

Herbicide Mode of Action Groupings - 2016

Group Code	Mode of Action	Chemical Family	Active Ingredient
A	Inhibition of Acetyl CoA carboxylase (ACCase)	Aryloxyphenoxy-propionates "FOPs"	clodinafop-propargyl
			fenoxaprop-P-ethyl
			fluazifop-P-butyl
			haloxyfop-P
			quizalofop-P-ethyl
		Cyclohexanediones "DIMs"	clethodim
			sethoxydim
			tepraloxydim
			tralkoxydim*
		Phenylpyrazoline "DEN"	pinoxaden
B	Inhibition of acetolactate synthase ALS (acetohydroxyacid synthase AHAS)	Sulfonylureas	chlorimuron-ethyl
			chlorsulfuron
			flazasulfuron
			foramsulfuron*
			halosulfuron-methyl
			iodosulfuron
			mesosulfuron-methyl
			metsulfuron-methyl
			nicosulfuron
			primisulfuron-methyl
			thifensulfuron-methyl
			tribenuron-methyl
		Imidazolinones	imazapyr
			imazethapyr
		Triazolopyrimidines	flumetsulam
C 1	Inhibition of photosynthesis at photosystem II	Triazines	ametryn*
			atrazine
			cyanazine
			desmetryn*
			prometryn
			propazine
			simazine
			terbumeton*
			terbuthylazine
			terbutryn
		Triazones	hexazinone
			metamitron
			metribuzin
		Uracils	bromacil
			terbacil
		Pyridazinones	chloridazon
		Phenyl-carbamates	desmedipham
			phenmedipham
C 2	Inhibition of photosynthesis at photosystem II	Ureas	diuron
			isoproturon
			linuron
			methabenzthiazuron
C 3	Inhibition of photosynthesis at photosystem II	Nitriles	bromofenoxim*
			bromoxynil
			ioxynil
		Benzothiadiazinone	bentazone
		Phenyl-pyridazines	pyridate*
D	Photosystem I electron diversion	Bipyridyliums	diquat
			paraquat
E	Inhibition of protoporphyrinogen oxidase (PPO)	Diphenylethers	oxyfluorfen
		Oxadiazoles	oxadiazon
		Pyrimidindiones	saflufenacil
		Triazolinones	carfentrazone ethyl
			sulfentrazone

Group Code	Mode of Action	Chemical Family	Active Ingredient
F 1	Bleaching: Inhibition of carotenoid biosynthesis at the phytoene desaturase step (PDS)	Pyridazinones	norflurazon*
		Pyridinecarboxamides	diflufenican
		Others	fluridone*
F 2	Bleaching: Inhibition of 4 –hydroxyphenylpyruvate -dioxygenase (4 –HPPD)	Triketones	mesotrione
			topramezone
F 3	Bleaching: Inhibition of carotenoid biosynthesis (unknown target)	Triazoles	amitrole
		Isoxazolidinones	clomazone
G	Inhibition of EPSP synthase	Glycines	glyphosate
H	Inhibition of glutamine synthetase	Phosphinic acids	glufosinate-ammonium
I	Inhibition of DHP (dihydropteroate) synthase	Carbamates	asulam
K 1	Microtubule assembly inhibition	Dinitroanilines	oryzalin
			pendimethalin
			trifluralin
		Benzamides	propyzamide
		Benzenedicarboxylic acids	chlorthal-dimethyl
K 2	Inhibition of mitosis/ microtubule organisation	Carbamates	chlorpropham
			propham*
			carbetamide*
K 3	Inhibition of cell division	Chloroacetamides	acetachlor
			alachlor
			dimethanamid-P
			S-metolachlor
			propachlor
			flufenacet
		Oxyacetamides	
L	Inhibition of cell wall (cellulose) synthesis	Nitriles	dichlobenil
N	Inhibition of lipid synthesis – not ACCase inhibition	Thiocarbamates	EPTC*
			triallate
		Benzofuranes	ethofumesate
		Chloro-Carbonic-acids	TCA
			2,2-dichloropropionic acid
O 1	Action like Indole acetic acid (synthetic auxins)	Phenoxy-Carbonic-acids	flupropanate
			2,4-D
			2,4-DB
			dichlorprop-P
			MCPA
			MCPB
			mecoprop
			mecoprop-P
O 2		Benzoic acids	dicamba
O 3		Pyridine carboxylic acids	aminopyralid
			clopyralid
			fluroxypyr
			picloram
			triclopyr
Z	Unknown	Arylamino propionic acids	flamprop-M-isopropyl
		Organoarsenicals	MSMA*
		Other	benzalkonium chloride
			chloropicrin
			dazomet
			endothal
			fatty acids
			metam sodium
			methyl bromide
			palm oil derived fatty acids
			pine oil
			gibbrellic acid

* Not registered or no longer available in New Zealand.
Information sourced from Novachem Agrichemical Manual 2016/17.

ADDING VALUE TO THE BUSINESS OF CROPPING

FOUNDATION FOR ARABLE RESEARCH

PO Box 23133, Templeton, Christchurch 8445, New Zealand

Phone: +64 3 345 5783 • Fax: +64 3 341 7061 • Email: far@far.org.nz • www.far.org.nz



©FOUNDATIONFORARABLERESEARCH. DISCLAIMER: This publication is copyright to the Foundation for Arable Research ("FAR") and may not be reproduced or copied in any form whatsoever without FAR's written permission. This publication is intended to provide accurate and adequate information relating to the subject matters contained in it and is based on information current at the time of publication. Information contained in this publication is general in nature and not intended as a substitute for specific professional advice on any matter and should not be relied upon for that purpose. No endorsement of named products is intended nor is any criticism of other alternative, but unnamed products. It has been prepared and made available to all persons and entities strictly on the basis that FAR, its researchers and authors are fully excluded from any liability for damages arising out of any reliance in part or in full upon any of the information for any purpose.