



Deputy Director Brian Oakey
Idaho State Department of Agriculture
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Submitted via email to: Brian.Oakey@isda.idaho.gov

October 7, 2020

Re: IDAPA 02.03.03 – RULES GOVERNING PESTICIDE AND CHEMIGATION USE AND APPLICATION

Dear Mr. Oakey:

Thank you for engaging our concerns during this rulemaking process. We want to thank ISDA for retaining wind speed restrictions, expanding the definition of hazard areas to include schools and hospitals, and defining and prohibiting pesticide drift in the chapter.

There is one specific concern we would like to raise in relation to the proposed rule. We hope further action can be taken to address this concern before the final rule is released. We request additional action be taken to add specific protections for hazard areas. This topic was addressed in the proposed rule analysis, though our organizations are of the opinion that the drift prohibition should not be thought of as an adequate replacement for specific hazard area protections that were removed.

Due to proposed removal of the APPLICATION NEAR HAZARD AREAS section, no express protections for hazard areas remain other than what is included in the PHENOXY HERBICIDE RESTRICTIONS section. In addition to these herbicides, we ask that two other classes of pesticides be named because of the risks they pose to human health—organophosphate and pyrethroid insecticides.

Although the analysis concluded the drift prohibition provides ample protection, it is important to maintain distinction between hazard areas and non-hazard areas. Hazard areas warranted special consideration prior to this rulemaking, and the Department identified that adding schools and hospitals to the definition of hazard areas was warranted because of the increased risks pesticides pose to children and people seeking medical treatment.

Without specific protections for hazard areas, there is effectively no increased protections provided. We do believe this was not the intention of the Department. We offer suggestions on how this could be done as well as an extended explanation as to why this concern should be addressed. Specifically addressing the risk of organophosphate and pyrethroid exposure is of paramount concern following the publication of a BSU study that found metabolites of these pesticide classes in the urine of women employed as farm workers in Southwest Idaho¹.

Thank you for your time and consideration in ensuring additional action be taken to add specific protections for hazard areas.

Sincerely,

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¹ https://drive.google.com/file/d/1E8hM73_43Od5Nhd4W6iDgS5ssrl6Xeul/view

Expanded Explanation and Suggestions:

The definition of hazard areas provided in the chapter includes “cities, towns, subdivisions, schools, hospitals, or densely populated areas”. All of these terms refer to locations that warrant increased consideration to protect human health. In comparison, the drift prohibition does not make any mention of the increased risk certain commonly used pesticides pose to human health, thus it has a more general focus. Following the recent BSU biological monitoring study of women employed as farm workers, it is clear that more guidance should be given to applicators to prevent exposure of organophosphates and pyrethroids. We are proposing that this be done by reinserting the APPLICATION NEAR HAZARD AREAS prohibition or by creating new language that specifically names organophosphates and pyrethroids insecticides.

The clearest and most profound reason for doing this is to increase protections for schools. Schools are specifically protected under the expanded definition of hazard areas because of childrens’ sensitivity to pesticides. Research has suggested that even low levels in of either organophosphates or pyrethroids insecticides can affect young children’s neurological and behavioral development, with casual links to decreased physical and mental development². This is because organophosphates and pyrethroids target the nervous system of insects and in humans are known to cause significant reductions in acetylcholinesterase (AChE) activity in the central and peripheral nervous system. The long term impacts are still being studied and several specific pesticides in these two classes are actively being reviewed by the EPA. Providing guidance to applicators in Idaho would help address the real world risks that have recently been identified among Latina farm workers in Southwest Idaho.

There are numerous schools in Idaho that are at risk of being drifted on by these pesticides, which are widely used to control insect pests in many of Idaho's prized agricultural exports. Before the APPLICATION NEAR HAZARD AREAS section was removed, there was guidance for applicators to prevent drift which included a ½ miles setback from hazard areas unless the wind was blowing in the opposite direction. Although the analysis of the proposed rule includes the justification that because a drift prohibition was created specifically to cover areas of stakeholder concern, increased specificity is required to address our concerns in full, especially in light of recent evidence that exposure is occurring at alarming rates. While creating a pesticide drift prohibition is helpful in preventing non-target drift, it does not provide any specific guidance to applicators. Our concerns can not be addressed without reinstating the APPLICATION NEAR HAZARD AREAS section or by creating new language that provides specific guidance for applicators that mirrors the language in the PHENOXY HERBICIDE RESTRICTIONS section.

² Liu, J., & Schelar, E. (2012). Pesticide exposure and child neurodevelopment: summary and implications. *Workplace health & safety*, 60(5), 235–243. <https://doi.org/10.1177/216507991206000507>

If new language is created, it should provide clear guidance to aerial applicators due entirely to the reality that pesticides applied by airplane are more prone to drift. Ground delivery systems and chemigation infrastructure should also be considered for inclusion, as drift may also result from these technologies. A provision should be provided for the use of organophosphate and pyrethroid for the management of human disease vectors such as mosquitoes.

Ideas for creating these express protections include:

Mirroring the PHENOXY HERBICIDE RESTRICTIONS section, by creating a new section called ORGANOPHOSPHATE AND PYRETHROID INSECTICIDES RESTRICTIONS

For example:

ORGANOPHOSPHATE AND PYRETHROID INSECTICIDES RESTRICTIONS

- a. No applicator will apply formulations containing insecticides belonging to the organophosphate or pyrethroid classes of pesticides:
 - ii. Within one (1) mile of a hazard area (OR just limit this to schools & hospitals)
 - iii. Waiver of the restriction in subsections is automatic for any activity expressly conducted to maintain human health, such as in the management of insects with the potential to vector disease.

OR reinstate the APPLICATION NEAR HAZARD AREAS restriction.

This section read: An aircraft pilot will not apply any pesticide within one-half (1/2) mile of a hazard area unless there is air movement away from the hazard area. It could be changed to expressly address the identified high exposure rates to organophosphates and pyrethroids, which may have taken place as a result of drift or lack of training.

For example:

06. APPLICATION NEAR HAZARD AREAS.

- a. All pesticide applications near hazard areas must be properly noticed according to Worker Protection Standards and label requirements.
- b. Applicators must be properly trained/licensed to apply pesticides.
- c. No applicator will apply any formulation containing organophosphates or pyrethroids within one (1) mile of a hazard area unless there is air movement away from the hazard area or within a setback required by product label directions, whichever is more restrictive.
 - i. Waiver of restrictions in this section are automatically granted to protect public health when managing the spread of insect vectored diseases.

While reviewing HB 487 and deliberating over changes it proposed to this chapter, the Senate Agriculture Committee had substantial concerns with potential impacts on human health and sensitive populations. It is our position that unless specific protections are created to address the increased risk to hazard areas these two classes of pesticides pose, the concerns brought up during the 2020 legislative session are not resolved. The recent BSU study provides ample evidence that more must be done to protect human health.