



MANAGEMENT STRATEGIES FOR WEEDS INFESTING DEEP SOUTH LANDSCAPE BEDS

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Types of Weeds Found in Flower Beds

- **Broadleaves —**
 - Netted veination
 - 2 cotyledons
 - Taproot
 - Showy flowers



Yellow woodsorrel

- **Grasses —**
 - Parallel
 - 1 cotyledon
 - Fibrous roots



Crabgrass

- **Sedges — “nutgrass”**
 - Triangular stems
 - Leaves in 3’s



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

1. 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 *Stachys 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 – don't let it make seed!!!

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...



Florida betony (rattlesnake)

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



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



Tapered leaf - yellow

Dagger shaped leaf -
purple

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 nutsedge – 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 around all woody ornamentals

sulfosulfuron

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

Imazaquin

- ❑ 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, liriopse, mondo,
Hosta

**Dishonorable mention
weeds of landscapes**

Vines and volunteer trees in landscape



Poison Ivy



- ❑ Perennial
- ❑ Reproduces by seed
- ❑ Has some look-a-likes
- ❑ 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?



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