

Managing Weeds

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What Type of Plant?

Broadleaf



Grass



Sedge



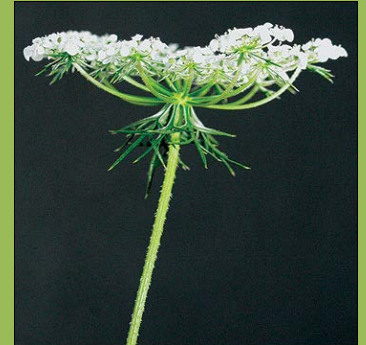
Summer Annual
Winter Annual



Perennial



Biennial



Types of Herbicides

- Pre-emergent (relative to the weed)
- Post-emergent (relative to the weed)
- Residual (active in the soil for weeks/months/
year) or
- Non-residual (not soil active)
- Apply before crop emergence, while dormant, or
to actively growing crop?

Herbicide Modes of Action

Growth regulators

Benzoic acids (Banvel, Clarity, Distinct, Status)

Phenoxy acetic acids (2,4-D, 2,4-DB)

Amino acid synthesis inhibitors

Amino acid derivatives

Glyphosate (Roundup and others)

Lipid synthesis inhibitors

Seedling growth inhibitors

Photosynthesis inhibitors

Cell membrane disruptors

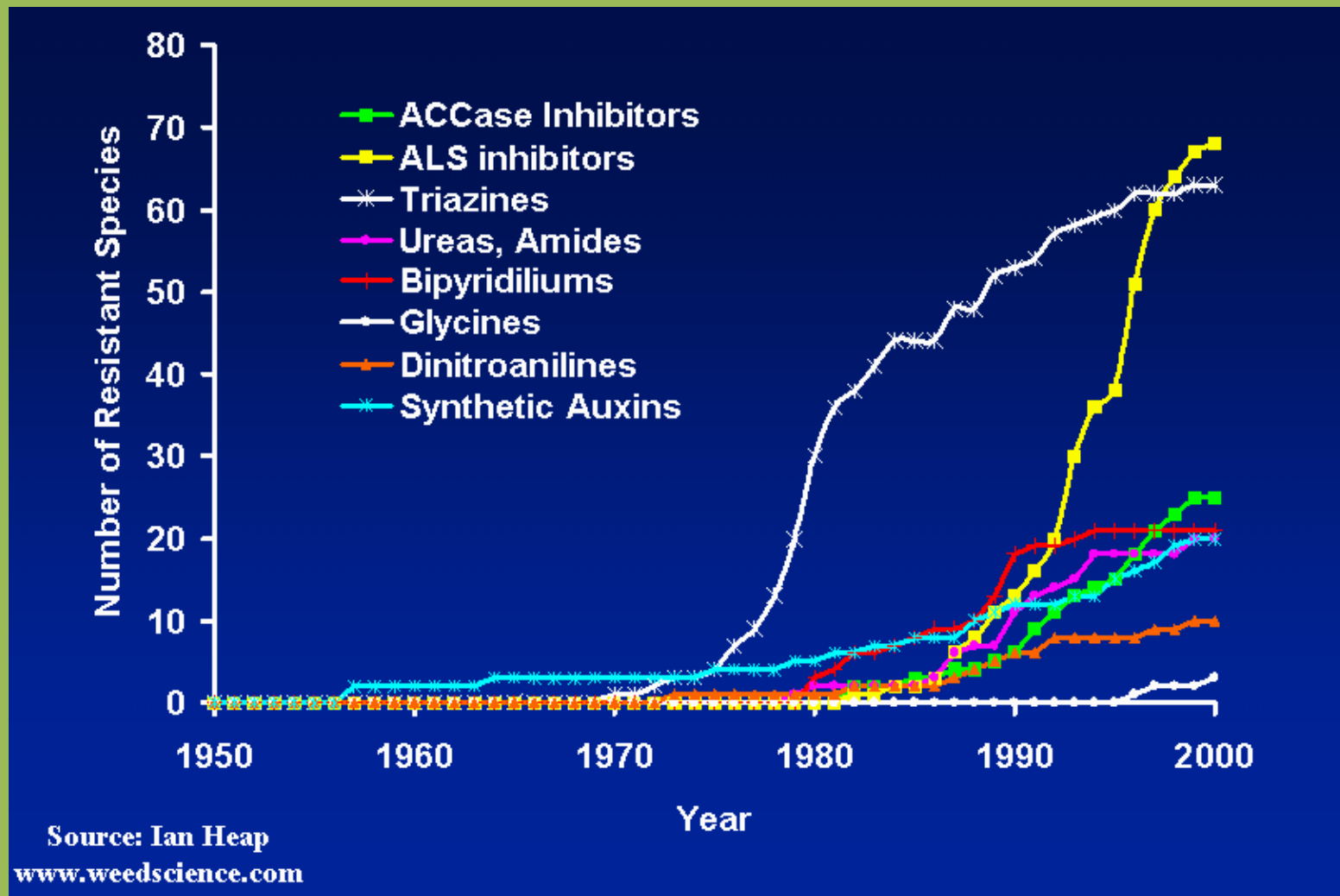
Pigment inhibitors

SITE OF ACTION CLASSIFICATION

GROUP	Site of Action	Family	Product
3	Microtubule assembly inhibition (10)	Dinitroaniline	Balan Pendimax Prowl
4	Synthetic auxin (24)	Phenoxy	2,4-D Butyrac
		Benzoic acid	Banvel Clarity
		Carboxylic acid	Stinger

Resistance to Glyphosate is Possible...

