

USB TAKEACTION'S HERBICIDE CLASSIFICATION CHART

The soybean checkoff-funded United Soybean Board [USB] is committed to the success of U.S. soybean farmers. Through its [TakeAction](#) program, it releases a herbicide classification chart that is created and maintained by Michigan State Univ. weed scientist Dr. Christy Sprague. This chart has two sections—1) a color-coded chart that lists the [MOA](#) of herbicides by site-of-action group, and 2) a premix herbicide product chart that lists commercially available herbicide premixes along with the active ingredients in each premix and the premix's trade name.

The most recent Herbicide Classification Chart is now available and is shown below. This chart is a tool that can be used by farmers to select herbicides that will combat the growing number of weeds with resistance to herbicide sites of action.

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HERBICIDE CLASSIFICATION



Repeated use of herbicides with the same site of action can result in the development of herbicide-resistant weed populations.

by MODE OF ACTION (MOA) (effect on plant growth)

This chart groups herbicides by their modes and sites of action to assist you in selecting herbicides to...
1) maintain greater diversity in herbicide use and
2) rotate among effective herbicides with different sites of action to delay the development of herbicide resistance

SITE-OF-ACTION GROUP ¹	SITE OF ACTION	NUMBER OF RESISTANT WEED SPECIES IN U.S.				
		CHEMICAL FAMILY	ACTIVE INGREDIENT	PRODUCT EXAMPLES (TRADE NAME)		
LIPID SYNTHESIS INHIBITORS						
1	ACCASE INHIBITORS (acetyl CoA carboxylase)	14	Aryloxyphenoxypropionate (fops)	clodinafop	Discover NG	
				cyhalofop	Clincher	
				fenoxaprop	Ricestar HT, others	
				flusilade	Fusilade DX	
				quizalofop	Assure II, others	
			Cyclohexanedione (dims)	clethodim	Select Max, others	
				sethoxydim	Poast, Poast Plus	
			Phenylpyrazoline	pinoxaden	Axial XL	
AMINO ACID SYNTHESIS INHIBITORS						
2	ALS INHIBITORS (acetolactate synthase)	53	Imidazolinone	imazamox	Raptor, Beyond	
				imazapic	Plateau	
				imazapyr	Arsenal	
				imazaquin	Scepter	
				imazethapyr	Pursuit, Newpath	
			Pyrimidinyl benzoates	bispyribac	Regiment	
				pyrithiobac	Staple	
			Sulfonylurea	bensulfuron	Londax	
				chlorimuron	Classic	
				chlorsulfuron	Glean	
				halosulfuron	Permit, Sandea	
				iodosulfuron	Autumn	
				mesosulfuron	Osprey	
				metasulfuron	Ally	
				nicosulfuron	Accent Q, Zest	
				orthosulfamuron	Strada	
				primisulfuron	Beacon	
				prosulfuron	Peak	
				rimsulfuron	Matrix, Resolve	
				sulfosulfuron	Outrider	
				thifensulfuron	Harmony	
				triasulfuron	Amber	
				tribenuron	Express	
				triflurosulfuron	Envoke	
				triflursulfuron	UpBeet	
				Triazolinones	flucarbazone	Everest, Pre-Pare
					propoxycarbazone	Olympus
				thiencarbazone	Varro	
			Triazolopyrimidine - Type 1	cloransulam	FirstRate	
				florasulam	component of Orion, Quelex, Starane Flex	
				flumetsulam	Python	
			Triazolopyrimidine - Type 2	penoxsulam	Grasp	
				pyrosulam	PowerFlex HL	
9	EPSP SYNTHASE INHIBITOR (5-enolpyruvyl-shikimate-3-phosphate)	18	Glycine	glyphosate	Roundup, several others	