



Weed Management in Warm Season Turf

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**Chronic weed
problems are
symptoms of poor turf
management!**

Weed Control in Lawns

- ✓ Most important concept in weed control is proper turfgrass management

Thin Turf



=

Weedy Turf



Indicator Weeds

Soil condition

Indicator weeds

soil compaction

goosegrass, annual
bluegrass

low nitrogen

clovers

poor drainage

Dollarweed, sedges,
doveweed

drought

Dallisgrass, bahiagrass



Annual bluegrass



White clover



dollarweed



doveweed



dallisgrass

Biggest Mistakes in Lawn Maintenance Business

- Cutting the lawn too short – thins out St. Augustinegrass
- Fertilizer? “I have to cut more often”
- Not sure which turf is which

Turfgrasses for Louisiana Lawns

St. Augustinegrass



Zoysiagrass



Centipedegrass



Bermudagrass



St. Augustinegrass



- Most shade tolerant lawn grass
- Lots of diseases and insect problems
- Likes fertilizer – April, June, very early August
- Prefers a pH range 6.5 to 7
- Will not tolerate low mowing – mow at 3 inches

Large (Brown) Patch - dead looking spots in spring and fall

*** St Aug has big problems**



Brown patch



Tropical sod webworm

- devastated lawns in LA in 2010



Chinch bugs

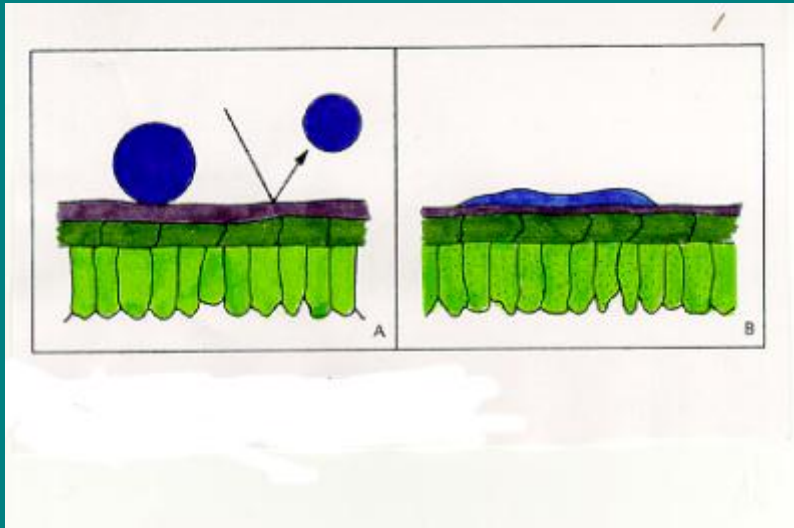


- See damage often in summer when it is hot and dry
- Chinch bug damage is due not just to the direct effects of feeding, but also to phytotoxic effects of the saliva.
- Damage may occur in open, sunny areas near sidewalks and driveways, but also in the middle of lawns

**St. Augustinegrass – beautiful
but has a lot of issues!**

**Helping your herbicide
applications work
better.....**

What does a surfactant/spreader sticker do?



- Reduce surface tension on leaf
- Gets herbicide in plant quicker
- Herbicide sticks to leaf better
- Check label – some require it some don't

Environmental Factors Affect Postemergence Herbicides

- **Light** – enhances absorption by increasing photosynthesis – **sunny days are good**
- **Temperature** – can enhance or inhibit – optimum temperatures exist / herbicide specific – **usually cold is not good**
- **Humidity** – **low humidity** –not as good
high humidity – favors absorption
- **Wind** – adversely affects foliar absorption – causes evaporation
- **Rainfall** – may wash residues off foliage

MSMA New Product Label

MSMA New Product Label

- Golf Courses

- Newly constructed course – may make 1 broadcast application
- Established course – spot treatments not to exceed 100 ft² per spot – spot treatment cannot exceed 25% of total golf course per year

MSMA New Product Label

- Sod Farms

- 2 broadcast applications per year

- No applications after December 31, 2013

MSMA New Product Label

- Highway Right of Way
 - 2 broadcast applications per year
 - No applications after December 31, 2013

MSMA New Product Label

- Athletic Turf and Home Lawns
 - Applications no longer allowed under the new product label !!!!!

