

# Guidelines for managing the disposal of pesticide rinsate

The inappropriate disposal of pesticide rinsate can harm people and the environment.

These guidelines provide guidance on acceptable practices and disposal options for pesticide rinsate.

## What is pesticide rinsate?

Rinsate is a mixture of pesticides diluted by water, solvents, oils, commercial rinsing agents or any other substances. It is produced from cleaning pesticides application equipment or pesticides containers.

Rinsate does **not** include:

- unused pesticides in chemical containers
- unused spray mix
- sheep and cattle dips
- post-harvest dips
- hydroponic solutions.

## Key points

1. Avoid producing rinsate in the first place.
2. If possible, use a commercial spray contractor who deals with waste disposal as part of their service to dispose of the pesticide rinsate.
3. Reuse rinsate generated from cleaning containers by adding it to the spray tank.
4. For boom sprays with a rinse tank, the main tank and spray lines can be flushed at the application site, provided that label rates are not exceeded.
5. If the rinsate cannot be sprayed on the application site, store it in a holding tank and arrange for a licensed waste disposal contractor to collect it.

## Who are these guidelines for?

These guidelines are relevant for users of pesticides in NSW, including:

- those involved in broadscale agriculture
- those involved in large scale horticulture
- small scale growers or market gardeners, excluding those involved in hydroponic activities
- those involved in major horticulture such as race course and golf course maintenance
- those involved in smaller scale horticulture such as parks and garden maintenance.

## The environmental effects of rinsate

While rinsate is usually a very diluted pesticide mixture, it must be disposed of responsibly. Some pesticides can be very damaging to the environment, particularly to aquatic life, even at very low concentrations. Rinsate should not be disposed of where it can damage sensitive vegetation or move into waterways.

Never dispose of pesticide rinsate down drains, toilets, sinks, gully traps, gutters and stormwater drains, or on roadsides and kerbs, or in waterways. Remember that in NSW you can be prosecuted for allowing pesticides to pollute waters.

Disposal of chemical concentrates, or empty drums and containers, is outside the scope of this guide. In the first instance, always refer to the product's label for any special instructions. For information on specific disposal advice, contact:

- **drumMUSTER** for the collection and recycling of agricultural and veterinary chemical containers – phone 1800 008 707 or visit [www.drummuster.com.au](http://www.drummuster.com.au), or
- ChemClear® for the collection and safe disposal of unwanted agricultural and veterinary chemicals – phone 1800 008 182 or visit [www.chemclear.com.au](http://www.chemclear.com.au).

## Ways of managing the environmental risks associated with rinsate

There are a number of options when it comes to disposing of pesticide rinsate:

1. Do not produce rinsate in the first place. For small scale horticulture, it may be possible to use ready-to-use products that do not require dilution and are packaged in product dispensers such as trigger or hose packs.
2. Use a commercial spray contractor who deals with wastes as part of their service. If you engage a spray contractor, specify in the contract who is to provide the pesticide and dispose of the rinsate from the container(s), as well as whether or not the spray rig will be flushed on-site or back at the contractor's base.
3. If you generate rinsate from cleaning containers, reuse it by adding it to the spray tank.
4. Dispose of rinsate at an authorised waste depot or via a waste contractor.

Always follow the product label for directions on the management and disposal of rinsate.

More information on the management and disposal of pesticide rinsate is provided in the following sections.

### Substitution

Careful consideration and choice of product can reduce potential adverse effects associated with the disposal of rinsate.

Before beginning a spray job, consider if the intended pesticide can be substituted for one with a lower environmental impact. This step should be part of the initial risk assessment.

If possible, avoid pesticides which:

- have long half-lives in soil, i.e. more than 10 days
- are susceptible to leaching and thereby moving into water bodies or the root zones of nearby sensitive vegetation
- are toxic to both plant and animal aquatic organisms.

For guidance in the choice of pesticides consult the ecological section of a pesticide's Material Safety Data Sheet, and the restraints, plant back periods and environmental protection statements on the label of a pesticide.

