

Enquiries
Australian Pesticides and Veterinary Medicines Authority
PO Box 6182
Kingston ACT 2604

Phone: +61 2 6210 4701
Fax: +61 2 6210 4721



Voice of Horticulture

Suite 665, 585 Little Collins St
Melbourne, VIC 3000

M: +61 (0) 428 291 717

chair@voiceofhorticulture.org.au

Spray Drift Risk Assessment Manual Submission

Following our review of the consultation paper titled 'Spray Drift Risk Assessment Manual' as prepared by the Australian Pesticide and Veterinary Medicines Authority, dated December 2017; the general and specific comments outlined below are compiled for your reference by The Voice of Horticulture (VoH) to assist in the completion of an effective manual for the end user.

General Comments:

- a) Industry is most frustrated, concerned and disappointed, that we are nearly 10 years on from when APVMA released a revised version of the policy document 'APVMA Operating Principles to Spray Drift Risk' yet the issue of spray drift management is still far from resolved.

Industry, through the RDC's have made available substantial resources and funding to develop the necessary industry input and tools; yet there still seems to be a range of 'gaps' that are still to be finalised by APVMA.

Therefor there needs to be an immediate 'gap' analysis to determine what additional information and 'tools' are required to complete the job.

- b) While we appreciate the changing environment that APVMA has been working in over many years and the lack of sufficient resources available to resolve this matter, it has left industry chemical users in a 10-year vacuum.

There is a substantial amount of misinformation and/or lack of information in the horticulture section, leading to a high degree of confusion and frustration for producers and chemical users.

Examples of this: -

- Started with mandatory buffer zones and now we have both mandatory and advisory zones.
- The mandatory buffers used a figure of 300 metres and now there is no clear delineation of distance.

- Other agencies such as Local Government, State Agencies and planning agencies; are looking to use whatever mandatory distance is set by APVMA to impose development decisions. In the peri-urban/rural interface this will have disastrous consequences.

- c) We do accept that the consultation paper, as it does start to develop a structure for the APVMA and the chemical registrants to work with. Although, while the document is really not a tool for chemical users/growers it is far from 'user-friendly' for growers.

Going forward there will need to be a more simplistic set of guidelines that can be used by industry to detail relevant information to growers/chemical users.

- d) **The most valuable part of the Manual and the process of reducing off-target spray drift, is the Spray Drift Management Tool (SDMT). We strongly encourage APVMA to make this available to the horticultural industry and their members as a matter of priority and urgency.**
If achieving this requires additional resources, the Voice of Horticulture is willing to raise this with APVMA Management, the Department of Agriculture and Water Resources and the Minister.

Specific Comments:

In relation to the information within the consultation paper VoH makes the following comments:

- a) We do not believe the Manual adequately covers the issues of off-target spray drift and appropriate mitigation method for the horticulture industry, with particular reference to those industries that utilise 'vertical sprayers'. The Manual offers little in terms of new technology that assists horticultural chemical users.

While we accept that it is a constant challenge to find ways to minimise off-target spray drift more effectively, we are not convinced that the use of mandatory buffers will achieve real minimisation of the problem.

The buffer distance will be a tool used by relevant agencies and authorities to set boundary distances between horticultural production and other development.

- b) We believe that an effective Spray Drift Management Tool (SDMT) that has been proposed and partially developed will be a more effective 'tool' to manage off-target spray drift.

The SDMT, while yet to be fully tested and may require some improvements, we see this as a great resource for growers as it makes them consider all of the components of spraying and how by adjusting a nozzle or using a different droplet size they can better manage their spraying.

Industry believes that as a matter of urgency, the SDMT needs to be made operational and available for growers to utilise as a chemical application management tool.

While one of the end results of using the SDMT is to establish a reduced buffer distance, the industry believes there will be far greater value in it being a chemical application management tool for growers. The SDMT will become a useful training, educational and instructional tool.

