

Weed Management in Vineyards

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Horticultural Sciences



Postemergence Herbicides



Broadspectrum broadleaf control

Herbicide	Bush age	Signal word
Glyphosate	Bearing / Nonbearing	Caution
Paraquat (Gramoxone SL, etc.)	Bearing / Nonbearing	Danger
Ammonium nonanoate (Axxe)	Bearing / Nonbearing	Warning
Diquat (Reglone)	Nonbearing	Caution
Glufosinate (Rely, Cheetah, etc.)	Bearing / Nonbearing	Warning
Pelargonic Acid (Scythe)	Bearing / Nonbearing	Warning
Carfentrazone (Aim) + grass herbicide	Bearing / Nonbearing	Caution

Changes to paraquat

- Skull & cross bones on more places on the jug
- Application by operators not applicators
- Product will be sold in “closed systems”
- Additional training required
 - Offered on eXtension
 - Good for 3 years
- Registered crops and use patterns will not change
 - Some registrants may not be able to complete the requirements so some labels may change

Changes to glyphosate

- None expected at this time
- Wait and see
- Still an important tool when used appropriately



Grass herbicides

- Clethodim

- Select Max, Arrow, Clethodim
- Bearing and nonbearing
- PHI 14 days
- Crop oil or nonionic surfactant

- Fluazifop

- Flusilade
- PHI 50 days
- Crop oil or nonionic

- Sethoxydim

- Poast
- Crop oil or methylated seed oil
- Nonbearing and bearing
- PHI 50 days

Sedge vs. grass

Sedge

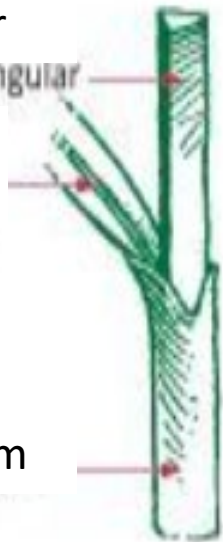
Solid stem,
triangular

usually triangular

Leaves
usually flat

usually flat

Fused leaf
sheath at
base of stem



Spiral around
stem

around stem



Grass

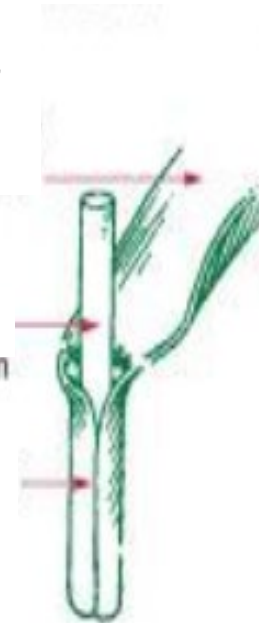
Leaves
usually flat,
long and
narrow

narrow

Round stem

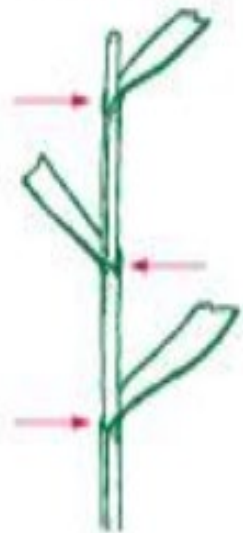
round stem

Overlapping
leaf sheath
at base of
stem



Alternate
arrangement

arrangement



Preemergence herbicides



Preemergence herbicides

Mode of Action Group #	Active Ingredient	Trade Name
3	Pronamide	Kerb
	Oryzalin	Oryzalin, Surflan
5	Diuron	Direx, Karmex, Diuron
12	Norflurazon	Solicam
14	Flumioxazin	Chateau
15	Napropamide	Devrinol
20	Dichlobenil	Casoron
21	Isoxaben	Gallery
29	Indaziflam	Alion

