

## HERBICIDE MODE OF ACTION TABLE

WSSA GROUP	MODE OF ACTION	CHEMICAL FAMILY (GROUP)	ACTIVE INGREDIENTS
1	Inhibition of acetyl CoA carboxylase (ACCase)	Aryloxyphenoxy-propionate 'FOPs'	clodinafop-propargyl cyhalofop-butyl diclofop-methyl fenoxaprop-P-ethyl fluazifop-P-butyl haloxyfop-R-methyl propaquizafop quizalofop-P-ethyl
1		Cyclohexanedione 'DIMs'	alloxydim butroxydim clethodim cycloxydim profoxydim sethoxydim tepraloxidin tralkoxydim
1		Phenylpyrazoline 'DEN'	pinoxaden
2	Inhibition of acetolactate synthase ALS (acetohydroxyacid synthase AHAS)	Sulfonylurea	amidosulfuron azimsulfuron bensulfuron-methyl chlorimuron-ethyl chlorsulfuron cinosulfuron cyclosulfamuron ethametsulfuron-methyl ethoxysulfuron flazasulfuron flupyrsulfuron-methyl-Na foramsulfuron halosulfuron-methyl imazosulfuron iodosulfuron mesosulfuron metsulfuron-methyl nicosulfuron oxasulfuron primisulfuron-methyl prosulfuron pyrazosulfuron-ethyl rimsulfuron sulfometuron-methyl sulfosulfuron thifensulfuron-methyl triasulfuron tribenuron-methyl trifloxysulfuron triflusulfuron-methyl tritosulfuron
2		Imidazolinone	imazapic imazamethabenz-methyl imazamox imazapyr imazaquin imazethapyr

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2		Triazolopyrimidine	cloransulam-methyl diclosulam florasulam flumetsulam metosulam penoxsulam
2		Pyrimidinyl(thio)benzoate	bispyribac-Na pyribenzoxim pyriftalid pyrithiobac-Na pyriminobac-methyl
2		Sulfonylaminocarbonyl-triazolinone	flucarbazone-Na propoxycarbazone-Na
3	Microtubule assembly inhibition	Dinitroaniline	benfenin = benfluralin butralin dinitramine ethalfluralin oryzalin pendimethalin trifluralin
3		Phosphoroamidate	amiprofos-methyl butamiphos
3		Pyridine	dithiopyr thiazopyr
3		Benzamide	propyzamide = pronamide tebutam
3		Benzoic acid	DCPA = chlorthal-dimethyl
4	Action like indole acetic acid (synthetic auxins)	Phenoxy-carboxylic-acid	clomeprop 2,4-D 2,4-DB dichlorprop = 2,4-DP MCPA MCPB mecoprop = MCPP = CMPP
4		Benzoic acid	chloramben dicamba TBA
4		Pyridine carboxylic acid	clopyralid fluroxypyr picloram triclopyr
4		Quinoline carboxylic acid	quinclorac (also group L) quinmerac
4		Other	benazolin-ethyl

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5	Inhibition of photosynthesis at photosystem II	Triazine	ametryne atrazine cyanazine desmetryne dimethametryne prometon prometryne propazine simazine simetryne terbumeton terbuthylazine terbutryne trietazine
5		Triazinone	hexazinone metamitron metribuzin
5		Triazolinone	amicarbazone
5		Uracil	bromacil lenacil terbacil
5		Pyridazinone	pyrazon = chloridazon
5		Phenyl-carbamate	desmedipham phenmedipham
6	Inhibition of photosynthesis at photosystem II	Nitrile	bromofenoxim bromoxynil ioxynil
6		Benzothiadiazinone	bentazon
6		Phenyl-pyridazine	pyridate pyridafof
7	Inhibition of photosynthesis at photosystem II	Urea	chlorobromuron chlorotoluron chloroxuron dimefuron diuron ethidimuron fenuron fluometuron (see F3) isoproturon isouron linuron methabenzthiazuron metobromuron metoxuron monolinuron neburon siduron tebuthiuron
7		Amide	propanil pentanochlor

