Time For A Fix

Change Is Required To Curb Herbicide Resistance

BETTY VALLE GEGG-NAEGER
MidAmerica Farmer Grower

DEXTER, MO.

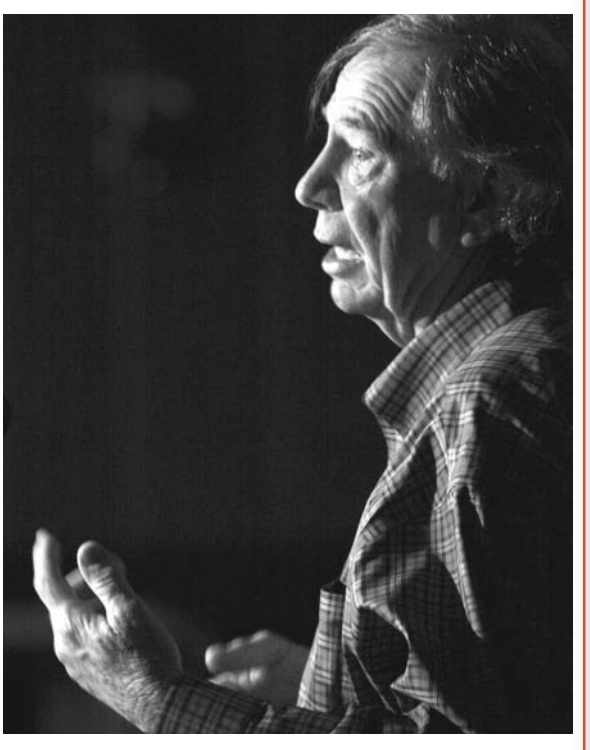
"Diversity, diversity, diversity" is one of the most important tools for resistance management, according to Dr. Ford Baldwin of Practical Weed Consultants. Baldwin spent most of his career as a University of Arkansas Extension weed scientist and has now opened his own company.

He spoke on rice weed management at a recent extension meeting.

"I think we're finally starting to get farmers' attention that bad things happen when we do the same thing over and over and over, and the concerning thing in rice is just the lack of new herbicide technology coming along," he said. "What drives the bus in the United States is corn and soybeans, so you have more options for new technology coming along in those crops than you do in rice."

Rice growers have to search for a herbicide for rice, and it almost has to be something that also has use in another crop. Another option is something used in rice producing areas of other countries.

"That's pretty unusual, because their cultures are so different from ours," Baldwin said. "The culture in California is also different. The rice growing areas in the Midsouth just don't have many companies that want to develop herbicides for that small of a market. So we're running the risk of using up our herbicides one mode of action at a time and when that happens, farmers are looking at switching rice acres to crops with better weed control. That's a concern."



Dr. Ford Baldwin of Practical Weed Consultants explains bad things happen when we do the same thing over and over and over regarding tools for resistance management.
Photo by John LaRose, Jr.

Baldwin suggests that farmers do some things different. While they're beginning to realize that resistance is real, farmers have kept believing that a new herbicide would be developed before the issue became this problematic.

"At the time we first started having to fight resistance, new herbicides were being developed left and right," he continued. "We couldn't get enough graduate students to look at all the new herbicides coming along, so if we saw we were getting resistance to one we already had something in the pipeline that we could rush through a Section 18 for; or there was something out there that was better than we had before. I think even weed scientists got complacent about it; but farmers were certainly complacent. They felt 'this doesn't mean anything to me, I'm going to keep doing what I'm doing and by the time I have a problem they'll have something better,' and that has worked until now. Now we just don't have those answers. The farmer that gets into a good resistance management program is going to be around a long time, the one that doesn't is going to have some real issues."

Baldwin said farmers have three important management tools, and they are diversity, diversity, diversity.

"That means crop diversity, the more crop rotation you get in the mix the better," he said. "With pigweed management in soybeans, and here where more corn is grown, rotation is a great tool because you have more options with conventional herbicides in corn than you do in any other crop. Rice is certainly a rotation crop for soybeans if you control the weeds on the levees. With pigweed, for example, I'm switching back and forth between barnyardgrass in rice and Palmer pigweed in soybeans but in a lot of ways their interrelated. All it takes is letting two or three pigweed plants in a field go to seed. If they happen to be resistant then you have big time problems; but herbicide diversity, just getting more different modes of action into the mix will help a lot."

The argument may be that will cost a lot of money. However, technology can only be pushed so far when farmers are growing continuous rice.

"If that's what they determine gives them the best chance to stay in business, they're going to have to spend more money on weed control to stay in that culture as opposed to what they would have to do if they were rotating with another crop," Baldwin reasoned. "So different herbicides in the mix, even if they think they don't need them, will help. In fact, as Steve Powell said in a recent article, 'if your weed control program is working great, change.' And that doesn't mean change it to something that doesn't work, it just means change the crop rotation, change the herbicide rotation, change the modes of action that you're using, use more tank mixes."

Baldwin pointed to LibertyLink soybeans as a great way to break the Roundup cycle.

"Even if corn is not in the mix, if you have the option to plant, rotate Clearfield rice with conventional rice with LibertyLink soybeans with Roundup Ready soybeans," he suggested. "Just look at the diversity you have there. Then you can add some residual herbicide to the Roundup or the LibertyLink program. But we just can't do the same thing over and over. Clearfield rice is great technology, Roundup Ready soybeans are great technology and we're driving both of them right off the cliff by lack of diversity in those programs."

He summed it up by saying weed resistance is real and farmers had better be serious and diversify, diversify, diversify.

"We've got to get out of that 'if it ain't broke, don't fix it' mode," he said. "You cannot do the same thing over and over. By nature all of us whatever it is, whether it's the car we drive or what we eat, we tend to continue with it. However, with a weed control program where resistance has cropped up, it's the wrong thing to continue with it." Δ

BETTY VALLE GEGG-NAEGER: Senior Staff Writer, MidAmerica Farmer