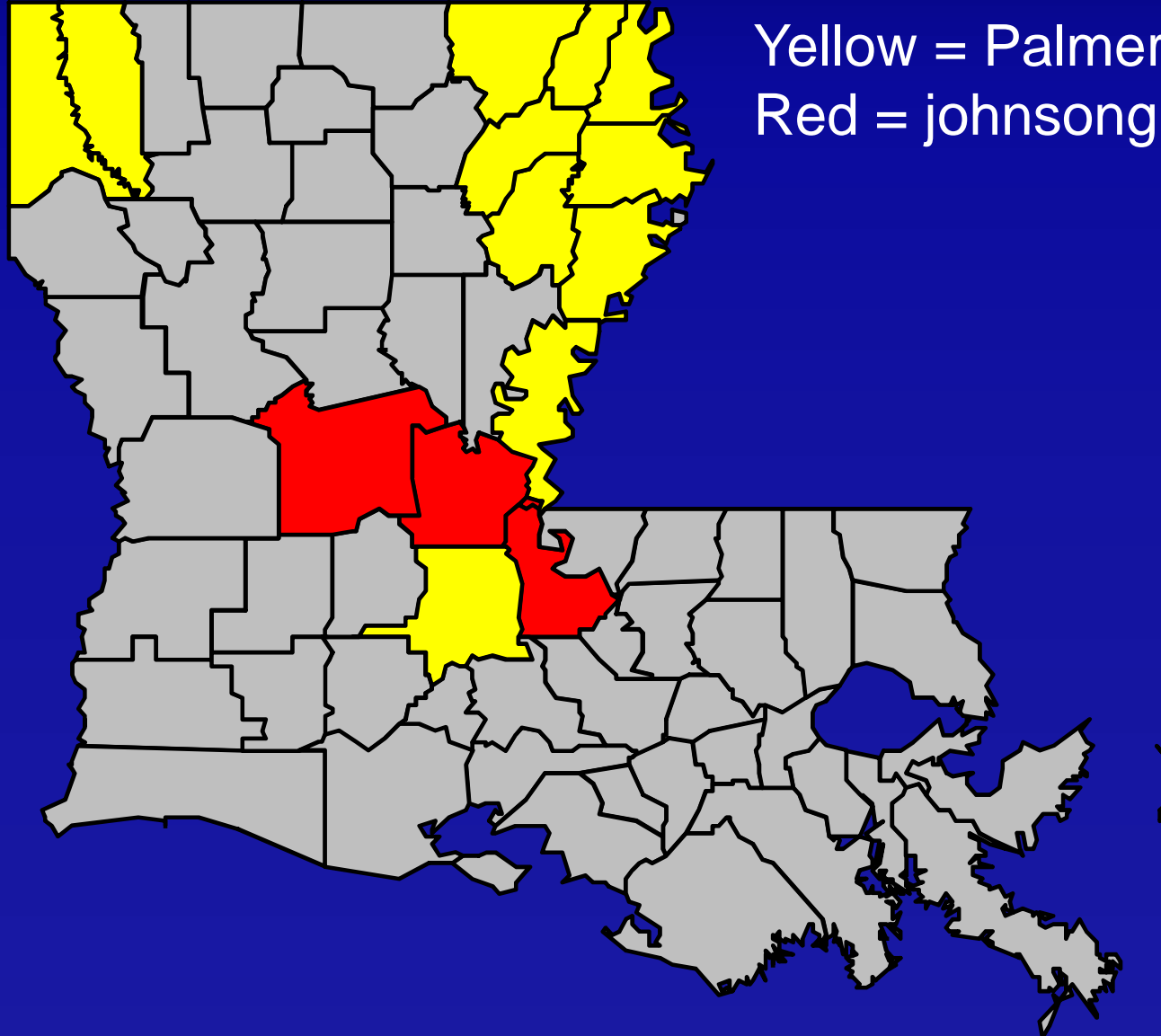


Herbicide Resistant Weed Management in Corn, Cotton, and Soybean



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Dean Lee Research & Extension Center

