Wheat Weed Control 2010-2011

Treated

Untreated

Broadleaf Weeds

Great options exists, growers just need to be timely!!!!!!!!!!!!!!!!!

Controlling Most GA Broadleaf Weed Infestations

Most effective program

1. Harmony fb 2,4-D
2. Express + MCPA or 2,4-D

   Harmony + MCPA or 2,4-D
3. 2,4-D alone
4. Harmony Extra alone

Least effective program

Harmony Extra EP with TotalSol

Rate:	0.45 to 0.9 oz
Timing:	2-leaf until flag leaf visible
Adjuvant:	0.25% NIS in water 0.125% NIS in nitrogen
Weeds:	Controls garlic and most broadleaf weeds
Mixes:	2,4-D or MCPA to improve cornflower, wild radish, and vetch
Rotations:	No restrictions of concern
Grains:	Wheat, barley, oats

2,4-D

Rate:	1 to 1.25 pt/A
Timing:	fully tillered wheat, before jointing
Adjuvant:	none needed
Weeds:	controls primrose and radish, weak on henbit, chickweed, and knawel
Mixes:	Express or Harmony Extra for henit, chickweed and knawel
Rotations:	No restrictions of concern
Grains:	Wheat, barley, oats, rye

Express TotalSol + MCPA

Express rate: 0.25 to 0.5 oz

MCPA 4L rate: 8 to 12 fl oz

Timing: two tillers, before jointing

Adjuvant: 0.125% surfactant

Weeds: most broadleaf weeds

Rotations: No restrictions of concern

Grains: Wheat, barley, oats,

The Effect of Stage of Growth on Wild Radish Control in Wheat.

Herbicide	0-4 inches	4-8 inches	8-12 inches	Bolt/Flower
2,4-D	>95%[2]	**>90%**	**>80%**	<65%
MCPA	>95%	**>90%**	>70%	<55%
Harmony E.	>90%	>75%	50%	<40%
Express + MCPA	>95%	**>90%**	**>80%**	<65%
Osprey	>95%	80-90%	60-80%	<50%
PowerFlex	>95%	**>90%**	**70-90%**	<60%

[1]Wild radish size in diameter of leaf rosette.
[2]Percent control as compared to untreated areas.

Ryegrass Control in Wheat

- Numerous options:

  Axial, Hoelon, Osprey, PowerFlex

IF YOU DON'T HAVE RESISTANCE

Ryegrass Control in Wheat

- Numerous options:

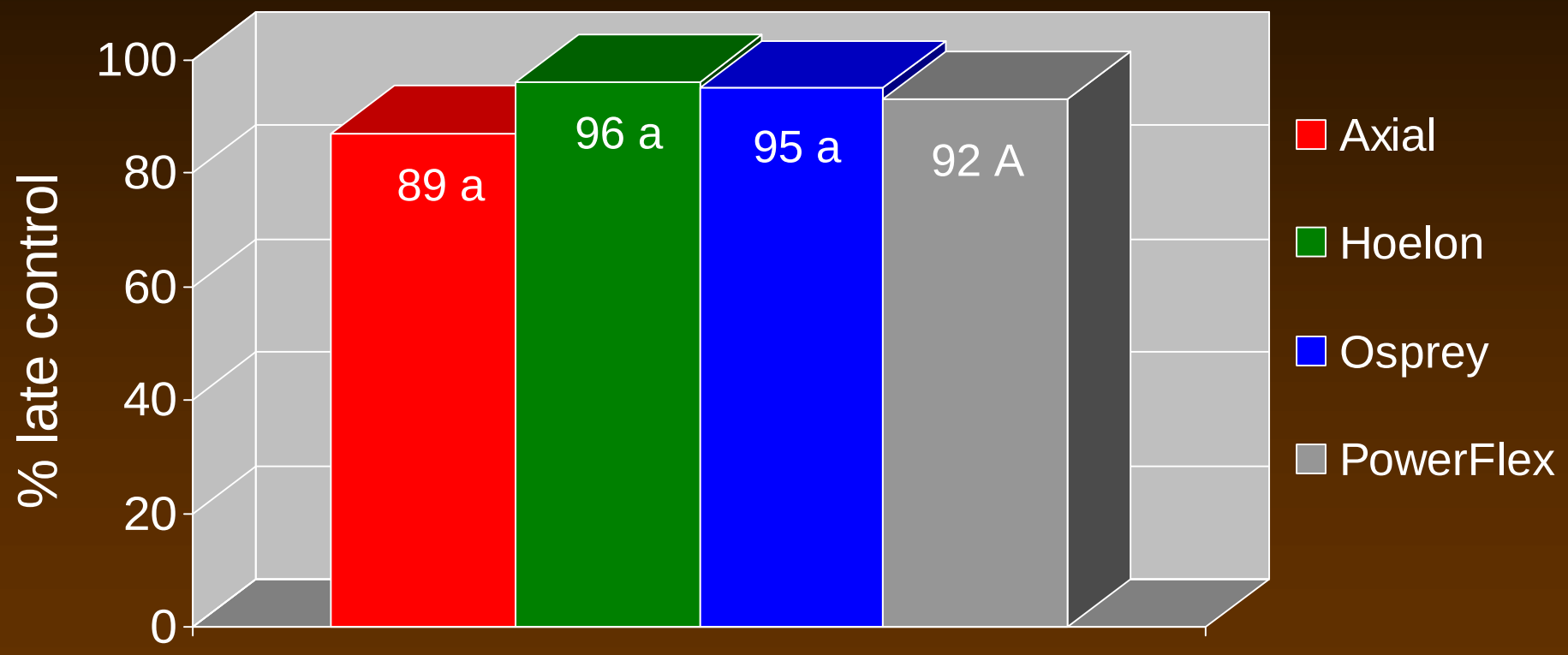
  Axial and Hoelon have same mode of action

