

Weed Control for Resilient Pasture

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Presentation Outline

- Importance of weed control
- Herbicides
- Establishment
- Forage Tolerance
- Key weeds and control options
- Weed wipers



Why Weed Control is Important?

- Limit competition for desirable forage
- Increase forage quality and yield
- Increase grazing – decrease grazing interference
- Decrease likelihood of poisonous plants
- Reduce encroachment from woody plants - can be a serious problem
 - Woody brush or trees are very difficult to control after established



Weeds Interfere With Grazing



Weeds Interferes With Grazing

Albany

Fix Points Prior to
Application (7/8-7/29)

- Treated – 53%
(250 fixes)
- Untreated – 47%
(225 fixes)



Weeds Interfere With Grazing

Albany

Fix Points for All 4
Months After Application

- Treated -72%
(2,718 fixes)
- Untreated -28%
(969 fixes)



Weed Types/Life Cycle

Broadly 3 categories:

- Annual weed:
 - Winter annual: wild radish, henbit, chickweed etc.
 - Summer annual: pigweed spp., ragweed, teaweed etc.
- Biennial weed: thistle, maretail, curlydock etc.
- Perennial weed: several grass and broadleaf weeds
 - Johnsongrass, smutgrass, cogongrass, broomsedge etc.
 - Blackberry, mint, creeping indigo etc.

Weeds Management Considerations

- Consider multiple sprays in the season (2 to 3 times)
- In the time or resource limited situation
 - Identify the most troublesome weed and implement control measure
- Which one to attack first?
 - Get rid-off the toxic weeds
 - Go after the weeds that inhibit grazing the most
 - Follow up with weed control that reduce forage yield and quality

The Current Toolbox

Herbicide	Rate/Acre	\$/Acre
dicamba (Generic Dicamba DMA, Clarity etc)	1.5 - 2 pt	\$13 to 17
2,4-D (Weedar 64, 2,4-D amine, LV Ester etc.)	2 - 4 pt	\$7 to 14
dicamba + 2,4-D (WeedMaster etc.)	1 - 4 pt	\$4 to 16
diuron (Diuron 4L, Diuron 80 etc.)	1.5 - 4.5 pt	\$6 to 18
pendimethalin (Pendimethalin, Prowl H ₂ O)	1.5 - 4 qt	\$11 to 30
triclopyr (Pathfinder, Remedy Ultra etc.)	2 pt	\$14
metsulfuron (MSM 60, Chaparral etc.)	2 - 3.33 oz	\$12 to 20
imazapic (Imazapic 2SL, Panaromic, Impose etc.)	4 - 12 oz	\$5 to 15

The Current Toolbox

Herbicide	Rate/Acre	\$/Acre
Aminopyralid+2,4-D (GrazonNext HL)	1.6 - 2.1 pt	\$12 to 15
Hexazinone (Velpar/Tide Hexazinone etc.)	2.75 - 4.5 pt	\$\$
Triclopyr+fluroxypyr (PastureGard HL)	1 - 2 pt	\$16 to 32
chlorsulfuron (Telar)	0.1 - 1 oz	\$2 to 17
sulfosulfuron (Outrider)	1 - 1.33 oz	\$15 to 20
metsulfuron+nicosulfuron (Pastora)	1 - 1.5 oz	\$15 to 23
fluroxypyr (Vista XRT)	22 oz	\$30

Weed Control During Establishment

- Bahiagrass
 - None; 6" tall or 3 tillers
- Bermudagrass and stargrass
 - 2,4-D amine - 2 pt/a
 - WeedMaster - 2 pt/a
 - 7-10 DAP
- Limpograss
 - Banvel - 1.5 pt/a
 - 7-10 DAP



Pasture Establishment Considerations

- Start clean – proper method for land preparation
- Suitable forage species/variety
- Optimum seeding time and seeding rate
- Seed quality, purity
- Being careful with herbicide product selection
 - Several product has restrictions for use during establishment

Established Forage Tolerance

- Bahiagrass
 - Tolerant to most herbicides except
 - Metsulfuron (Chaparral, Pastora)
 - Imazapic (Impose, Panoramic)
- Bermudagrass & stargrass
 - Tolerant to most herbicides
 - Can get injury under high temps and RH
 - Imazapic (Impose, Panoramic)
- Limpograss
 - Can be sensitive
 - 2,4-D, WeedMaster, GrazonNext etc.

