Soybean Weed Control Using PPI, Pre-Plant, and PRE Herbicides

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LSU AgCenter

PPI = Pre-Plant INCORPORATED

Pre-Plant

- Burndown herbicide applications

PRE = Preemergence

- At-planting or before crop emerges

What do we do in Louisiana?

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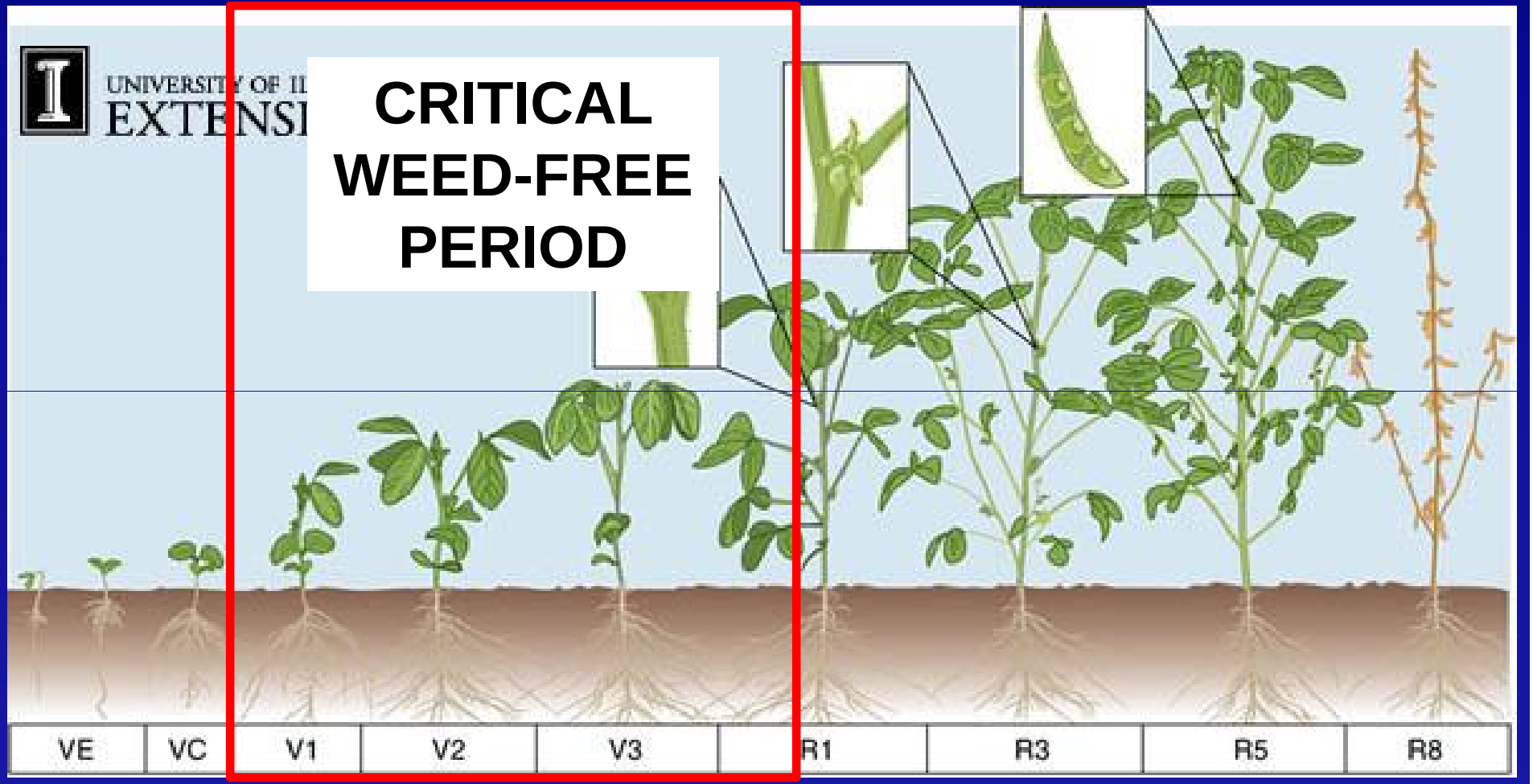

UNIVERSITY OF IL
EXTENSI
CRITICAL WEED-FREE PERIOD
VE
VC
V1
V2
V3
R1
R3
R5
R8

Wait too long and pay a price.