  Osprey and PowerFlex have same mode of action

Proper Timing of POST Materials

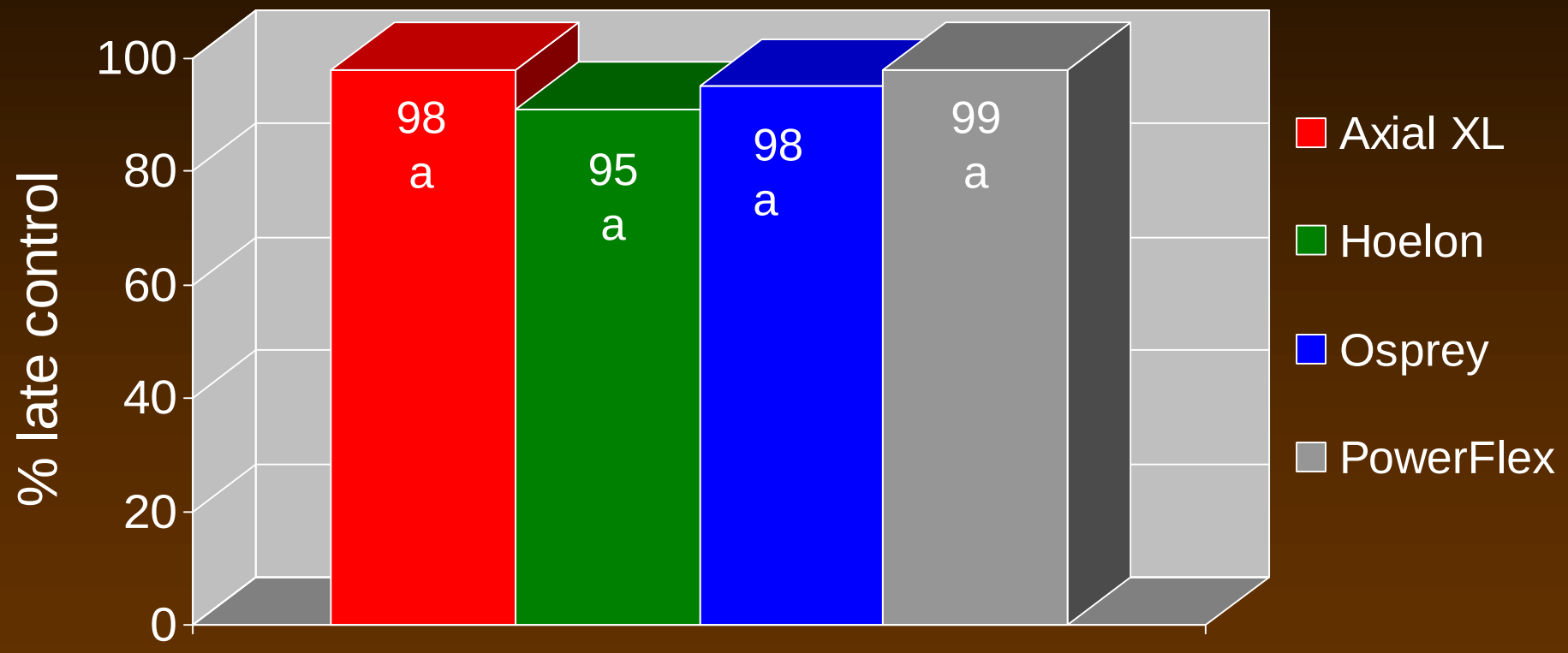
- Timeliness is critical !!!
- With normal planting date, generally best to apply before Christmas

