

WSSA Liaison to EPA  
Interim Report to the WSSA Board of Directors – Quarter 3, 2009  
Jill Schroeder  
October 5, 2009

Schedule of third quarter visits:  
August 3-6, 2009

Overview of Activities: My schedule changed for the third quarter. I am visiting the EPA-OPP headquarters one week per every other month. My August trip was similar to previous trips to DC. I met with Dan Kenny and Registration Division staff on a variety of topics, the Environmental Fate and Effects-Plant Task Team, Biological and Economic Assessment Division on herbicide resistance topics, and listened to a briefing from members of several NGO's to the Climate Work Group of OPP where they presented their concerns about the impact of pesticides on climate change.

Goals for the August visit included offering a seminar by David Shaw to EPA on issues related to management of herbicide resistant weeds and offering to host a tour of NM riparian and irrigation districts in 2010. Both suggestions were received with interest. In August/September, I worked with David, Dan Kenny (OPP/RD) and Bill Chism (OPP/BEAD) to schedule a time for David's seminar. John Jachetta, Mike Barrett and Lee VanWychen will also attend representing WSSA. The presentation (all of OPP are invited) followed by a discussion with EPA staff involved with the issue is scheduled for October 13, 2009. The abstract of David Shaw's presentation follows:

Guest Seminar by Dr. David Shaw  
President Weed Science Society of America  
Director Geosystems Research Institute and Giles Distinguished Professor  
Mississippi State University

Title: Glyphosate-Resistant Weeds: *Can We Close the Barn Door in Time?*

Roundup Ready technology is a simple and highly effective system that has become the dominant weed management approach in soybeans, corn, and cotton; in many states, over 90% of the acreage in these crops is planted to Roundup Ready varieties. Within the past five years, glyphosate resistance in weeds has emerged as a prominent issue in Roundup Ready crops. Weed scientists are making major efforts in research and education/outreach programs to better understand the drivers behind resistance development, and to proactively educate growers on best management practices that can be used to prevent selection for glyphosate-resistant weed biotypes, or to manage them when they do appear.

Over 1200 growers in six states (Illinois, Indiana, Iowa, Mississippi, Nebraska, and North Carolina) were surveyed by telephone in January 2006 to better understand their attitudes toward the development and management of glyphosate-resistant weeds. In particular, the survey assessed the perceived levels of concern among growers about glyphosate resistance in weeds and whether they believed they had experienced glyphosate resistance on-farm. This survey also allowed the development of baseline information on how weed management and crop production practices have changed since the introduction of Roundup Ready technology. Additionally, this survey provided critical information on common weed management issues that need to be addressed through applied Weed Science research and extension efforts

Following this survey, a series of farm-scale studies were conducted on 120 farms in these states over a four-year period to assess grower-chosen management practices (primarily or exclusively glyphosate) versus university-recommended herbicide resistance management practices in split-field studies. Although input costs were slightly higher when university-recommended practices were employed, increased yields with these practices tended to offset these costs, resulting in net returns equal to or greater than the grower systems.

A follow-up survey with growers to measure the effectiveness of recent educational programs in changing grower attitudes toward resistance management is planned for this fall. This will be an important element in understanding the impact of current education and outreach programs, and target where additional Extension efforts are needed.

The Weed Science Society of America as an organization and as individual members is taking a very proactive approach to developing and disseminating information regarding glyphosate resistance management. A series of symposia have been conducted at the annual conference for the last three years on this topic. In addition, APHIS and EPA are sponsoring a special publication, authored by WSSA members and due to be completed by February 2010, which summarizes the latest and best information on glyphosate resistance.

In addition to the above activities, I submitted an abstract (accepted) to present the following oral paper at the 2010 WSSA meetings in Denver, CO.

Schroeder, J., K. Getsinger, D. Kenny, and Lee VanWychen. WSSA Subject Matter Expert for the Office of Pesticide Programs at the USEPA: Goals, Activities, Vision.

With the concurrence of the US Environmental Protection Agency's (EPA) Office of Pesticide Programs (OPP), the Weed Science Society of America (WSSA) Board of Directors created the position of Academic Weed Science Subject Matter Expert (SME) in 2007. This position is designed as a partnership between WSSA and EPA-OPP's Registration Division – Herbicide Branch. The function of this position is to develop a technical relationship between weed scientists and the EPA and to provide information to the Agency that is useful for addressing terrestrial weed issues which impact stakeholders, particularly those relating to invasive plants that infest non-crop sites. The interaction allows the Agency better access to current information when dealing with the broad range of issues that arise as well as answering highly specific technical questions. The position was modeled after the aquatic weed SME assignment. These SMEs work collaboratively with others to represent the overall weed science discipline and to identify key weed scientists who can provide input on topics of mutual concern to the Agency and the weed management community. Two key issues that are being addressed include: the impact of a US court decision to require National Pollution Discharge Elimination System (NPDES) permits for application of pesticides on, near, or over water under the Clean Water Act (CWA); and, management of herbicide resistant weeds. The success, benefits, and momentum generated by the new WSSA – EPA terrestrial SME relationship clearly indicates the need to consider a long-term partnership between the Agency and the weed science community.

My next visit to EPA/OPP/RD is scheduled for October 13-15, 2009. The December schedule has not yet been set. I will follow up on the invitation to NM to tour riparian areas and irrigation district of southern NM.

Respectfully submitted,  
Jill Schroeder  
WSSA SME/liaison to EPA