Vegetative Stage	Avg. # of Days	Calendar Date (assuming April 15 planting date)	
Planting to VE	10	April 25	
VE – VC	5	April 30	
VC – V1		May 5	RAINY, WINDY, WET
V1 – V2		May 10	1st applic.
V2 – V3		May 15	
V3 – V4	5	May 20	
V4 – V5	5	May 25	1st applic.
V5 – V6	3	May 28	
V6 and later	3	May 31	2nd applic.

HELP FROM A PPI, PREPLANT, OR PRE APPLICATION

Source: MP 197, Arkansas Soybean Handbook

PPI thru PRE Residual Herbicides

- Advantages
  - Possible prevention of early-season weed competition
  - Provide more time for 1st POST herbicide application
- Disadvantages
  - More $
  - Possibly another tractor pass
  - Need some sort of incorporation

Numerous Residual Herbicides

- Envive and Enlite
  - Classic, Harmony, & Valor
- Canopy EX
  - Classic & Express
- Resolve (STS until April)
- Valor SX
- Valor XLT
  - Valor & Classic
- Authority MTZ
  - Authority & metribuzin
- Command 3ME
- Treflan
- Prowl H_2O
- Dual Magnum
- Metribuzin 75DF
- Prefix
  - Reflex & Dual Magnum

Canopy EX, Envive, and Elite

- Envive @ 3.5 oz/A
  - 1.3 oz/A Classic
  - 0.2 oz/A Harmony
  - 2 oz/A Valor SX
- Enlite @ 2.8 oz/A
  - 0.32 oz/A Classic
  - 0.5 oz/A Harmony
  - 2 oz/A Valor SX
- Canopy EX @ 2 oz/A
  - 1.82 oz/A Classic
  - 0.27 oz/A Express

- Excellent residual control of ryegrass, bluegrass, prickly lettuce, swinecress, mayweed, geranium species, buttercup, chickweed, dandelion, coneflower
- At Alexandria, provided good control of rhizome johnsongrass and control of many summer annual weeds (barnyardgrass, hemp sesbania, pigweed)

Authority MTZ

- Sulfentrazone + metribuzin
- 10 to 14 oz/A
- 10 oz = 3.6 oz metribuzin
- 14 oz = 5 oz metribuzin
- Preplant thru PRE
- Excellent control of barnyardgrass, browntop millet, morningglory species, hemp sesbania, redroot pigweed, Palmer amaranth, hophornbeam copperleaf, prickly sida

Prefix

- S-metolachlor + fomesafen
- 2 pt/A
- 18 oz/A Dual Magnum
- 15 oz/A Reflex

- Preplant thru PRE
- Good to excellent control of barnyardgrass, browntop millet, morningglory species, hemp sesbania, redroot pigweed, Palmer amaranth, hophornbeam copperleaf, prickly sida.
- Sicklepod control fair to good

Others Good Choices

- Command 3ME @ 2 – 2.67 pt/A
- Treflan @ 1-3 pt/A
- Prowl H_2O @ 1-3 pt/A
- Dual Magnum @ 1-2 pt/A
- Metribuzin 75 DF @ 4.8 to 16 oz/A
- Scepter @ 2.8 oz/A
- Outlook @ 12 to 18 oz/A