- c) We agree that *'APVMA's past and current approach to addressing the risk of spray drift has a number of limitations including a lack of flexibility and an inability to adopt newer systems/technologies to reduce the risk of spray drift'*.

We are far from convinced that establishing mandatory buffers is either flexible or a new system. As indicated above, we do believe that the SDMT can become a more effective tool to reduce and manage spray drift.

- d) There are some concerns on the use of the term 'vertical sprayers'. While the definition in the glossary defines the spray application *'in a direction other than towards the ground'*, this is not highlighted anywhere else in the document. There are many forms of *'axial-flow airblast sprayers'* including vertical towers. The Manual uses the assumption that the previous terminology of 'orchard and vineyards' does not capture all situations

"As previously-used terminology of orchards and vineyards, etc. does not capture all situations where this equipment may be used (eg banana plantations, forestry plantations, asparagus crops, trellis tomatoes, etc.), the general term of 'vertical sprayers' has been adopted. Within the category of vertical sprayers, terminology has been aligned with the nature of the canopy which the 'Basic Drift Values' are based on to ensure all situations are captured (see Table 7)."

We would argue that the term 'orchard and vineyard' sprayers is a term that has been universally used and understood. Changing that to a new term like 'vertical sprayer' only complicates an already complex system.

Table 7 oversimplifies the situation and does not take into account the complexities within the horticultural industries and in particular tree crops.

Many orchard trees are far higher than 2 metres and spraying much larger trees require different equipment and techniques.

In some instance large plantations are looking to register chemicals with the ability for application via helicopters. Application in this is far different than applying to a broadacre crop of a limited height.

We would like to see a more universal term used for this large group of spray application equipment and a term that is easily recognised and understood by growers eg. ground sprayers, or revert back to 'orchard and vineyard' sprayers.

In addition, we believe that APVMA needs to undertake a much more detailed assessment of the German 'Basic Drift Values' and establish values more relevant to Australian conditions and circumstances.

- e) We are curious at the introduction of the phrase *'experienced chemical user'* (Page 5, Section 2.1.2. Mandatory buffer zones).

How does APVMA currently, or in the future, define what an ‘experienced chemical user’ can do? Is there training that makes an applicator an ‘experienced chemical user’ in comparison to a ‘normal chemical user’?

Surely under the training requirements set by the relevant agencies, all chemical applicators should be ‘experienced chemical users’. If not, then the regulatory and training system has failed and needs to be fixed with a high degree of urgency.

We find it most disappointing that APVMA would suggest that *‘mandatory buffer zones are established when it is unreasonable to expect an experienced chemical user can implement experiential risk management strategies that protect the relevant sensitive area’*.

Part of our regulatory and training systems should be about making chemical applicators fully aware of their surrounding circumstances and sensitive areas, and be capable of taking the appropriate action. If this is not the case then the regulatory and training systems have failed and needs to be amended with a high degree of urgency. Mandatory buffer zones are not the ‘silver bullet’ to solving the problems of ‘incompetent operators’.

- f) Within *Table 1: Type of buffer zone for different sensitive areas* (Page 8, Section 2.1.3. Buffer zones and sensitive areas) there is again reference the term *‘experienced chemical user’*.

APVMA have made assumptions that: -

“It is not reasonable to expect that an experienced chemical user can conduct a local area risk assessment of aquatic species (ie below the surface of water)...”

AND

“It is unreasonable to expect that an experienced chemical user can apply experiential risk management strategies when hazard is based on the protection of honey bees...”

YET

“it is reasonable to expect that an experienced chemical user can conduct a local area risk assessment of vegetation and determine that, for the chemical being used, no sensitive species are present. Experienced chemical users understand the difference between non-selective herbicides (that are likely to impact any vegetation when used in accordance with label instructions) and selective herbicides (that, when used in accordance with label instructions, are likely to only impact certain species or types of vegetation).”