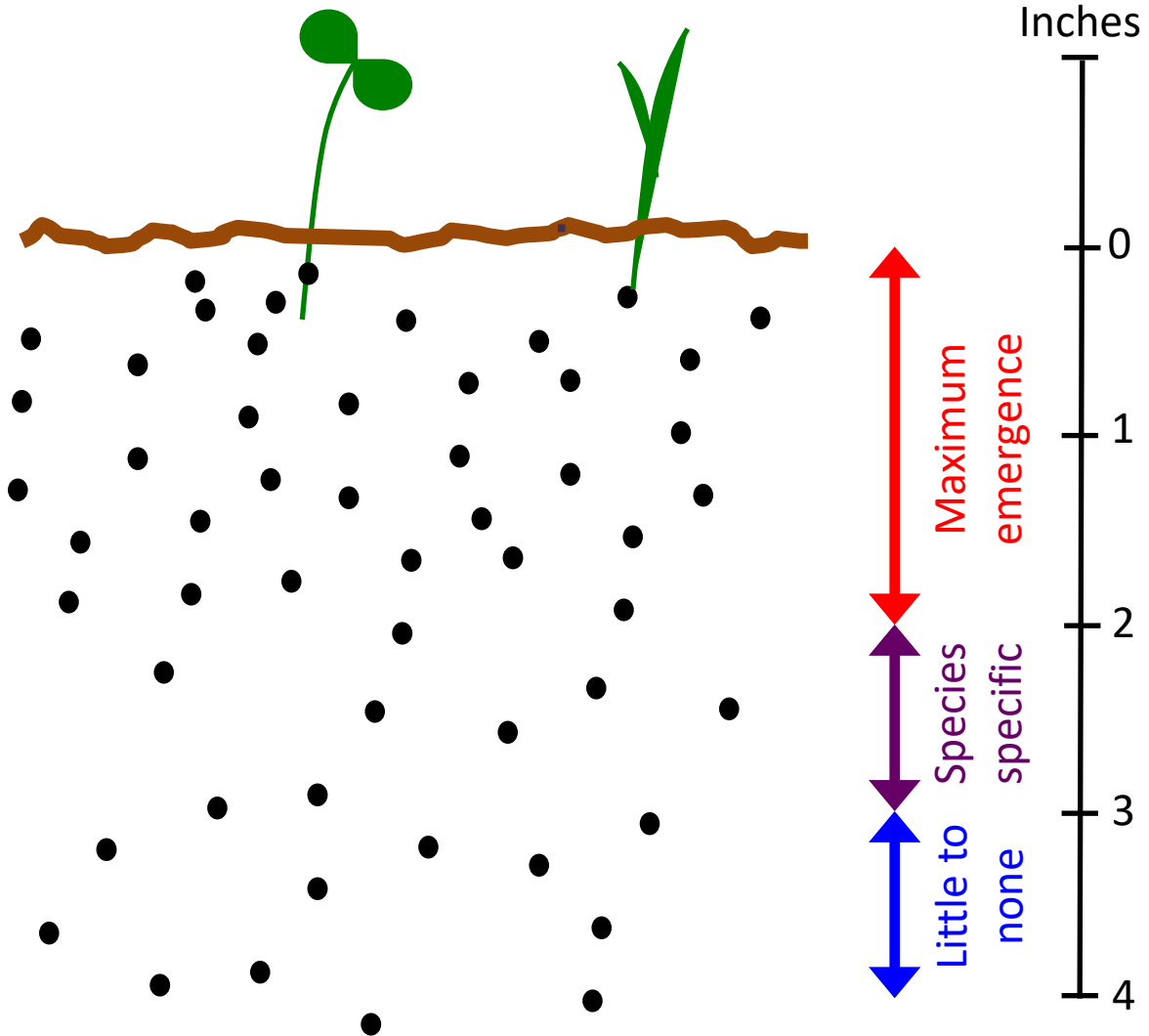
Chateau

- Active ingredient: flumioxazin
- Maximum of 12 oz/A per 12 months
 - 2 apps. of 6 oz. with minimum of 30 days between apps.
- Can be tank mixed with paraquat, glufosinate, or glyphosate
- Application before flowering because of possible speckling on flowering
- Poor grass control

