

MANAGEMENT STRATEGIES FOR WEEDS INFESTING DEEP SOUTH LANDSCAPE BEDS

Ron Strahan

Types of Weeds Found in Flower Beds

- Broadleaves
 - Netted veination
 - 2 cotyledons
 - Taproot
 - Showy flowers
- Grasses
 - Parallel
 - 1 cotyledon
 - Fibrous roots
- Sedges "nutgrass"
 - Triangular stems
 - Leaves in 3's



Yellow woodsorrel



Crabgrass



purple nutsedge

Strategies for controlling weeds in flower beds

Use Mulch!



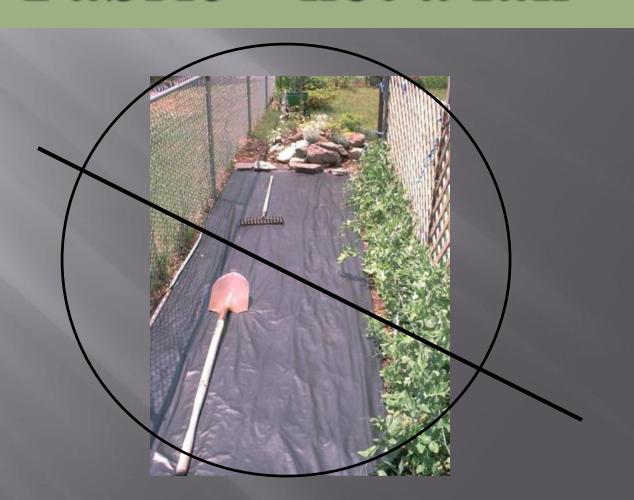
Mulch - 2 weed management purposes

Physical barrier to emerging seedling

Blocks sunlight – several weeds need sunlight for germination



Weed Management – Fabric – not a fan



Mulch + Preemergence Herbicides

✓ Preemergence Herbicides:

Base of weed control in landscape beds

Preemergence Herbicides - great on annual grasses and small seeded broadleaves like...

spurge

Purslane





Pigweed





How do preemergence herbicides work?

✓ Herbicides provide a barrier at or just below soil surface

Which PRE Herbicides should you use?

Choice depends on what you are growing in the flower bed

Safer herbicides on bedding plants

- Pendimethalin Pendulum/Pre M
- Oryzalin Surflan –injury possible more water soluble
- Freehand pendimethalin + dimethinamid
- Dithiopyr Dimension and others
- Prodiamine Barricade
- Metolachlor Pennant

Perennial groundcovers and woody ornamentals

- Free Hand
- Broadstar/Sure Guard
- Snapshot
- Rout
- Ronstar

✓ HERBICIDE PLACEMENT

ON TOP OF THE MULCH OR UNDER?

Location - What Works Best

- Would work better under the mulch not always practical new beds
 - Pennant
 - Snapshot
 - Treflan
 - Pendulum
 - Barricade
 - Free Hand
- Old beds on top of mulch
- New beds or old apply on top of the mulch
 - Ronstar oxidiazon
- Apply either way
 - OHII (pendimethalin + oxyfluorfen)
 - Rout (oryzalin + oxyfluorfen)

Steps Applying Granular/spray Pre herbicides - Existing Bed

- Remove existing weeds by hand / spot glyphosate
- 2. Sprinkle granules as directed over existing landscape plants and on top of old mulch water in
- 3. Do not expect all season control reapply according to product label

Ranking of the most difficult weeds in flower beds

most of my calls regard the following weeds

#7 Bermudagrass

Bermudagrass



- Creeping perennial
- rhizomatous
- Hard to kill
- No PRE options

Control Options

- Fusilade multiple
- Sethoxydim- multiple
- Roundup multiple

#6 Woodsorrel

Woodsorrel - Oxalis spp.

- Perennial
- Yellow and creeping common species in flower beds
- 3 heart shaped leaves
- Shamrock
- Some red to purple leaves
- Heavy seed production
- Explodes seed up to 10 feet



Stolons



rhizomes



Control Woodsorrel - Oxalis spp.

- Pre's only for newly germinating populations
 - Gallery
 - Free Hand
- Snapshot
 - Ronstar
- Treat existing plants glyphosate



Difficult to hand remove

Rose/Pink Woodsorrel

- Perennial Oxalis debilis
- Very common in flower beds



Not controlled by hand removal

Wipe with glyphosate



#5 spurge

Spurge – Euphorbia spp.

- Summer annual
- Opposite leaves
- Prostrate and upright growth
- Likes hot weather
- Emergence to flower in 3 weeks
- Difficult to hand pull
- White sap when stem broken
- Very invasive







Control Spurge - Euphorbia spp.

