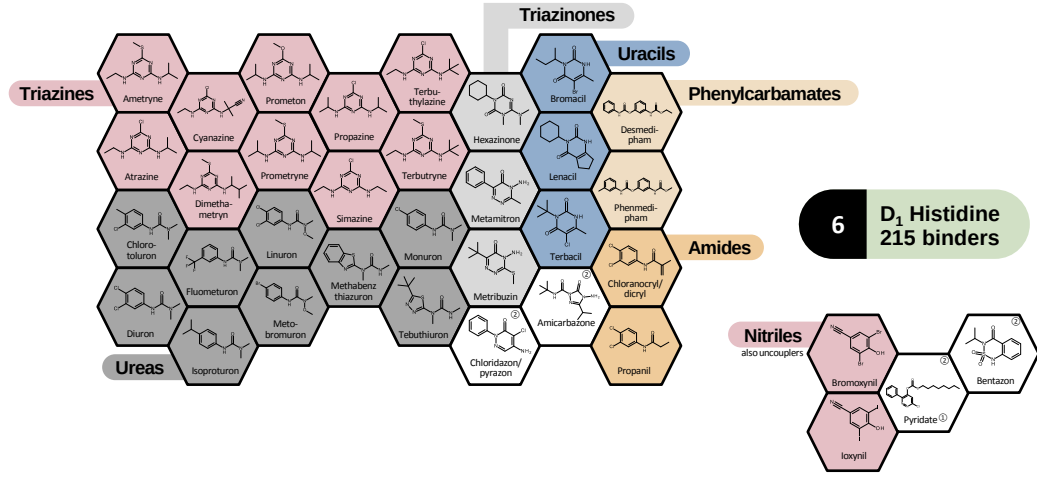


HRAC Mode of Action Classification 2021

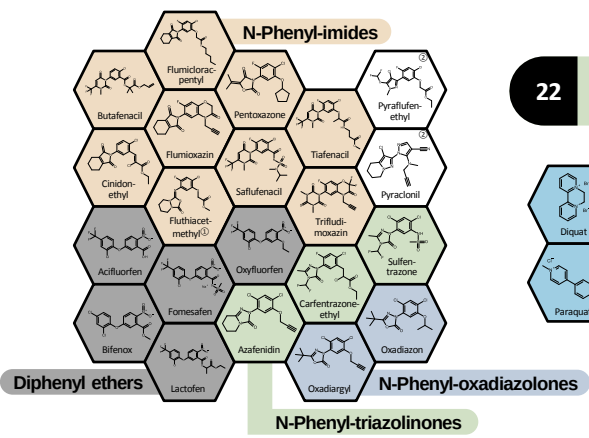
Light Activation of ROS^a

Inhibition of Photosynthesis at PS II

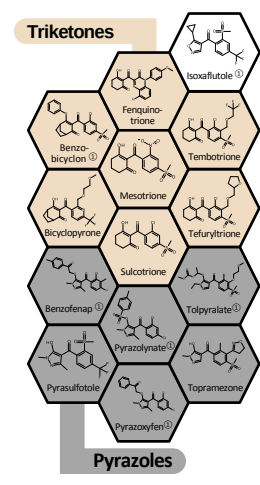
5 D1 Serine 264 binders (and other non-histidine 215 binders)



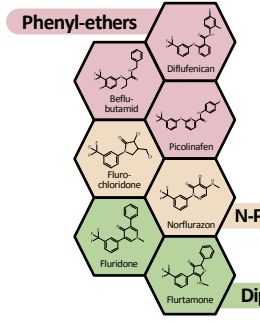
14 Inhibition of Protoporphyrinogen Oxidase



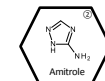
27 Inhibition of Hydroxyphenyl Pyruvate Dioxygenase



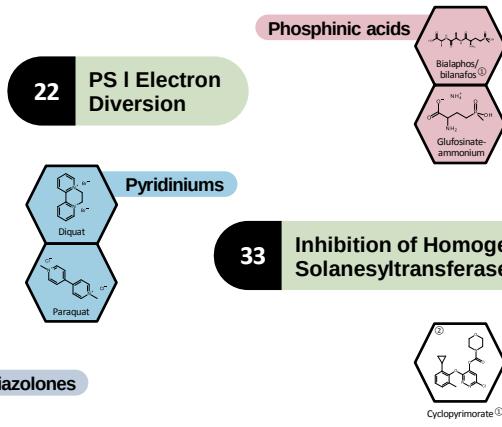
12 Inhibition of Phytoene Desaturase



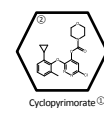
34 Inhibition of Lycopene Cyclase



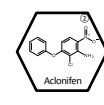
10 Inhibition of Glutamine Synthetase



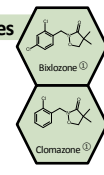
33 Inhibition of Homogentisate Solanesyltransferase



