Trifluralin Request for Information

Date sent: Mon, 25 Jan 2010 14:57:59 -1000
From: Mike Kawate
To: Cathy Tarutani
Subject: Fwd: Potential Threat to Trifluralin Production and Use - Your Input is Needed

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-------- Original Message --------
Subject: Potential Threat to Trifluralin Production and Use - Your Input is Needed
Date: Mon, 25 Jan 2010 15:44:40 -0800
From: Rebecca Sisco

Please see the email below, if you wish to provide input to the importance of trifluralin in specialty crops, please read the information below.

Thanks,
Becky

Rebecca (Becky) Sisco
Western Region IR-4 Center
Regional Field Coordinator
UC Davis
Dept. of Environmental Toxicology
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530-867-1664 (cell)

From: Dan Kunkel
Sent: Friday, January 22, 2010 10:28 AM
To: Edith' 'Lurvey ('Lurvey, Edith'); Rebecca Sisco; schwartp@ba.ars.usda.gov; Satoru' 'Miyazaki; 'Samuel-Foo, Michelle'; 'Ray Ratto Jr'; bruce@buurmafarms.com; 'Boydston, Rick'; Bob.McReynolds@oregonstate.edu; 'Roger Batts'; 'Bret, Brian'; 'McMaster, Steve'; John Jachetta; 'Marija Arsenovic'; 'Jerry Baron'; 'Debbie Carpenter'; Bill Barney; Brian Flood; Richard Bonanno (Bonanno, Richard); 'Robin Bellinder'; 'Archambault, Shirley'; 'Craig Hunter'; 'Chaput, Jim (OMAFRA)'
Subject: FW: Potential Threat to Trifluralin Production and Use - Your Input is Needed

Dear IR-4 Folks,

I was contacted by DowAgroSciences concerning a recent development with trifluralin. Trifluralin has been identified as a candidate for addition to the list of Persistent Organic Pollutants (POP's) under the United Nations Economic Commission for Europe (UNECE) convention on Long-range, Transboundary Air Pollution. Please see the e-mail correspondence below andattachment for a more information.

For a number of reasons it would behoove us to provide letters of support to keep trifluralin off this list. Primarily a letter to indicate how import this herbicide is to specialty crops. As you will see below, these letters need to address the socio- economic benefits of trifluralin (please see numeric listing under ACTION REQUESTED).

Also note that the deadline for support letters is Feb. 8, 2010.Please send your letters to Steve McMaster and send letters to the following address:

Steve A. McMaster
Dow AgroSciences LLC
9330 Zionsville Rd.
Indianapolis, IN 46268

Please pass this information on to others that would have interest in providing support.

Thanks!
Dan

Daniel Kunkel, Ph.D., IR-4 Associate Director
IR-4 Project Headquarters, Rutgers, The State University of NJ 500 College Road East, Suite 201 W Princeton, NJ 08540
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From: Steve McMaster
Sent: Wednesday, January 20, 2010 9:43 AM
To: Dan Kunkel (E-mail)
Cc: Bret, Brian
Subject: Potential Threat to Trifluralin Production and Use - Your Input is Needed

Dan, as we discussed, here is the information regarding the emerging issue with trifluralin. Your assistance in further understanding the benefits that trifluralin provides to the minor crop producers is appreciated.

ISSUE
Trifluralin is currently being considered for listing in an international agreement (the Protocol on POPs (persistent organic pollutants) to the UNECE Convention on Long Range Transboundary Air Pollution) that could impose stringent controls on production and use of this valuable herbicide. More information about this process is provided in the attached Appendix. Although key governments, including Canada and the United States, do not support the listing of trifluralin, EU member states have pushed hard for the listing in the agreement.

The United States EPA believes that there is insufficient information available to suggest that trifluralin is likely to have significant adverse human health and/or environmental effects. The Canadian position is trifluralin is unlikely to have significant adverse human health and/or environmental effects. Moreover, Health Canada has recently determined in Re-evaluation Decision RVD2009-09 that continued use of the herbicide would not cause unacceptable adverse effects on human health or the environment.

DowAgroSciences firmly believes that trifluralin does not meet the criteria for listing in this agreement, and has participated in the treaty process to provide information to policymakers that supports that position. DAS has provided information to support the fact that trifluralin does not meet the indicative criteria for bioaccumulation, persistence in soil and water, nor does trifluralin meet the "P," "B,"and "T" (toxicity) criteria in any single key environmental compartment (ie: any potential effects of trifluralin are not in the environmental compartment were exposure may occur). During 2010, the treaty review process will include further evaluation of whether trifluralin meets the criteria for listing in this agreement.

This international treaty process includes a socio-economic assessment of trifluralin in which costs, benefits, advantages, disadvantages and alternatives to trifluralin will be taken into consideration. The parties to the protocol will then consider the results of this assessment in potentially setting risk management control measures on the production and use of trifluralin, if it is listed in the Protocol.