Alion

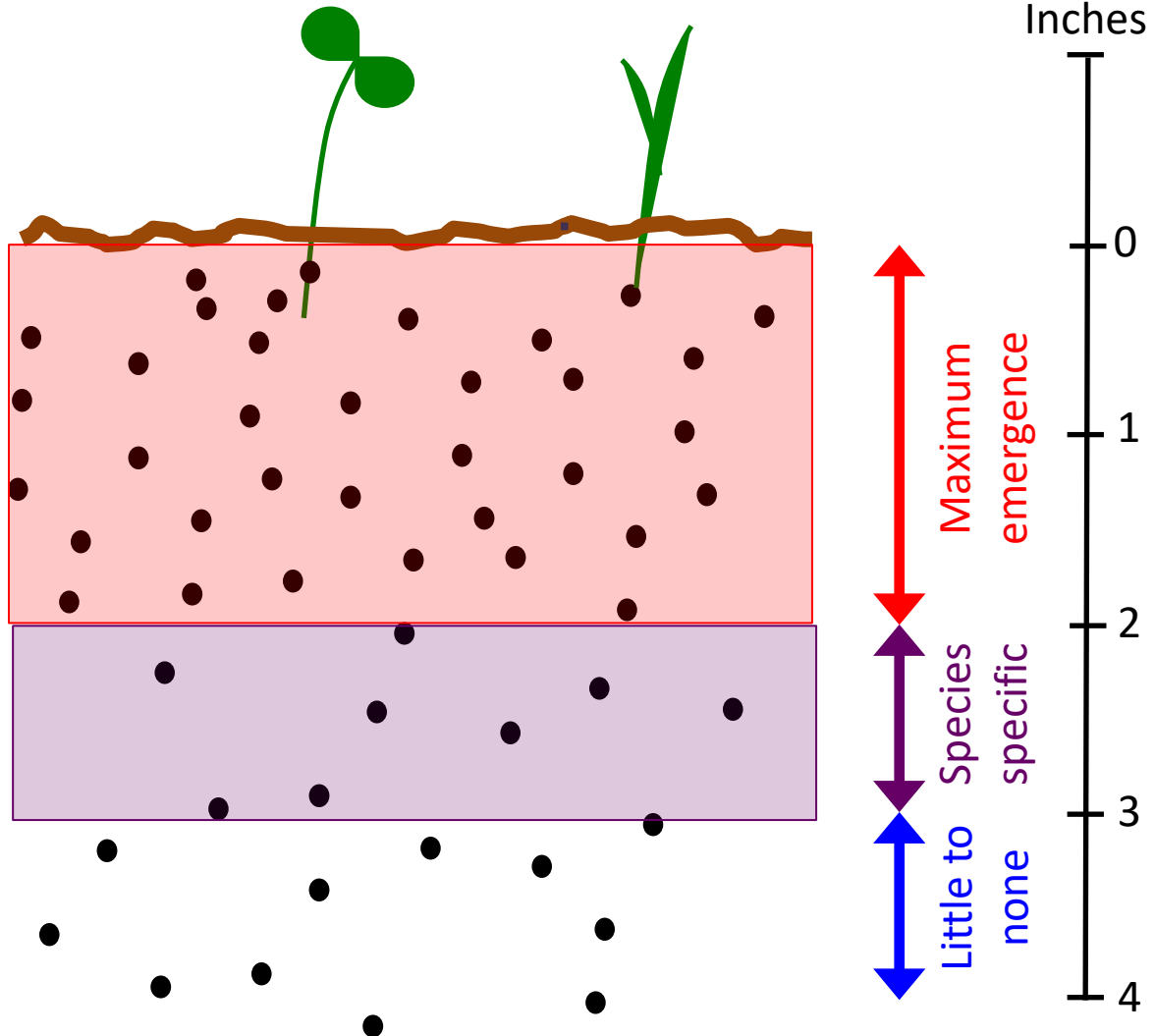
- Active ingredient: indaziflam (Group 29/L)
- 3.5 to 5 fl. oz./A.
- Do not apply more than 7 fl. oz./A./yr.
- Spanish nettle, chickweeds, pigweeds, horseweed, filaree, crabgrass, goosegrass, guineagrass
- Do not apply to sand
- Vines must be established for 3 year