- pendimethalin
- prodiamine
- dithiopyr
- Sureguard
- Snapshot
- Free Hand



#4 Florida Betony

Florida Betony



Rattlesnake Weed



Florida Betony Staychis floridana



- Cool season perennial plant
- Leaves opposite
- Square stem
- Seed producer





- White to pink flowers
- Reproduces quickly by tubers

Control? Florida Betony staychis floridana



- No selective post control
- No preemergence
- Weed fabric not effective
- Non-selective herbicides
- WIPE with glyphosate
- Bobcat them out

#3 Chamberbitter

Chamberbitter - Phyllanthus spp.









Chamberbitter – Phyllanthus urinaria

- Summer annual
- Leaves arranged in 2 rows along branch
- Reproduces by seed
- Fruit contain 6 seeds
- Very common in flower beds
- Highly invasive





Preemergence Herbicides - erratic control on...









Chamberbitter/phyllanthus control

- Gallery/Snapshot erratic control at times
- Free Hand has a little activity
- Rout/OH 2
- Flumioxazin (sureguard)
- Overall erratic response to preemergence herbicides
- Hand pull
- Thick mulch



#2 Torpedograss

#2 Torpedograss



Torpedograss

- Severe problem in turf and ornamentals
- Perennial grass
- Introduced into flower beds during construction
- Highly tolerant of herbicides
- No good control



The Torpedograss Rhizome

- Reproduces by rhizomes and stem fragments
- Survive burial depths (16cm)

- High levels of carbohydrates
- Very competitive





Grows over most plants!



Torpedograss Control

- Sethoxydim short term suppression
- fluazifop fair with repeated applications
- Spot treat with glyphosate WIPE method
 most effective method
- Physically remove old soil and totally renovate with bringing in new soil

Tough Perennial weeds - glyphosate

Spraying Roundup in Flower beds — Risky!

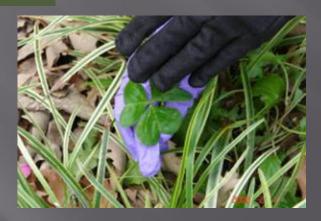
Non-spray method for applying Roundup/glyphosate

Wipe/paint it on

- 3 oz of glyphosate in 29 oz. of water 1 quart solution
- Paint brush, chem resistant glove inside cotton glove, paint roller, sponge mop
- Dip and squeeze off excess
- Gently wipe/paint weed leaves











Roundup gel – awkward to use

Use wipe method for hard to control weeds like...



- Translocates to underground storage organs
- Paint brush, sponge mop etc.

Florida betony (rattlesnake)



bush killer vine

torpedograss

#1 weed of landscape beds

Sedges







SEDGES

- •Grass-like
- •Stems triangular rarely hollow
- •Leaves are in threes
- Rough leaf margins
- No ligule

Purple vs Yellow









Yellow nutsedge vs purple nutsedge



Preemergence options for yellow nutsedge

Pennant

- Metolachlor
- Preemergence only- yellow nutsedge and annual sedges no purple activity
- Some green kyllinga pre activity
- Annual grasses and small seeded broadleaves are controlled

Several tolerant ornamentals including selected annuals

Free Hand

- Dimethenamid + pendimethalin
- annual sedges, and yellow nutsedge
- Does not work on purple nutsedge
- Safe on: most woody plants, roses, several shrubs
- Most bedding plants safe

purple nuitsedge – no dependable preemergence control

Postemergence Options for Sedges

halosulfuron

- Annual sedges + Yellow and purple nutsedge
- Weaker on green kyllinga
- Very safe on all southern turfgrass
- Apply safely <u>around</u> all woody ornamentals

sulfosulfuron

- Certainty
- Good on all sedges including green kyllinga
- Apply safely <u>around</u> all woody ornamentals
- Several <u>over the top</u> applications are possible check product label
- Over the top applications on liriope and mondograss

lmazaguin

- Scepter / Image 70 DG
- Weak on yellow nutsedge
- Some dollarweed activity
- Wild onion and garlic
- Injury potential on Azaleas and knockouts

Several tolerant ornamentals

Indian Hawthorne, gardenia, asiatic/confederate jasmine Holly (several), Juniper (several), red crape myrtle, liriope, mondo, Hosta

Dishonorable mention weeds of landscapes

Vines and volunteer trees in landscape



Poison Ivy





- Perennial
- Reproduces by seed
- Has some look-alikes
- Triclopyr containing products

Bush Killer - Cayratia japonica



- Perennial
- Vegetative reproduction
- Does not produce viable seed
- Climbs on landscape plants
- Repeated triclopyr, glyphosate



Large Vines on trees - seed source for flower beds





Triclopyr containing products (Cut-vine

and Stump Killer Products)



SUMMARY

- Use mulch and pre herbicides in beds
- Repeat as often as the label allows
- Use grass killers over the top of most broadleaf and other non-grass plants iris/daylilies, liriope/mondograss
- Wipe or paint perennial plants with glyphosate solution

Questions?



Twitter (lsuturf)

rstrahan@agcenter.lsu.edu

www.laturf.net