COTTON AUSTRALIA

Advancing Australian Cotton

Australian Pesticides and Veterinary Medicines Authority

PO Box 6182, Kingston ACT 2604

Via email: enquiries@apvma.gov.au

29 March 2018

Dear Sir/Madam,

APVMA's proposed approach to spray drift management

Introduction

Cotton Australia welcomes the opportunity to provide comment and, as the representative body, speak on behalf of cotton growers regarding the *APVMA's proposed approach to spray drift management 2018* (the proposed approach). Our responses are framed by the perspective of users of agricultural chemicals who operate within an agricultural industry known for being keen adopters of new technologies.

Spray drift is an issue of global significance and addressing this issue is essential to ensure the longevity of access to agricultural chemicals for Australian farmers. Damage associated with off-target movement of Group I herbicides is a particularly persistent threat to Australian cotton crops. Damage associated with off-target movement of herbicides annually extends across almost the entire cotton industry; from Southern Victoria to Central Queensland.

For the 2017-18 season, over 42,000ha of cotton was impacted by off-target movement of herbicides and almost certainly, this figure significantly underestimates the true scale of the problem. Direct drift was suspected to account for less than 12% of the overall damage.

Cotton Australia is broadly supportive of initiatives that deliver improved outcomes for the responsible use of agricultural chemicals and access to new technologies without compromising the ability of Australian farmers to implement successful crop and pest management strategies. The organization continues to work with other industry stakeholders, government agencies and local groups to achieve these outcomes.

We welcome the opportunity to speak on behalf of cotton growers on this issue.

Executive Summary

Cotton Australia broadly supports the aims of the proposed approach to deliver reasonable buffer; consistent and simplified label requirements; predictable and timely risk assessment; and flexibility for chemical users. The organisation considers that the proposed approach is a positive step towards mitigating risk for direct spray drift, improving awareness of nearby sensitive areas, improving awareness of best spray practice requirements, and providing incentives for the use of drift reduction technologies.

However, the relatively narrow initial focus for this approach in addressing direct drift does not sufficiently address overall risk for off-target movement. Extending the proposed approach to address other forms of off-target movement, including laminar flow under very stable atmospheric conditions, and more rigorously risk mitigation for downwind sensitive crops would deliver significant benefit to the Australia cotton industry. Additionally, recent events in the U.S.A. have highlighted that implementation of buffer zones does not sufficiently mitigate spray drift risk and thus, a more integrated approach may be required to address the underlying issues associated with off-target movement of agricultural chemicals.

Cotton Australia broadly supports the APVMA's science-based and risk-aligned approach for managing spray drift, recognizing that implementation of incentives for utilisation of spray drift reduction technology may play a small but significant role in addressing a widely complex issue around on-target application efficiency.

Regarding the APVMA's proposed approach to spray drift management, Cotton Australia recommends:

1. Consideration of buffer zones for sensitive agricultural crops where aligned with risk.
a. Further clarification regarding the proposed label terminology and recommendations.
b. Clarification for various aspects of the spray drift risk assessment tool.
c. Consideration of industry initiatives and programs as drift reduction technologies.
d. Delivery of a strong extension campaign to assist chemical applicators in understanding changed requirements with respect to label conditions and drift reduction technologies.
e. Certainty between stages 1 and 2 regarding the ability of chemical applicators to revise buffer zone requirements by using drift reduction technologies.

The response of Cotton Australia to the proposed approach is limited to the practical aspects of spray drift management and does not extend to the technical components of the models underpinning the Spray Drift Risk Assessment Manual. Instead, Cotton Australia offers support to the recommendations of the National Working Party for Pesticides Application in respect to the technical proficiency of the methodology used to determine Regulatory Acceptable Levels (RALs) and standard scenarios and deposition curves that define realistic worst-case situations and are used to generate on-label spray drift buffers.

Regulatory acceptable levels (RALs)

The proposed approach for determination of vegetation area regulatory acceptable levels (RALs) and associated buffer zones specifically excludes agricultural crops and thus significantly overlooks an important opportunity to address widespread damage to sensitive crops associated with direct drift.

The assessment that "*The most effective way to prevent damage and/or yield loss is to use appropriate equipment and only spray when the wind direction is away from sensitive agricultural crops or landscaped gardens"* is unlikely to sufficiently mitigate damage associated with spray drift to the level of rigour that is expected from the APVMA risk assessment process. Anecdotal evidence indicates that

damage inflicted on sensitive agricultural crops associated with spray drift is a complex issue underpinned by a variety of technical and social barriers to achievement of on-target application efficiency. As such, it is unlikely that a recommendation for simply using appropriate equipment and withholding spray based on wind direction is aligned with risk.

Cotton Australia strongly recommended that the APVMA reassesses the need for a robust system for mitigating risk associated with damage to non-Apis sensitive agricultural crops (including cotton) as part of the proposed approach for developing buffer zones. This reassessment should be undertaken with respect to standard APVMA approach to risk analysis:

1. Does the product pose a hazard to an area which requires protection?
2. Does the manner in which the product is applied pose a risk to an area requiring protection that it outside the target area?

