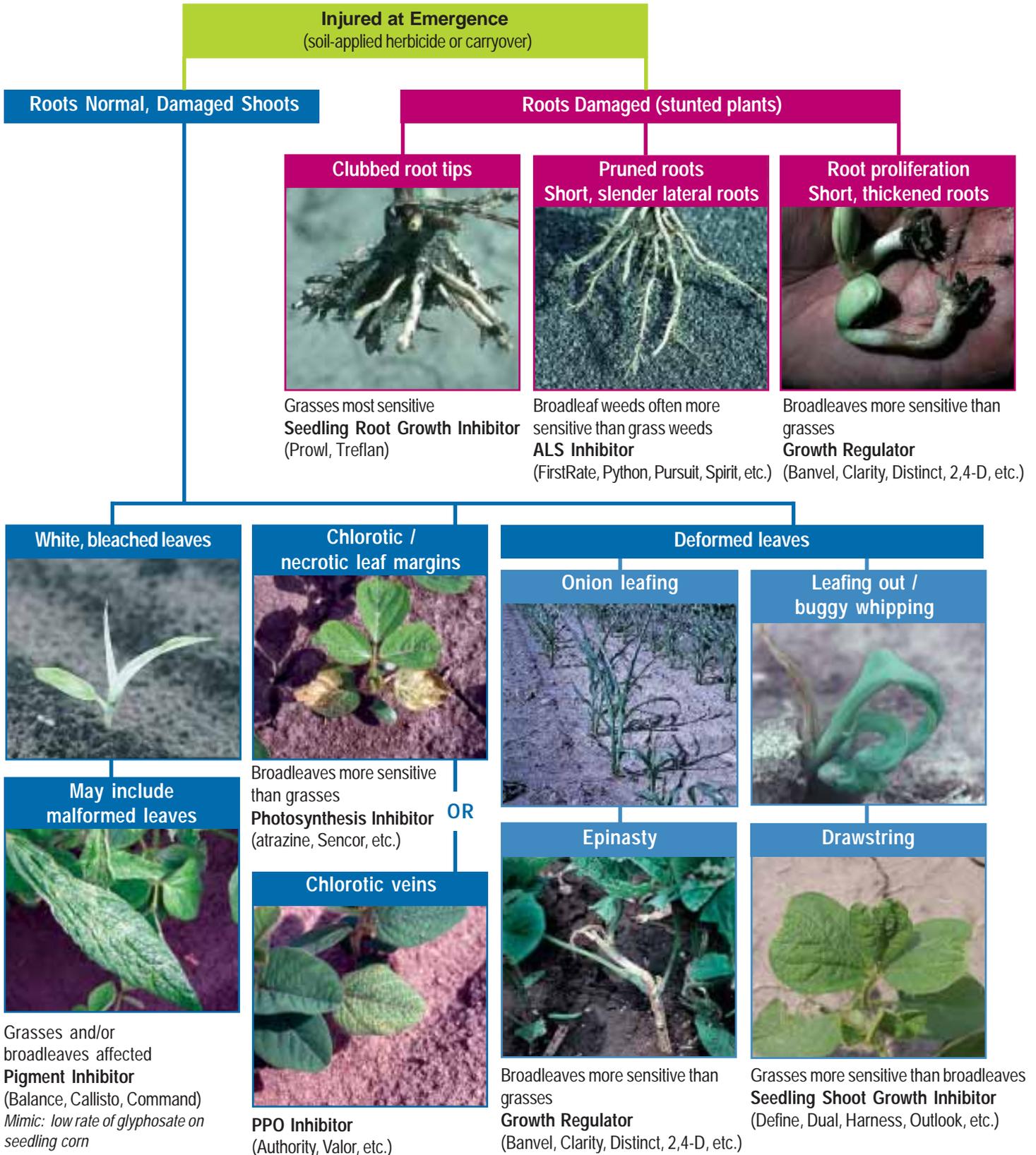


Herbicide Mode of Action Key for Injury Symptoms

This key is designed to help you determine which herbicides may be responsible for suspected herbicide injury. This key uses herbicide mode of action because herbicides with the same mode of action cause similar symptoms. After reaching a specific mode of action, you can check if any of the herbicides from that group are the culprit. Also, remember to observe weeds for injury symptoms.

This key is based on three traits of injury symptoms, which can be used to distinguish different herbicide modes of action.

- 1—If the plant absorbed the herbicide from the soil or if it was absorbed postemergence.
- 2—If the herbicide translocated to growing points (root tips or meristems) or if the herbicide had contact activity.
- 3—If the herbicide is selective for grasses or broadleaves or is nonselective.



Injured after Emergence
(postemergence application, tank contamination, drift)

Translocating herbicide
New leaves (meristem) injured, older leaves not injured



Intermediate
White, bleached leaves



Contact activity
Older leaves injured, new leaves not injured



Pigment Inhibitor
(Balance, Callisto, Command)

Broadleaves more sensitive than grasses
Photosynthesis Inhibitor
(atrazine, Buctril, Basagran, etc.)
or
PPO Inhibitor
(Aim, Cobra, Flexstar, etc.)

Nonselective
Cell Membrane Disrupter
(Gramoxone Max, Diquat)
or
Glufosinate
(Liberty)

Leaf cupping, strapping, epinasty




Broadleaves affected more than grasses
Growth Regulator
(Clarity, Distinct, 2,4-D, etc.)

New leaves chlorotic, plants stunted

Grass meristems rot



Only grasses affected
ACCase Inhibitor
(Assure, Poast, Select, etc.)

Chlorotic, crinkled leaves, shortened internodes



Chlorosis, reddened veins



Broadleaves and/or grasses affected
ALS Inhibitor
(Accent, Option, Steadfast, Classic, Harmony GT, Raptor, etc.)

Variable injury, chlorosis, purpling, necrosis




Nonselective
Glyphosate
(Roundup, Touchdown, etc.)