Glyphosate Resistant Weeds



Yellow = Palmer amaranth
Red = johnsongrass

Glyphosate-Rs Palmer amaranth

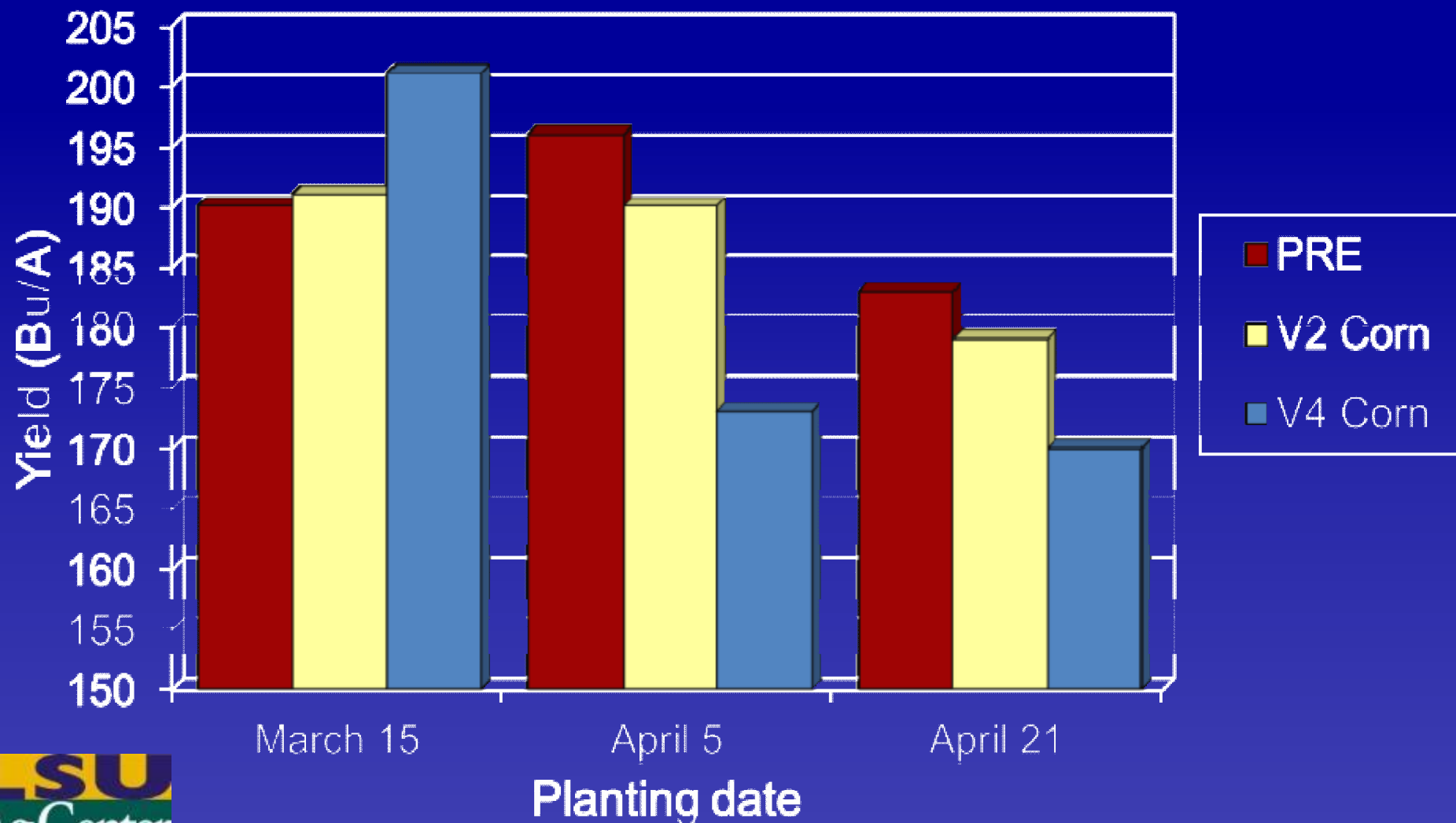


Palmer amaranth mgnt. in corn



Palmer amaranth mgnt. in corn

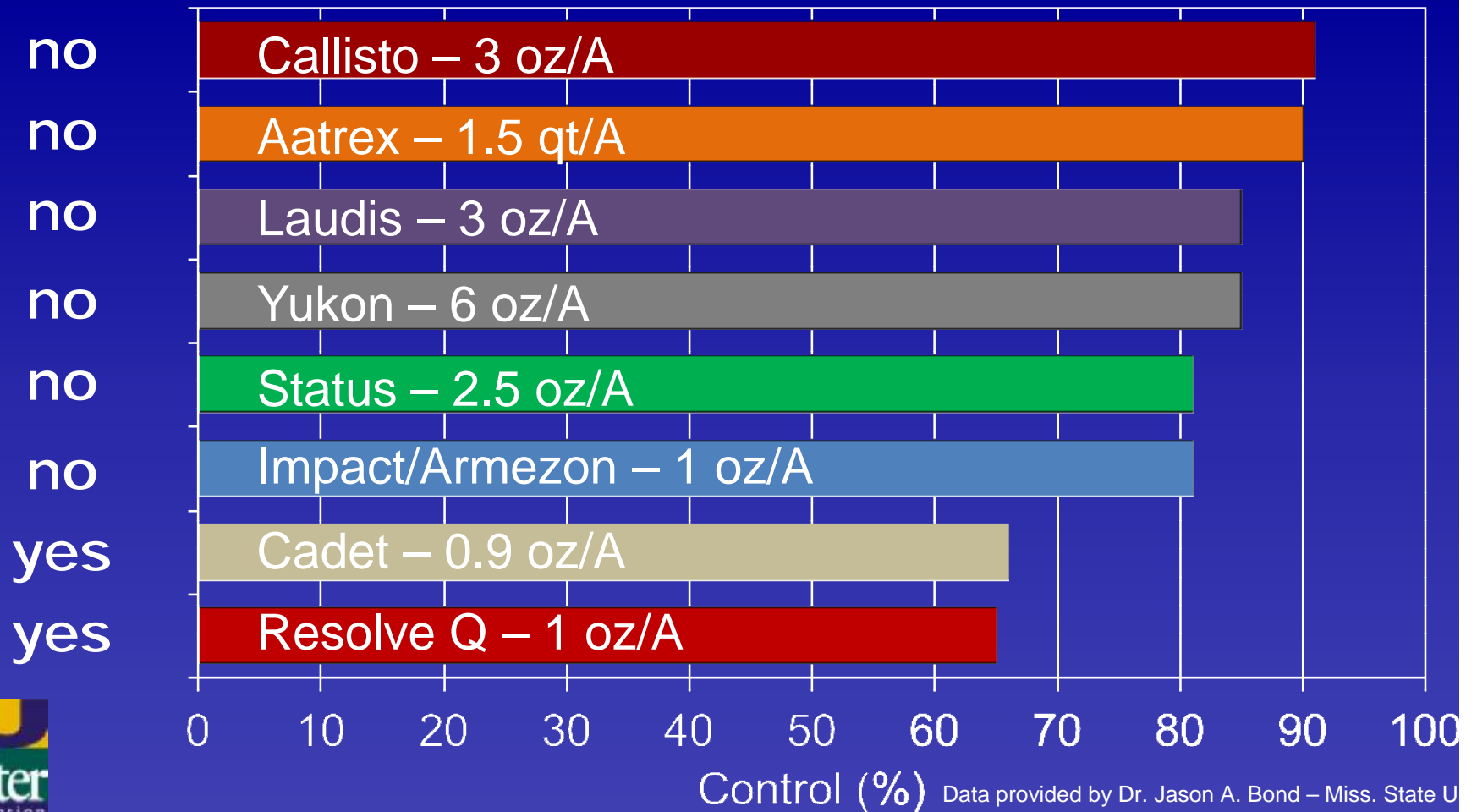
Planting date effects when residual herbicide should be applied