32 Inhibition of Solanesyl Diphosphate Synthase

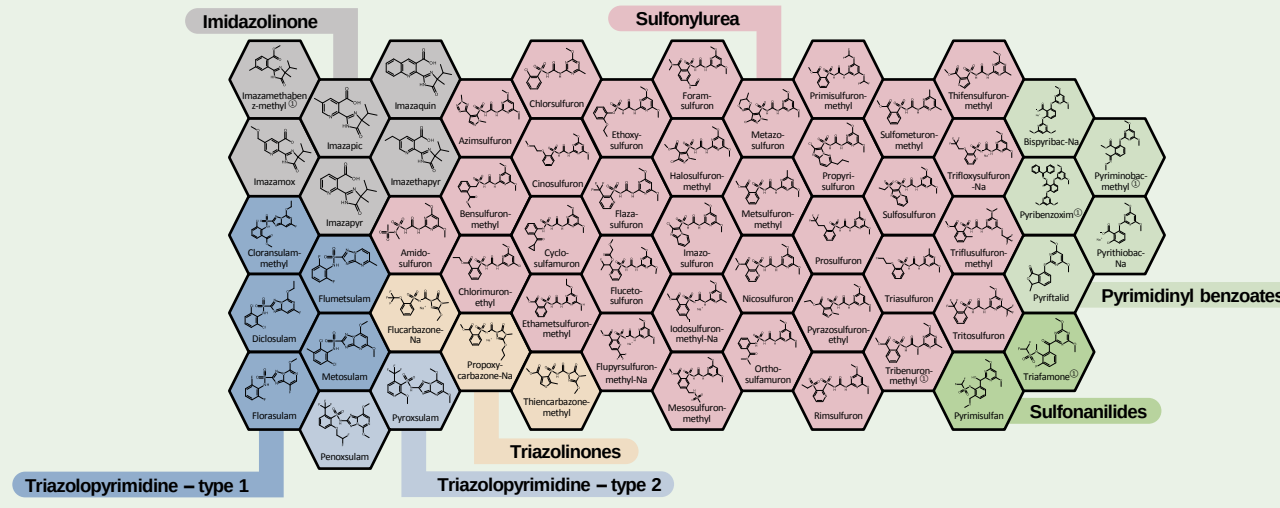


13 Inhibition of Deoxy-D-Xylose Phosphate Synthase

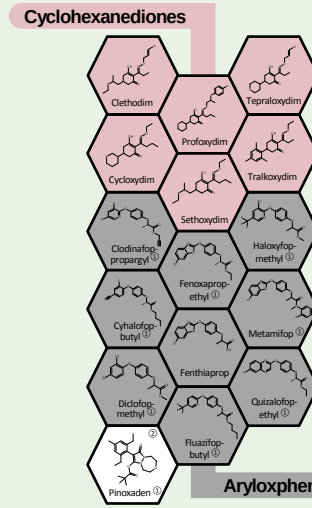


Cellular Metabolism

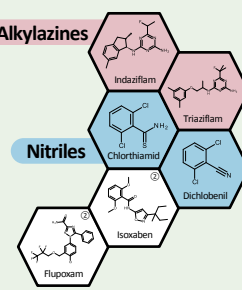
2 Inhibition of Acetolactate Synthase



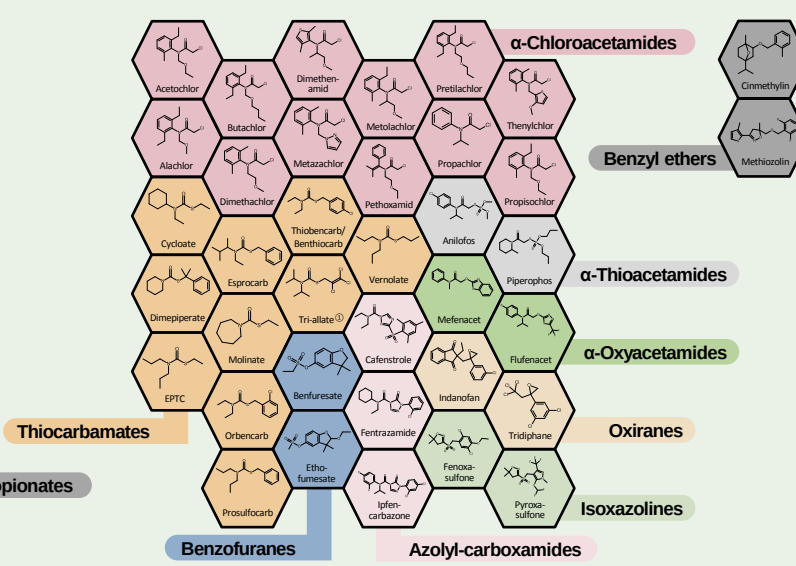
1 Inhibition of Acetyl CoA Carboxylase



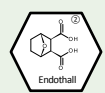
29 Inhibition of Cellulose Synthesis



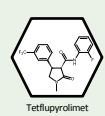
15 Inhibition of Very Long-Chain Fatty Acid Synthesis