On label spray drift instructions

Provisions to deliver label consistency and simplification are supported by Cotton Australia, to improve the ability of chemical users to interpret application requirements accurately and efficiently. These proposed changes should be accompanied by a program to streamline label conditions for like-products to ensure alignment with risk, and reassessment of the approach for record keeping and compliance.

Consideration of online tools to support complex labels will enable flexibility for rapidly responding to emerging issues, adjustment for new technologies or scientific advancement, and incentives for adoption of drift reduction technologies. This level of customisation may also assist in focusing the attention of chemical applicators to the label instructions that are relevant to their application needs and may aid in 'future-proofing' the labelling system whereby electronic labels may be required to drive automation.

Further clarification around the proposed label terminology is recommended:

a. Definition of the 'target' when setting boom height or release height, and whether this relates to the group, crop canopy, or weed height; and
b. Clarification for the level of rigour and assessment for 'experiential' risk management strategies to provide confidence that requirements referring to subjective assessment or ambiguous terminology can sufficiently mitigate risk and can be reviewed or addressed if they are deemed insufficient.
c. It should be specified where windspeed label requirements for risk mitigation relate only to daytime conditions i.e. *DO NOT apply unless the wind speed is between 3 and 20 kilometers per hour at the application site during the time of application*. Additional windspeed label requirements should be included for night time conditions to mitigate risk associated with movement under laminar flow, associated with stable atmospheric conditions overnight.
d. Provisions to ensure that chemical applicators can reliably determine nearby sensitive areas, particularly where this process is not automated. This is of particular concern for sensitive

pollination areas in situations where operators are unwilling or unable to share the location of managed hives.

e. Provisions should be considered to ensure users can reliably identify nearby sensitive crops to comply where the label states *DO NOT cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production outside the application site from spray drift*.
f. Provisions should be considered to ensure that chemical users can identify whether surface temperature inversion conditions are present to comply where the label states *DO NOT apply if there are surface temperature inversion conditions present at the application site during the time of application*.
g. Clarification regarding the term 'observed' and clarification for what constitutes 'observing' a drift reduction technology (DRT) in terms of enforceability where the label states, *DO NOT apply from boom unless DRTs are observed*.

Spray drift risk assessment tool

Cotton Australia strongly supports the implementation of a transparent and predictable process for DRTs flagged for consideration or review, and recommends the following DRTs for initial assessment:

- myBMP; the cotton industry's best management practice program which includes specific drift mitigation activities including identification of sensitive areas, and pesticide application plans.
- The CottonMap and BeeConnected online platforms for identification of nearby sensitive areas.
- Shielded, hooded, or low-release sprayers
- Real-time assessment and alert tools for changing weather conditions and spray quality risks
- Planted vegetative spray drift buffers

Cotton Australia strongly recommends that introduction of the proposed approach (stages 1 and 2) is accompanied by a strong extension campaign to assist chemical applicators in understanding changed requirements in respect to label conditions and drift reduction technologies. Requirements associated with the proposed approach should also be considered for integration in nationally recognised training packages that deliver outcomes associated with responsible chemical use.

The proposed time delay between stages 1 and 2 of the proposed approach are of considerable concern in respect to creating uncertainty or inflexibility for chemical applicators. It is strongly recommended that robust interim measures are applied to ensure that chemical applicators can practically achieve the buffer zone requirements for in stage 1. Certainty is also required where the proposed approach interacts with the permit system, or where existing chemistries are currently under review.

Further clarification is sought regarding the following aspects of the spray drift risk assessment tool:

a. Whether the methodology sufficiently accounts for the field-observed upper limits for boom release height, where release heights may exceed 1.2m.

b. The rights of producers in instances where the spray drift risk assessment tool determines a buffer that differs from label requirements, thus resulting in product application 'contrary' to the label.
c. How planted native vegetation buffers will be assessed as both a vegetation area or a DRT.
d. How the spray drift management tool will be reliably accessible in regional, rural, or remote areas.

Conclusion

The APVMA's proposed approach for spray drift mitigation is positioned to deliver positive outcomes associated with spray drift mitigation, awareness of sensitive areas, improved awareness of best practice requirements, and incentives for the use of drift reduction technologies. However, the focus of this approach should be extended to develop a holistic approach to spray drift management including consideration of spray drift risks associated with sensitive agricultural crops, and non-direct drift.

Further consultation with Cotton Australia is welcomed regarding the implementation of the proposed approach to ensuring that spray drift management tool is practical and robust to ensure on-target application efficiency, while not hindering the ability of cotton farmers to manage crops, pests, weeds, and diseases.

Cotton Australia would welcome an opportunity to provide further information on its position. For more information, please contact Nicola Cottee, Policy Officer, Research Direction & Stewardship on (02) 9669 5222 or nicolac@cotton.org.au.

Yours sincerely,

Nicola Cottee

Policy Officer, Research Direction & Stewardship

Cotton Australia