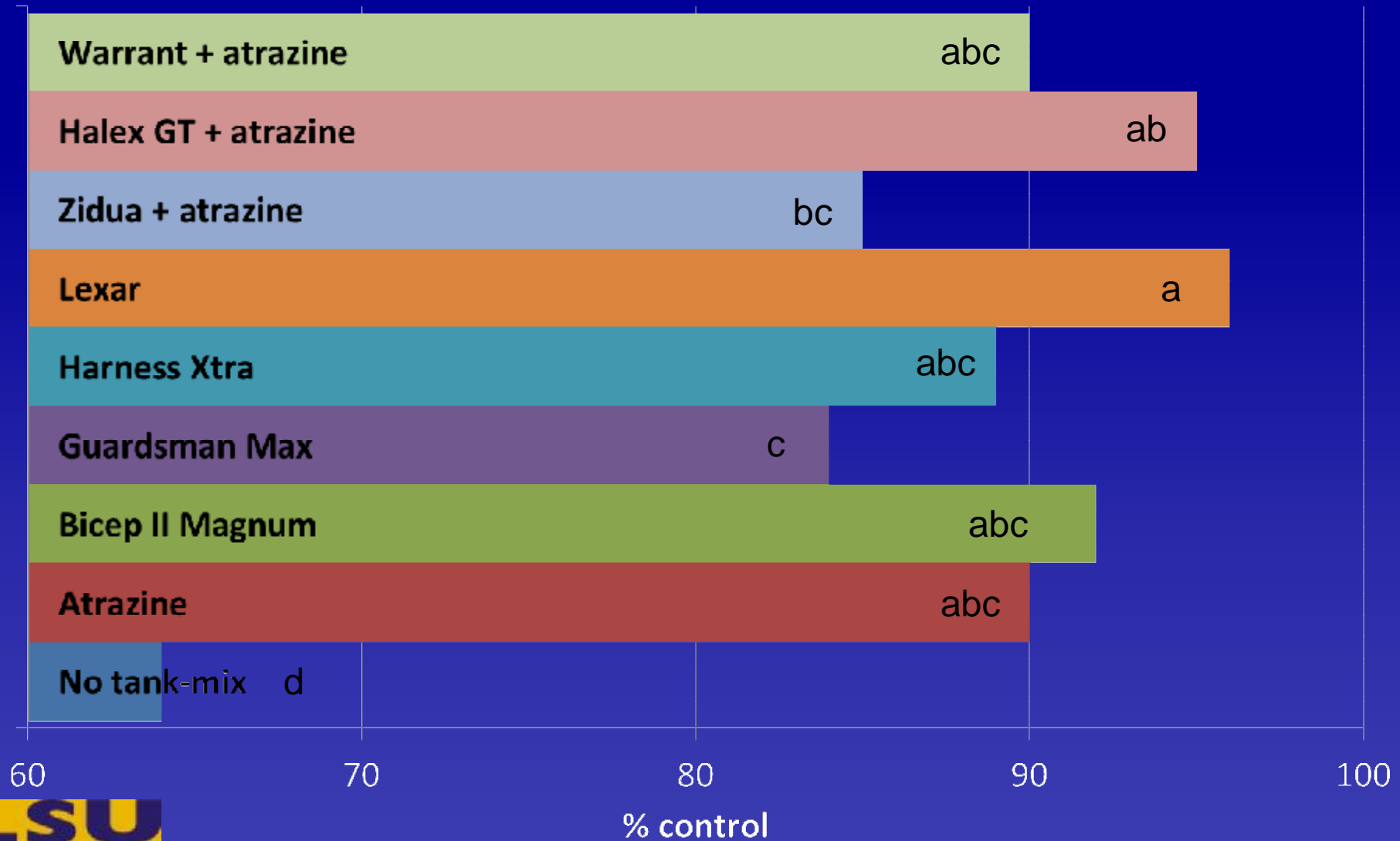
MOA Options in Corn

Palmer Amaranth Control 28 d after V4
Application

MOA labeled in
cotton or soybeans



Palmer amaranth control at harvest



Post-Harvest Weed Management

- 0-5 months – harvest to first frost
- GR Palmer amaranth, various grass weeds, volunteer corn
- Methods
 - Mowing
 - Tillage
 - Herbicides
 - paraquat + Valor, Dual Magnum, metribizin, simazine, Galigan, Direx, Valor XLT, Canopy EX, Sharpen
 - Consult labels for specific crop to be planted the following year
- Sequence depends upon producers ability
- Mow soon after harvest, tillage 3-4 weeks later, apply herbicide treatment 3-4 weeks later

