

## Joint Statement of Dow and SOCC

September 11, 2012

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Via Registered Mail, Return Receipt Requested this 11th day of September, 2012,

### **JOINT STATEMENT OF DOW AGROSCIENCES AND THE SAVE OUR CROPS COALITION REGARDING 2,4-D TOLERANT CROPS AND THE 2,4-D CHOLINE SALT HERBICIDE**

## **Parties to this Statement**

Dow AgroSciences (Dow) is a wholly owned subsidiary of The Dow Chemical Company. Dow's products and services are designed to solve problems of its customers, boosting agriculture productivity to maximum sustainable levels to meet the needs of the world's expanding population. Dow focuses on game-changing technologies to provide better crops, better plant nutrition, and more effective pest management solutions.

The Save Our Crops Coalition (SOCC) is a grassroots coalition of farm interests organized for the specific purpose of preventing injury to non-target plants from exposure to 2,4-D and dicamba upon introduction of 2,4-D and dicamba tolerant crops. SOCC is concerned

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that such introduction would result in widespread use of the herbicides in areas where commercial production of crops highly susceptible to these herbicides is extensive. SOCC does not oppose advances in plant technology, particularly genetic modification, but does oppose actions likely to result in substantial injury to non-target crops or the habitats necessary for their pollinators.

## The Statement

On February 22, 2012, USDA announced the Availability of the Petition, Plant Pest Risk Assessment, Determination of Nonregulated Status for Corn Genetically Engineered for Herbicide Tolerance, DAS-40278-9 Corn, and on May 23, 2012, EPA announced a receipt of applications to register new uses for the 2,4-D choline salt herbicide.

On April 18, 2012, SOCC submitted petitions to both the U.S. Department of Agriculture (USDA) and the U.S. Environmental Protection Agency (EPA). SOCC has also submitted comments to the USDA docket for DAS-40278-9 Corn, and the EPA docket for the new use registrations of 2,4-D choline salt on 2,4-D tolerant corn and soybeans.

As indicated in a letter to USDA, dated June 1, 2012, Dow and SOCC have been engaged in discussions in an attempt to resolve SOCC concerns regarding injury to non-target plants. Dow and SOCC are now very pleased to announce the successful conclusion of those discussions. Through these discussions, both Dow and SOCC have achieved a better understanding of the other's perspective and have agreed to modify positions each organization has taken with respect to pending regulatory matters.

In light of the commitments made by Dow, below, SOCC will amend its petitions and its comments to USDA and EPA, accordingly. SOCC believes that commitments made by Dow represent substantial measures to mitigate the non-target plant damage impacts of herbicide spray drift and volatilization associated with 2,4-D tolerant crops. As a prerequisite for approval of these crops and these herbicides, SOCC had requested that USDA and EPA not approve either the crops or the herbicides until effective measures were in place to protect against non-target plant damage. SOCC believes that the commitments made by Dow, below, should be deemed effective measures to protect against non-target plant damage. Accordingly, SOCC requests amendment of its petitions and comments regarding 2,4-D tolerant crops and the 2,4-D choline salt herbicide to reflect the substantial measures to mitigate non-target plant damage impacts adopted by Dow.

Dow will request the following:

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1. Dow will request an amendment to its pending herbicide label submitted to EPA to include the following language under a new “Susceptible Plants” heading within the “Spray Drift Management” section on the label for 2,4-D choline salt herbicides authorized for use in 2, 4-D tolerant crops (additions emphasized):

*Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Avoid contact of herbicide with foliage, green stems, exposed non-woody roots of crops, desirable plants and trees because severe injury or destruction may result. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants. **Before making an application, please refer to your state’s sensitive crop registry (if available) to identify any commercial specialty or certified organic crops that may be located nearby.***

***Commercially grown tomatoes and other fruiting vegetables (EPA crop group 8), cucurbits (EPA crop group 9), and grapes are particularly sensitive to drift from this product. Do not apply when wind direction favors off-target movement onto these crops.***

