BARNYARDGRASS MANAGEMENT IN SOYBEANS

Barnyardgrass [BYG] management and control in Midsouth soybeans is a common problem. This weed commonly occurs in rice fields in the region, but since soybean is commonly rotated with rice, it also is a problem weed in the soybean crop. The weed is difficult to control because of its tolerance to postemergence [POST] herbicides, its development of resistance to glyphosate [a Group 9 herbicide] as well as its resistance to herbicides in other Groups, its prolonged/extended emergence period, its prolific seed production, and its ability as a C4 plant to withstand environmental stresses and out-compete C3 species such as soybean.

The USB, as part of its Take Action Pesticide Resistance Management program, published a Fact Sheet titled "Barnyardgrass Management in Soybeans" that presents the main points to consider to control this grass weed in soybean fields. Technical editing for the publication was led by Dr. Larry Steckel of the Univ. of Tennessee.

A publication titled "Identification and Management of Glyphosate-Resistant Barnyardgrass in Mississippi Cotton and Soybeans"–MSU Ext. Pub. 3917 by Permenter, Crow, and Speights provides up-to-date management suggestions for controlling glyphosate-resistant [GR] BYG in soybeans. That information is provided in the below table.

Weed management suggestions for control of GR BYG in Miss. soybeans from MSU Ext. Pub. 3917.		
Herbicide	**Treatment**	**Instructions**
Clethodim [e.g. Select]	0.07 to 0.125 lb ai/acre	Apply POST to grass 2-6 in. tall
Fluazifop [e.g. Fusilade DX]	8 oz/acre	Apply POST to grass < 5 in. tall with fewer than 6 leaves
Quizalofop [e.g. Assure II]	0.048 to 0.055 lb ai/acre	Apply POST to grass 2-6 in. tall
Sethoxydim [e.g. Poast]	0.188 lb ai/acre	Apply POST to grass < 6 in. tall

All of the herbicides in the above table are Group 1 ACC-ase inhibitors. Thus, they will not be effective against BYG populations that have developed resistance to herbicides in Group 1. Where only resistance to Group 1 herbicides has been confirmed, POST herbicide programs should include glyphosate or glufosinate [Group 10] active ingredients. As stated in the above USB Fact Sheet, "Add a Group 15 herbicide with your POST herbicide to provide additional control during the growing season". And as with all herbicide applications, both preemergence and POST herbicide applications should contain herbicides with multiple sites of action to improve weed control and delay the development of HR weeds.

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