Key Weeds and Their Control

The Most Common Weed



Dogfennel Treatment at 30" vs 42"

Treated at 30"

Herbicide	Rate	Control	Cost
	pt/acre	%	\$/acre
Grazonnext HL	1.5	60	12
Grazonnext HL	2.1	95	15
WeedMaster	2.0	68	8
WeedMaster	3.0	86	12
PastureGard HL	1.5	98	24

Treated at 42"

Herbicide	Rate	Control	Cost
	pt/acre	%	\$/acre
Grazonnext HL	1.5	61	12
Grazonnext HL	2.1	66	15
Grazonnext HL+ PastureGard HL	1.5 + 0.5	93	12 8
Grazonnext HL + WeedMaster	1.5 + 2	88	12 8
Grazonnext HL + 2,4-D amine	1.5 + 3	95	12 10

Tropical Soda Apple (TSA)

- Broadcast:
 - Grazonnext HL at 1.5 - 2.1 pints/acre
 - Apply anytime during the year except when frost is likely (January through February)
 - Use in limpograss ONLY during November – April
 - Chaparral at 2 - 3 oz/acre (limpograss, bermudagrass, stargrass)
- Spot spraying: All forage grasses
 - 0.11% v/v Milestone solution (3 tsp/gallon or 1 oz/5 gallons)
 - 1 oz/gallon for Grazonnext HL
 - Spray the entire plant