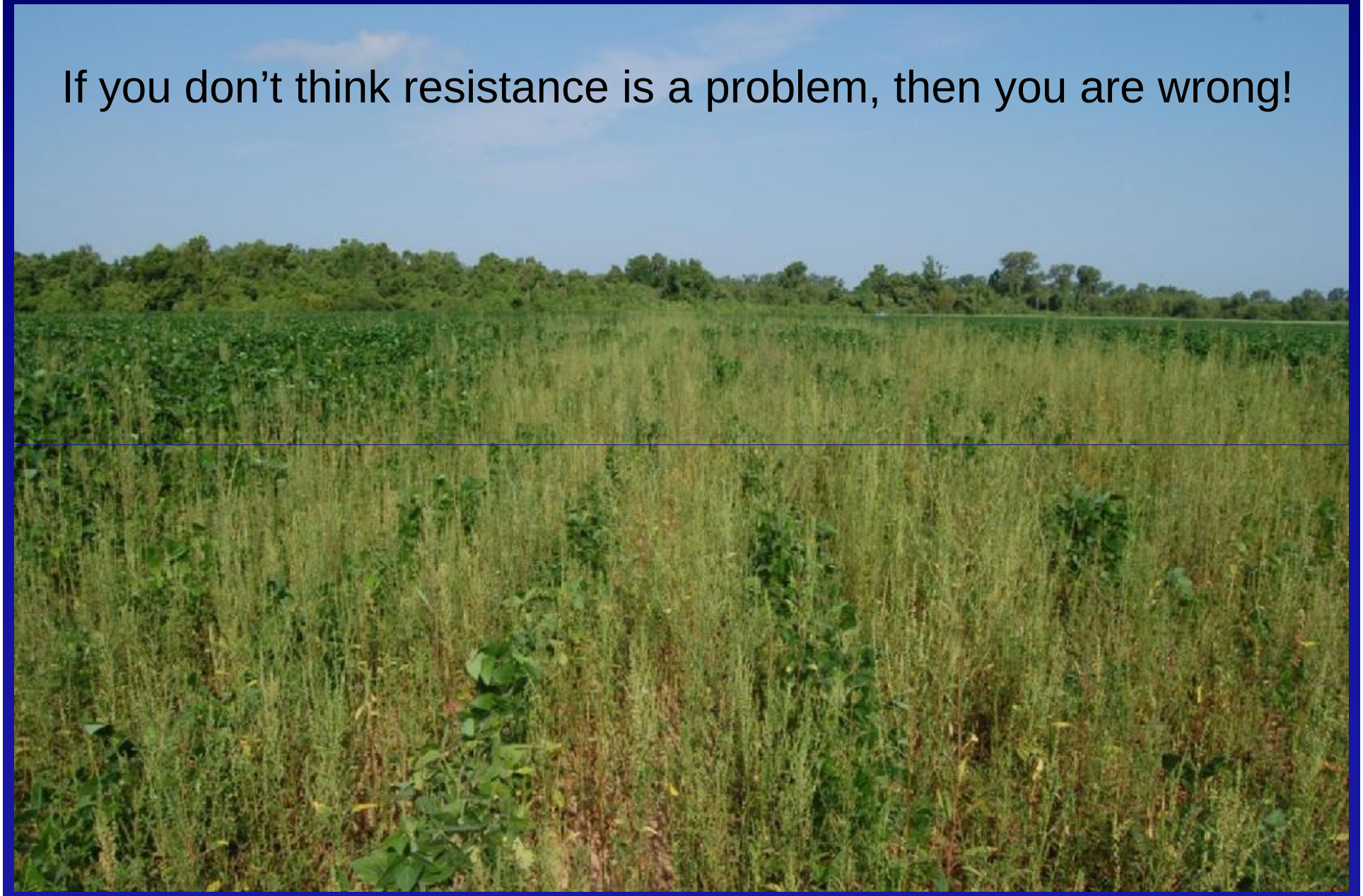
- Preplant thru PRE
- Most provide predominately grass control with some control of small-seeded broadleaf weeds
- Metribuzin and Scepter will help on larger seeded broadleaf weeds

Why use them?

- *Some may think:*
  - The price of glyphosate is low!
  - I don't want to risk "banging-up" my beans.
  - Money is tight. Got to cut corners.
  - Glyphosate has always worked for me.