YET

“It is reasonable to expect that an experienced chemical user can conduct a local area risk assessment for the protection of livestock trade.”



There is absolutely no consistency in these assumptions. If an experience chemical user can conduct a local area risk assessment of vegetation, why can they not make similar risk assessments for aquatic areas and hives of bees.

If APVMA is using the above assumptions on aquatic areas and bees as the basis for implementing mandatory buffer zones, then these assumptions are not acceptable to industry and should be removed.

- g) VoH support the premise that *'identified risks will be managed on a case-by-case basis using the manual as a starting point'*.
- h) We are curious at the introduction of the phrase *'landscaped garden'*.

For many, a 'landscaped garden' is something that has been designed and built by somebody with knowledge and experience in that area.

Personally, my garden is not a 'landscaped garden' instead a mix of plants with no real pattern or design. The term is out of place within the Manual.

There are a wide range of definitions for 'landscaped' eg.,

"a section or expanse of rural scenery, usually extensive, that can be seen from a single viewpoint"

OR

"to improve the appearance of (an area of land, a highway, etc.), as by planting trees, shrubs, or grass, or altering the contours of the ground."

While the glossary has a definition the defining of the term is not embodied into the manual.

We believe that the definition of 'landscaped garden' needs to be either embodied in the manual or in fact a more generic term be used.

In addition, there needs to be consistency in the use of the specific terms. For instance, on page 54 (in the case study) the follow has been used

"sensitive crops, gardens, landscaping vegetation..."

- i) We are most concerned that *'there is no currently validated predictive model for vertical sprayers'* to establish deposition curves. The use of 'Basic Drift Values' generated from field trials conducted in Germany in the 1990's is unacceptable.

This position was well known many years ago and it is disappointing that no resources have been allocated to the development of such a model.

As shown in both boom sprayers and aircrafts the model is the most basic yet essential tool in making sound scientific decisions yet for probably one of the largest group of sprayers we have no predictive model.

The lack of such a tool makes it near impossible for a grower to utilise the SDMT.

We would believe that the highest priority for APVMA is to establish an agreed and validated Australian predictive model for 'vertical sprayers'.

- j) As VoH understand, there are significant differences between the AgDrift ground deposition curves and the proposed APVMA AGDISP ground deposition curves.
Can APVMA confirm there is a difference in deposition curves between AgDrift and AGDISP?

Can APVMA confirm that in most cases a change to the APVMA AGDISP ground curves result in significantly larger buffer zones?

- k) While we understand the importance of the label for the correct application instructions, we are most concerned that the additional information proposed for buffer zones, both mandatory and advisory, will make the label even more complicated and difficult to interpret.

We believe that in this technical and digital age, there must be a better way of making all the necessary and essential information available in a better form.
We believe APVMA needs to investigate other options for making the buffer zone information available.

- l) While VoH understand that the SDMT model is going to be used by APVMA to put buffers relevant to the use of DRTs on certain labels and/or permits, we are most disappointed and frustrated at the delay in making the SDMT available for use by chemical users.

As detailed above we believe that SDMT model has far greater value to chemical users than just reducing buffers.

We would encourage APVMA to fast track the availability and use by chemical applicators, of the SDMT.

As we understand the State Agencies, who manage chemical application regulations, have not agreed to the SDMT model being used by growers to reduce mandatory buffers. This is of real concern and we believe will be a major barrier to the effective use of the SDMT model by chemical users.

If the SDMT was used as an effective 'training, educational and instructional tool' then the need for State Agency sign-off should not be required. This would allow chemical users the opportunity use the tool while the bureaucratic aspects of the legality of a new buffer, as prepared using the model, can be worked through.

There is an urgent need for the State Agencies to sort out the issues, to allow the SDMT model to be immediately made available to chemical users.

- m) APVMA indicates that a '*prototype SDMT will be used in the interim while a permanent web based tool is established*'.

How long does APVMA expect that it will take to develop and activate a ‘permanent web based tool’?