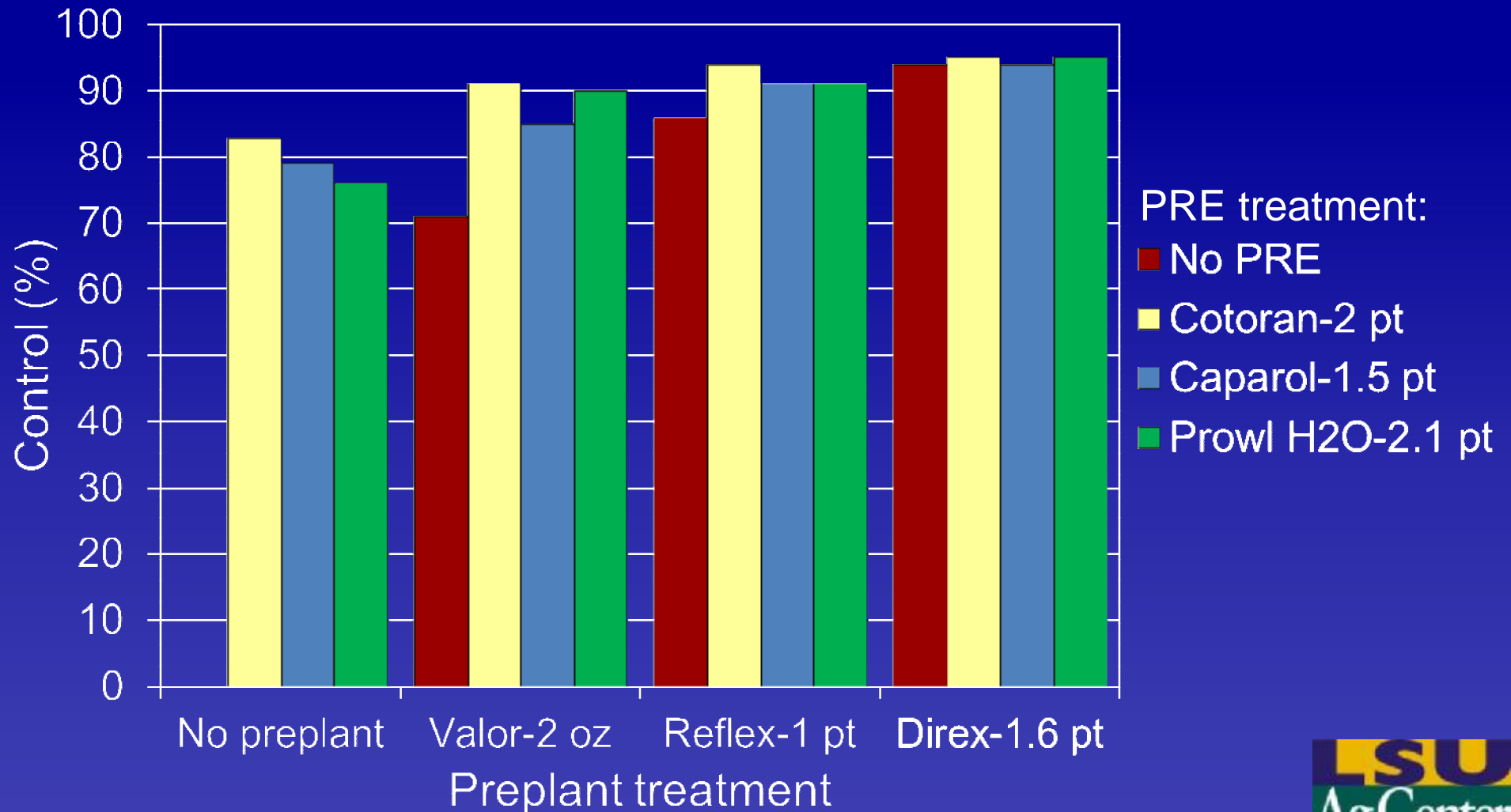
09/13/2012

Palmer amaranth mgnt. in cotton



Palmer amaranth mgnt. in cotton

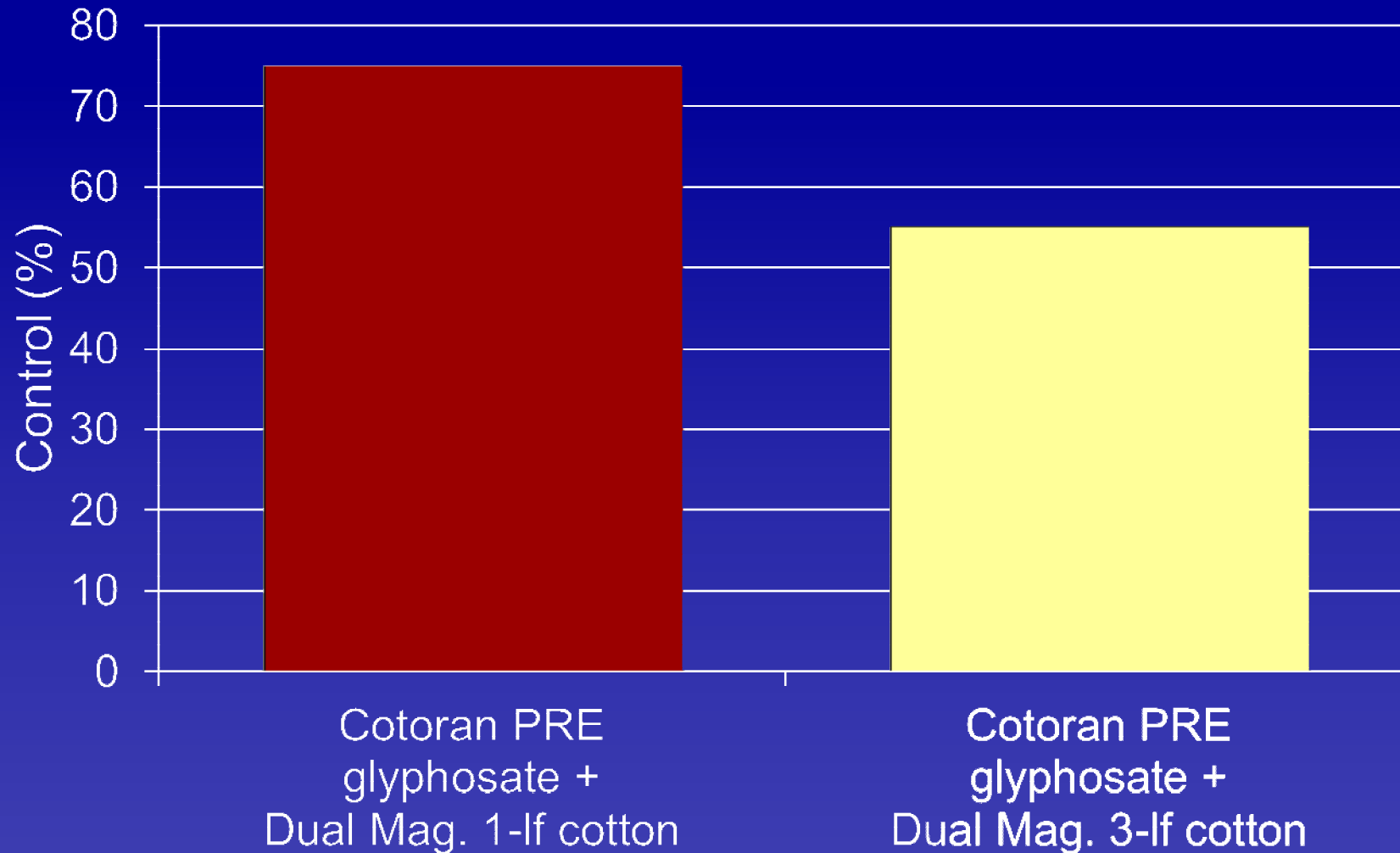
Palmer amaranth control 2 wk after planting



Data provided by Dr. Jason A. Bond – Miss. State Univ.

