In October 2018 the Australian Pesticides and Veterinary Medicines Authority (APVMA) issued a new set of instructions relating to the use of all 2,4-D products. This permit was renewed in October 2019. It applies to any person using these products. The instructions were issued via APVMA permit 87174 and are designed to minimise the risk of spray drift, particularly as 2,4-D products have been linked to significant spray drift damage across Australia.

SUMMARY
This brochure highlights key elements of permit 87174. Please read the full permit before using 2,4-D. Other permits have been issued that relate to the use of 2,4-D via specific equipment. Refer to the APVMA permit database on their website for more information.

Only spray when the weather conditions are right
The permit states the following:
‘DO NOT apply unless the wind speed is between 3 and 15 kilometres per hour at the application site during the time of application.’

‘DO NOT apply if there are surface temperature inversion conditions present at the application site during time of application. These conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.’

This means you cannot:
• Spray when the wind is either too still (below 3km/h) or too strong (above 15km/h).

• Spray when a surface temperature inversion is present. These may be present during daylight hours but are almost always present at night.

Spraying 2,4-D contrary to these statements creates a risk of damaging or contaminating neighbouring crops, livestock or the environment (which in some circumstances could be many kilometres away); wasting money by having the chemical drift off the target area and breaking the law.

Use the right buffer zone
If any sensitive sites are downwind of the target area where 2,4-D will be sprayed, a mandatory buffer zone from the sensitive site may be required.

The following categories are listed as sensitive sites in the permit:
• Aquatic - aquatic and wetland areas including aquacultural ponds, surface streams and rivers,
• Terrestrial - sensitive crops, gardens, landscaping vegetation, protected native vegetation and protected animal habitat.

The size of the buffer distance is determined by:
• Whether you are applying the product by boom or aerial spraying,
• When aerially spraying, whether you are using a 3m (or lower) or 5m (or lower) release height,
• What 2,4-D formulation you use e.g.300g/L as the IPA salt, 500g/L as the DMA salt,
• What application rate you use, and
• The crop or situation you use the product in.

The permit groups the different 2,4-D formulations together in various tables using shorthand language (e.g. IPA salt). Check the formulation by checking the active constituent listed on the label and using the following guide:
• IPA salt – isopropylamine salt
• DMA salt – dimethylamine salt
• DEA salt – diethanolamine salt
• MMA salt – monomethylamine salt
• EHE – ethyl hexyl ester
You must check the permit to ensure you use the correct downwind buffer zone.
Achieve the right droplet size

The permit states ‘DO NOT’ apply with spray droplets smaller than VERY COARSE according to the ASAE S572.1 definition for standard nozzles.’

ASAE S572.1 refers to the American Society for Agricultural and Biological Engineers (ASABE, formerly known as ASAE) nozzle classification standard. The following chart explains the different nozzles sizes:

![Spray quality: ASABE standard S572.1 describes the range of droplet sizes produced by a nozzle at a particular pressure. (Colours assigned to spray quality are NOT related to colours assigned to nozzle size.]

Most nozzles can produce several spray droplet sizes depending on how the sprayer is set up and operated. Talk to your agronomist or chemical reseller to check whether you can achieve ‘very coarse’ droplets, or otherwise search online for resources such as the GRDC Nozzle Selection Guide.

The new permit 87451 also provides additional guidance to aerial operators on how to comply with the mandatory droplet size requirements.

Keep the right records

The permit states that the following records must be made within 24 hours following use and kept for 2 years:

- Date of use,
- Start and finish times of spraying,
- The specific location sprayed, including address and paddock/s sprayed,
- Full product trade name,
- Application rate – which must include the amount of product used per hectare and number of hectares applied to,
- Situation, crop or commodity sprayed,
- Wind speed and direction,
- Air temperature and relative humidity,
- Nozzle brand, model, size and type,
- Pressure of sprayer measured during application,
- If applicable, the height of spray boom from the ground, and
- Name and contact details of the chemical user

Please note that other 2,4-D permits may require additional records to be kept such as GPS coordinates.

In Victoria the following must also be kept if they apply:

- The name and contact details of the person supervising spraying, and
- The name and contact details of the person for whom spraying was carried out.

Agriculture Victoria has produced a record-keeping template that covers both sets of records. This can be downloaded from the Agriculture Victoria website.

What about the advisory statements?

The permit contains advisory statements for people applying 2,4-D via boom sprayers in cereals, fallow or pasture between 1st October and 15 April each year, including:

- Use nozzles that produce Extremely Coarse (XC) to Ultra Coarse (UC) droplets,
- Use higher water rates per ha to give better efficacy, and
- Use slower application speeds to allow operators to lower boom heights.

These advisory statements have been included at the request of industry and provide guidance on how to be extra cautious when managing spray drift. The advisory statements are not legal requirements in Victoria but describe best practice that should be followed to minimise the risk of spray drift during the stated time of year.

Where did these instructions come from?

The APVMA has used a computer model to predict how far 2,4-D will drift. The model uses a series of assumptions about the use of 2,4-D and has generated the instructions on the permit that address how to avoid spray drift. 2,4-D users have also had input into the model via their industry bodies.

What is the future of the permit?

The APVMA is conducting a broader review of 2,4-D products. As such, the permit is an interim measure until the review is finalised. It is anticipated in future that the instructions contained in the permit will be included on product labels, however users will need to wait until the review is finalised. The timeline for the APVMA finalising their review is currently unknown.

ACCESSIBILITY

If you would like to receive this publication in an accessible format, please telephone Department of Jobs, Precincts and Regions on 136 186 or email customer.service@ecodev.vic.gov.au

This document is also available in (Word) format at www.agriculture.vic.gov.au