Summary of APVMA 2,4-D new general instructions

In September 2020 the Australian Pesticides and Veterinary Medicines Authority (APVMA) issued a Special Gazette cancelling or suspending the labels of most 2,4-D products, as well as outlining the new general instructions for 2,4-D use.

This follows on from initial instructions issued in October 2018. The new general instructions 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. They apply to any person using a 2,4-D product with a cancelled or suspended label.

SUMMARY

This brochure highlights and summarises key elements of the new general instructions. It is important to read the full APVMA Special Gazette, https://apvma.gov.au/node/74151, before using any 2,4-D product. APVMA permits have also 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 new general instructions state 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 as well as 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 could be required.

The following categories are listed as sensitive sites in the new general instructions:

- 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
- the crop or situation you use the product in.

The new general instructions group 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 new general instructions to ensure you use the correct downwind buffer zone.

Achieve the right droplet size

The new general instructions state '**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 nozzle sizes:

Spray quality: ASABE standard 572.1 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.)

UC	XC	VC	C	M	F	VF
Ultra coarse	Extra coarse	Very coarse	Coarse	Medium	Fine	Very fine

Very good drift control ⟷ Poor drift control

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 general instructions also provide additional guidance to aerial operators on how to comply with the mandatory droplet size requirements.

Keep the right records

The new general instructions state that the following records must be made within 24 hours following use and kept for two 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
- Name and contact details of the chemical user.

Please note that APVMA 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
- 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 at agriculture.vic.gov.au/recordkeeping.

What about the advisory statements?

The new general instructions contain advisory statements for people applying 2,4-D via boom sprayers in cereals, fallow or pasture between 1 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
- 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 new general instructions 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 new general instructions?

As a result of the APVMA review of 2,4-D, all 2,4-D products will be updated to include the new general instructions for 2,4-D use. 2,4-D products bearing a suspended or cancelled label cannot be supplied or used from 1 October 2021.

Further information on the final regulatory decision by the APVMA can be found at https://apvma.gov.au/node/74156.

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