

Comment of the Save Our Crops Coalition

Docket Nos. EPA-HQ-OPP-2012-0841-0001, EPA-HQ-OPP-2012-0215-0002

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SAVE OUR CROPS COALITION

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Thursday, January 17, 2013

ELECTRONIC SUBMISSION

RE: Notice of Receipt of Several Pesticide Petitions Filed for Residues of Pesticide Chemicals in or on Various Commodities; Pesticide Products; Receipt of Applications to Register New Uses

Summary of the Comment

The **Save Our Crops Coalition (SOCC)** is a grassroots coalition of farm interests organized for the specific purpose of preventing injury to non-target crops from exposure to 2,4-D and dicamba. SOCC does not oppose advances in plant technology, particularly genetic modification, but does oppose actions that would result in substantial injury to non-target crops and to the habitats necessary for their pollinators.

Herbicide spray drift and volatilization is a major concern for specialty crop growers and processors. Credible estimates project significant increases in the amount of dicamba that will be applied upon the introduction of dicamba tolerant crops. Dicamba, because of its potential to drift and volatilize, has proven to be one of America's most dangerous herbicides for drift damage.

Thus, SOCC respectfully submits the following comment regarding the receipt of a petition requesting the establishment of regulations for residues of dicamba in or on dicamba tolerant cotton, and an application to register new uses for dicamba on dicamba tolerant cotton, both submitted by Monsanto. Previously, SOCC petitioned EPA to establish tolerances for dicamba residues on certain food crops expected to be grown in close proximity to the dicamba tolerant cropping system. This comment requests the Environmental Protection Agency (EPA) evaluate dicamba residue tolerances for dicamba tolerant crops and the tolerances proposed by SOCC concurrently, and withhold registration of all new uses of dicamba until EPA has established residue tolerances for effected crops.

Commenter

SOCC represents nearly every segment of American agriculture, from growers to processors, both conventional and organic. All SOCC growers cultivate specialty crops, but they also cultivate significant acreages of major agronomic crops, like corn and soybeans. SOCC is over 2,000 growers strong, including grower organizations such as the Indiana Vegetable Growers Association and the Ohio Produce Growers and Marketers Association, and is supported by major processors like Red Gold.

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Factual Background

Drift and Volatilization

Due to the potential for crop injury, herbicide spray drift and volatilization from agronomic crops is a major concern for specialty crop growers and processors. Spray drift is the airborne movement of pesticide spray particles to a non-target site. Spraying during windy conditions or using nozzles or pressures that result in the creation of fine spray particles increase the risk of spray drift. Volatilization is the airborne movement of pesticide vapor to a non-target site. Volatilization occurs when a pesticide is applied to a target site, subsequently evaporates, and moves off-target. The calm windless conditions that minimize drift, ironically, only increase the potential for volatilization.

All herbicides may have harmful effects on non-target crops if they drift or volatilize away from their intended areas of application; however, dicamba has proven especially prone to cause damage.¹ A survey of state pesticide control officials listed dicamba as the pesticide third most commonly involved in drift incidents for two years in a row.² This incidence of drift damage far outpaces the relative use of dicamba. Dicamba does not even make the list of the top 25 most commonly applied

¹ Sciumbaro, Audie S., et al. *Determining Exposure to Auxin-Like Herbicides. I. Quantifying Injury to Cotton and Soybean*, Weed Technology, Vol. 18, 1125-1134 (2004).

² *2005 Pesticide Drift Enforcement Survey Report*, Association of American Pesticide Control Officials (2005), available at <http://aapco.ceris.purdue.edu/doc/surveys/DriftEnforce05Rpt.html>

pesticide active ingredients.³ Drift concerns have led some states to enact safeguards, such as requiring the use of lower volatility formulations, restrictions on application timing, and even bans on use.⁴ Thus, SOCC regards dicamba as one of America's most dangerous herbicides for drift damage.

Dicamba tolerant crops heighten the drift and volatilization concerns associated with dicamba. The introduction of dicamba tolerant crops is anticipated to increase the use of dicamba in regions that produce substantial acreages of broadleaf crops that are sensitive to dicamba. Therefore, any drift or volatilization from dicamba could be expected to have significant impacts on non-target crops grown in proximity.