Newer Herbicides

Celsius

- iodosulfuron, thienencarbazon, and dicamba
- rate range is 2.5 to 7.4 oz/acre
- Excellent St. Aug tolerance in hot weather
- Suppresses dallisgrass, large crabgrass
- Several broadleaf weeds
- Excellent on clover, lespedeza, etc.

Katana

- Flazasulfuron – PBI Gordon
- Bermudagrass and zoysiagrass
- Centipedegrass is tolerant at very low rates – not a good fit
- Overseed removal – similar to Monument in that there is some root uptake
- Sedge control but probably not as good as the Monument
- Hard to find its niche in market

Specticle

- indaziflam – Bayer – herbicide coming soon
- Long residual preemergence herbicide – could last 6 to 8 months at the high rate (5 oz/acre)
- All established Louisiana turfgrasses are tolerant depending on rate – **lower max rates for St. Augustinegrass and centipedegrass**
- Crabgrass, goosegrass, *Poa*
- Several broadleaf weeds

Top Weeds Problems

Winter

Winter Weeds



- **Bedstraw**
- **Black medic**
- **Common chickweed**
- **Henbit**
- **White clover**
- **Lawn burweed**
- **Annual bluegrass**

Weeds in yards in February to April

Winter Weeds !

Annual bluegrass *Poa annua*



- Light green winter annual
- Germinates in Sept/October
- Pendimethalin, prodiamine, dithiopyr, indazaflam in mid September
- Atrazine/simazine – 2 applications – Oct to Nov and Jan to Feb – least expensive
- Revolver, Monument, Tranxit – bermudagrass, zoysiagrass

Lawn Burweed — sticker weed



- Treat in February and March
- Too late in late April and May
- Atrazine, simazine (early) Trimec, Manor, Speed Zone, Celsius

How many times have I seen this?



Clover – indicator weed

✓ Indicates low Nitrogen fertility



Winter Broadleaf Control

Easy to control with timely applications:

- * **Simazine – preemergence – mid October to November**
- **Trimec Southern, Strike 3, Speedzones, Monument, Manor/Mansion/MSM etc. – postemergence for broadleaves**
- **Best choice – Atrazine/Simazine in late October followed by Atrazine/simazine + 3 way (if needed) in February**

Bahigrass

Bahiagrass

- Perennial - stubby rhizomes
- Common throughout the south
- Tolerates drought
- Makes seedhead quickly



Bahiagrass Control

- **Mansion /Manor/Blade/MSM (metsulfuron) – very effective — safe for all southern turf - Watch application during transition in centipede**
- **E-Pro, Segment - Sethoxydim – use only on centipedegrass**

Dichondra

#8 Dichondra

- Low growing, creeping perennial
- Shaped like a pony's foot
- Pale green color
- Common in thin turf



#8 Dichondra Control

- Trimec type herbicides work extremely well
- Atrazine
- Increase mowing height on St. Augustinegrass
- Fertilize
- Get lawn healthy!



Nutsedge

Nutsedge (nutgrass or coco)



Purple Nutsedge



Produces
chains of
tubers

Sedge Control

- **Sedgehammer** - Good sedge activity – safe on all warm season turf
- **Image** - ok on sedges – weaker on yellow nutsedge
- **Monument** – bermudagrass and zoysiagrass only – now can be applied in residential turf
- **Certainty** – Great sedge activity – safe on all southern turf including st. aug

Crabgrass and Goosegrass

Crabgrass



- Summer annual
- Produces lots of seed
- Germinates - soils reach 53 - 58F
- Light is required for germination

Goosegrass



- Summer annual
- Produces lots of seed
- Germinates - soils reach 60-65F
- Light is required for germination