2. In order to clarify the setback distance chart with respect to the new “Susceptible Plants” heading, above, (which does not specify safe setback distances for such crops), Dow will request the following language under the “Drift Setbacks from Sensitive Areas” heading within the “Spray Drift Management” section of the 2,4-D choline salt label (additions emphasized):

*Allow setbacks (buffer zones) upwind of sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, and sensitive non-target crops **other than those listed above**) according to the following table.*

Dow commits to the following:

1. Dow commits to assist in the investigation, diagnosis and resolution of alleged non-target claims.
2. Dow commits to include terms within its Technology Use Agreements for 2,4-D tolerant crops that require growers and applicators to keep accurate records of the locations where 2,4-D tolerant crops are planted and where authorized herbicides containing 2,4-D choline salt is applied, and to retain invoices for all seed and herbicide purchases.
3. Dow commits to include language in its Product Use Guide for authorized herbicides containing 2,4-D choline salt that recommends applicators keep accurate spray records, including application location, timing, and wind speed.

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4. Dow commits to utilize an independent third party to collect seed and pesticide sales data that will help identify applicators that use non-choline salt forms of 2,4-D (generic 2,4-D) in contravention of present generic 2,4-D label requirements and the Technology Use Agreement.
5. Dow commits to price its technology (both its seeds and its herbicide) competitively to maximize the use of 2,4-D choline salt (and disincentivize the use of non-choline salt formulations of 2,4-D) on 2,4-D tolerant crops.

SOCC does not have the scientific capability to evaluate product performance claims made by Dow, but notes that impressive research findings presented by Dow have been published in refereed journal articles. Specifically, SOCC notes research Dow has made available indicating the reduced drift and volatilization potential of its new herbicide, 2,4-D choline salt (here, referred to by its trade names -- the Enlist System, Enlist Duo and the Colex-D Technology)<sup>1</sup>:

### **Laboratory Studies:**

1. 2,4-D choline demonstrated ultra-low volatilization and significantly less damage to sensitive crops placed only inches away when compared to other forms of 2,4-D.
2. The Colex-D formulation demonstrated a 64% reduction in driftable fines (volume percentage of droplets less than 150  $\mu\text{m}$ ) vs. conventional 2,4-D/glyphosate tank mix at typical use rates.
3. Colex-D technology showed significantly less spray drift as compared to a commercial tank mix in wind tunnel tests using a range of spray nozzle types. For example, using the TeeJet AIXR 11002 air induction, Colex-D technology reduced driftable fines by 20-fold as compared to the commercial tank mix.

### **Field Studies:**

1. Potted cotton plants placed under domes directly over treated soil showed minimal symptoms from 2,4-D volatility when Colex-D Technology was utilized (5% visual injury in 6 of 20 plants), compared to 13% visual injury in 19 of 20 plants treated with 2,4-D amine, and 65% visual injury in all 20 plants treated with 2,4-D LV ester.

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<sup>1</sup> *Research Demonstrating Reduction in Potential Off-Target Movement for 2,4-D Choline and Colex-D Technology as Part of the Enlist Weed Control System*, Dow AgroSciences LLC (2012), available at: <http://www.regulations.gov/#!documentDetail;D=APHIS-2012-0019-0008>, at 3.

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2. Quantification of volatilized 2,4-D from soybean fields showed that calculated loss rates of 2,4-D choline were much lower than 2,4-D dimethyl amine and 2,4-D ethylhexyl ester.
3. The loss rate of 2,4-D ethylhexyl ester was as much as two orders of magnitude greater than the 2,4-D dimethyl amine form. Loss rates of 2,4-D choline were about 50X less than the 2,4-D dimethyl amine.

Dow and SOCC request that USDA and EPA reflect these new and substantial commitments made by Dow in their response to public comments.

Regards,

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Save Our Crops Coalition

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