### Reduction

Mixing and applying the correct amount of pesticides results in a more cost effective pesticide operation with a lower risk to the environment and human health. Careless preparation can result in excess spray mix that can be difficult and costly to dispose of.

- When planning a spray job, calculate the size of the application area and check the label to determine the correct rate of application for the pest or crop. Use this information to determine the amount of spray mix you need.
- Keep application equipment properly calibrated and in good repair.
- Calibrate equipment using clean water.
- Measure pesticides and diluents accurately to avoid improper dosing, preparation of excess or insufficient mixture, or preparing a tank load of mixture at the wrong strength.
- Correct measurement will keep you in compliance with the label; reduce risks to applicators, farm workers, and the environment; and save money.

## Recycle and re-use

Triple-rinse empty pesticide containers and transfer the rinsate to the spray tank.

When sprayer tanks seem empty, the spray rigs they are connected to usually contain 10–30 litres or more of spray mix in the tank sump, spray lines and filters.

Sprayers should be flushed immediately after spraying is finished to ensure pesticides do not settle to the bottom or cause rapid corrosion in the spraying system. Some boom sprays come equipped with a rinse tank containing sufficient water to flush the main tank and spray lines. If a flush is done at the spray application site, it may be sprayed out at the site provided the label rate is not exceeded.

Ensure that any rinsate resulting from flushing equipment is applied on land away from surface water, water bodies, gardens, shelterbelts and other environmentally sensitive areas.



*Boom spray*, NSW Department of Primary Industries

*Boom spray with rinse tank and clean water tank*, Mark Scott, NSW Department of Primary Industries

Always consult the product label for advice, as further decontamination with a neutralising agent may be needed, in which case the rinsate must not be sprayed onto the field.

If the rinsate cannot be sprayed onto the field, store it in suitable containers and arrange for a licensed waste disposal contractor to collect it.

## Unwanted pesticides concentrates

Despite good management, you may have pesticide concentrate or ready-to-use pesticides that you need to dispose of. Never dilute an unwanted concentrate to dispose of it as diluted pesticide waste. Instead:

- ask your supplier if they will take back any unwanted unused pesticides that are packed, labelled and of good quality
- dispose of the pesticides through a registered carrier and a licensed waste disposal facility.

## Frequently asked questions

### *How do I dispose of unused pesticide concentrate?*

Contact the ChemClear® program on 1800 008 182 or at [www.chemclear.com.au](http://www.chemclear.com.au)

### *How do I dispose of sheep, cattle and post-harvest dips?*

Under the new labelling code being introduced by the Australian Pesticides and Veterinary Medicines Authority, there will be separate disposal instructions for registered dips in the general instructions on the label, under the heading 'Disposal of used dip'. Some labels already include dip disposal instructions.

### *What do I do with a large quantity of leftover spray mix?*

Sometimes a spray job may be interrupted by a change in the weather. Some mixtures left in spray tanks can be reused within 24 hours if they are well agitated before being sprayed. Check the pesticide's label for reuse options.

Other mixtures can be pumped into suitable empty drums to be stored for future use. Ideally, the drums should be those that contained the concentrate. Whatever drums are used, they should be of the same material as the original concentrate container and thoroughly clean with no trace of their previous chemical contents.

Drums containing spray mix should be labelled with the date, product name, use pattern and poison scheduling, and suitably segregated in a chemical store.

### *How long can I keep spray mixes?*

The length of time spray mixes can be kept depends on the nature of the pesticide formulation, water quality and storage temperatures. Suspensions and emulsions, once mixed, do not keep. Other formulations break down quite quickly in alkaline water or are absorbed in soil in dirty water. Temperatures above 30°C or below freezing are not suitable for storing mixtures for any length of time. Contact the manufacturer for advice.

As a general rule, do not recycle unused spray mix that has been stored. While recycling may be environmentally sound, it carries the risk of loss of efficacy and crop damage. A spray failure or extensive crop damage will usually turn out to be more expensive than responsibly disposing of the spray mix.

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Further information on chemicals and pesticides is available at [www.environment.nsw.gov.au/pesticides/](http://www.environment.nsw.gov.au/pesticides/)

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