Blackberry Species in Florida

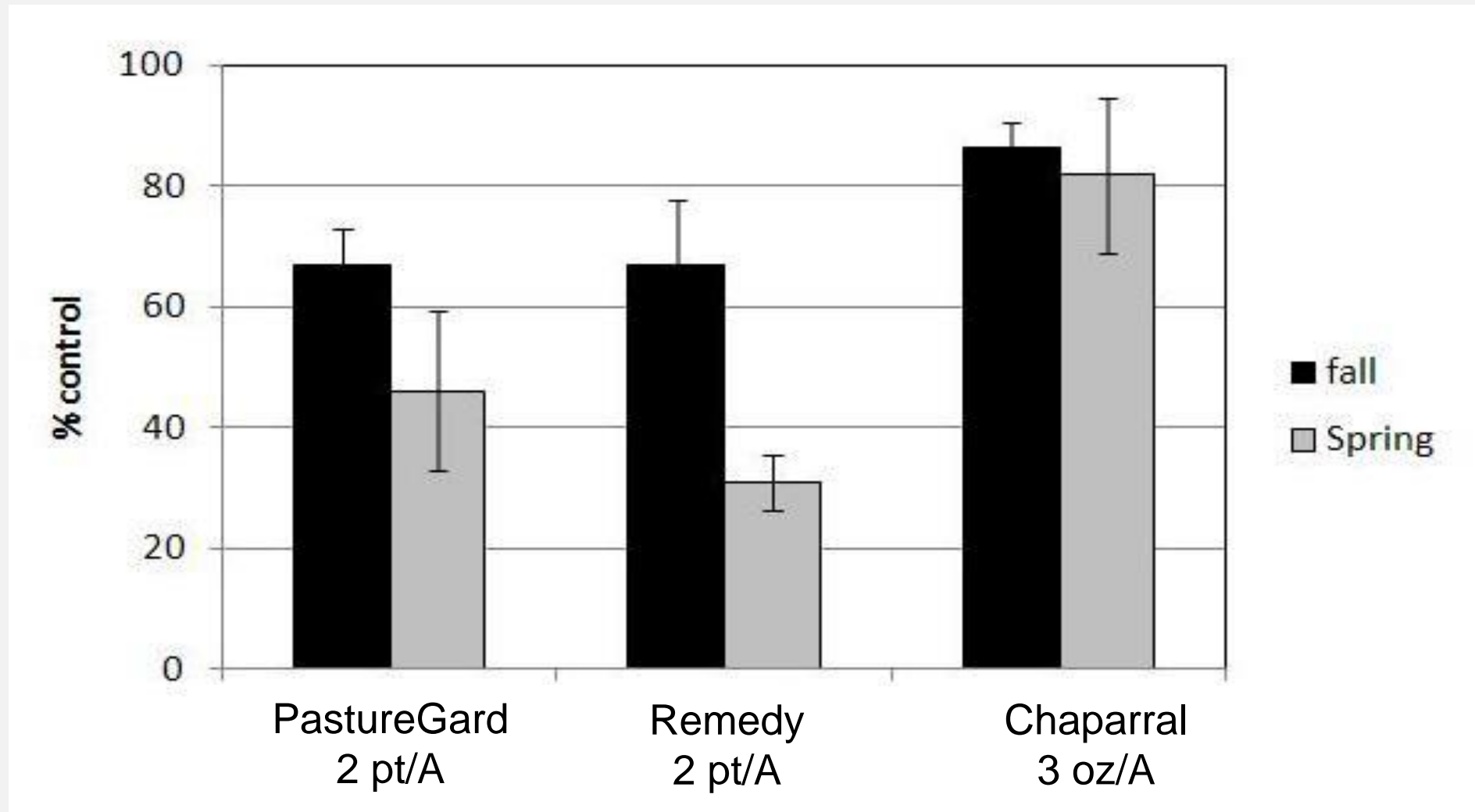


Highbush blackberry



Sand blackberry

Blackberry Control - 24 MAT

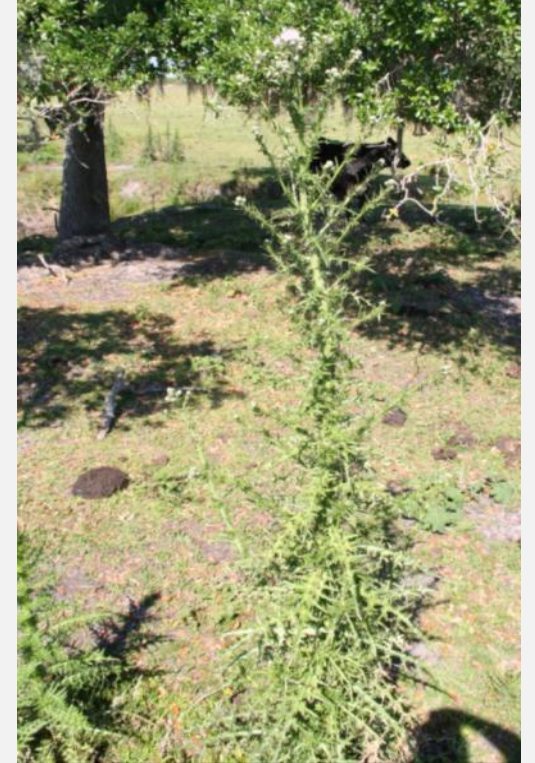


Blackberry Control

- Full vs. reduced rates
 - Remedy
 - Full rate = rapid brown out
 - 1 pt/A = slower brown out
 - Telar
 - 1 oz/acre – more consistent
 - Chaparral
 - Apply only in late fall after bahia is dormant
 - Addition of 2,4-D helps safen bahiagrass

Thistle Control

- Biennial species
- Common species are
 - Nuttall's thistle
 - Horrible/purple thistle
 - Bull thistle
- Control is always better when sprayed at the rosette growth stage