Incorporating preemergence



Incorporating preemergence

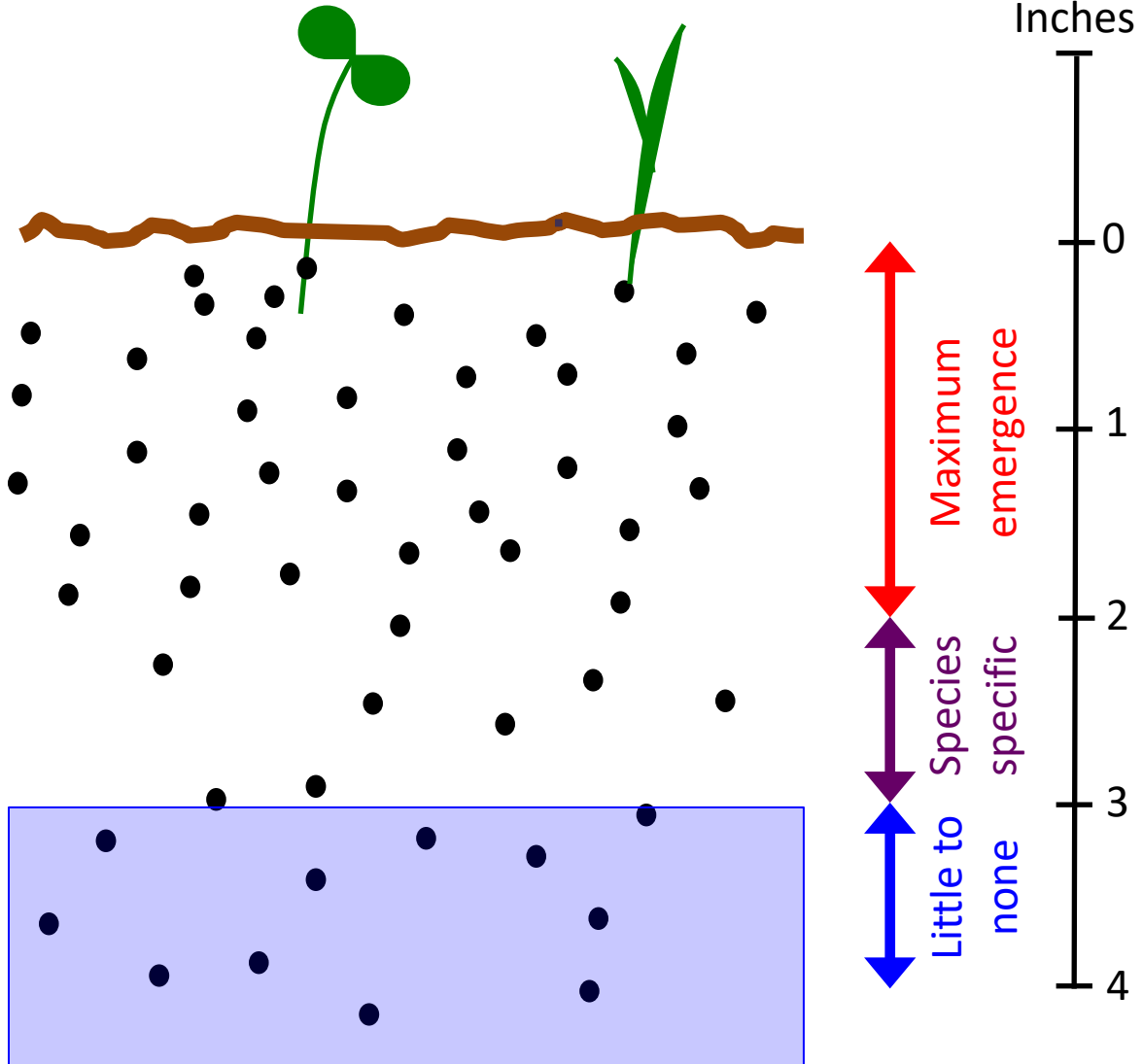
- Incorporate 2 to 3 inches deep
 - Cultivation
 - Irrigation
 - Rainfall
- Within 24 hours



Incorporating preemergence

- Incorporate 2 to 3 inches deep
 - Cultivation
 - Irrigation
 - Rainfall
- Within 24 hours

TOO
DEEP



Organic weed control



Organic options

- Handweeding
- Mulches
- Flaming
- Cover crops in the row middles
- OMRI approved herbicides
- Axxe certification
 - Label and OMRI certification are different use patterns
 - Need two more locations

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