But is Known to be a Rare



- The historical rate of development for glyphosate resistance is much slower than most all other herbicide families.



2,4-D / Banvel / Crossbow

Growth regulators that kill all broadleaf weeds (and young grasses). Apply near bud stage when plants are actively growing in late-spring through summer. *Only Crossbow is effective on smooth bedstraw.*

Glyphosate (RoundUp)

Must be taken in by leaves and transported to roots. Apply to actively growing plants with plenty of foliage (grasses 8" tall). Works best in the fall as perennials store energy in roots. Will not kill annuals that are nearing the bud stage.

Common troublesome weeds







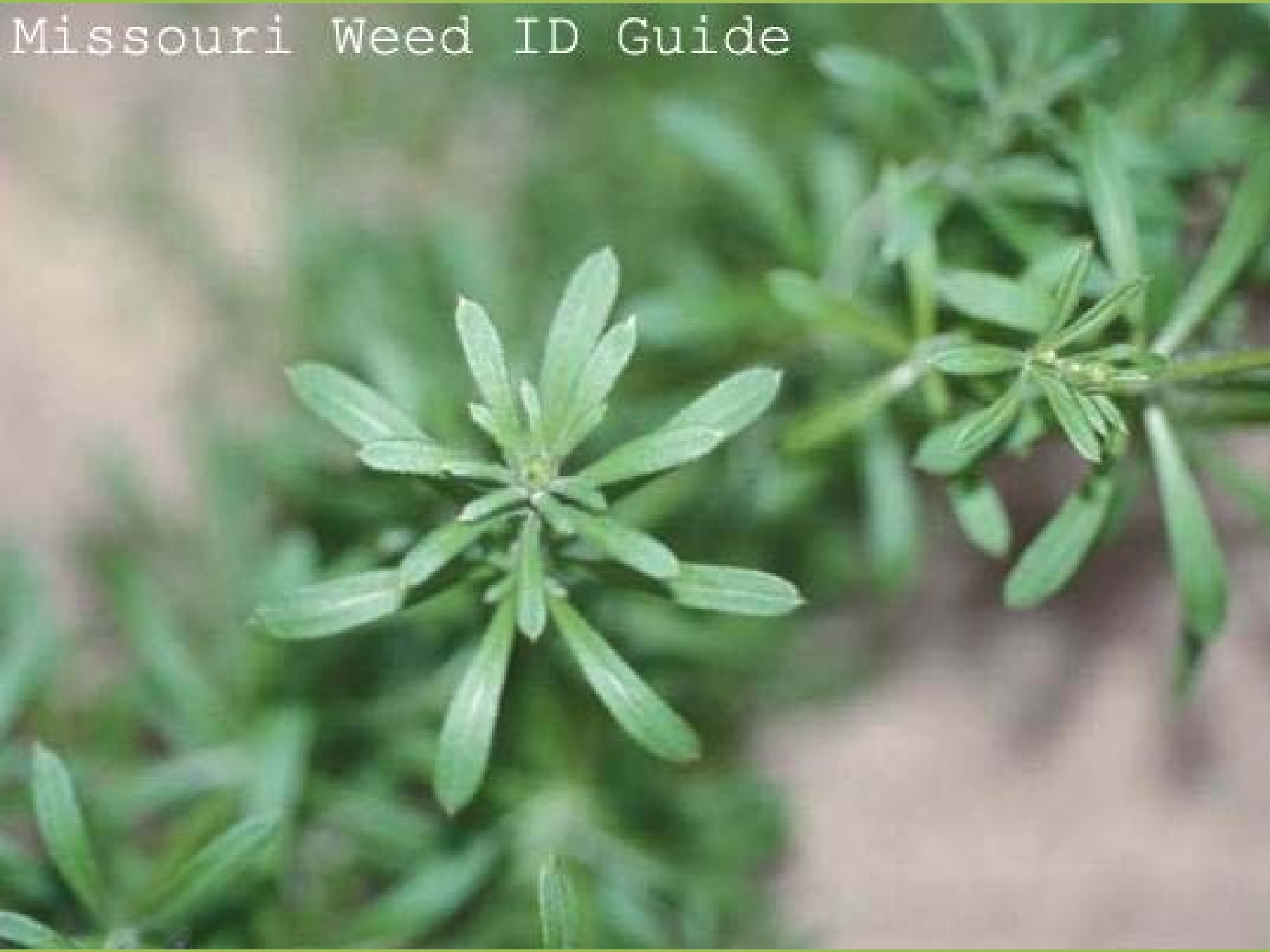








Missouri Weed ID Guide



Questions?