Thistle Growth Stages

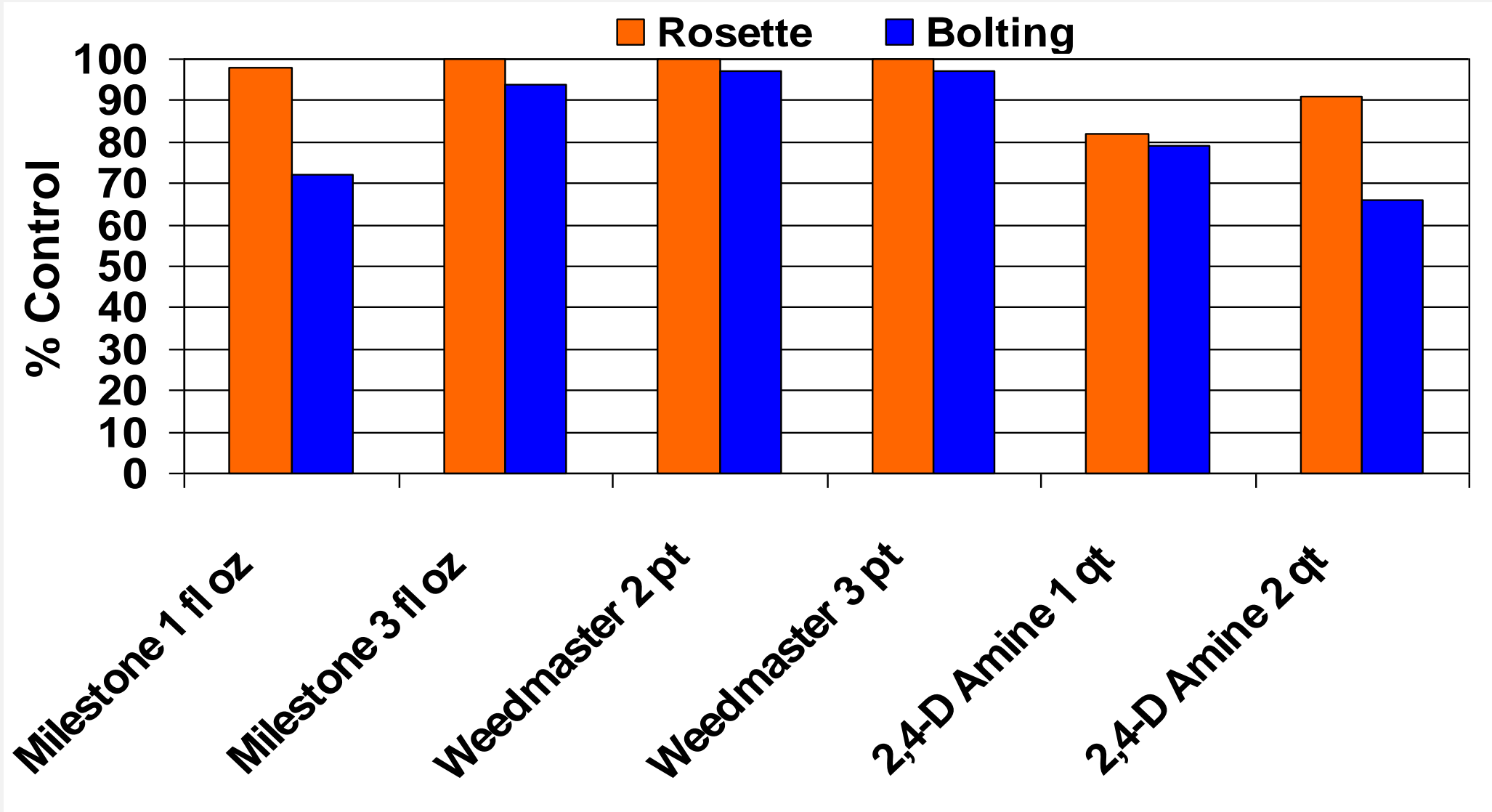


Rosette



Bolting

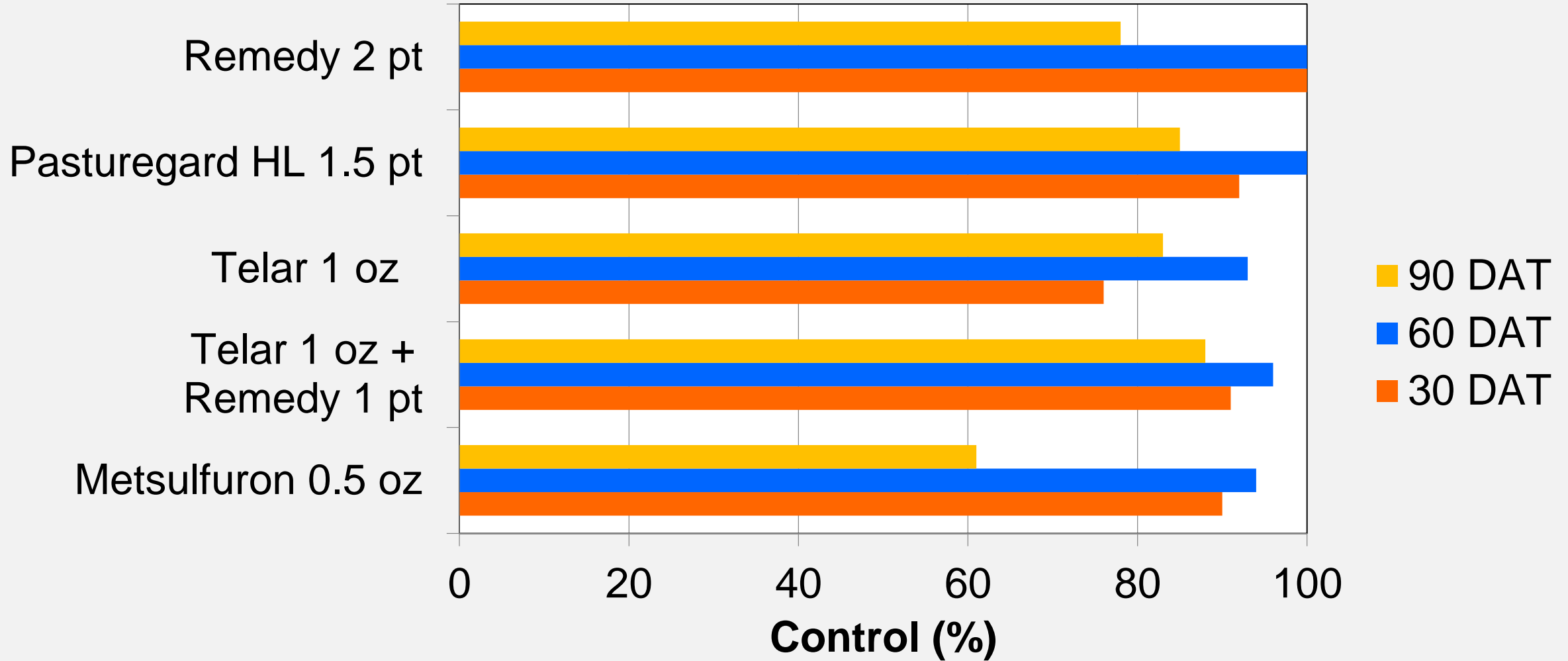
Comparing Milestone with Standards



Teaweed



Teaweed Control



Smutgrass

- Two species in Florida
 - Small smutgrass
 - Giant Smutgrass
- Control
 - 3-4 pt Velpar/Tide Hexazinone at rainy season
 - No surfactant is required
- Grazing restriction = 0; 38 d haying restriction