ACTION REQUESTED
The treaty process encourages input from relevant private stakeholders, including growers who rely on trifluralin. You have an opportunity to provide information for use in this assessment by responding to a short survey circulated under auspices of this international agreement. Survey results are due very soon: February 12, 2010. It is important that policymakers in this international treaty process receive robust information about the uses and value of trifluralin in order to ensure that the full implications of control measures under the agreement are taken into account.

We encourage you to take advantage of the opportunity to contribute information to the process regarding the socio- economic value of trifluralin, including information about its unique properties in crop-protection and the impacts on growers that could be expected in the absence of trifluralin.

Specifically, DAS would like your input into the following questions:
1. Benefits derived from the use of trifluralin (include the reason why trifluralin is used in the production of this crop) This could include cost, weed spectrum, resistance management, crop tolerance, lack of available registered alternatives, etc.
2. Alternative weed control options, include the advantages or disadvantages of using the alternative
*Cost per acre/hectare

Please return this information to me no later that February 8, 2010. This will give me a few days to assemble all of the information that I have received and provide it to the policymakers in time to meet the deadline.

Thank you very much for your assistance in this effort. If you have any additional questions, please feel free to contact me.

Regards,
Steve
Steve A. McMaster
R&D Leader
Commodity Herbicides
317-337-4670 Of
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samcmaster@dow.com

The Western IPM Center is headquartered in the UC Agriculture and Natural Resources Building at 2801 Second Street, Davis, CA 95618.

Appendix

ADDITIONAL BACKGROUND ON TREATY LISTING PROCESS

Long Range Transboundary Air Pollution (LRTAP)

The United Nations Economic Commission for Europe (UNECE) is one of five regional commissions of the United Nations. UNECE is a forum where 55 countries of North America, Western, Central and Eastern Europe and Central Asia come together to draw up tools of economic cooperation. All UN Member States have observer status and may participate in its work. Over 70 international professional organizations and other non-governmental organizations, which have consultative status with the Economic and Social Council, take part in UNECE activities.

One of the main areas of activity of UNECE is environment for which it draws up conventions and protocols, regulations and standards.The Convention on Long-range Transboundary Air Pollution (LRTAP) was signed in 1979. Under this Convention, pesticides are more specifically addressed by the Protocol on Persistent Organic Pollutants (POPs) signed in 1998.

The 1998 Aarhus Protocol on POPs

The Protocol on Persistent Organic Pollutants (POPs) focuses on a list of 16 substances that have been singled out according to agreed risk criteria. The substances comprise eleven pesticides, two industrial chemicals and three by-products/contaminants. The ultimate objective is to eliminate any discharges, emissions and losses of POPs. The Protocol includes a process whereby additional substances may be added to the Protocol, following an assessment process that evaluates whether they satisfy the criteria for designation as a POP and evaluates the socio-economic impacts of listing in setting appropriate control measures.

The EU and its Member States are parties to the Protocol on POPs. The United States is a Party to the parent convention and participates actively in meetings under the Convention, but it is not at this time a party to the POPs Protocol.

The Trifluralin Decisions to date

At the Executive Body meeting of December, 2008, trifluralin was submitted by the EU for amendment to the Protocol.

At the POPs Task Force meeting of June 1, 2009, the TF concluded that the dossier contained sufficient information for screening in relation to the requirements of the Executive Body decision 1998/2 and supported the dossier's conclusion that trifluralin be considered a POP in the context of the Protocol. Two experts, however, including one from industry, concluded that trifluralin did not meet the criteria for bioaccumulation. Some experts, including one from industry, concluded that there was not sufficient information to suggest whether or not trifluralin was likely to have significant adverse human health and/or environmental effects as a result of LRAT.

Industry experts presented additional information regarding trifluralin supporting that at present no significant adverse effects were expected on Arctic biota. When considering POP characteristics in terms of the guidance and indicative numerical values provided in paragraph 1 (a)–(d) of Executive Body decision 1998/2 for: (a) Potential for LRAT: the Task Force concluded that the risk profile provided sufficient information to support the dossier's conclusion that trifluralin has the potential for LRAT based on presence in Arctic air and freshwater sediments; (b) Toxicity: the Task Force concluded that the risk profile provided sufficient information to support the dossier's conclusion that trifluralin had the potential to adversely affect the human health and/or the environment based on aquatic toxicity and its classification by the United States Environmental Protection Agency as a "possible human carcinogen"; (c) Persistence: the Task Force concluded the risk profile provided sufficient information to support that trifluralin met the indicative numerical values for persistence in the environment based on half-life in soil; Bioaccumulation: the Task Force concluded that the risk profile provided sufficient information to support that trifluralin is bioaccumulative with regard to the indicative values of the Executive Body decision 1998/2 based on BCF and log Kow.

Two experts including one from industry, concluded that based on the review of recent field data, trifluralin did not meet the criteria for bioaccumulation. These data whave been provided to the Task Force members.

When considering the contextual information described in Executive Body decision 1998/2, paragraph 2 (a) and (b), the Task Force concluded that: (a) Monitoring data from the Arctic provided sufficient evidence to indicate that trifluralin is undergoing LRAT; (b) There was sufficient information to conclude that trifluralin was likely to have significant adverse health and/or environmental effects as a result of LRAT.