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8	Inhibition of lipid synthesis - not ACCase inhibition	Thiocarbamate	butylate cycloate dimepiperate EPTC esprocarb molinate orbencarb pebulate prosulfocarb thiobencarb = benthio carb tiocarbazil triallate vernolate
8		Phosphorodithioate	bensulide
8		Benzofuran	benfuresate ethofumesate
9	Inhibition of EPSP synthase	Glycine	glyphosate sulfosate
10	Inhibition of glutamine synthetase	Phosphinic acid	glufosinate-ammonium bialaphos = bilanaphos
11	Bleaching: Inhibition of carotenoid biosynthesis (unknown target)	Triazole	amitrole (in vivo inhibition of lycopene cyclase)
12	Bleaching: Inhibition of carotenoid biosynthesis at the phytoene desaturase step (PDS)	Pyridazinone	norflurazon
12		Pyridinecarboxamide	diflufenican picolinafen
12		Other	beflubutamid fluridone flurochloridone flurtamone
13		Isoxazolidinone	clomazone
13		Urea	fluometuron (see C2)
13		Diphenylether	aclonifen
14	Inhibition of protoporphyrinogen oxidase (PPO)	Diphenylether	acifluorfen-Na bifenox chlomethoxyfen fluoroglycofen-ethyl fomesafen halosafen lactofen oxyfluorfen
14		Phenylpyrazole	fluazolate pyraflufen-ethyl
14		N-phenylphthalimide	cinidon-ethyl flumioxazin flumiclorac-pentyl
14		Thiadiazole	fluthiacet-methyl thidiazimin

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14		Oxadiazole	oxadiazon oxadiargyl
14		Triazolinone	azafenidin carfentrazone-ethyl sulfentrazone
14		Oxazolidinedione	Pentoxazone
14		Pyrimidindione	benzfendizone butafenacil
14		Other	pyraclonil profluzol flufenpyr-ethyl
15	Inhibition of VLCFAs ( see Remarks) (Inhibition of cell division)	Chloroacetamide	acetochlor alachlor butachlor
15			dimethachlor dimethanamid metazachlor metolachlor pethoxamid
15			pretilachlor propachlor propisochlor thetylchlor
15		Acetamide	diphenamid napropamide naproanilide
15		Oxyacetamide	flufenacet mefenacet
15		Tetrazolinone	fentrazamide
15		Other	anilofos cafenstrole piperophos
17		Organoarsenical	DSMA MSMA
18	Inhibition of DHP (dihydropteroate) synthase	Carbamate	asulam
19	Inhibition of auxin transport	Phthalamate Semicarbazone	naptalam diflufenzopyr-Na
20	Inhibition of cell wall (cellulose) synthesis	Nitrile	dichlobenil chlorthiamid
21		Benzamide	isoxaben
21		Triazolocarboxamide	flupoxam
22	Photosystem-I-electron diversion	Bipyridylum	diquat paraquat
23	Inhibition of mitosis / microtubule organisation	Carbamate	chlorpropham propham carbetamide
24	Uncoupling (Membrane disruption)	Dinitrophenol	DNOC dinoseb dinoterb

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25	Unknown Note: While the mode of action of herbicides in Group Z is unknown it is likely that they differ in mode of action between themselves and from other groups.	Arylamino propionic acid	Flamprop-M-methyl /-isopropyl
26		Quinoline carboxylic acid	quinclorac (for monocots) (also group O)
26		Chloro-Carbonic-acid	TCA dalapon flupropanate
26		Pyrazolium	difenzoquat
27	Bleaching: Inhibition of 4-hydroxyphenyl-pyruvate-dioxygenase (4-HPPD)	Triketone	mesotrione sulcotrione
27		Isoxazole	isoxachlortole isoxaflutole
27		Pyrazole	benzofenap pyrazolynate pyrazoxyfen
27		Other	Benzobicyclon
27		Other	bromobutide (chloro)-flurenol
27			Cinmethylin
27			Cumyluron
27			Dazomet
27			dymron = daimuron methyl-dimuron= methyl-dymron etobenzanid fosamine indanofan metam oxaziclomefone oleic acid
27			pelargonic acid pyributicarb