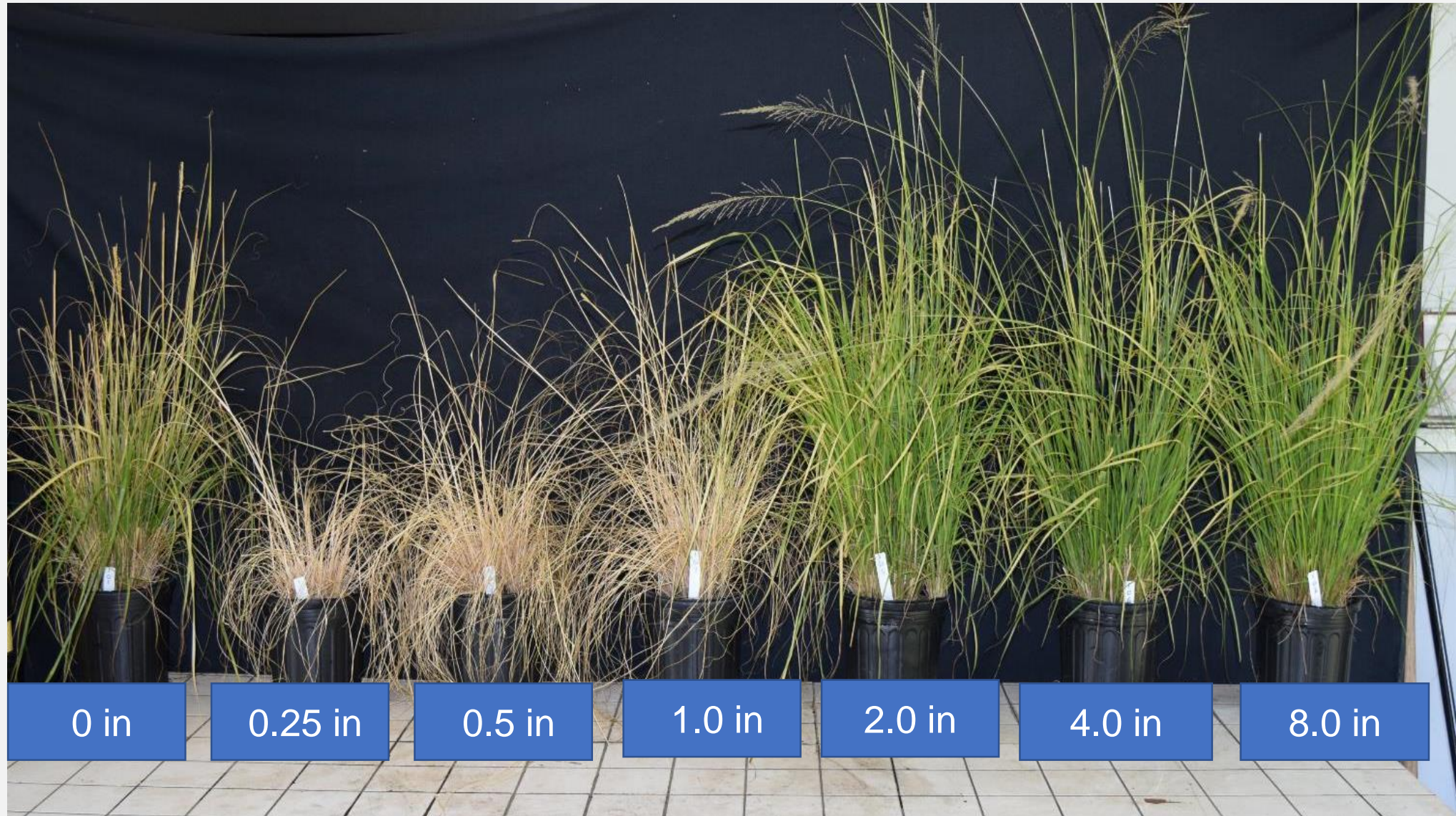
Smutgrass Control

Treatments		24 MAT	36 MAT	Cost
1 st year Hexazinone rate (qt/A)	2 nd Year Hexazinone rate (qt/A)	(No. plants/plot)		(\$/A)
-	-	12	32	0.00
-	1	13	35	20.00
-	1.5	5	40	30.00
1	1	1	22	40.00
1	1.5	2	7	50.00
1.5	-	3	23	30.00
1.5	1	1	9	50.00
1.5	1.5	5	7	60.00
2	-	2	20	40.00
2	1	5	7	60.00
2	1.5	2	4	70.00

Smutgrass Control Strategy

- Two-year programs vs one-year
- Renovation
 - Should occur when >70% of the pasture is infested
 - Must be followed with Hexazinone product 1 year after planting
- Hexazinone is lethal to oaks
- Rainfall necessary, but too much is bad too