Effect of Dicamba Tolerant Crops on Herbicide Use

The widespread use of glyphosate has contributed to the glyphosate resistant weed populations. USDA has not released Monsanto's petition for non-regulated status of dicamba tolerant cotton, however, the rationale presented by Monsanto for MON-87708-9 Soybeans, or dicamba tolerant soybeans, is that they would provide another weed management tool for farmers, because they would offer, "... an option to delay or prevent further resistance to glyphosate and other critically important soybean herbicides, in particular, herbicides in the ALS and PPO class of chemistry..."⁵ Thus, in an effort to prevent further resistance to the glyphosate mode of herbicide action, Monsanto and BASF have developed the dicamba tolerant cropping system. Dicamba differs in its mode of herbicide action from that of glyphosate. A tolerance to differing modes of herbicide action complements glyphosate tolerance by providing two methods to kill difficult weeds.⁶

The desirability of genetically modified crops with a tolerance to herbicides other than glyphosate is anticipated to greatly increase the use of dicamba tolerant crops and dicamba. Monsanto's petition for non-regulated status of dicamba tolerant soybeans projects, upon peak adoption, dicamba use will approximately double its 1994 peak historical use level, or reach about 25 million pounds annually.⁷ What Monsanto's soybean petition does not make explicit is the rate of change from current use levels. The latest figures place the amount of dicamba applied at about

³ *Pesticides Industry Sales and Usage: 2006 and 2007 Market Estimates*, EPA (Feb. 2011) available at

http://www.epa.gov/opp00001/pestsales/07pestsales/market_estimates2007.pdf.

⁴ 4 Tex. Admin. Code § 7.50 (2011); Or. Admin. R. 603-057-0301 (2012); Wash. Admin. Code 16-228-1250 (2012)

⁵ *Monsanto Petition for Determination of Nonregulated Status of Event MON 87708*, at 5.

⁶ *Plant Pest Risk Assessment for DAS-40278-9 Corn*, APHIS (Dec. 27, 2011), available at http://www.aphis.usda.gov/brs/aphisdocs/09_23301p_dpra.pdf at 2-3.

⁷ *Monsanto Petition for Determination of Nonregulated Status of Event MON 87708*, at 210-211.

2.7 million pounds annually.⁸ Monsanto's projected use pattern would represent an approximately 925% increase in pounds applied over current levels, an almost 250% increase in the total acreage treated, and a 5660% increase in soybean acreage treated.⁹ Such an increase would represent a dramatic shift in the utilization of an herbicide both in total pounds applied and in total acreage treated. Even the increase in the use of glyphosate upon the introduction of glyphosate tolerant crops, an increase of almost 600% in pounds applied, would be eclipsed by this shift in use.¹⁰

Discussion

Statutory and Regulatory Background

The Food Drug and Cosmetics Act (FFDCA) prohibits shipment in interstate commerce of "adulterated food."¹¹ A food is considered adulterated "if it bears or contains a pesticide chemical residue that is "unsafe."¹² A pesticide is "unsafe" unless (1) EPA has established a tolerance for the pesticide on a particular commodity or in a particular food, and the pesticide residue is within that tolerance, or (2) with respect to a particular commodity or processed food, EPA has exempted the pesticide from the requirement for a tolerance.¹³ Therefore, before agriculture commodities containing pesticide residues can be sold or distributed, EPA must adopt a "tolerance," a permissible level of residue, or an exemption.¹⁴

On December 18, 2012, SOCC petitioned EPA to establish tolerances for dicamba residues on certain specialty crops anticipated to be grown in close proximity to the dicamba tolerant cropping system. The very next day, December 19, 2012, EPA noticed receipt of a petition from Monsanto requesting the establishment of regulations for residues of dicamba in or on dicamba tolerant cotton.¹⁵

⁸ *Monsanto Petition for Determination of Nonregulated Status of Event MON 87708*, at 198.

⁹ *Monsanto Petition for Determination of Nonregulated Status of Event MON 87708*, at 223-224.

