

Patricia D. Hastings

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Cc: "Carrie Koplinka-Loehr" <ckk3@cornell.edu>
Sent: Wednesday, April 13, 2005 5:19 PM
Subject: NEIPMC: Growers Comments on Proposed Chlorsulfuron (Telar, Glean) Ground and Aerial Buffers

NEIPMC SNPs-

Request: Chlorsulfuron is used as a pre- and post-emergent herbicide to control a variety of weeds on cereal grains, pasture and rangeland, industrial sites, and turf grass. Because of the significant risk to non-target plants, EPA continues to look to mitigation measures prior to finalizing the Reregistration Eligibility Decision Document for Chlorsulfuron . EPA has asked for USDA **feedback** (see *USDA request below*) **on the feasibility of mandatory 50 foot buffer for ground applications and a 350 foot buffer around the field for aerial applications of chlorsulfuron on crops (wheat, small grains, pasture/hay)**.

Response: Please respond to Teung.F.Chin@usda.gov with cc to Hastings@aesop.rutgers.edu by **Thursday April 21, 2005**. Thank you.

Teung's emails follow:

Dear Colleagues:

The registrant, DuPont and EPA are nearing final risk mitigation decisions for **chlorsulfuron**. EPA has asked for USDA **feedback on the feasibility of mandatory 50 foot buffer for ground applications and a 350 foot buffer around the field for aerial applications of chlorsulfuron on crops (wheat, small grains, pasture/hay)**.

Please note EPA is not addressing forest uses, rangeland uses and right-of-way uses in this decision at this time. Also, I do not have other details on the proposed final risk mitigation decisions to provide you at this time.

EPA has delayed the chlorsulfuron RED from a March decision but wants to finalize in the next several weeks. **By April 21**, please provide me your feedback if the proposed 50 foot ground and 350 foot aerial buffers are not feasible and why.

There will be a closure call (date unknown) organized by EPA to discuss all the final risk mitigation decisions. Grower groups will have a final chance to comment at that time. I will keep you apprised.

Thanks in advance and thank you for your earlier feedback. See the attached

file for more information on chlorsulfuron.

Please do not hesitate to contact me if you have any questions or comments.

Best regards,
Teung

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-----Original Message-----

From: Teung.F.Chi...@aphis.usda.gov [mailto:Teung.F.Chi...@aphis.usda.gov]
Sent: Friday, September 24, 2004 5:36 PM
Subject: Chlorsulfuron Risk Assessment For Public Comment

Dear Colleagues:

Today, EPA published the preliminary risk assessment for chlorsulfuron. EPA has identified potential risks to endangered plants through direct and indirect sprays of chlorsulfuron. Following is the link to EPA's eDOCKET. The closing date for comments is November 23.

<http://docket.epa.gov/edkpub/do/EDKStaffCollectionDetailView;jsessionid=1924BC81C9002CB2&objectId=0b0007d48031a818>

EPA has requested that we provide them with the benefits of chlorsulfuron. Could you please request feedback from your organizations in this regard? In the next week or so I will contact you as to next steps. We will try to arrange a briefing between DuPont and stakeholders in the next several weeks as to their plans for chlorsulfuron. There will probably be a briefing later with EPA regarding the risk assessment for the benefit of those who wish to submit written comments to EPA. Please copy me on any submitted comments and your benefits information for chlorsulfuron so we can consider your interests as we interact with EPA on the reregistration of this chemical. Your comments on the feasibility of EPA's proposed risk mitigations are also needed. Please forward this e-mail to other stakeholders who might be interested.

This e-mail is sent ahead so that you may begin your own analysis ahead of the briefings, time permitting.

Teung

Following are excerpts from the "Overview of Chlorsulfuron Risk Assessment."

Use Profile

Based on available usage information for the years 1988 through 1999, the Agency estimates that chlorsulfuron usage averaged approximately 72,000 pounds of active ingredient per year to treat over 5.5 million acres. Its largest markets in terms of total pounds active ingredient are winter wheat (90%) and spring wheat (5%). The remaining usage is primarily on barley, oats, fallow fields and pasture/hay. Crops with a high percentage of the total U. S. planted acres treated include winter wheat (11%) and oats (2%), while registered sites with little or no usage include lawn and ornamental turf. Most chlorsulfuron usage is in California, Idaho, Kansas, Minnesota, North Dakota, Oklahoma, Oregon, South Dakota, Texas, and Washington. Data are not yet available for the new use on pastures and rangelands that EPA approved in 2002; however, chlorsulfuron is reportedly used in these areas by the US Department of Interior (Bureau of Land Management) to control invasive weed species.