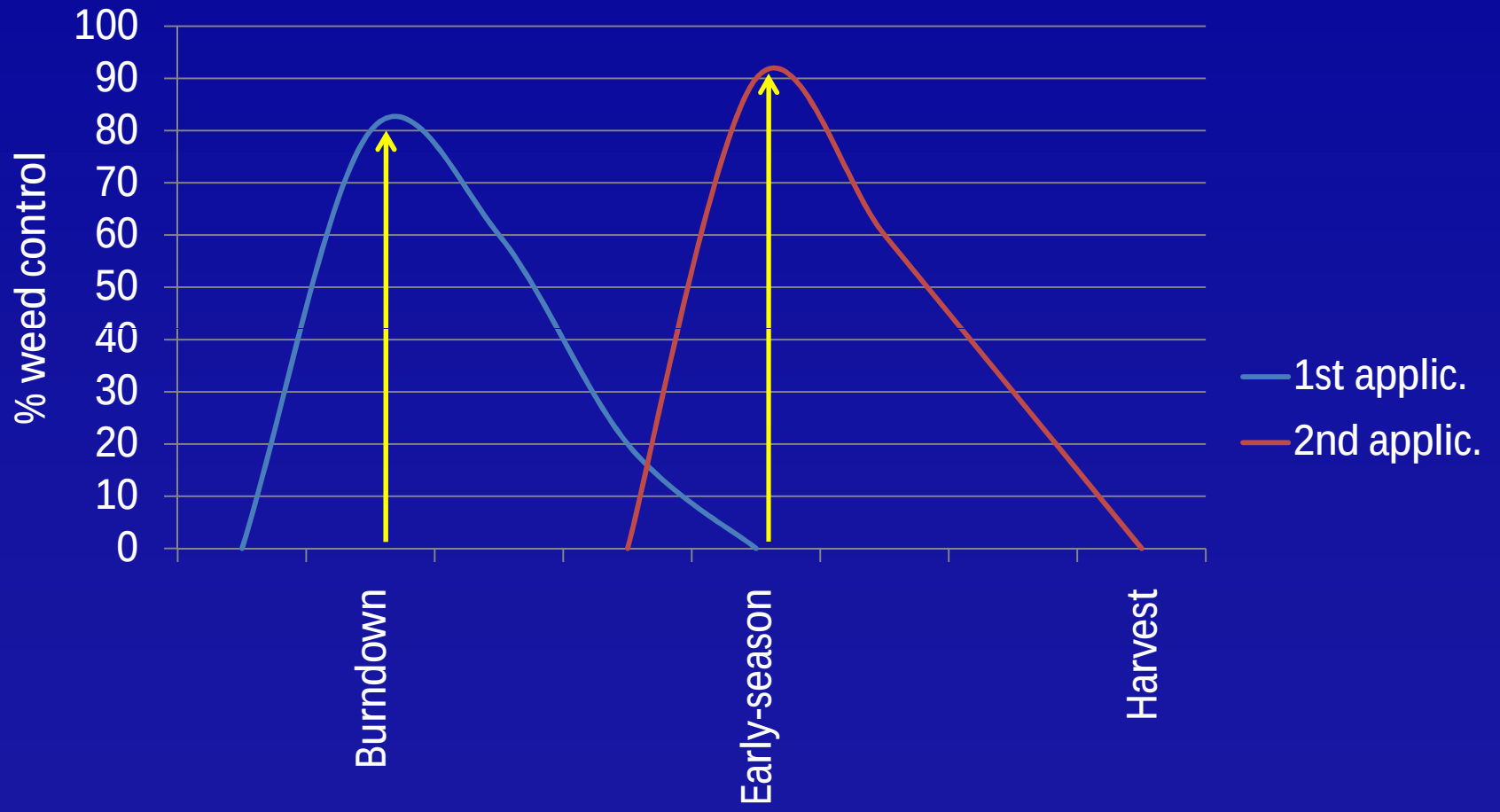
- *The benefits of residual herbicides are plentiful*
  - Reduce early-season weed control
  - Buy some time for making 1st postemergence applications
  - Help mitigate herbicide resistance

If you don’t think resistance is a problem, then you are wrong!



