

Uses and Caveats with Liberty Herbicide on Liberty Link and WideStrike Cotton Cultivars

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Glyphosate-resistant Weeds in the Mid-South

- ☞ Horseweed/marestail
- ☞ Palmer amaranth
- ☞ Waterhemp
- ☞ Johnsongrass
- ☞ Italian ryegrass
- ☞ Annual bluegrass
- ☞ Goosegrass
- ☞ Giant ragweed
- ☞ Common ragweed
- ☞ Spiny amaranth

Palmer Amaranth is the Driver Weed



No Activation of Residual Herbicides





Hooded Applications and Still Loose The field



**40 oz/A Gramoxone + 32 oz/A Cotoran Pre fb/
32 oz/A Ignite + 16 oz/A Dual Mag fb/
32 oz/A Ignite fb/
16 oz/A Direx + 32 oz/A MSMA + 1 oz/A Valor**



Liberty Based System Use in 2012

- ☁ About 82% of TN cotton acres received Liberty over the top.
 - About 34% was Liberty Link or Glytol/LL
 - About 48% was WideStrike



Glufosinate-based Systems

☞ Liberty Link

- Full tolerance to glufosinate

☞ GlyTol + Liberty Link

- Full tolerance to glufosinate and glyphosate

☞ WideStrike

- Moderate to glufosinate and full tolerance to glyphosate



WideStrike Cotton

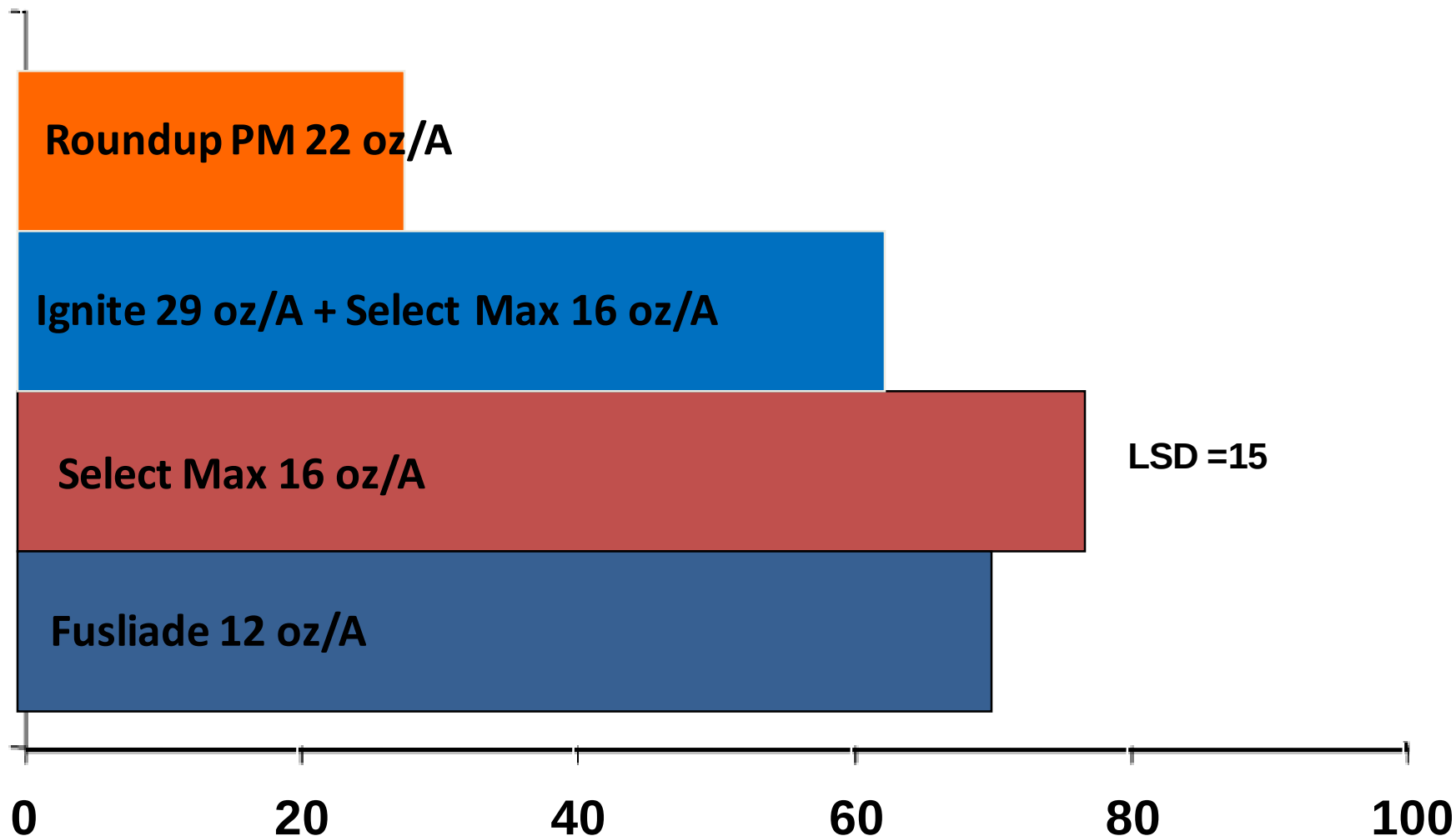
- ☞ Glufosinate injury can range from minimal to severe
- ☞ 3 glufosinate applications can reduce yield
- ☞ Tank-mixing with Dual Magnum, Warrant, certain insecticides, etc. can increase injury
- ☞ The manufacturer of glufosinate, nor the maker of WideStrike cotton varieties, recommend this application