Non-Target Plant Risk

- EPA is concerned about the risk to non-target plants from both drift and exposure to contaminated water.
- Chlorsulfuron can harm plants when absorbed by roots or foliage. Chlorsulfuron exposure may cause visible effects, such as death, in days or weeks; or it may cause delayed effects on fruit and seed production observable several weeks or months after exposure. Symptoms vary, depending on the sensitivity of the plant and the magnitude of exposure.
- Vegetative vigor and seedling emergence studies were used to screen risks for non-target and endangered plants.
 - Repeated vegetative vigor studies have recently been submitted to the Agency because the earlier studies did not establish a NOAEL. These studies will be reviewed and considered before the Agency makes a decision regarding chlorsulfuron's eligibility for reregistration.

Risks to Non-target Plants from Drift and Run-off

- Some researchers have concluded that small quantities of chlorsulfuron, such as might be found in airborne particles traveling long distances, may affect plant reproduction without altering vegetative growth.
- Plant reproductive processes may be more sensitive to chlorsulfuron than growth effects.
- Reproductive effects are difficult to recognize and trace to chlorsulfuron because reduced yield may occur below the detection level of conventional chemical analysis.

Risks to Plants from Exposure to Contaminated Irrigation Water

- Ground and surface water modeling indicate that irrigation water from groundwater or surface water sources, in areas with repeated chlorsulfuron use, may contain levels of chlorsulfuron high enough to adversely effect non-target plants and sensitive agricultural crops.
- Chlorsulfuron may adversely effect plant growth and reproduction at such low levels that detecting residues in plant tissues or in soil samples may be extremely difficult or impossible using conventional analytical methods.

How the Risk Picture May Change

- The Agency will review recently submitted vegetative vigor studies and, provided they meet guideline requirements, incorporate these results into the risk assessment. However, the Agency does not expect these results to alter the conclusions of this assessment.
- Additional studies, such as a plant toxicity study simulating far field spray drift exposure to exposing plants to relatively few concentrated droplets of herbicide, may refine the risk estimates for plants exposed to chlorsulfuron drift
- Additional plant toxicity studies could refine the Agency's risk assessment for plants exposed to contaminated irrigation water by comparing the effects from low concentrations of chlorsulfuron in an inch of simulated irrigation water with the effects demonstrated in the vegetative vigor and seedling emergence studies that have already been conducted.

Endangered Species Considerations

- The Agency will further refine the risk assessment for endangered/threatened plants before making a decision on the reregistration eligibility of chlorsulfuron.
- Further analysis of the overlap of individual species with each use site is required prior to determining the likelihood of potential impact to listed species.
- The Office of Pesticide Programs recently published on its web site (<http://www.epa.gov/espp/consultation/index.html>), an overview of our ecological risk assessment process for threatened and endangered species. Because of the timing of that document, the process described therein was not fully utilized for this screening-level endangered species risk assessment. The Agency will reassess the potential risk of chlorsulfuron use to endangered species using the new process at a later date and consult as appropriate with the U. S. Fish and Wildlife Service or National Marine Fisheries Service at that time.

Possible Risk Mitigation Measures

- Because of the significant risk to non-target plants, the Agency anticipates mitigation measures may still be needed after the risk assessment has been further refined.
- Possible measures include improving product labels to specify:
 - Maximum application rates
 - Numbers of application
 - Methods of application
- Measures that may be proposed to control spray drift include:
 - Specifications on droplet size (large droplet size decreases drift)
 - Reducing the release height
 - Implementing wind speed restrictions (slow winds cause less drift)
 - Disallowing aerial applications
 - Disallowing applications during stable atmospheric conditions (e.g. temperature inversion)
- Measures that may be proposed to control run-off include:
 - Vegetative buffer zones
- Measures to reduce exposure to contaminated irrigation water, such as restricting use of tailwater so that it cannot be used to irrigate other crops.

Please do not hesitate to contact me if you have any questions or comments.

Cordially,

Teung

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Teung F. Chin, Ph.D.  
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