**Backbone of crab and goose control –
preemergence herbicides**

When To Apply PRE

- **Summer Weed Control-** Mid-February in South LA
 - ✓ **Pendulum** – established turf only
 - ✓ **Barricade** – established turf only
 - ✓ **Dimension** – established turf only – has post activity on crabgrass
 - ✓ **Specticle** – long residual
 - ✓ **Ronstar** – safer on establishing turf – do not use on centipedegrass – do not use on residential turf

Herbicide Options for Annual Grasses

Preemergence

- Pendulum
- Barricade
- Pennant
- Dimension
- Ronstar
- Specticle

Postemergence

- MSMA - berm. and zoysia
- Sethoxydim – centipedegrass only
- Acclaim – zoysiagrass
- Celsius – St. Aug – large crabgrass when small

Dollarweed

Dollarweed



Dollarweed



- Perennial
- Reproduces by seed and rhizomes
- Parsley family
- Prefers good moisture
- Will grow anywhere

Dollarweed



- Atrazine/Simazine
- Atrazine + 3 way
- Atrazine + Manor
- Celsius – not bad
- Trimec type herbicides

Bermudagrass

Bermudagrass



Bermudagrass

- Perennial with both stolons and rhizomes
- Very aggressive
- Problem in centipedegrass and St. Augustinegrass

Bermudagrass

- No preemergence control
- Centipedegrass – repeat applications of Sethoxydim Herbicide
- St. Aug – proper mowing height
- St. Aug – spot Roundup
- St. Aug – Prograss /(Poa Constrictor)+ Atrazine – expensive and moderately effective – 3 applications

Dallisgrass

Dallisgrass



Dallisgrass Control

- Repeated applications of MSMA in bermudagrass
- Repeated applications of G-Pro Sethoxydim in Centipedegrass
- Spot treatments with Roundup in St. Augustine – especially when St. Aug is semi dormant
- Celsius suppresses temporarily
- Dig it out

Torpedograss

Torpedograss!!!!



The Torpedograss Rhizome

- Reproduces by rhizomes and stem fragments
- Survive burial depths (16cm)
- High levels of carbohydrates
- Very competitive



Major Source of Rhizomes – Bonnet Carre



Effectiveness of Herbicides on Torpedograss

Little or no control

- MSMA
- Image
- Illoxan

Supp/Control

Roundup

Drive – ber/zoy

Fusilade - zoy

(G-Pro

Sethoxydim)