The Manual indicates that

“It is proposed that the web based tool will include a mobile version accessible through web browsers on smart phones or tablets. It is also proposed that an external interface be made available for industry to access and incorporate the SDMT into new or existing online services and mobile apps (eg as an add-on to record keeping systems, industry specific platforms, quality assurance systems, best-management-practice portals, etc.).”

As an organisation representing a large number of industries, we would reiterate our desire to have the SDMT fast tracked as a matter of priority and urgency.

n) The Manual states on page 45 that: -

“The National Working Party on Pesticide Applications are currently working on a project in relation to vegetative and artificial spray drift barriers. A draft implementation of barriers has been incorporated into the SDMT to demonstrate how this may be incorporated. Further work is required to finalise and validate the proposed analysis.”

As an organisation representing a large number of industries that are utilising vegetative buffers, VoH highly suggests that the work in relation to ‘vegetative and artificial spray drift barriers’ is fast tracked as a matter of priority and urgency. The use of such barriers have become and will become very important and valuable in the peri-urban areas and the urban/rural interface.

o) We are concerned that commercial in-confidence ‘custom deposition curves’ may have a restricted use. While we accept the need to protect data by the chemical registrants the information should not be restricted in such a way that a chemical user, using the applicable product, cannot access the deposition curves to use with the SDMT.

p) The manual has multiple occurrences of the link to the ‘Basic Drift Values’

“For vertical sprayers, the additional ‘Basic Drift Values’ for ‘Grapevine—early’ (canopies 2 metres and shorter with air assistance turned off) and ‘Hops’ have been used to establish additional SDMT deposition curves.”

This takes the reader to the following link: -

<https://www.julius-kuehn.de/en/application-techniques-in-plant-protection/fields-of-activity/drift-and-risk-reduction/>

Navigating the web site to find the relevant information is very difficult. It would be beneficial for APVMA to supply a more detail link, or in fact download the relevant information and attached it as an appendix to the Manual and/or on the APVMA web site.

q) We support the positions detailed by APVMA: -

“Use of the Spray Drift Management Tool (SDMT) does not permit the off-label use of products. Whilst higher rates, different application equipment, etc. can be selected in the SDMT compared to approved labels, a permit must be issued by the APVMA to first allow any off-label use pattern (unless state and territory legislation allows otherwise).”

“It is the responsibility of the chemical user to ensure that any practices, technologies or innovations specified in SDMT conditions for the product and use situation will be efficacious.”

VoH is aware of the National Working Party on Pesticide Applications (NWPPA) and in particular the work of the Technical Working Group (TWG). We understand that the TWG has raised a number of issues in relation to the modelling and we would encourage the APVMA to continue to work with both the NWPPA and the TWG to resolve the outstanding technical issues.

On behalf of the VoH, we thank you for the work undertaken in preparing the manual and appreciate that more work needs to be undertaken but we encourage APVMA to focus on those urgent issues that make the effective and efficient application of chemicals far easier for the end users.

If you require any further information or clarification, please do not hesitate to contact either Trevor Ranford (0417 809 172) or myself.

Yours faithfully,



Tania Chapman
Chair
The Voice of Horticulture.

Attachment The Members of The Voice of Horticulture



The Members of The Voice of Horticulture

Attachment 1

Members' Organisation
Australian Banana Growers Council
Australian Lychee Growers Association
Australian Mango Industry
Australian Melon Association
Australian Mushroom Growers Association
Australian Olives Association
Australian Processing Tomato Research Council
Australian Table Grape Association
Australian Walnut Industry Association
Avocado Australia Ltd
Chestnuts Australia
Citrus Australia
Custard Apples Australia
Hazelnut Growers of Australia
Nursery and Gardens Industry Australia
Onions Australia
Passionfruit Australia
Persimmon Australia Inc
Pistachio Growers Association
Raspberries and Blackberries Australia
Turf Producers Australia