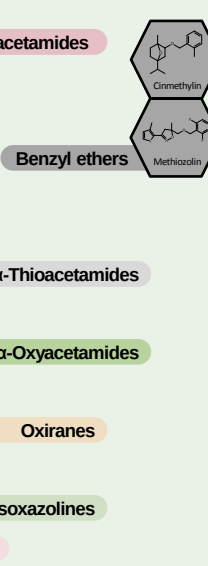
31 Inhibition of Serine Threonine Protein Phosphatase



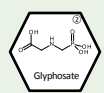
28 Inhibition of Dihydroorotate Dehydrogenase



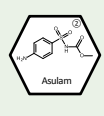
30 Inhibition of Fatty Acid Thioesterase



9 Inhibition of Enolpyruvyl Shikimate Phosphate Synthase

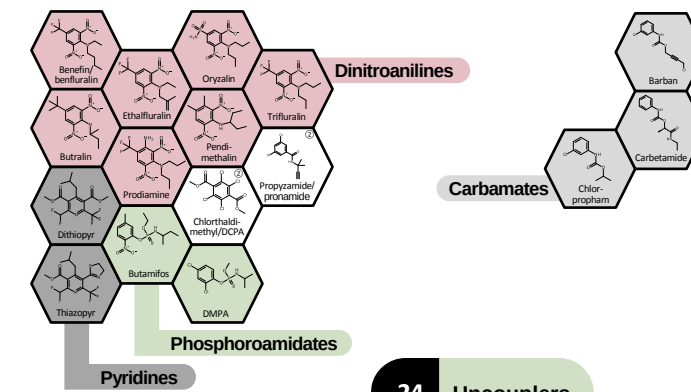


18 Inhibition of Dihydropterolate Synthase

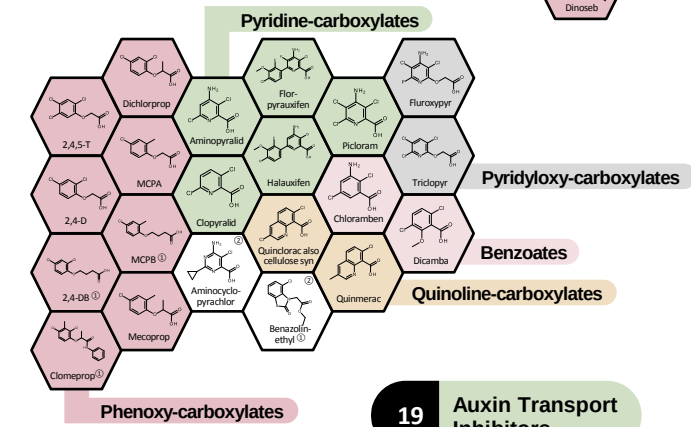


Cell Division and Growth

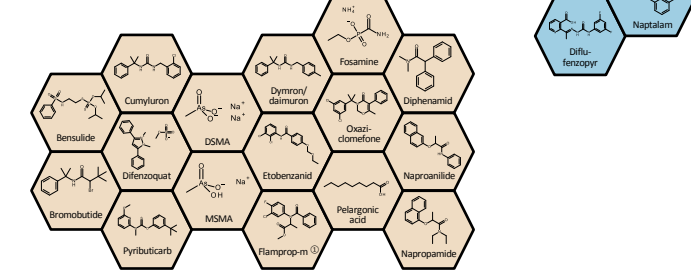
3 Inhibition of Microtubule Assembly



4 Auxin Mimics



Unknown Mode of Action



HRAC	Legacy HRAC	Mode of Action	HRAC	Legacy HRAC	Mode of Action
1	A	Inhibition of ACCase	19	P	Auxin transport inhibitors
2	B	Inhibition of ALS	22	D	PS I electron diversion
3	K1	Inhibition of microtubule assembly	23	K2	Inhibition of microtubule organization
4	O	Auxin mimics	24	M	Uncouplers
5	C1,2	Inhibition of photosynthesis PS II - Serine 264	27	F2	Inhibition of HPPD
6	C3	Inhibition of photosynthesis PS II - Histidine 215	28	none	Inhibition of fatty acid thioesterase dehydrogenase
9	G	Inhibition of EPSP synthase	29	L	Inhibition of cellulose synthesis
10	H	Inhibition of glutamine synthetase	30	Q	Inhibition of dihydroorotate dehydrogenase
12	F1	Inhibition of PDS	31	R	Inhibition of serine threonine protein phosphatase
13	F4	Inhibition of DOXP synthase	32	S	Inhibition of solanesyl diphosphate synthase
14	E	Inhibition of PPO	33	T	Inhibition of homogentisate solanesyltransferase
15	K3	Inhibition of VLCFAs	34	F3	Inhibition of lycopene cyclase
18	I	DHP inhibition	Ø	Z	Unknown mode of action

^a Reactive oxygen species
① Indicates pro-herbicide
② HRAC's recommendation is not to include a chemical family name when there is one active in the family. Actives without chemical family names are indicated with a white background