- 3 applications per LSU

VBW

Virginia Buttonweed – Game Changer

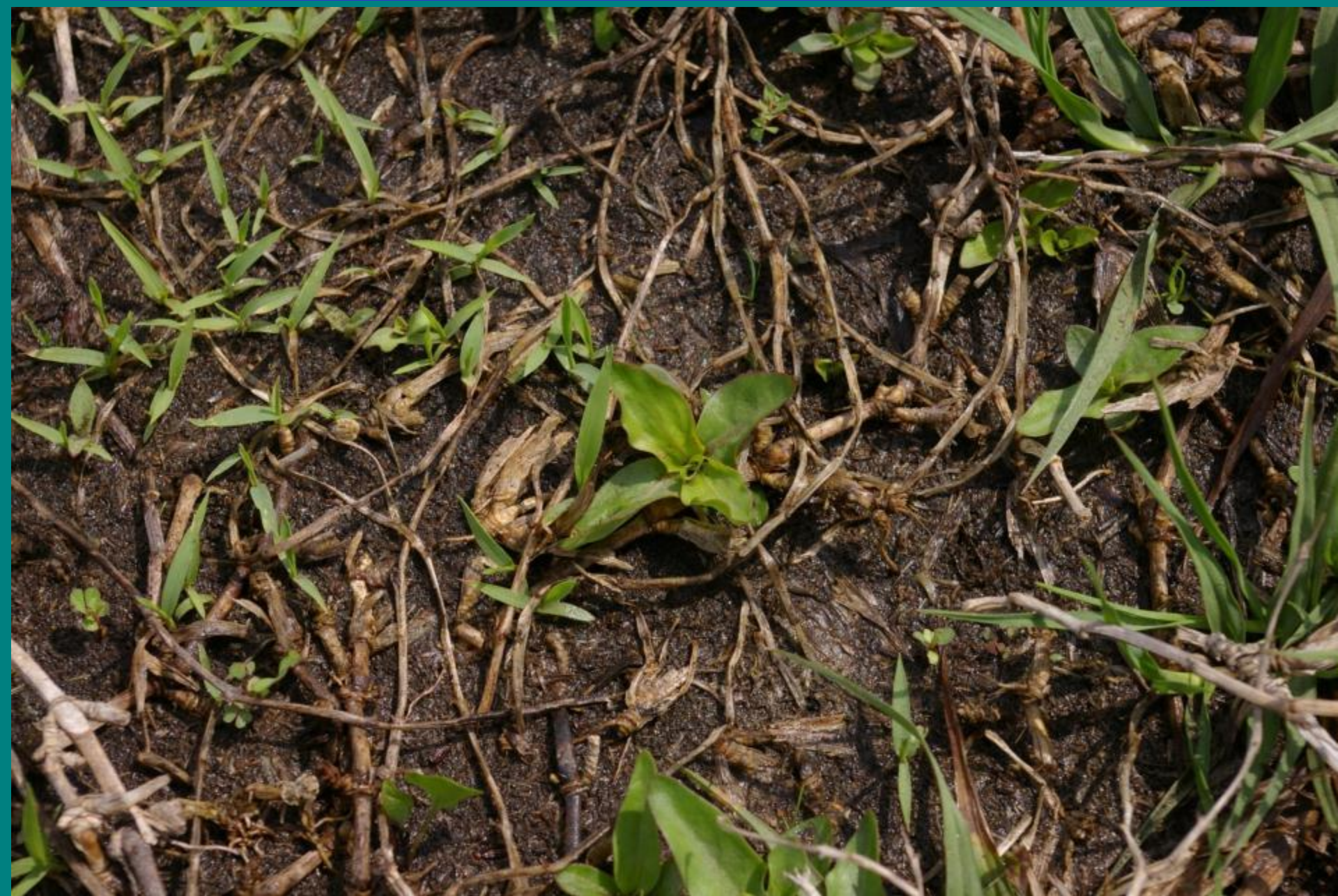


Virginia Buttonweed Reproduction

- Reproduces by seed – 2 seed in every capsule
- Unique – produces self pollinating flowers above/below ground
- Seed float - water transport
- Highest seed germination with temperatures at 86 F
- Stem fragments – consider bagging clippings
- Deep taproots and deep rhizomes (can be several feet deep)



Mother Plant Emerges First - March



Virginia Buttonweed – Seedlings

- Emerge in late April when it gets warm
- Best germination at 85F
- No preemergence option



**June through October – heavy
mat forms – difficult to manage**



Key active ingredients that have performed the best in trials at LSU

- 1. Metsulfuron – Manor/Mansion - repeated**
- 2. Celsius repeated**
- 3. Chlorosulfuron - Corsair**
- 4. Clopyralid – Lontrel, Confront**
- 5. Trifloxysulfuron - Monument**
- 6. Triclopyr - Confront**
- 7. 2,4-D**
- 8. Fluroxypyr – Spot Light**



Program approach is best

1. Consider earlier season applications –April to early May – Speed Zone
 2. Then apply Manor/Mansion - for hotter weather applications – June to July
 3. Always follow up Manor/Mansion with a second application in 4 to 6 weeks
- ✓ Don't expect 100% control

Other options

- ✓ When possible substitute Lontrel – non-residential turfgrass
- ✓ Monument – can be effective –residential turf included – bermudagrass and zoysiagrass only
- ✓ Don't expect 100% control

VBW – Very heavy seed production



Doveweed

Doveweed



Doveweed Control

Postemergence

- ✓ Roundup is totally ineffective
- Simazine – very effective
- Atrazine – very effective
- Simazine + Speed Zone, – fastest way to get the weed out
- Revolver
- Celsius - repeated
- Tower Herbicide – preemergence control


Questions ?

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And Twitter (lsuturf)



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