Without residual herbicides:

Control of weeds



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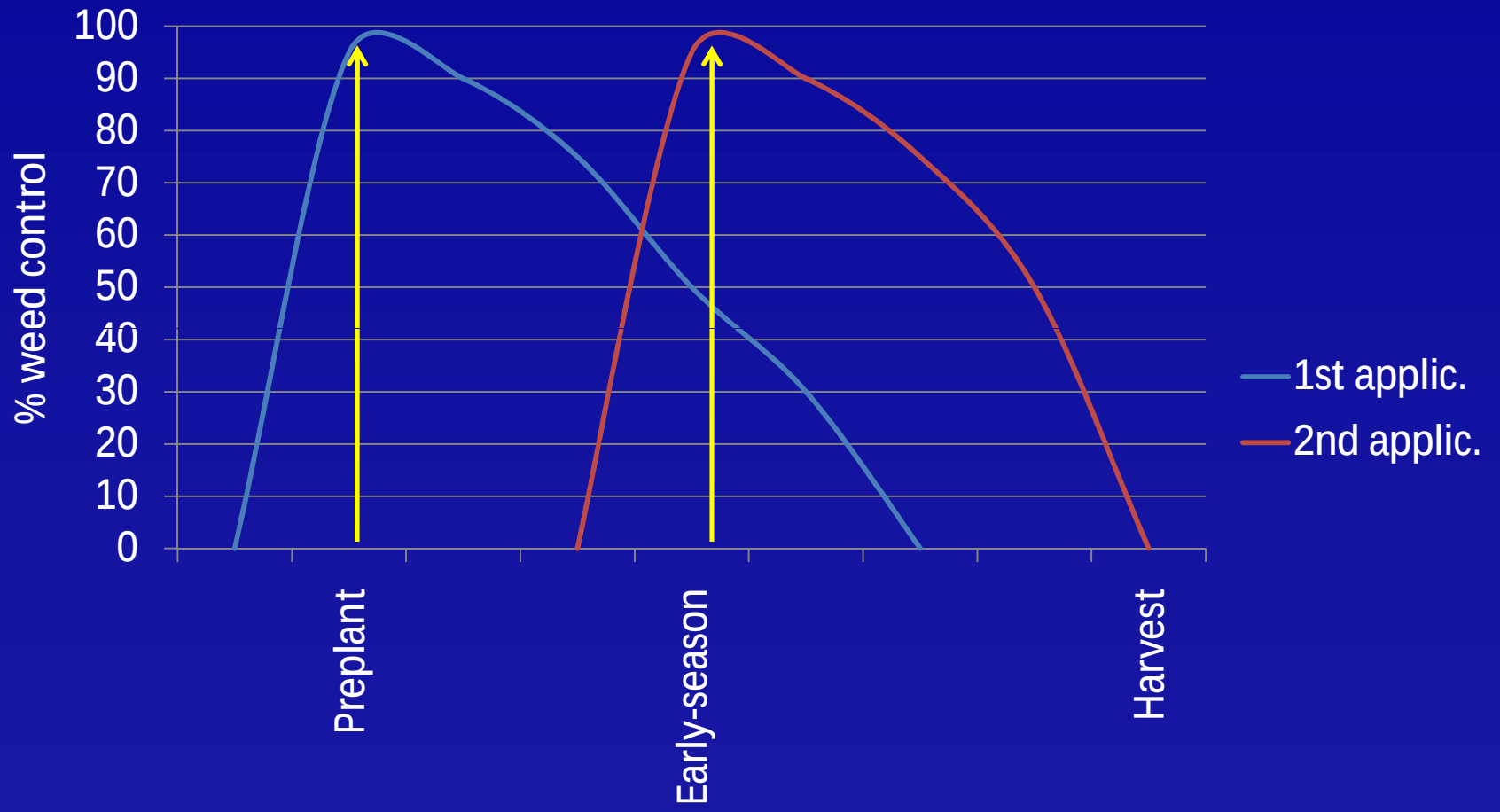

