

# HERBICIDE CLASSIFICATION

## I. Amino Acid Synthesis Inhibitors

### A. ALS/AHAS Inhibitors

1. Imidazolinones
  - Arsenal (*imazapyr*)
  - Assert (*imazamethabenz*)
  - Beyond/Raptor (*imazamox*)
  - Lightning (*imazapyr + imazethapyr*)
  - Plateau (*imazapic*)
  - Pursuit (*imazethapyr*)
  - Scepter (*imazaquin*)
2. Triazolopyrimidines (Sulfonanilides)
  - Everest (*flucarbazone*)
  - FirstRate (*chloransulam methyl*)
  - Olympus (*propoxycarbozone*)
  - Python (*flumetsulam*)
3. Sulfonylureas
  - Accent (*nicosulfuron*)
  - Ally/Escort (*metsulfuron*)
  - Amber (*triasulfuron*)
  - Basis (*thifensulfuron + rimsulfuron*)
  - Beacon (*primisulfuron*)
  - Classic (*chlorimuron*)
  - Exceed (*prosulfuron + primisulfuron*)
  - Express (*tribenuron*)
  - Glean/Telar (*chlorsulfuron*)
  - Harmony GT (*thifensulfuron*)
  - Maverick (*sulfosulfuron*)
  - Option (*foramsulfuron*)
  - Oust (*sulfometuron*)
  - Peak (*prosulfuron*)
  - Permit (*halosulfuron*)
  - Steadfast (*nicosulfuron + rimsulfuron*)

### B. ESPS Synthase Inhibitor

1. Glycines
  - Glyphosate products (*glyphosate*)

### C. Glutamine Synthetase Inhibitor

1. Phosphoric Acids
  - Liberty (*glufosinate*)

## II. Cell Membrane Disrupters

### A. Photosystem I Electron Diversion

1. Biprydyliums
  - Diquat (*diquat*)
  - Gramoxone Max/Extra (*paraquat*)

### B. PPO Inhibitors

1. Diphenylethers
  - Cobra/Phoenix (*lactofen*)
  - Flexstar/Reflex (*fomesafen*)
  - Goal (*oxyfluorfen*)
  - Ultra Blazer (*acifluorfen*)
2. N-phenylphthalimides
  - Resource (*flumiclorac pentyl ester*)
  - Valor (*flumioxazin*)
3. Triazolinones
  - Authority/Spartan (*sulfentrazone*)
  - Aim (*carfentrazone methyl*)

## III. Lipid Synthesis Inhibitors

### A. ACCase Inhibitors

1. Aryloxyphenoxypropionates (FOP's)
  - Assure II (*quizalofop*)
  - Discover (*clodinafop*)
  - Puma (*fenoxaprop*)
  - Fusion/Fusilade (*fluzafop*)
  - Hoelon (*diclofop*)
2. Cyclohexanediones (DIM's)
  - Achieve (*tralkoxydim*)
  - Poast (*sethoxydim*)
  - Prism/Select (*clethodim*)

## IV. Pigment Inhibitors

### A. HPPD Inhibitor

1. Isoxazoles
  - Balance Pro (*isoxaflutole*)
2. Callistemones
  - Callisto (*mesotrione*)

### B. DOXP Synthesis

1. Isoxazolidinones
  - Command (*clomazone*)

## V. Seedling Growth Inhibitors

### A. Shoot Inhibitors

1. Chloroacetamides
  - Cinch/Dual (*metolachlor*)
  - Harness/Degree (*acetochlor*)
  - Lasso (*alachlor*)
  - Outlook/Frontier (*dimethenamid*)
  - Surpass/Topnotch (*acetochlor*)
2. Oxyacetamides
  - Define (*flufenacet*)

### B. Microtubule Assembly Inhibitors

1. Dinitroanilines
  - Balan (*benefin*)
  - Prowl (*pendimethalin*)
  - Sonalan (*ethalfuralin*)
  - Treflan (*trifluralin*)

### C. Lipid Synthesis Inhibitors (not ACCase)

1. Thiocarbamates (Lipid Synthesis Inhibitor)
  - Eptam/Eradicane (*EPTC*)

### D. Auxin Transport Inhibitors

1. Semicarbazones
  - Diflufenzopyr (*diflufenzopyr*)

## VI. Growth Regulators

### A. Synthetic Auxins

1. Benzoic Acids
  - Dicamba products (*dicamba*)
2. Phenoxy
  - 2,4-D (*2,4-D*)
  - Butyrac (*2,4-DB*)
  - MCPA (*MCPA*)
  - MCPP (*mecroprop*)
3. Pyridine carboxylic acids
  - Garlon (*triclopyr*)
  - Starane (*fluroxypyr*)
  - Stinger (*clopyralid*)
  - Tordon (*picloram*)
4. Quinonline carboxylic acids
  - Paramount (*quinclorac*)

## VII. Photosynthesis Inhibitors

### A. Photosystem II - Mobiles

1. Triazines
  - AAtrex (*atrazine*)
  - Evik (*ametryn*)
  - Pramitol (*prometon*)
  - Princep (*simazine*)
2. Triazinones
  - Sencor (*metribuzin*)
  - Velpar (*hexazinone*)
3. Uracils
  - Hyvar (*bromacil*)
  - Sinbar (*terbacil*)
4. Phenylureas
  - Karmex (*diuron*)
  - Lorox (*linuron*)
  - Spike (*tebuthiuron*)
5. Amides
  - Stampede (*propanil*)

### B. Photosystem II - Non-Mobiles

1. Benzothiadiazinones
  - Basagran (*bentazon*)
2. Nitriles
  - Buctril (*bromoxynil*)
3. Phenyl-pyridazine
  - Tough (*pyridate*)

## VIII. Unclassified or Unknown

1. Avenge (*difenzoquat*)