¹⁰ Gianessi, L. P. and N. Reigner, *Pesticide Use in U.S. Crop Production: 2002 with Comparison to 1992 and 1997*, (2006) available at: <http://www.croplifefoundation.org/Documents/PUD/NPUD%202002/Fung%20&%20Herb%202002%20Data%20Report.pdf>

¹¹ 21 U.S.C. §331

¹² 21 U.S.C. §342(a)(2)(B)

¹³ 21 U.S.C. §346a(a)(1)

¹⁴ 21 U.S.C. §§346a, 346a(c)(2)(A)

¹⁵ *Notice of Receipt of Several Pesticide Petitions Filed for Residues of Pesticide Chemicals in or on Various Commodities*, EPA, 77 Fed. Reg. 75082 (Dec. 19, 2012), available at: <http://www.gpo.gov/fdsys/pkg/FR-2012-12-19/pdf/2012-30450.pdf>

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Monsanto and BASF have also submitted applications to register new uses for pesticide products containing the currently registered active ingredient, dicamba, and EPA has noticed receipt of these applications.¹⁶ Monsanto has applied to register dicamba for use on dicamba tolerant cotton and soybeans.¹⁷¹⁸ BASF has applied to register dicamba for use on dicamba tolerant soybeans and conventional crops.¹⁹

Summary of Petition to Establish Dicamba Pesticide Tolerances for Crops Grown in Proximity to the Dicamba Tolerant Cropping System

Because dicamba is prone to drift and volatilize, SOCC believes the introduction of dicamba tolerant crops and attendant increase in dicamba use would result in more dicamba residues on crops grown in close proximity to the dicamba tolerant cropping system.²⁰ Given the sensitivity modern testing techniques, it becomes increasingly likely that trace residues will be found on crops. Presently, many crops grown in proximity have no tolerance or exemption for dicamba residues.²¹

Because a commodity containing residues without a tolerance or an exemption is prohibited from passing in interstate commerce, SOCC is concerned that, without an exemption or tolerance, trace residues will render crops unmarketable, even if they are safe. On December 18, 2012, SOCC petitioned EPA to establish tolerances for dicamba residues for grapes, and for all crops listed within Federal Crop Group 8 (fruiting vegetables) and Group 9 (cucurbit vegetables). SOCC requested that establishment of such tolerances be prerequisite to any decision on proposed new uses of dicamba.

Food safety is of paramount concern to the growers and processors that make up the membership of SOCC. SOCC has requested EPA establish tolerances only where it determines aggregate dietary exposure to trace residues of dicamba is safe. SOCC processors have also put in place substantial measures to remove pesticide residues from their crops. As a matter of routine, SOCC processors and their growers develop and implement pesticide application programs that are intended, to the fullest extent practicable, to avoid the presence of residues in and on food crops. Further, SOCC processors adhere to Good Manufacturing Practices that minimize the presence of pesticide residues.

¹⁶ Notice of Receipt of Pesticide Products; Registration Applications of Register New Uses, EPA, 77 Fed. Reg. 75153 (Dec. 19, 2012), *available at*:

<http://www.gpo.gov/fdsys/pkg/FR-2012-12-19/pdf/2012-30614.pdf>

¹⁷ *Pesticide Products; Receipt of Applications to Register New Uses*, EPA, 77 Fed. Reg. 50686 (Aug. 22, 2012), *available at*: <http://www.gpo.gov/fdsys/pkg/FR-2012-08-22/pdf/2012-20666.pdf>

¹⁸ *Id.*, at 50687.

¹⁹ *Id.*, at 50688.

²⁰ *2005 Pesticide Drift Enforcement Survey Report*, Association of American Pesticide Control Officials (2005), *available at*

<http://aapco.ceris.purdue.edu/doc/surveys/DriftEnforce05Rpt.html>

²¹ 40 C.F.R. §180.227

EPA Should Review Requested Tolerance Concurrently with SOCC Proposed Tolerances

SOCC requests that EPA evaluate dicamba residue tolerances for dicamba tolerant crops and the tolerances proposed by SOCC concurrently.

With a few notable exceptions, cotton is not grown in close proximity to the specialty crops listed above, and, therefore, SOCC does not anticipate dicamba tolerant cotton will pose the same direct and imminent threat of non-target damage as other dicamba tolerant crops grown in such close proximity will, crops like corn and soybeans. Yet, the member growers and processors of SOCC are disturbed to be asked to wait perhaps years after the introduction of dicamba tolerant crops for protections that may soon be available to growers of cotton.