Italian ryegrass control. Plains, 2008.



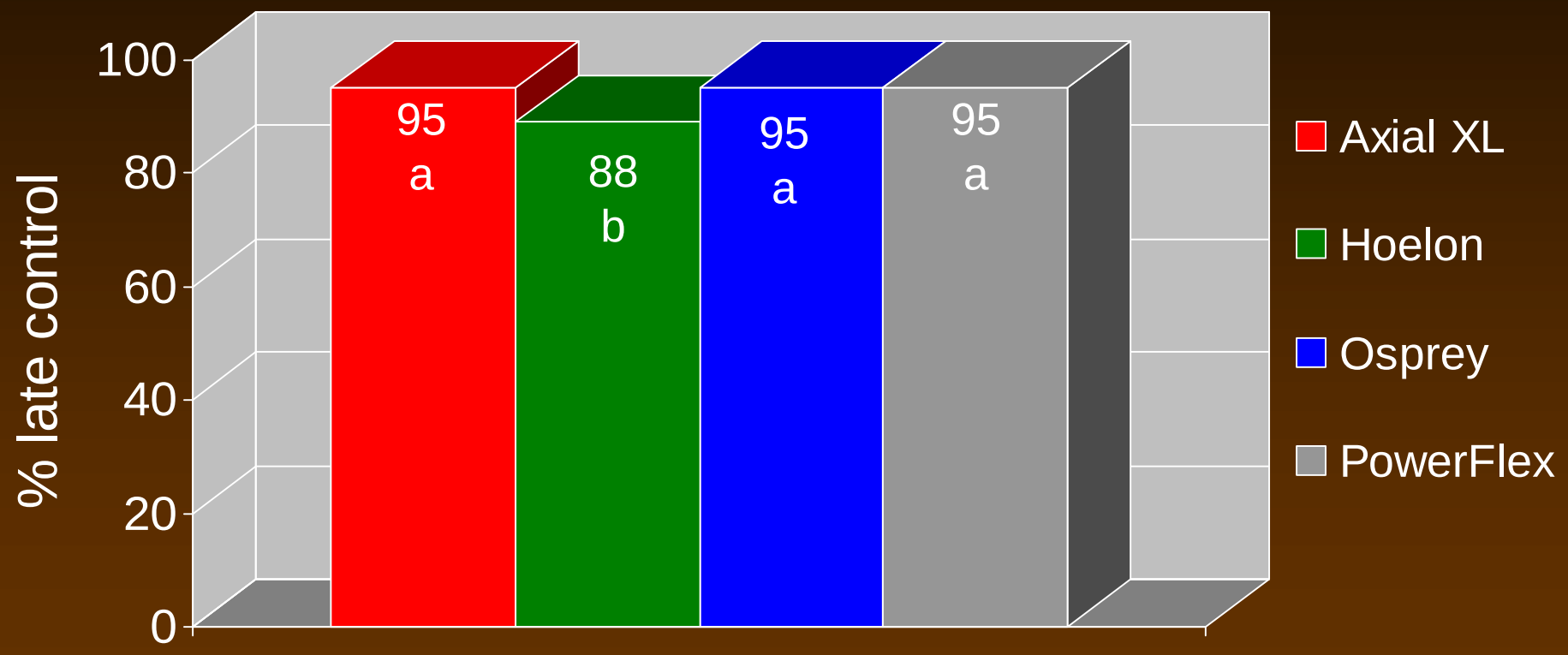
Planted wheat on Nov 7 and treated December 19 prior to tillering

Italian ryegrass control. Plains, 2010.



