

## HERBICIDE CLASSIFICATION ACCORDING TO PRIMARY SITE OF ACTION

| Resistance Group |      | Site of Action   | Herbicide Families in Group   |
|------------------|------|--|---|
| WSSA             | HRAC |  |   |
| 1                | A    | ACCase (acetyl CoA carboxylase) inhibitor  | Aryloxyphenoxy propionate<br>Cyclohexanedione   |
| 2                | B    | ALS (acetolactate synthase) or AHAS (acetohydroxyacid synthase) inhibitor            | Imidazolinone<br>Pyrimidinylthio-benzoate<br>Sulfonylamino-carbonyltriazolinone<br>Sulfonylurea<br>Triazolopyrimidine |
| 3                | K1   | Inhibitor of microtubule assembly  | Dinitroaniline<br>Pyridine  |
| 4                | O    | Synthetic auxins   | Phenoxy<br>Benzoic acid<br>Carboxylic acid<br>Quinaline carboxylic acid   |
| 5                | C1   | Inhibitor of photosynthesis at photosystem II site A                                 | Phenyl-carbamate<br>Pyridazinone<br>Triazine<br>Triazinone<br>Triazolinone<br>Uracil                                  |
| 6                | C3   | Inhibitor of photosynthesis at photosystem II site B                                 | Benzothiadiazole<br>Nitrile<br>Phenyl-pyridazine  |
| 7                | C2   | Inhibitor of photosynthesis at photosystem II site A; different binding from group 5 | Amide<br>Urea   |
| 8                | N    | Inhibitor of lipid synthesis; not ACCase inhibition                                  | Thiocarbamate<br>Phosphorodithioate*  |
| 9                | G    | EPSP synthase inhibitor  | Glycine*  |
| 10               | H    | Glutamine synthetase inhibitor   | Phosphinic acids*   |
| 11               | F3   | Carotenoid biosynthesis inhibitor (bleaching)  | Triazole  |
| 12               | F1   | PDS (phytoene desaturase) inhibitor (bleaching)                                      | Pyridazinone<br>Pyridinecarboxamide<br>Other  |

\* Name used by HRAC.

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| WSSA             | HRAC |   |   |
| 13               | F4   | DOXP (1-deoxy-D-xyulose 5-phosphate synthetase) inhibitor (bleaching)   | Isoxazolidinone   |
| 14               | E    | Protox (protoporphyrinogen oxidase) inhibitor                           | Diphenylether<br>N-phenylphthalimide<br>Oxadiazole<br>Phenylpyrazole<br>Pyrimidindione<br>Thiadiazole<br>Triazinone<br>Triazolone |
| 15               | K3   | Inhibitor of synthesis of very long-chain fatty acids                   | Acetamide<br>Chloroacetamide<br>Oxyacetamide<br>Tetrazolinone   |
| 16               | N    | Unknown   | Benzofuran  |
| 17               | Z    | Unknown   | Organoarsenical   |
| 18               | I    | DHP (7,8-dihydro-pterolate) synthetase inhibitor                        | Carbamate   |
| 19               | P    | Inhibitor of indoleacetic acid transport                                | Phthalamate<br>Semicarbazone  |
| 20               | L    | Inhibitor of cell wall synthesis site A                                 | Nitrile   |
| 21               | L    | Inhibitor of cell wall synthesis site B                                 | Benzamide   |
| 22               | D    | Photosystem I electron diverter   | Bipyridylum   |
| 23               | K2   | Mitosis inhibitor   | Carbanilate   |
| 24               | M    | Membrane disruptor (uncouplers)   | Dinitrophenol   |
| 25               | Z    | Unknown   | Arylamino propionic acid  |
| 26               | Z    | Unknown   | Various   |
| 27               | F2   | Inhibitor of 4-HPPD (4-hydroxy-phenyl-pyruvate dioxygenase) (bleaching) | Isoxazole<br>Pyrazole<br>Triketone  |