Palmer amaranth mgnt. in cotton

Palmer amaranth control 4 wk after planting



Palmer amaranth mgnt. in cotton



Nontreated



Valor – 2 OZ/A



Reflex – 1 PT/A



Direx – 1.5 PT/A

Liberty Link Cotton



Liberty 29 oz/A fb Liberty 29 oz/A



Cotoran at 1.5 PT/A PRE
Liberty 29 oz/A fb Liberty 29 oz/A

- Start clean
- Apply residual herbicides preplant/preemergence
- **TIMING!!**
- ≤ 10 days between applications
- Tank-mix Dual Magnum with Liberty
- Utilize residual herbicide at layby timing
- Correct application



Weed Mgnt. Programs in Louisiana Cotton

Herbicide Programs for resistant and non-resistant weeds

Cotton System	Preplant	Preemergence	POST Over-the-top	POST-directed	Layby
Roundup Ready Flex	Valor or Treflan	Cotoran plus Prowl H ₂ O	Glyphosate plus Dual Magnum	Caparol or Cotton Pro plus MSMA	Direx, Valor, or Reflex plus glyphosate
Liberty Link	Valor or Treflan	Cotoran plus Prowl H ₂ O	Liberty plus Dual Magnum followed by Liberty	Caparol or Cotton Pro plus MSMA	Direx, Valor, or Reflex plus Liberty

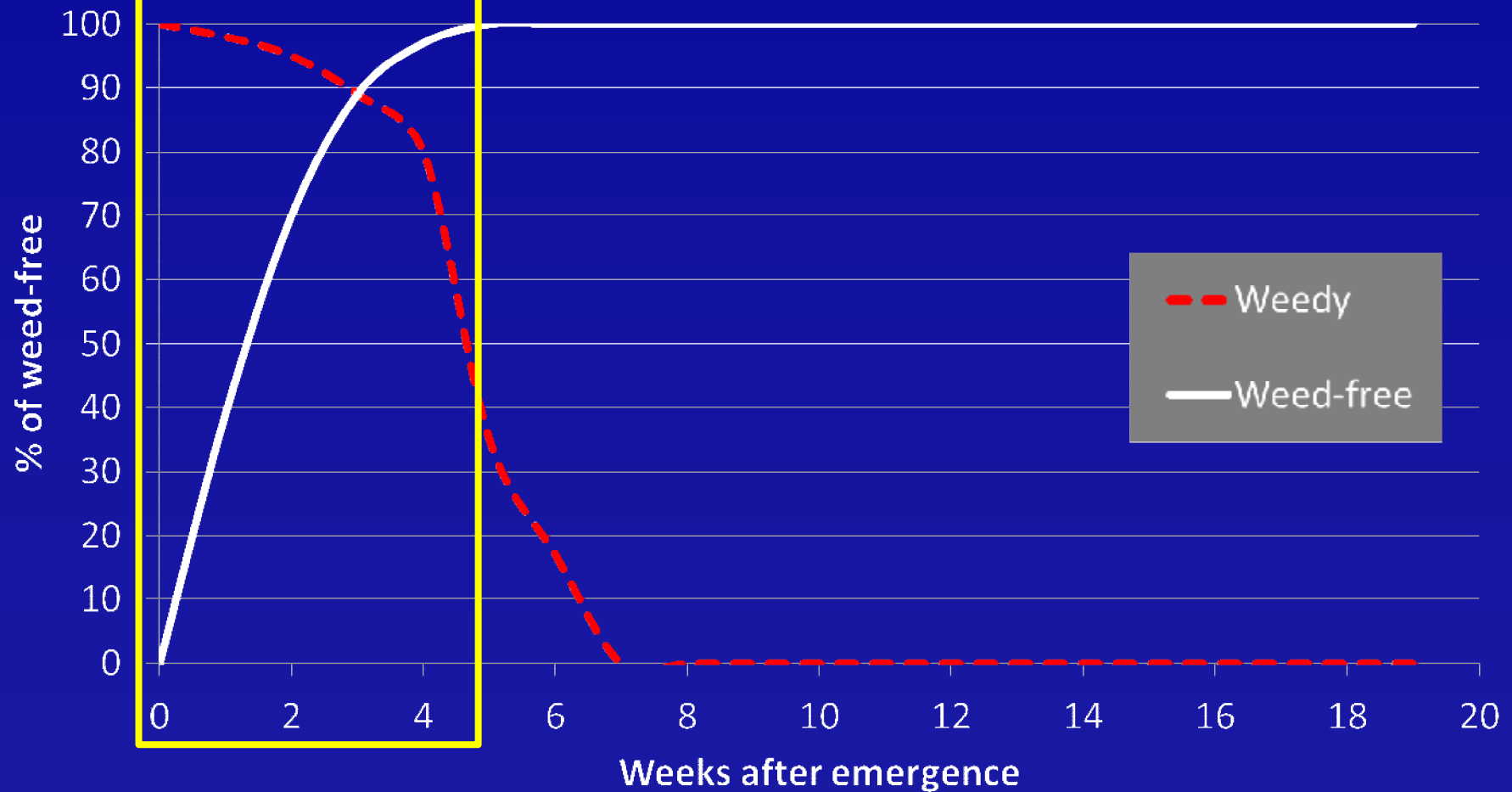
These systems will provide control of all Palmer amaranth populations.