Planted wheat on Nov 17 and treated December 22 prior to tillering

Italian ryegrass control. Plains, 2010.



Planted wheat on Nov 17 and treated Jan 19, 2 tiller ryegrass

Hoelon Rate for POST on Wheat

Ryegrass	pt/acre
1- to 3 leaf	1.33
3- to 4-leaf	1.33 to 2
5-leaf, 2 tillers	2 to 2.67

Hoelon at 2 pt/A on pre-tillering ryegrass is ideal!!!!!

Axial XL (0.42 EC)

Rate: 16.4 fl oz

Timing: Ideally pre-tiller ryegrass

Weeds: ryegrass only

DO NOT CONFUSE THIS WITH AXIAL 0.83 EC
as a different rate is needed…should be gone????

Rotate modes of action, resistance is a huge issue!

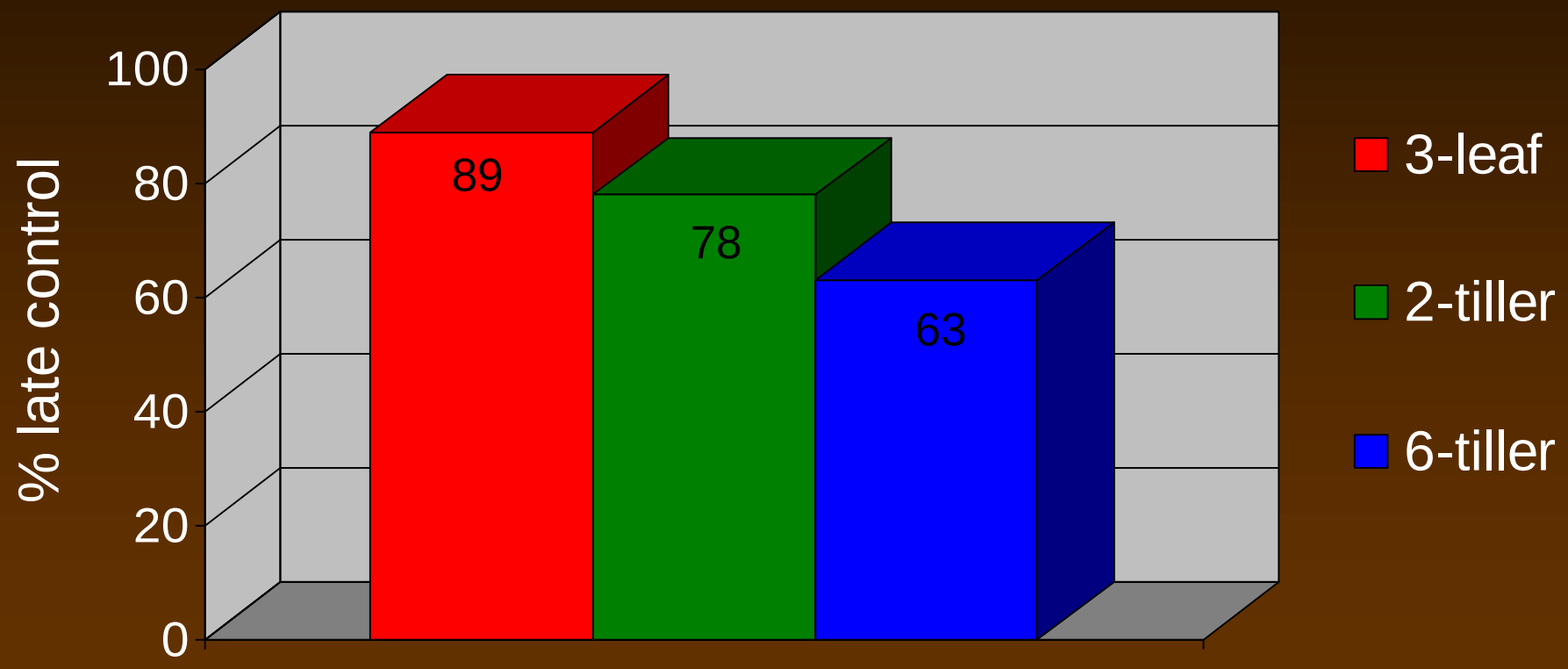
Osprey

Rate:	4.75 oz/A
Timing:	Ideally pre-tiller ryegrass
Adjuvant:	NIS at 0.5% v/v plus ammonium nitrogen fertilizer at 1-2 qt/A
Weeds:	ryegrass, small radish,
	henbit and chickweed at 1”
Rotation:	3 mo soybean or cotton