Rainfall and Velpar Activity



Cogongrass – An Invasive Weed



Cogongrass Control - Tillage

- Till it out!
 - Repeated, frequent tillage that breaks up the entire rhizome layer is effective
- Recreational tillage will FAIL
 - Infrequent tillage spreads cogongrass rhizomes and seed
 - Tillage for wildlife food plots can be a major source of cogongrass spread
- Cutting can also spread rhizomes



Cogongrass Control - What Works in Florida

- Fall Applications best
 - 3-5% glyphosate (Roundup, etc.)
 - 1% imazapyr (Arsenal, etc.)
- Retreatment
 - Must be part of the plan
 - Glyphosate every 6 months
 - Imazapyr – every 12 months (treat only 1/10th or less of the pasture area)
 - Watch out for trees

Broomsedge Control

- No selective herbicides for broadcast application
- Spot-treat with glyphosate in bahiagrass & limpograss
- Broadcast glyphosate at 1 pt/A 7-10 days after harvest in bermudagrass & stargrass
- Weed wiper



Using a Wiper for Weed Control



Using a Wiper for Weed Control

- Usually a 10% v/v solution (glyphosate)
- Wipe in two directions
- Practice makes perfect
 - Use of foam marker solution?



Wiping Broomsedge – 1 Year



Wiping Broomsedge – 2 Year

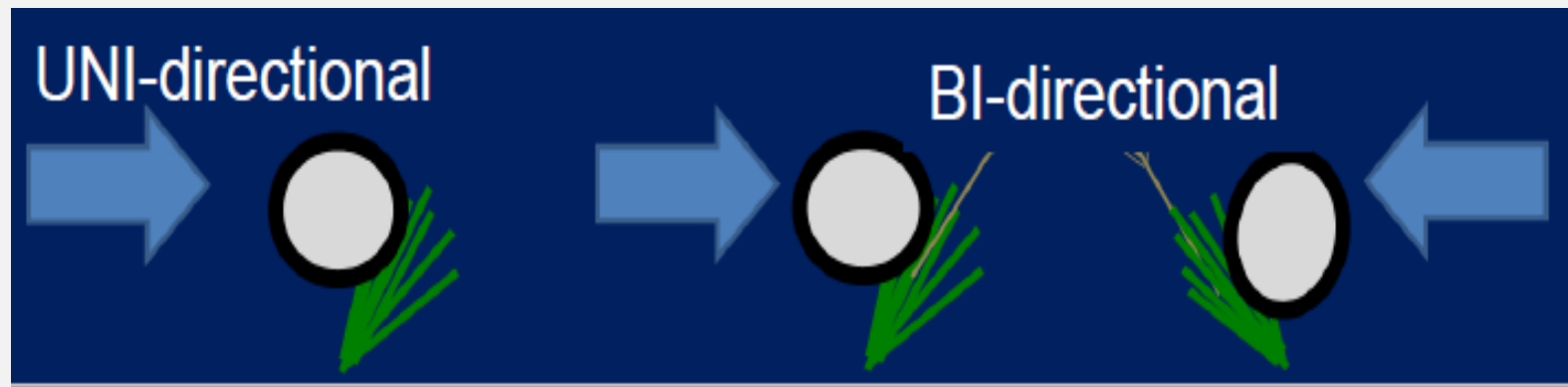


Wiping Smutgrass



Wiping Considerations

- If height differential does not exist - hexazinone at 30% v/v
- If height differential is significant - glyphosate at 35% v/v
- Do not mow prior to using the wiper
- Wipe plants in two (opposite) directions
- There's more 'art' than 'science' to using a wiper



Considerations for More Resilient Pastures

- Managing healthy pasture is the key
 - Healthy pasture = less weeds
- Proper grazing management
 - Poor grazing management – primary cause for weed issue
- Know the field history – previous season weed
- Scouting and keeping eye out for any new weed species



Spray Considerations

3-R rules for applying herbicide for greater efficacy:

- Right time – getting out sprays during early weed stages
 - Costs less \$
 - Less impact on forage/pasture
- Right product – knowing the weeds and targeting problematic weeds
- Right rate – full herbicide rate depending on weed species, growth stages
 - Multiple applications

Thank You !