Palmer amaranth mgnt. in soybean

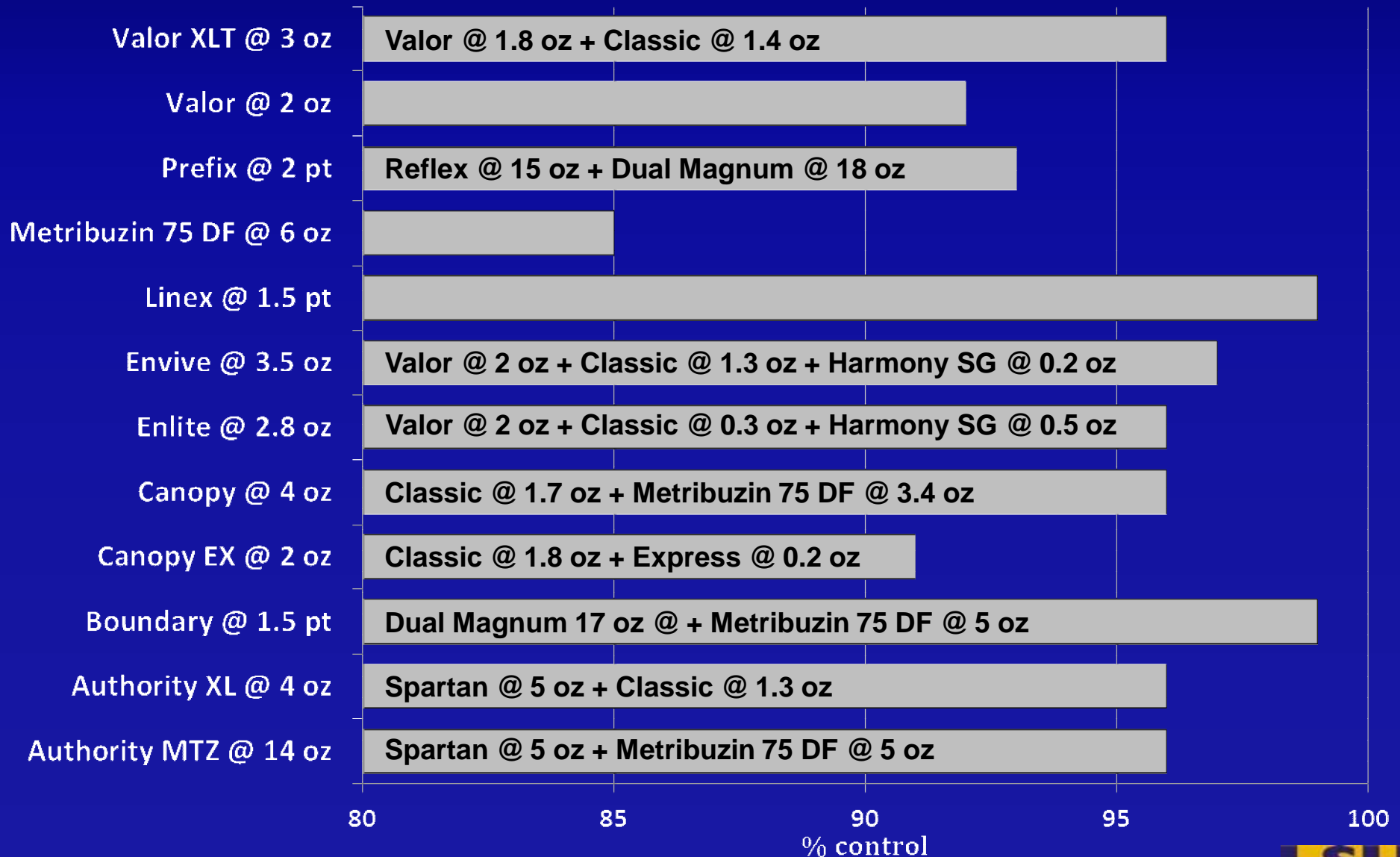


Weed competition with soybean

Max yield when soybean kept weed-free for 5 weeks after emergence



Palmer amaranth control – 26 DAT



Nontreated



PRE herbicide fb glyphosate V4-V5



glyphosate V2-V3 fb glyphosate V4-V5



Herbicide Programs for Managing all weeds in soybean

Soybean System	Preemergence	Postemergence
Roundup Ready	Authority MTZ, Authority XL, Boundary, Canopy, Canopy EX, Treflan/Prowl, Valor/Valor XLT/Envive /Enlite	glyphosate + Prefix or Flexstar, Flexstar GT 3.5, Sequence, glyphosate + Warrant
Liberty-Link	Authority MTZ, Authority XL, Boundary, Canopy, Canopy EX, Prefix, Treflan/Prowl, Valor/Valor XLT/Envive /Enlite	Liberty, Liberty + Dual
Conventional	Authority MTZ, Authority XL, Boundary, Canopy, Canopy EX, Treflan/Prowl, Valor/Valor XLT/Envive	Reflex/Flexstar, Ultra Blazer, Cobra, or Prefix