21 DAA 44 oz Roundup PowerMax



GR Goosegrass Control in Cotton



Early Season Weed Control

☁ Start clean

- Burndown
- Preemergence:
 - Cotoran
 - Caparol
 - Reflex



Weed Control in Crop

☁ Postemergence

- Liberty

☁ Extend residual control

- Dual Magnum – risky on WideStrike
- Warrant – very risky on WideStrike



Soybeans Planted to Clean Soil on May 16



Tips for Using Liberty

- ☁ Pigweed 4 inches or less
 - Inconsistent control with 4-8 inch
- ☁ Coverage, coverage, coverage
 - At least 15 GPA
- ☁ Flatfan or XR nozzles
 - No reduced-drift nozzles

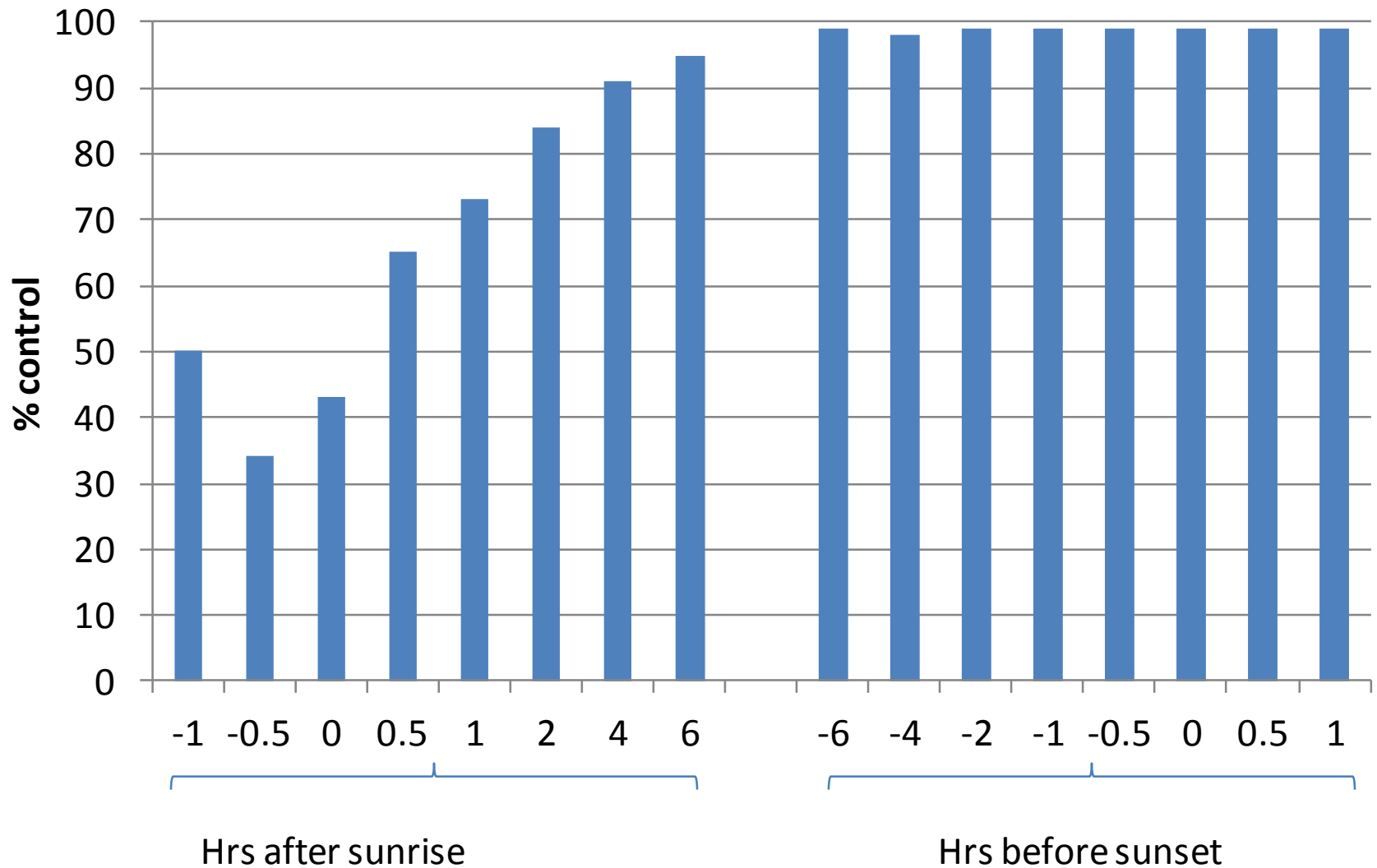


Inconsistent Liberty Performance

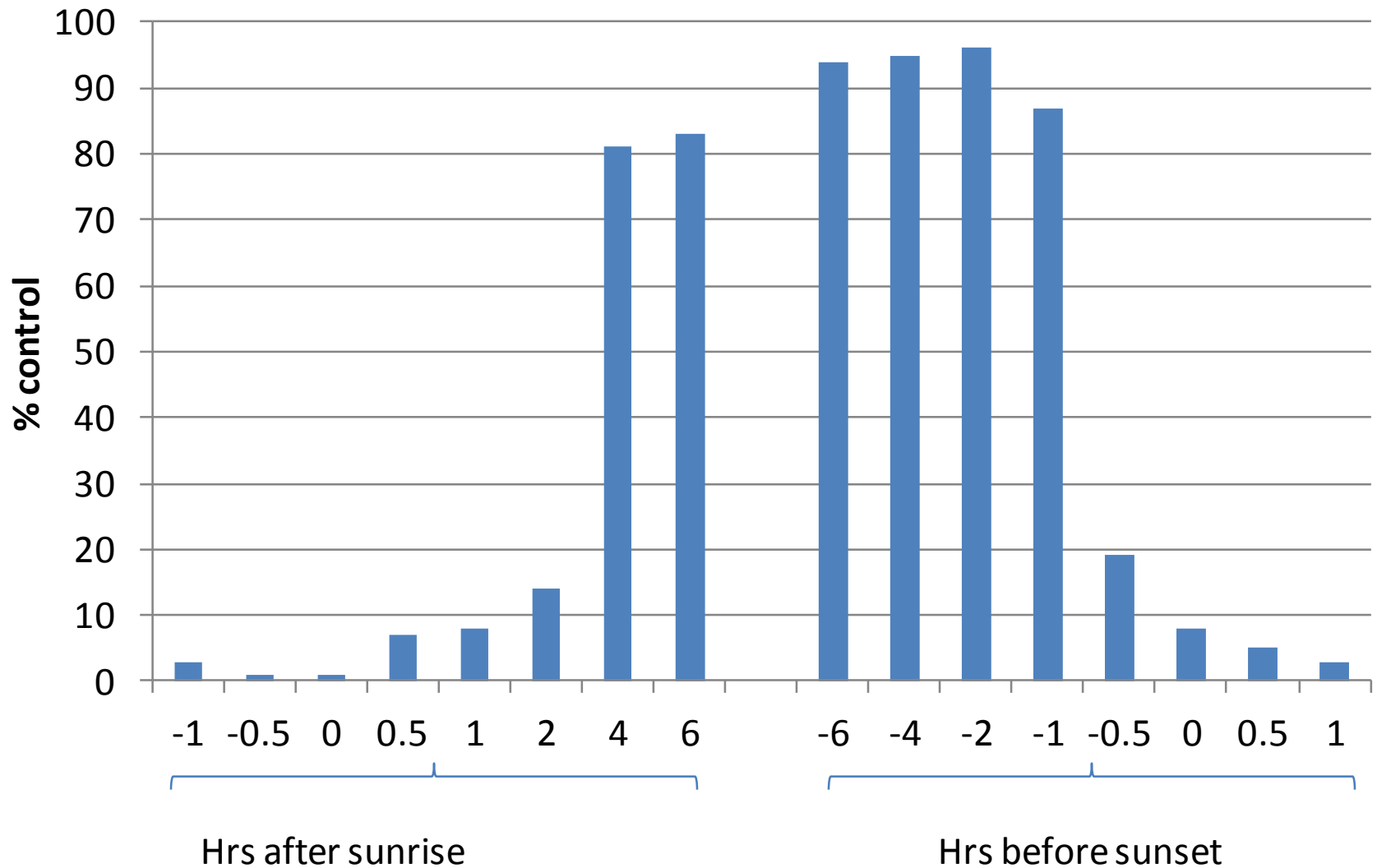


Steckel 2012

Time of Liberty application to AMAPA. 15 DAT B. TN.



Time of Liberty application to AMAPA. 15 DAT. NC.



The Early Bird May Get the Worm, But Not the Weeds

- ☁ Applications of Liberty should wait until AT LEAST 2 hours after sunrise
- ☁ Applications of Liberty from 2 hours after sunrise until 1 hour after sunset provided consistent control of pigweed in TN study



Palmer Surviving After Repeated Burndowns

12 oz Dicamba + 32 oz Glyphosate + 1.5 oz Leadoff 30 DBP/ fb

48 oz Gramoxone + 32 oz Cotoran Pre \$40/Acre

36 oz Liberty early post \$58/Acre



Weed Control in TN Cotton

☁ 2003 weed control costs

- \$60/A herbicide

☁ 2012 weed control costs

- \$120/A herbicide
- \$25/A chopping crew



Can Cover Crops Reduce Weed Control Costs?



Questions?