Do not apply within 14 d of topdressing

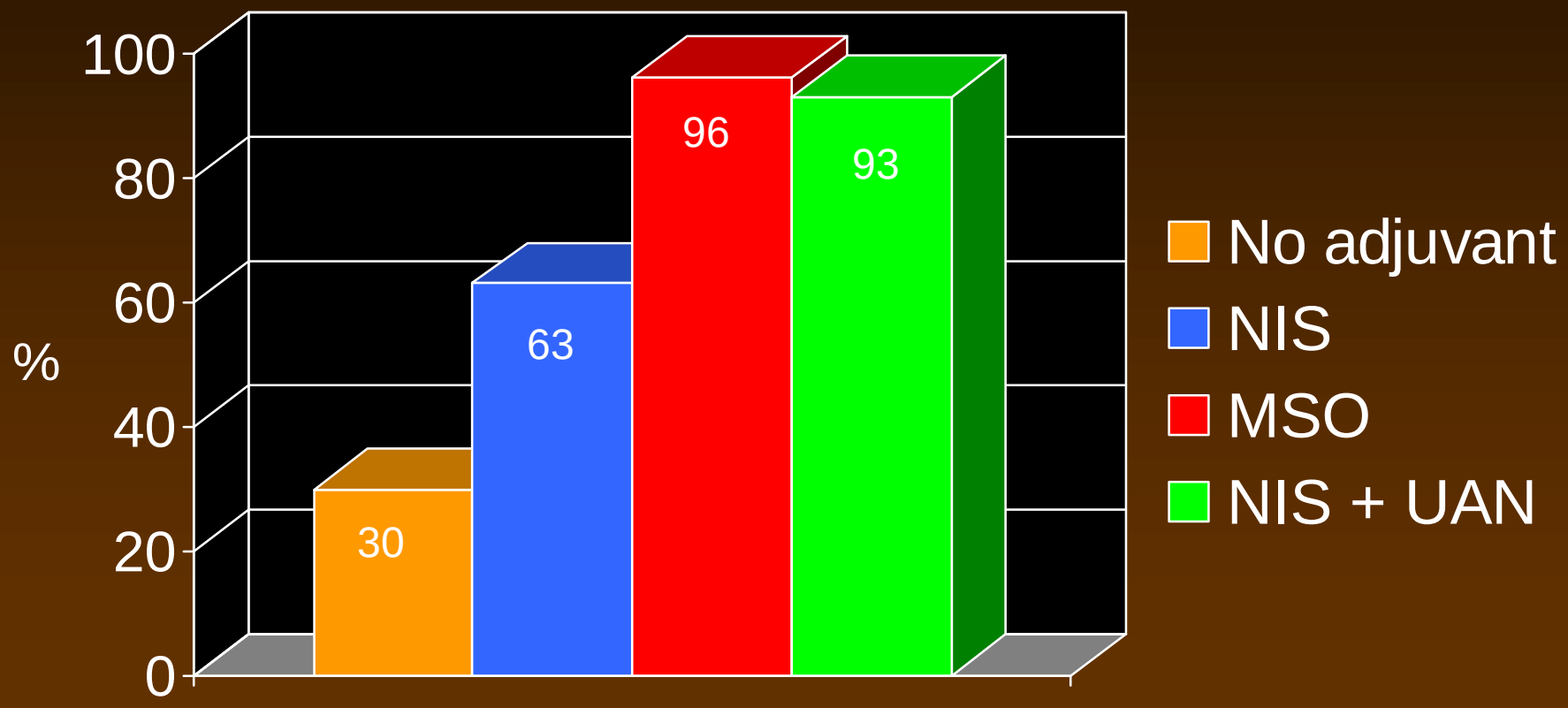
Rotate modes of action, resistance is a huge issue!

Italian ryegrass control by Osprey as affected by size. Avg. 5 locations, North Carolina.