SOCC regards EPA's receipt of a petition from Monsanto requesting the establishment of regulations for residues of dicamba in or on dicamba tolerant cotton as an admission by Monsanto and BASF that dicamba will leave residues, even if the herbicide is properly used, and even if management techniques are employed to minimize the incidence of residues. Given that dicamba is prone to drift and volatilize, and Monsanto has so far failed to adopt measures similar to Dow AgroSciences to mitigate the effects of non-target drift damage, SOCC believes the introduction of dicamba tolerant crops and attendant increase in the use of dicamba makes herbicide drift and volatilization a certainty, and, therefore, makes trace residues on crops grown in proximity a threat.²² Most crops grown in proximity have no tolerance or exemption for dicamba residues. SOCC is concerned that, without an exemption or tolerance, even trace residues will render crops unmarketable.

In statements to the press, Monsanto and BASF have stated that they are developing a research and field test program to establish residue tolerances for their Engenia dicamba formulation, on what they call a "wide range of sensitive crops."²³ Regrettably, Monsanto and BASF have only mentioned establishing tolerances for Engenia, but not the more drift prone and volatile DGA salt formulation, Clarity, the subject of a still pending action to register new uses on dicamba tolerant crops.²⁴ While Monsanto claims it is evaluating whether to request tolerances for food crops grown in close proximity to dicamba tolerant crops, SOCC believes its member

²² *2005 Pesticide Drift Enforcement Survey Report*, Association of American Pesticide Control Officials (2005), available at

<http://aapco.ceris.purdue.edu/doc/surveys/DriftEnforce05Rpt.html>

²³ *Specialty crop group petitions EPA to set new dicamba tolerance levels*, Agri-Pulse (Dec. 18, 2012), available at: <http://www.agri-pulse.com/Specialty-crop-group-petitions-EPA-set-new-dicamba-tolerance-levels-12182012.asp>

²⁴ *Pesticide Products; Registration Applications*, 75 Fed. Reg. 51045 (Aug. 18 2012), available at: <https://www.federalregister.gov/articles/2010/08/18/2010-20321/pesticide-products-registration-applications>

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growers deserve more. SOCC believes that EPA should review tolerances for specialty crops grown in proximity to dicamba tolerant crops according to the same timetable it reviews tolerances for the crops developed by Monsanto and BASF. Thus, SOCC requests that EPA evaluate dicamba residue tolerances for dicamba tolerant cotton and the tolerances proposed by SOCC concurrently. Not only does SOCC believe that this is the most reasonable approach to protect growers from some of the harmful effects of non-target drift damage, SOCC also believes that concurrent review of all proposed tolerances would result in significant time and cost savings for EPA's Office of Pesticide Programs.

Conclusion

On September 11, 2012, SOCC announced the successful conclusion of discussions with Dow AgroSciences (Dow) regarding its 2,4-D tolerant cropping system. SOCC was satisfied that Dow had adopted effective measures to protect against drift damage associated with the introduction of 2,4-D tolerant crops. SOCC remains similarly hopeful that discussions will also commence with Monsanto and BASF, and will ultimately reach a mutually beneficial conclusion.

Notwithstanding these hopes, Monsanto and BASF have, so far, failed to adopt effective measures, similar to Dow, to prevent spray drift and volatilization. This failure not only presents the risk of direct non-target plant damage, but also of crop losses due to adulteration by dicamba residues.

SOCC has asked that EPA withhold registration of new uses of dicamba on dicamba tolerant crops until effective measures are in place to protect against non-target plant damage. SOCC regards the establishment of tolerances for dicamba residues as a necessary but ultimately insufficient measure to protect against non-target plant damage. Therefore, SOCC requests that EPA evaluate dicamba residue tolerances for dicamba tolerant cotton and the tolerances proposed by SOCC concurrently, and withhold registration of all new uses of dicamba until EPA has established residue tolerances for susceptible specialty crops and has adopted effective measures to protect against non-target plant damage.

Respectfully submitted,

_____/s/_____

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