

## My view

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### Herbicide resistant weed management: who's resisting?

The Western Society of Weed Science held its 50th Annual Conference in Portland, OR, on March 11–13, 1997. During the business breakfast, Carol Mallory-Smith (Oregon State University) introduced the following resolution:

Whereas; The most consistent recommendation to prevent, delay, or manage herbicide resistant weeds is to rotate herbicides having different sites of action, and Whereas; Herbicide users do not always know the biochemical site of action of a herbicide, making it difficult to choose a herbicide having a different site of action for herbicide resistance management, and Whereas; The Weed Science Society of America has approved a herbicide classification based on herbicide site of action, Be it therefore resolved that the Western Society of Weed Science does hereby support the use of this classification for educational purposes.

The resolution was amended from the floor by Donald Thill (University of Idaho) so that the last sentence would read "... for educational purposes, which include university publications, news releases in the popular press, and on herbicide labels." This suggestion was followed by a sometimes emotional discussion centering mostly on the pros and cons of such a label addition, with several strongly negative comments from representatives of the agrichemical industry. The resolution failed, along what appeared to be strict public sector versus private sector party lines. The WSSA Board actually only approved the concept of a classification system, but that is beside the point.

I am puzzled and disappointed by the controversy this simple resolution has generated. It seems to me that the underlying goal of all our efforts in herbicide resistance research and extension is to prevent resistance from getting started in the first place, and to manage it if it is already there. It also seems quite clear that the reason for studying and publicizing resistance is to prevent loss of herbicides from the marketplace because of resistant weeds and to "protect" these tools for future use by producers. Therefore, I would argue that both academia and industry should be able to unite behind an effort like this that can help educate producers about resistance. It is especially disconcerting that such a seemingly innocuous statement from the WSWS (which certainly doesn't carry any authority or legal weight)

could induce this kind of intransigence from the agrichemical industry.

I have many close friends in industry, both scientific and personal, and individually they are every bit as conscientious and forward-thinking as anyone else in science. However, it is clear that the driving force of industry (i.e., to return a profit to the stockholders) takes precedence over any individual or collective understanding of biological systems and how they respond to selection pressure. I have been told by several of my industry friends that their companies will not support this kind of information on herbicide labels because 1) as a "resistance propensity designation," it could lump all herbicides together under a blanket resistance management strategy that might not apply to a specific company's product, or 2) rotating herbicides for resistance management would most likely reduce short-term profits, which are the primary source for individual compensation. These arguments are not without some validity, and I certainly don't presume to advise marketing specialists on how to maximize profitability. Nonetheless, I imagine that it wouldn't take an extremely sharp pencil to show that a product used an average of 3 years out of 5, but with a useful lifetime of 50 years, would return substantially more net profit than one used every year but became severely limited after 10 years because of resistance. I guess it all boils down to a conflict between short-term and long-term profits.

Some of us have been harping for a long time now about product stewardship in regards to the industry's position on herbicide marketing, particularly as it applies to resistance-prone chemical families. But it continues to look as if the short-termers are in control of the situation and that any efforts towards resistance management that go beyond merely lip service will be met with a less-than-enthusiastic response. I am especially disappointed that this kind of stance will prevent our discipline from demonstrating to the other pest management disciplines our broad-based support for a biologically based resistance prevention and management strategy. So while we argue about arranging the deck chairs, the Grand Experiments will be done in farmers' fields with little or no proactive guidance from the agrichemical industry or our professional societies.

*Approved April 7, 1997.*