ACY 9-04

Late-season ryegrass control by Osprey as affected by adjuvants. Avg. six locations, NC, 2002-2004.



PowerFlex

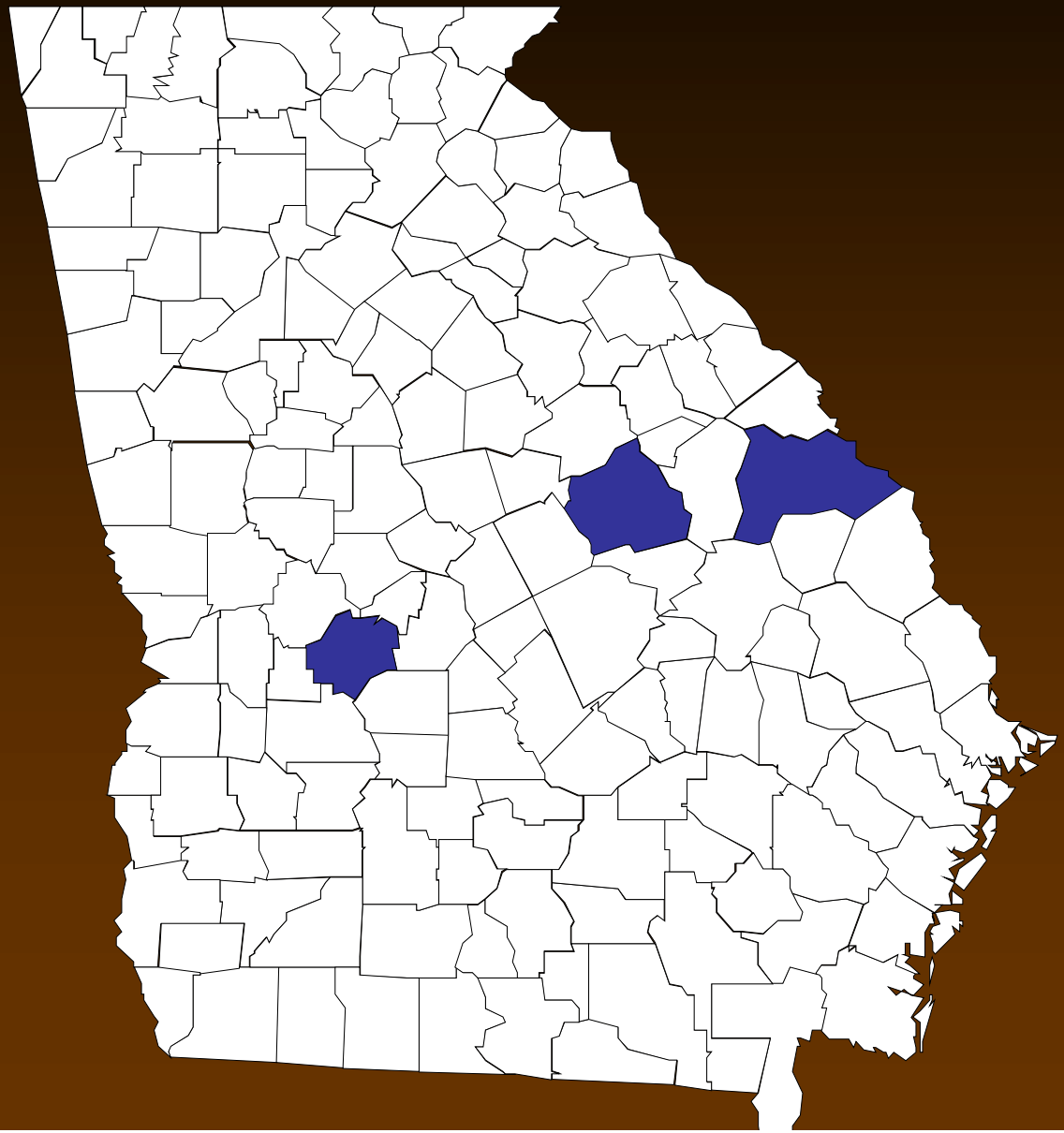
Rate:	3.5 oz/A
Timing:	Ideally pre-tiller ryegrass
Adjuvant:	COC at 1% v/v
Weeds:	ryegrass, radish
Rotation:	soybean 5 mo, cotton 12 mo

Rotate modes of action, resistance is a huge issue!

