provided to Tasmanian farmers, spray contractors and other users of large quantities of agricultural chemical products as advice on acceptable practices for dealing with leftover spray mixes, rinses and washings from spraying operations. The guidelines do not apply to the disposal of chemical concentrates or to empty drums and containers. For information on specific disposal advice or related programs such as *drumMUSTER* and *ChemClear*, contact the Environment Division of DPIPW on 6165 4599. While these guidelines offer some practical disposal options, it is expected that spraying operations will be well planned and managed to minimise volumes of leftover spray mixes. .

Large quantities of unwanted (leftover) spray mix

Situation – more than 20 litres of mixed spray left over, or a spray mix cannot be applied because of bad weather conditions.

Options for disposal

1. If the spray mix may be used at a later date -

Transfer the dilute spray to a holding tank or container and ensure that the tank or container is clearly labelled with the name of the chemical(s), its dilution rate and the date it was mixed. If the chemical is intended to be stored for a substantial period, you should check with the manufacturer to ensure it is suitable for use after that period of time.

2. If storage for later use is not appropriate -

Either

Transfer the dilute spray to a holding tank and then treat it with hydrated lime (this helps break down many active constituents). It is recommended that 10 kilograms of hydrated lime should be added per 1,000 litres of spray mix. The holding tank should be appropriately labelled with the name of the chemical(s) and the date of the hydrated lime treatment.

After at least one month, spray or disperse the treated spray onto suitable land at a maximum application rate of 5,000 litres per hectare; being careful to avoid drift, run-off or ponding. Nozzles should be removed from agricultural boomsprayers to avoid clogging.

Or

Transfer the dilute spray to a holding tank and then treat it with hydrated lime (this helps break down many active constituents). It is recommended that 10 kilograms of hydrated lime should be added per 1,000 litres of spray mix.

Small quantities of unwanted (leftover) spray mix

Situation – less than 20 litres of mixed spray left over, or it is necessary to flush out the spray tank when the pump is unable to collect the last few litres of spray.

Options for disposal –

3. Dilute the spray mix to 10% with water. Apply to the crop or site that has been previously sprayed while travelling at a faster speed than normal.
4. Process in the same manner as described in the previous section for large quantities.

Washdown and decontamination of spray tank and boom

Wash down and decontaminate spray tank and equipment at a designated washdown area.

Options for Disposal

1. (preferred option) Pump rinsates and washings to a holding tank or container and ensure the tank or container is clearly labelled to show the name of the chemical(s) and that it is dilute rinsate. Do not mix with other chemicals or rinsates, unless of the same chemical. Use rinsate as make-up water for upcoming loads of identical spray mixes.

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2. Drain washings and rinsates directly to a disposal pit and treat with hydrated lime at the rate of 10kg of lime per 1000 litres of solution, or treat in accordance with the product manufacturer's advice.

Definitions and Descriptions

1. Holding Tank

A holding tank should be a plastic or metal tank above or below ground that can be easily drained or pumped out.

2. Suitable Land

The land should be –

- Elevated and either flat or gently sloping.
- Well-drained loam or sandy clay soil, high in organic matter with at least 1.5 metres of unfractured, compacted clay covering any possible ground water.
- Located so as to avoid contamination of waterways (eg. streams, lakes, dams) but at least 50 metres away from waterways.
- Covered with some vegetation, noting that insufficient breakdown or insufficient dilution may kill off such vegetation.
- Signposted indicating the purpose for which the land is being used and securely fenced off with a locked gate to keep out people, livestock and wildlife.

* Please note that if you do not own the land, then written permission must be obtained from the owner BEFORE its use for this purpose. Full details must be given to the owner about the proposed use, as described in this document.

The land must not be –

- Land which might later be used for cropping or grazing livestock or as a building site.
- Within a town boundary.
- Within 50 metres of a property residence and not within 100 metres of a neighbouring residence.
- Within 5 metres of pasture that is to be grazed or cut.
- Within 25 metres of crops or areas where livestock are kept.
- In a damp or flood prone area.

Disposal Pit

A disposal pit should be constructed in a manner that exposes the waste liquid to sunlight and micro- biological activity; each of which assist the breakdown processes. (See *diagram for typical design*).

Location of Pit

- Outside any town boundary.
- On elevated and either flat or gently sloping land away from any damp or flood-prone area.
- In an area where there is at least 1.5 metres of compacted, unfractured clay covering any possible ground water.
- Located to avoid contamination of waterways and at least 50 metres away from any waterway.
- More than 50 metres from any residence on the property and 100 metres from any neighbouring residence.
- More than 10 metres from crops or from areas where livestock are kept.
- In a secure fenced off area with locked gate to keep out people, livestock and wildlife.
- Away from any area that might later be used for cropping or grazing livestock or as a building site.

Pit Design Criteria

- Shallow and uncovered (no more than 500 mm deep) to assist in evaporation.
- Lined with concrete or a chemical resistant plastic membrane or 1.5 metres of compacted, unfractured clay.
- Of sufficient capacity to hold the waste liquids and to allow for rainfall which may enter the pit.
- Mounded or bunded to prevent the entry of sheet storm water flow.
- Signposted to indicate the purpose for which the pit is used.

Decommissioning of Pit

When the pit is no longer required it should be filled with organic compost, such as vegetation and manure, and then covered with clay. The site must continue to be signposted as having been used for spray disposal.

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3. Designated Washdown Area

The washdown area should be -

- Located on elevated and either flat or gently sloping land.
- Located in an area with 1.5 metres of compacted, unfractured clay covering any possible ground water.
- Located to avoid contamination of waterways (eg. streams, lakes, dams), but at least 50 metres away from waterways.
- Either –
 - a) Surrounded by bunding (mounds) constructed of compacted, unfractured clay or concrete at least 300 mm high in which to collect washdown material, or
 - b) Constructed as a concrete pad or gravelled area over compacted clay and drained to a disposal pit.
- Signposted to indicate the purpose for which the pit is being used.
- In a secure fenced off area with locked gate to keep out people, livestock and wildlife.
- Regularly treated with hydrated lime, or treated in accordance with the product manufacturer's advice.

The washdown area must not be -

- In an area which might later be used for cropping or grazing livestock or as a building site.
- Within a town boundary.
- Within 50 metres of a property residence or within 100 metres of a neighbouring residence.
- Within 10 metres of crops or areas where livestock are kept.
- In a damp or flood prone area. (See *diagram for typical design*).

Record Keeping

Keep a written record of the chemicals disposed at a particular site in a logbook and ensure the site is clearly marked or signposted. This will help to prevent any future inappropriate use of the area.

Relation to acts, regulations and other codes

These guidelines do not remove or alter any obligation or requirement under any Act or Regulation or alter the need to comply with other Codes of Practice or industry guidelines.

Where greater distance limitations are specified in regulations or other approved Codes of Practice those greater distances apply.

The Tasmanian legislation regulating the use of agricultural chemicals is the *Agricultural and Veterinary (Control of Use) Act 1995* and the *Agricultural and Veterinary Chemicals (Control of Use) Regulations 1996*. Other relevant legislation includes:

- *Environmental Management and Pollution Control Act 1994*.
- *Workplace Health and Safety Act 1995*.
- *Dangerous Goods Act 1998*.