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USDA-APHIS

Regulatory Analysis and Development

PPD, APHIS, Station 3A-03.8

4700 River Road Unit 118

Riverdale, MD 20737-1238

**Re: NOI to Prepare an EIS for determination of Nonregulated Status for 2,4-D resistant corn and soybeans and for dicamba resistant cotton and soybeans**

The Weed Science Society of America (WSSA) is pleased to submit these comments regarding the Notices of Intent to prepare Environmental Impact Statements (EISs) for 2,4-D and dicamba resistant crops under the National Environmental Policy Act (NEPA) issued by USDA-APHIS.

The WSSA is a non-profit professional association of academic, extension, government, and industry research scientists committed to improving the knowledge and management of weeds in agricultural, aquatic, forest, horticultural, amenity, range, right-of-way, and natural area environments. The WSSA and its affiliates, the Aquatic Plant Management Society, the Northeastern Weed Science Society, the North Central Weed Science Society, the Southern Weed Science Society, and the Western Society of Weed Science represent over 3000 members nationwide.

The WSSA understands your decision to conduct an environmental impact study for 2,4-D and dicamba resistant technologies. No farmer wants to use a technology that would harm the user, the consumer, or the environment, and likewise, no weed scientist would want to recommend such a technology. Throughout the history of the WSSA, our member scientists have studied 2,4-D and dicamba extensively. These herbicides have been safely and widely used across the country since the 1960s and these new crop traits would provide farmers the flexibility for new applications of these herbicides, while also offering farmers additional crop planting options.

Science has clearly shown that there is a risk of resistance development to all herbicides, and 2,4-D and dicamba are no exception. In fact weeds have evolved resistance to nearly

all forms of weed control including herbicides, tillage, mowing and hand weeding. Some of our members have voiced concerns that growers may adopt 2,4-D and dicamba technologies and rely too heavily on these herbicides thereby developing an even greater weed resistance situation. However, the majority of our member scientists view 2,4-D and dicamba resistant crops as an additional weed management tool to include in an integrated weed management program. The greatest risk for developing herbicide resistance is actually occurring right now with the PPO herbicides and glufosinate. These products are being over-used in certain cropping systems as farmers have no other effective herbicide options. The 2,4-D and dicamba resistant crops could be used to delay resistance development to the PPO herbicides and glufosinate and, in turn, weed management systems could be developed using the PPO herbicides, glufosinate, 2,4-D and dicamba, extending the life of each of these chemistries.

Weed management is ultimately the responsibility of farmers and farm advisors. However, the weed science community, including industry, academics, crop commodity groups and others who reach out to farmers, must recommend robust and effective stewardship programs espousing the basic principles of good weed management and encourage adoption of these practices. By doing so, evolution of resistance to our herbicide resources and new options such as 2,4-D and dicamba resistant crops will be minimized.

Research indicates that 2,4-D and dicamba will fit best in a fully diversified program and such a program is particularly important when glyphosate resistant palmer pigweed and waterhemp are the targets. Resistance to 2,4-D and dicamba represents no more a threat to agricultural production than resistance to other critical herbicides and the likelihood that it will be used in a manner consistent with best management practices is good.

Stacking 2,4-D and dicamba tolerance with that of glyphosate, glufosinate, and other herbicide tolerant traits will further facilitate the use of these herbicides in a diversified program. Stacking herbicide traits does not in itself promote the evolution of resistance to more than one herbicide since, just as for individual herbicides, the evolution of resistance is a function of how the herbicides are used rather than a function of the selectivity of the crop to multiple herbicides.

The ability of farmers to use 2,4-D and dicamba in diversified weed management programs in soybeans, corn, and cotton is not expected to significantly change current farming practices. These herbicide tolerant crops will, however, provide valuable new postemergence options that will allow farmers to most effectively manage their weeds when practicing conservation tillage even in the presence of glyphosate resistant populations. Farmers have clearly shown a preference for postemergence weed control in conservation tillage systems and 2,4-D and dicamba can be an important part of this system.

As the spread of glyphosate-resistant weeds occurred, the adoption of tillage, including deep tillage with a moldboard plow has once again become more common. The return of conventional tillage has led to increased wind and water erosion. Neither 2,4-D nor

dicamba technologies would eliminate tillage, but they would greatly reduce the need for deep tillage allowing many farmers to return to more reduced tillage production systems.

Off target movement of 2,4-D and dicamba pose the greatest limitation to the adoption of either auxin technology. An enormous amount of research by the registrants and other weed scientists around the world has been conducted to develop methods to minimize the potential for off-target movement. These efforts include 1) improving herbicide formulations, thereby reducing volatility and/or drift, 2) improving application equipment techniques and application methods, thereby reducing drift, and 3) developing educational materials to assist growers in reducing off target movement when making pesticide applications. There is no question these research efforts will greatly minimize off-target movement of all pesticides, not just 2,4-D and dicamba, and will greatly improve the ability of a grower to apply pesticides that stay in the targeted area.

In closing, WSSA urges USDA to expedite the necessary reviews leading to final approval of 2,4-D resistant corn and soybeans and dicamba resistant cotton and soybeans. New and expanded uses of existing herbicides are needed for integrated weed management programs in order to mitigate weed resistance and meet our current and future crop production needs. Should USDA-APHIS have any questions about these comments, please feel free to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Lee Van Wychen".

Lee Van Wychen, Ph.D.  
Director of Science Policy  
Weed Science Society of America