Glyphosate-Rs johnsongrass

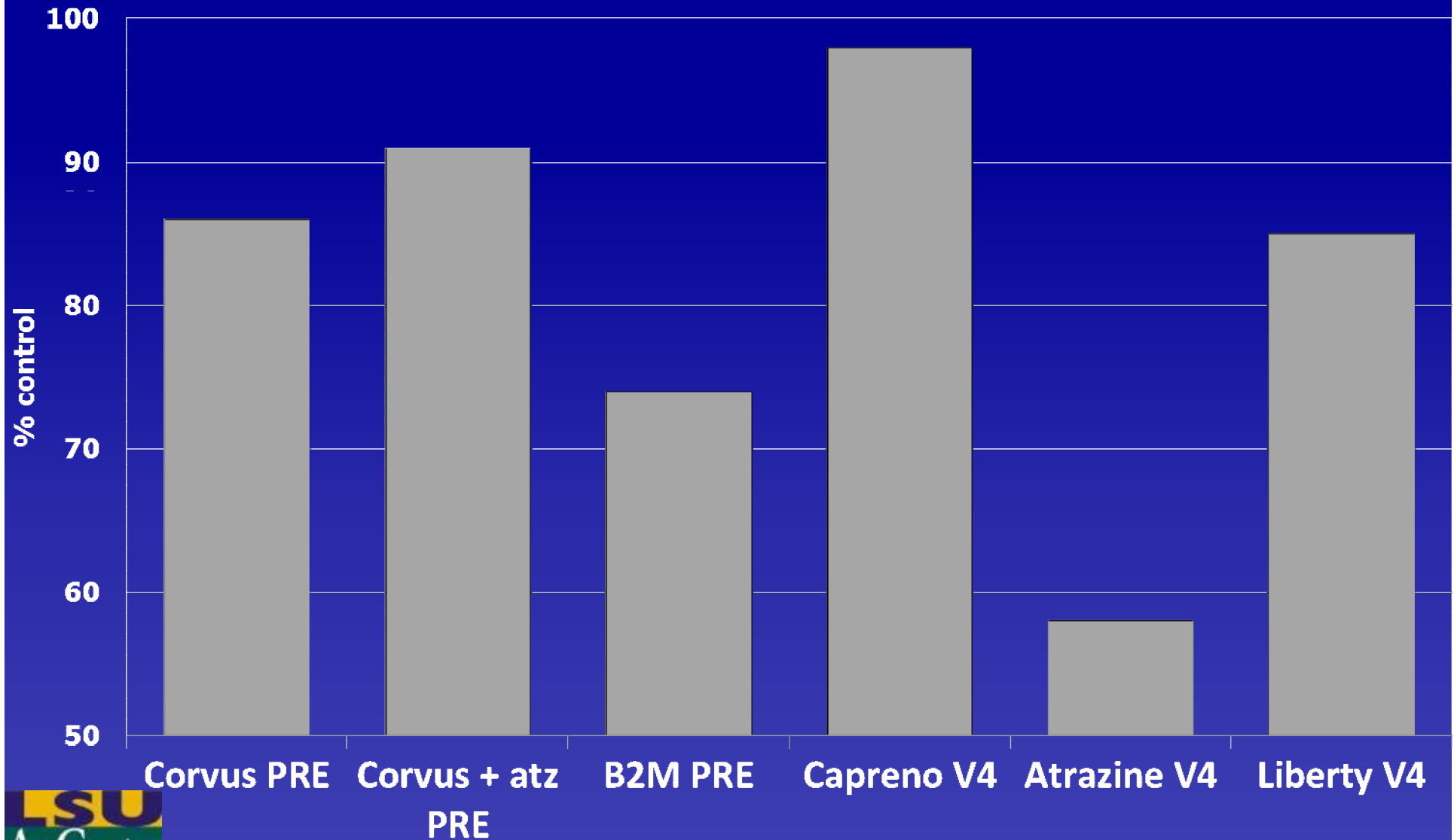


Johnsongrass mgnt. in corn



Johnsongrass control in corn

Control just prior to harvest



Johnsongrass control in corn



Nontreated



Corvus fb Ignite



Corvus + Aatrex fb Ignite



Johnsongrass control in corn



Nontreated

Capreno + Aatrex

Ignite + Aatrex



Program for GR-johnsongrass in corn

- Plant corn hybrid that is Roundup Ready AND LIBERTY LINK
 - Liberty has utility for johnsongrass control
- Do not use organophosphate insecticide (Counter, etc.) in-furrow
 - Ability to use Accent Q, Steadfast Q, Realm Q, Corvus, Capreno

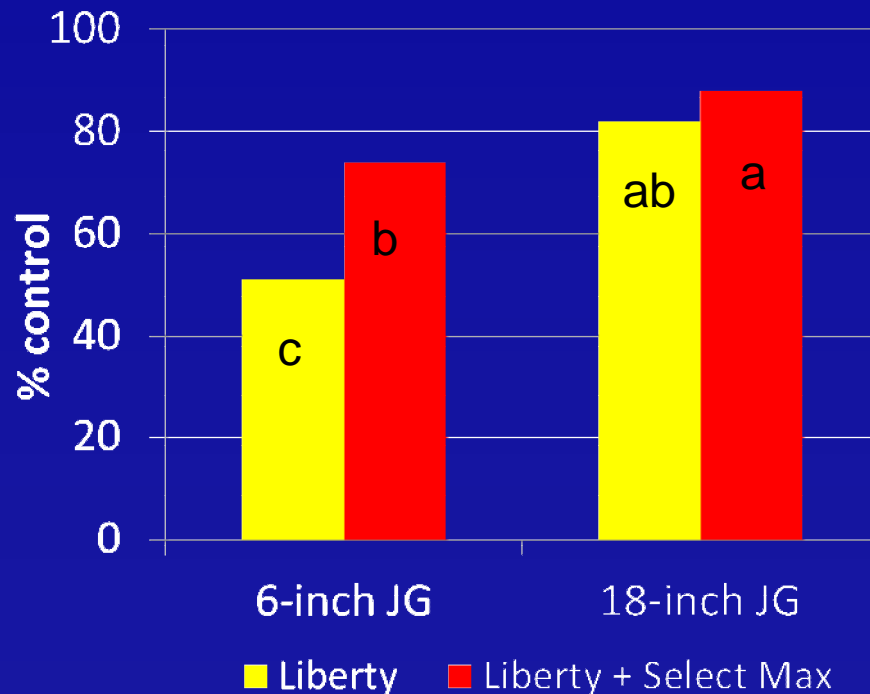
Johnsongrass mgnt. in cotton



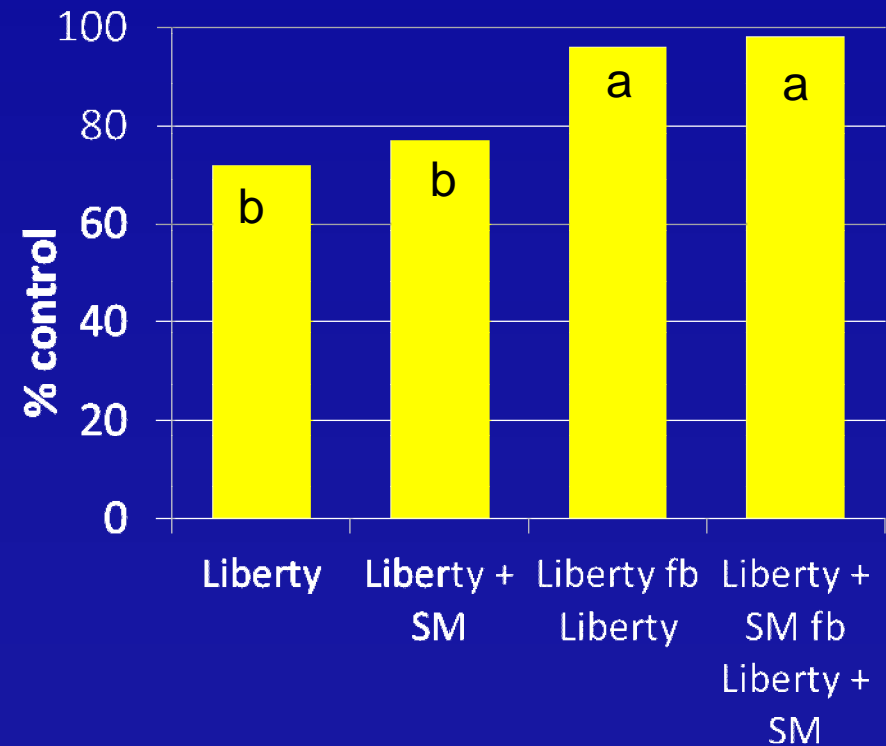
Johnsongrass control in cotton

- Liberty +/- Select Max

Johnsongrass control at 6-inch regrowth application



Johnsongrass control 2-3 wk after normal layby timing





Nontreated



Liberty - 6"