Two experts, including one from industry, concluded that, based on the review of recent field data which indicated that the bioaccumulation criteria was not met, and trifluralin therefore did not meet the criteria of Executive Body decision 1998/2, paragraph 2 (b). Another expert concluded that there was insufficient information to suggest that trifluralin was likely to have significant adverse human health and/or environmental effects as a result of LRAT.

At the August 31, 2009 meeting of the WGSR, technical reviews of the five new substances including trifluralin were proposed for inclusion in the Protocol. The progress in the work on track A and B reviews of trifluralin carried out by the Task Force, as requested

by the Parties to the Protocol on POPs at the Executive Body's twenty-sixth session in 2008. The Working Group considered the conclusions of the Task Force for each of the proposed substances as contained in the report of the Task Force meeting.

The delegation of United States of America noted that there was insufficient information available to suggest whether or not concentrations of trifluralin found in the Arctic were likely to have significant adverse human health and/or environmental effects as a result of long range atmospheric transport (LRAT).

The assessment of the delegation of Canada of the current information was that trifluralin was unlikely to have significant adverse human health and/or environmental effects as a result of its long-range transboundary atmospheric transport. It informed the meeting that as part of its pesticide re-evaluation programme, Health Canada's Pest Management Regulatory Agency (PMRA) had recently reviewed much more data than were available to the Task Force.

Moreover, Health Canada had determined that continued use of the herbicide according to updated label directions would not cause unacceptable adverse effects on human health or the environment. As trifluralin was acceptable for continued use, and levels of trifluralin in the environment were potentially much higher near where it was used compared to in the Arctic, there was no reason to expect adverse effects in remote regions where levels were so very much lower. This agricultural herbicide was widely used in Canada and had been registered for over 45 years. Furthermore, there was no reason to believe that use would increase, or that levels of exposure in remote regions would increase. Although trifluralin met many of the numerical hazard criteria of a POP, Canada considered the hazard criteria in an integrated weight of evidence approach that included review of actual field data in its assessment. A draft of the review and a list of references were available and could be obtained from the Canadian delegation. The full review has been published and is available on the Internet (http://www.hc-sc.gc.ca/cps-spc/pubs/pest/_decisions/rvd2009-09/index-eng.php).

The WGSR noted that the Task Force, with the exception of Canada and the United States, had concluded, based on the technical contents of the dossier on trifluralin, that this substance should be considered a POP as defined under the Protocol; and that Canada has additional information available on the POPs characteristics of trifluralin, and recommended to the Executive Body that the Task Force continue with the track A and track B reviews of trifluralin in parallel, taking into consideration the new information from Canada.

At the Executive Body meeting of December, 2009 continuation of Track A (technical review) and Track B (review of the socio economic implications) reviews were requested. The POP's Task Force will draft summary reports of management options. These will be submitted to WGSR and the EB in September and December 2010, respectively. The Task Force agreed that a questionnaire be sent to all Parties to the Protocol and to other stakeholders. The questionnaire is aimed at gaining a better view on management strategies and options in Europe and North America.

Dow AgroSciences Position Regarding the

Inclusion of Trifluralin in the LRTAP Convention

The herbicide trifluralin has been used for over 40 years for the control of economically important annual grasses and broadleaf weeds in more than 80 crops in many countries around the world. During this time, while trifluralin has been reported infrequently in remote regions, detections occur at extremely low concentrations. Furthermore there have been no reports of trifluralin in Artic biota at concentrations above detection limits.

Dow AgroSciences firmly believes that trifluralin does not meet the criteria to be considered a POP under the LRTAP protocol. The reported levels of trifluralin in the remote regions along with the fact that there have been no reported concentrations above detection limits in the Artic biota clearly indicate that trifluralin does not have significant adverse human health and/or environmental effects as a result of long-range transboundary atmospheric transport. Additionally when one considers higher tier studies and field data under environmentally relevant circumstances, studies and data that clearly have more relevance and therefore should be given more weight than lab studies or modeling data, trifluralin does not meet the criterion for bioaccumulation.

Dow AgroSciences also believes trifluralin does not meet the indicative criteria for persistence in true environmental compartments as the average field DT_{50} in soil is 170 days and DT_{50} in water is 13 days (worst case).

Any effects from trifluralin concentrations occur in an environmental compartments in which trifluralin is short lived and not persistent. In fact reported detections in water from remote locations are approx. *~100,000* times lower that the No Observable Effect Concentration (NOEC) on the most sensitive aquatic species. Additionally, Trifluralin has *not been detected* in biota or humans in remote regions.

When the higher tier and monitoring data are taken into consideration

- Trifluralin does not meet the indicative criteria for bioaccumulation
- Trifluralin does not meet the indicative criteria for persistence in soil and water
- Trifluralin does not meet the “P,” B,”and “T” criteria in any single key environmental compartment (ie: any potential effects of trifluralin are not in the environmental compartment were exposure may occur)
- Monitoring data from remote regions indicates trifluralin is not present in biota
- Monitoring data indicates Trifluralin is not likely to have significant adverse human health and/or environmental effects as a result of long-range transboundary atmospheric transport