

PIRSA

Code of Practice

Summer Weed Control

Spray drift from summer weed control is a serious threat to sensitive crops.

Ongoing spray drift damage risks additional regulatory restrictions to important summer herbicide products.

Objective

To provide a standard for the safe and effective application of herbicides for summer weed control.

To minimise the risk of off-target damage to grapevines and other susceptible plants from droplet and vapour drift of herbicides.

Recognising a surface temperature inversion is critical

Do not apply summer herbicides in inversion conditions. These conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise. If temperature inversion conditions develop while spraying, spraying operations must cease.

A surface inversion is likely to be present if:

- mist, fog, dew or a frost have occurred
- smoke or dust hangs in the air and moves sideways, just above the ground surface
- cumulus clouds that have built up during the day collapse towards evening

- wind speed is constantly less than 11km/hr in the evening and overnight
- cool off-slope breezes develop during the evening and overnight
- distant sounds become clearer and easier to hear
- aromas become more distinct during the evening than during the day.*

Wind speed and direction

Recording weather details is a legal requirement for all Group I herbicides in South Australia and for other summer herbicide products if required by their label direction.

Spray when the wind is blowing away from any nearby susceptible plants/crops. Do not spray when there is little or no wind.

Be aware that sea breezes can move chemicals many kilometres from their source and then deposit them directly into inland regions or into inversion layers that are forming, or have already formed inland.

Read the label: 2,4-D has mandatory label instructions to apply between 3 and 15km/hr wind speed. For all other products apply as per label instructions.

Monitoring and record keeping

Monitor and record on-site weather conditions (wind speed, wind direction, temperature and relative humidity) at the start and finish of spraying and at least for every load during spraying. It is a legal requirement to keep records in accordance with label instructions



and for all Group I herbicides in South Australia.

Examples templates and information:
pir.sa.gov.au/biosecurity/rural_chemicals

Equipment and products

Use nozzle types and operating pressures that maintain a very coarse spray quality, or larger. An extremely coarse spray quality is recommended where a glyphosate, MCPA or 2,4-D product is use.

For 2,4-D it is a legal requirement that spray quality must be very coarse or larger. Label directions for 2,4-D now recommend extremely coarse or larger spray quality for the period 1 October to 15 April.

With other products, when using smaller than extremely coarse spray quality select adjuvants that do not increase the drift potential, such as LI 700 Surfactant or similar emulsion adjuvant.

It is critical to get the entire combination of droplet size, boom height and travel speed right. Even small changes in any or all of these elements can significantly increase the number of fine droplets produced and the subsequent spray drift risk.

*Information from GRDC Fact Sheet: *Surface Temperature Inversions and Spraying* (July 2014)

Booms should be no higher than 50cm above the top of the target weeds or stubble. This is a legal requirement for 2,4-D applications.

Travelling over 18km/hr when spraying is not acceptable unless boom height is never more than 50cm above the target weed or stubble, using very coarse spray quality or larger at the target, and no inversion conditions exist.

Between 1 October and 15 April use nozzles that produce extremely coarse to ultra coarse spray quality.

Spray timing

Spray during the day wherever possible. Vertical mixing of the air makes surface temperature inversions unlikely.

Do not spray from 1½ hours before sunset until 1½ hours after sunrise, unless there is no surface temperature inversion.

A lack of suitable weather conditions is not an excuse for spraying in unsuitable conditions.

Do not spray in times of calm wind conditions or when there is a risk of a surface temperature inversion.

Group I chemical regulations for record keeping, training and exclusions

Commercial users applying Group I herbicides must keep accurate and comprehensive records which are completed within 24 hours of application and retained for a minimum of two years.

They **must** hold, as a minimum, a current statement of attainment for a prescribed

qualification incorporating the competency 'Prepare and Apply Chemicals' (AHCCHM303).

This competency requirement forms part of the current Australian Quality Framework suite of prescribed chemical training courses offered by accredited training providers.

All arable cropping land within South Australia falls under the regulations excluding the District Councils of Cleve, Elliston, Franklin Harbour, Kimba, Le Hunte, Streaky Bay, Ceduna, Whyalla, Port Augusta and Flinders Ranges.

Read the label and follow instructions

It is an offence under the *SA Agricultural and Veterinary Products (Control of Use) Act 2002* to contravene a mandatory instruction on the approved label of a registered agricultural chemical product.

Contact

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This Code of Practice was developed in consultation with the Mid North Spray Drift Committee. It is based on the best information currently available (November 2018). Biosecurity SA reserves the right to amend this Code of Practice as new information on climate/herbicide interactions becomes available.