Liberty + SM - 6"



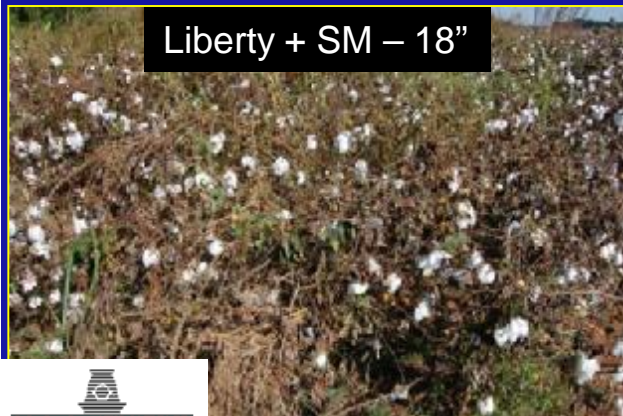
Liberty - 6" fb Liberty



Liberty + SM - 6" fb Lib + SM



Liberty - 18"



Liberty + SM - 18"



Liberty - 18" fb Liberty



Liberty + SM - 18" fb Lib + SM

Johnsongrass mgnt. in soybean



GR johnsongrass control in soybean

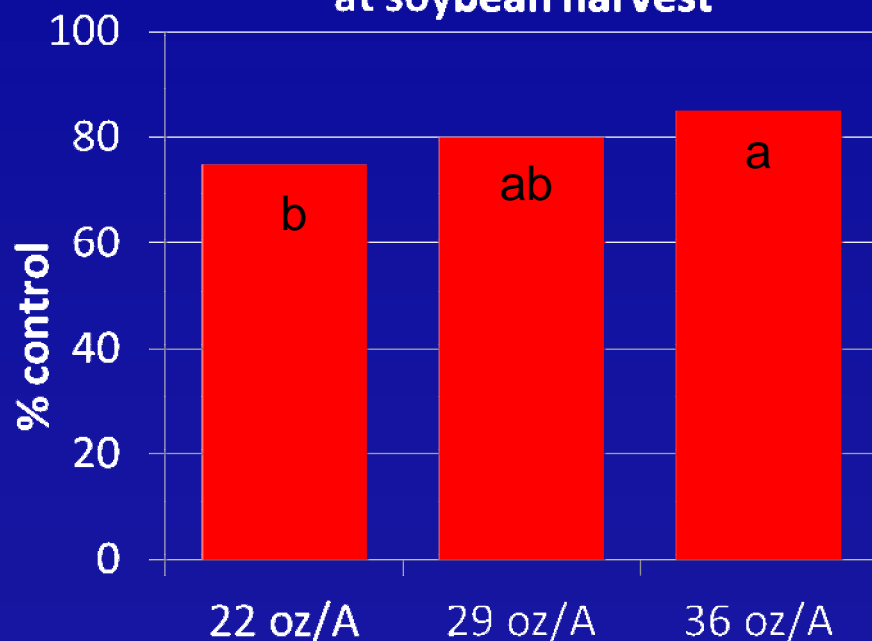


Flexstar fb Classic fb Select Max

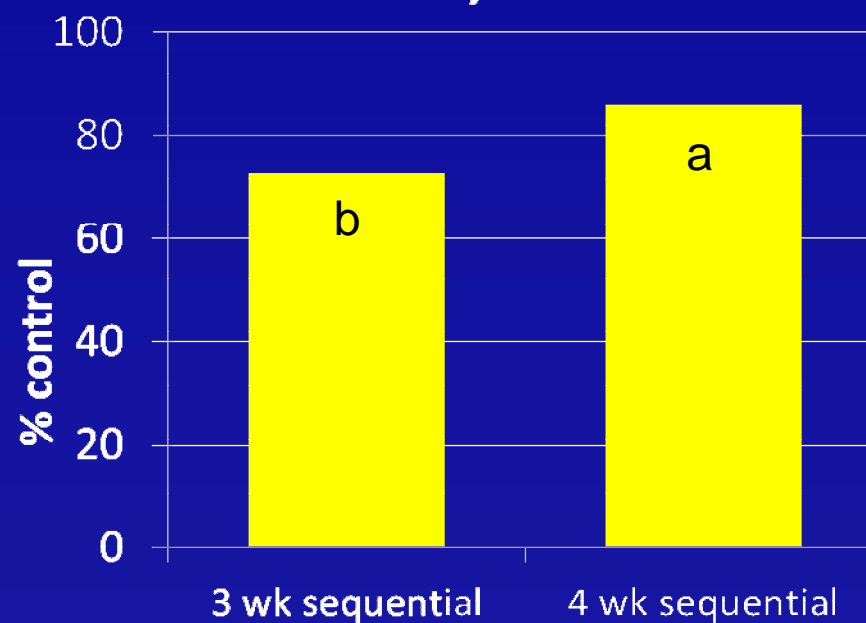
Soybean

- Liberty rates and application timing in LL soybean

Effect of initial applic. rate on control at soybean harvest



Effect of sequential applic. timing on control at soybean harvest



3 weeks




4 weeks



Program for GR-johnsongrass in cotton and soybean

- In Roundup Ready cotton and soybean
 - Graminicides + glyphosate
 - Will require 2 applications
 - Very worried about graminicide resistance!
- In Liberty Link cotton and soybean
 - Liberty fb Liberty + graminicide
 - 1st application on 12-18" johnsongrass
 - Sequential application 4 weeks after 1st applic.
 - May require 3rd application

A photograph of a soybean field under a cloudy sky. A red speech bubble is overlaid on the top half of the image, containing the text "Is this weed resistant? Want to risk it?". The field is filled with green soybean plants, and a line of trees is visible in the background.

Is this weed resistant?
Want to risk it?

QUESTIONS?

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