

# Using Herbicide Site of Action Bulletin to Combat Weed Resistance to Herbicides Bulletin

*REVISED~*

Color-coded classification of herbicides by site of action  
 • Includes WSSA group number

Corn and soybean herbicide premix tables showing active ingredients

Updated with new chemical families

**HERBICIDE CLASSIFICATION BY SITE OF ACTION**

SITE OF ACTION	WSSA GROUP	CHEMICAL FAMILY	ACTIVE INGREDIENT
Inhibition of acetyl CoA carboxylase (ACCase)	1	Aryloxyphenoxy propionate	haloxypyr, fluazifop, glufosinate
Inhibition of acetolactate synthase (ALS)	2	Sulfonurea	chlorsulfuron, rimsulfuron, sulfentrazone, tribenuron, flazasulfuron, prosulfuron, florasulfuron, imazosulfuron, metazasulfuron
		Imidazolinone	imazamox, imazapyr, imazethapyr, imazaquin, imazoxyn, imazoxynil
Inhibition of microtubule assembly	3	Triazolopyrimidine	ametsulfuron, chloransulfuron
Synthetic auxins	4	Phenoxy	2,4-D, MCPA, MCPP
Inhibition of indoleacetic acid transport		Carboxylic acid	dicamba
		Semicarbazone	clopyralid, fluroxypyr, piquet, triclopyr
Inhibition of photosynthesis at photosystem II site A	19		oliflutazopyr
Inhibition of photosynthesis at photosystem II site B	5	Triazine	atrazine, cyanazine, prometon, simazine
		Triazone	hexazinone, metribuzin
Inhibition of photosynthesis at photosystem II site A -- different binding behavior	6	Uraclon	hexazinone, metribuzin
Photosystem I - electron donor	Urea	Benzothiazole	bromoxynil, terbutyl
			terbutyl
Inhibition of EPSP synthase			glyphosate, glufosinate
Inhibition of lipid biosynthesis and ACCase inhibition			paraquat
Bleaching: Inhibition of chlorophyll synthesis			diuron, thiuron, tribururon
Bleaching: Inhibition of photosynthesis	15	Chromophore	acifluorfen, acifluorfen-methanesulfonate, diflufenican, diflufenican-methanesulfonate, sulfentrazone
		Axialone	acifluorfen, acifluorfen-methanesulfonate, diflufenican, diflufenican-methanesulfonate, sulfentrazone

**\$2.00**

**CORN HERBICIDE PREMIXES**

PREMIX	ACTIVE INGREDIENTS	WSSA GROUPS
Advan 2500	glyphosate, atrazine, cyanazine, metribuzin	1, 5, 19
Beam 2000	glyphosate, atrazine, cyanazine, metribuzin, 2,4-D, MCPA	1, 5, 19, 4
Beam 2000 Plus	glyphosate, atrazine, cyanazine, metribuzin, 2,4-D, MCPA, MCPP	1, 5, 19, 4
Beam 2000 Plus II	glyphosate, atrazine, cyanazine, metribuzin, 2,4-D, MCPA, MCPP, dicamba	1, 5, 19, 4, 19
Beam 2000 Plus III	glyphosate, atrazine, cyanazine, metribuzin, 2,4-D, MCPA, MCPP, dicamba, clopyralid	1, 5, 19, 4, 19

**UTILIZING HERBICIDE Site of Action TO COMBAT WEED RESISTANCE TO HERBICIDES**

Herbicides can be grouped or classified into categories according to their mode of action. Herbicides that share a common mode of action are called herbicides with the same site of action. Herbicides with different modes of action are called herbicides with different sites of action. Herbicides with the same site of action are called herbicides with the same site of action. Herbicides with different sites of action are called herbicides with different sites of action.

The Weed Science Society of America (WSSA) and the Herbicide Resistance Action Committee (HRAC) have developed classifications schemes based on herbicide site of action. While there are some similarities between the two schemes, they both cover essentially the same information. We have adopted the WSSA herbicide site of action classification scheme (shown in Figure 1) for this bulletin.

Figure 1. Herbicide site of action classification scheme based on herbicide mode of action.

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Utilizing Herbicide Site of Action to Combat Weed Resistance Bulletin	X \$2.00	

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