

July 19, 2012

Chlorpyrifos and Spray Drift Management for Sensitive Sites - Q&A

On July 18, 2012, EPA released a spray drift assessment for bystander exposure and announced a voluntary agreement with chlorpyrifos registrants for product labeling actions related to management of drift. Dow AgroSciences strongly believes that current label directions for chlorpyrifos use already offer wide and sufficient margins of protection relative to potential bystander exposure. The label amendments announced by EPA, which will go into effect at a later date, are consistent with sound drift management principles that have been present on product labels for many years. We see the label amendments announced by EPA as representative of the Agency's desire to offer further definition of good stewardship practices already inherent in existing labeling.

You can view a letter summarizing EPA's announcement on spray drift and chlorpyrifos at the following link:

<http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OPP-2008-0850-0103>

What specific restrictions has EPA announced its intention to implement?

EPA announced the intent of implementing measures to reduce the potential for human bystanders, especially children, to be exposed to pesticide drift that may move from a treated area during application. New restrictions included a limit on the rate of product that may be applied via aerial application and spray buffers to sensitive sites where human bystanders may be present for aerial, airblast, and ground applications.

What constitutes a "sensitive site" for which buffers will apply?

Spray buffers are to apply between the edge of the treated area and the sensitive site, regardless of wind direction. Sensitive sites are areas frequented by non-occupational bystanders (especially children). These include residential lawns, pedestrian sidewalks, outdoor recreational areas such as school grounds, athletic fields, parks and all property associated with buildings occupied by humans for residential or commercial purposes. Sensitive sites include homes, farm worker housing, or other residential buildings, schools, daycare centers, nursing homes and hospitals. Sensitive sites do not include non-residential agricultural buildings, including barns, livestock facilities, sheds, and outhouses.

What is a non-occupational "bystander"?

A bystander is someone who is not a farm worker and is not involved with the pesticide mixing, loading or application process.

What about precautions for farm workers?

Labeling precautions to manage potential exposures for farm workers are already covered under the EPA's Worker Protection Standard requirements. Therefore, farm workers are not considered "bystanders" for purposes of these new spray drift management practices.

What specific buffer distances are being required?

Buffer distances to sensitive sites depend on application rate, nozzle droplet type and method of application.

Application Rate (lb ai/A)	Nozzle Droplet Type	Required Buffer Zones (feet)		
		Aerial	Airblast	Ground
>0.5 – 1	coarse or very coarse	10	10	10
>0.5 – 1	medium	25	10	10
>1 – 2	coarse or very coarse	50	10	10
>1 – 2	medium	80	10	10
>2 – 3	coarse or very coarse	80 ¹	10	10
>2 – 3	medium	100 ¹	10	10
>3 – 4	medium or coarse	NA ²	25	10
>4	medium or coarse	NA	50	10

¹Aerial application of greater than 2 lb ai/A is only permitted for Asian Citrus Psylla control, up to 2.3 lb ai/A.

²NA is not allowed.

Are the buffers required for all uses?

No. Buffers are only to apply to sprayable products for agricultural use. In addition, for agricultural products, buffers are only required when making spray applications at rates greater than 0.5 lb ai/acre. Buffers are not required for application at rates of 0.5 lb ai/acre and lower.

Why has EPA proposed taking these steps?

Chlorpyrifos is undergoing reevaluation as part of EPA's periodic Registration Review program. During July of 2011, EPA released a preliminary human health assessment for chlorpyrifos that identified the need for more refined assessment of potential bystander exposures via spray drift. EPA has now completed a bystander spray drift assessment based on drift modeling and implementation of a new, highly conservative residential exposure assessment "standard operating procedure" (SOP). The SOP assumes children play on a home lawn surface downwind from and adjacent to a spray application and absorb pesticide through inhalation, skin contact and hand-to-mouth activities. Based on this new, conservative approach to bystander drift exposure assessment, EPA determined that acceptable margins of exposure would require either reduced application rates, reduction of finer drift particles which move greater distances, and/or greater distances between sprayer and site of potential exposure.

Why weren't existing labeling precautions adequate in EPA's view?

Dow AgroSciences strongly believes that current label directions for chlorpyrifos use already offer wide margins of protection relative to potential bystander exposure. For example, labels for Dow AgroSciences' chlorpyrifos products already include the statement: *"Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas...Avoiding spray drift is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making the decision to apply this product."* Under EPA's new direction on management of spray drift, more specific guidance for applicators on drift reduction measures will be mandated and less discretion will be allowed individual applicators. EPA had hoped to introduce industry-wide guidance via a Pesticide Regulation Notice (PRN 2009-X), but the Agency failed to achieve consensus and has now indicated it will proceed on a case-by-case basis as products complete Registration Review. Since chlorpyrifos is the first major agricultural use product for which EPA has completed a bystander exposure assessment under Registration Review, it is the first for which new labeling policy is being implemented.

What impact will the reduction in aerial application rate have on growers?

Little or no impact is anticipated. EPA and the registrants have agreed to limit aerial applications to 2.0 lb ai/acre, with the exception of 2.3 lb ai/acre which is only allowed for Asian Citrus Psylla on citrus fruits. Although labeling previously allowed aerial application of up to 6 lb ai/acre, Dow AgroSciences determined that applications for these higher rates were not being made by air but instead by airblast and ground boom equipment.

When might these restrictions be put into place?

Label changes will not be implemented immediately and will be implemented by EPA in an orderly fashion. Proposed changes must be reviewed and approved by both EPA and state regulatory agencies before the revised labels can be implemented. EPA's stated goal is to completed review and federal approval of revised labels bearing the new restrictions by the end of 2012. Once the new labels are approved by state agencies and begin to appear on newly manufactured product, most likely sometime during 2013, growers will begin to see new product appear in channels of trade. Meanwhile, during the phase-in period for the new label, existing product in channels of trade bearing old labeling may be continued to be used until supplies are exhausted.

Is DAS cooperating with EPA in implementing these proposed restrictions?

Dow AgroSciences and other chlorpyrifos registrants are cooperating with EPA in implementing the more specific drift management label wording, based on the Agency's bystander spray drift assessment. DAS believes it would have been beneficial for EPA to have provided an opportunity for registrants, the scientific community or the public to comment on the scientific assumptions or methodology for the Agency's conservative new approach.

What can we expect to happen next and when?

Dow AgroSciences and other registrants will begin to develop proposed revised labels for EPA review. These should be ready for submission to EPA by about the end of August, 2012, with EPA approval anticipated by the end of 2012. Dow AgroSciences anticipates that growers will not receive product with revised labeling until well into the 2013 season or beyond, but will still be able to purchase and use product with existing labeling until stocks in channels of trade are exhausted.

Label Compliance

The above comments are offered by Dow AgroSciences as background information for growers, applicators and other stakeholders as they consider implications of EPA's announced label changes. Specific questions or concerns related to regulatory labeling compliance should be directed to U.S. EPA or the appropriate state lead pesticide regulatory agency.

For further information

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- For background and the latest Dow AgroSciences positions: www.chlorpyrifos.com