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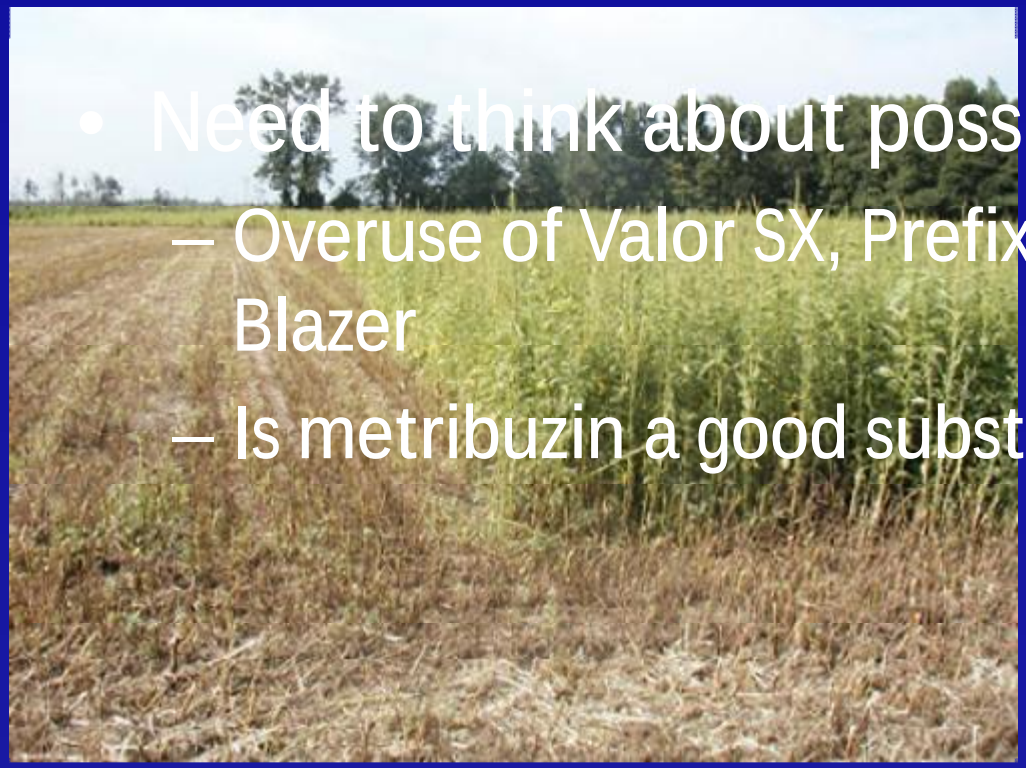
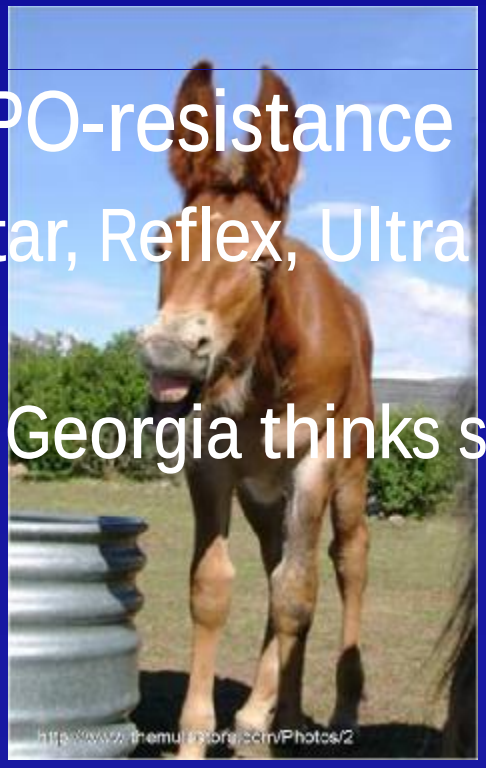
Possible Concerns!

- Glyphosate is cheap in 2010
  - Resistance should worry all of us.
  - Louisiana doesn't want to become like other states



- Need to think about possible PPO-resistance
  - Overuse of Valor SX, Prefix, Flexstar, Reflex, Ultra Blazer
  - Is metribuzin a good substitute? Georgia thinks so!



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Call with Questions?

- Daniel Stephenson
- Donnie Miller
- Jim Griffin
- Bill Williams
- Eric Webster

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