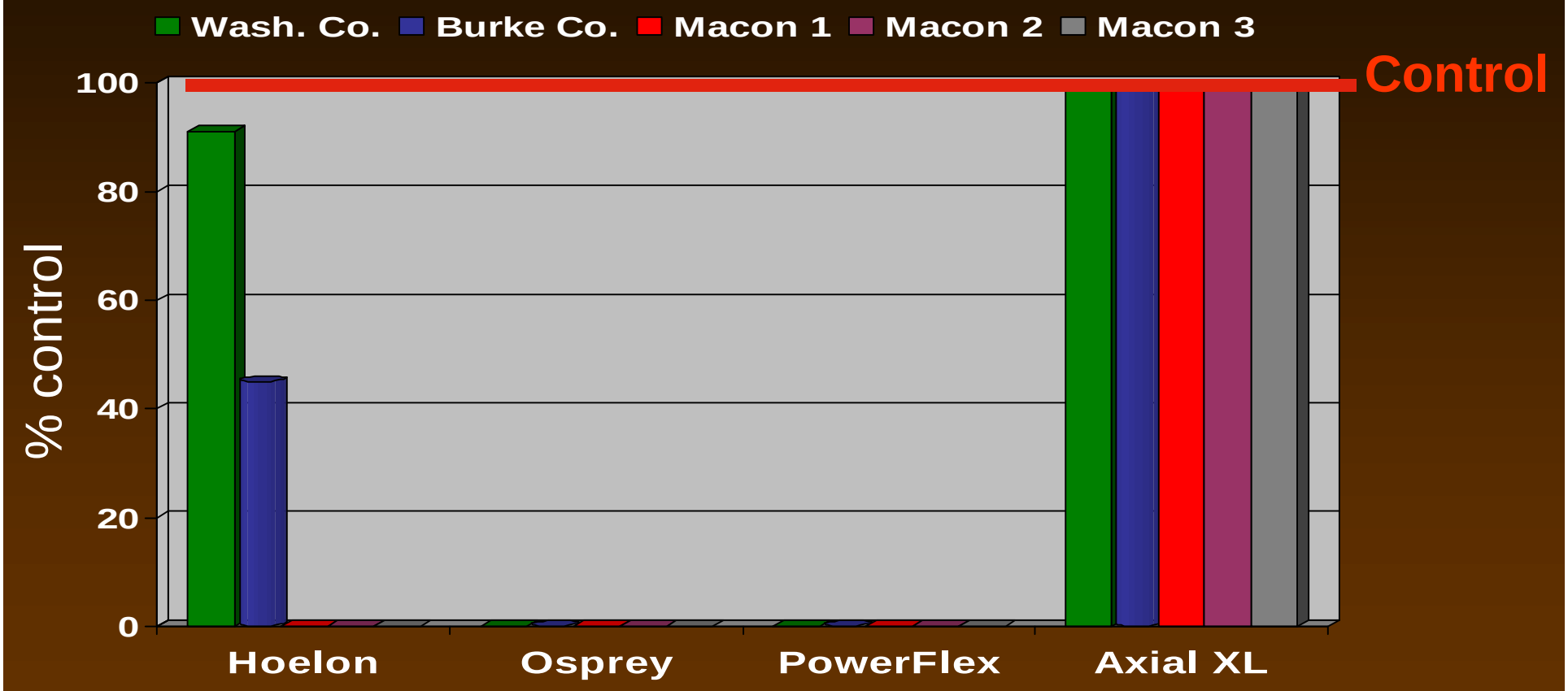
YOU WANT TO KEEP GROWING WHEAT??????

- **NEVER TREAT THE SAME GROUND WITH OSPREY <u>OR</u> POWERFLEX 2 YEARS IN A ROW**
- **NEVER TREAT THE SAME GROUND WITH HOELON <u>OR</u> AXIAL XL 2 YEARS IN A ROW**
- **Ryegrass resistance will likely occur within 2 to 3 years if you do not follow these guidelines!!!!!!!!!!!!!!!!!!**

2010 Georgia counties confirmed with Hoelon/Osprey/PowerFlex resistant ryegrass.



Annual Ryegrass Response to 4X Field Use Rates. Greenhouse. Tifton, GA. 2008-2009.



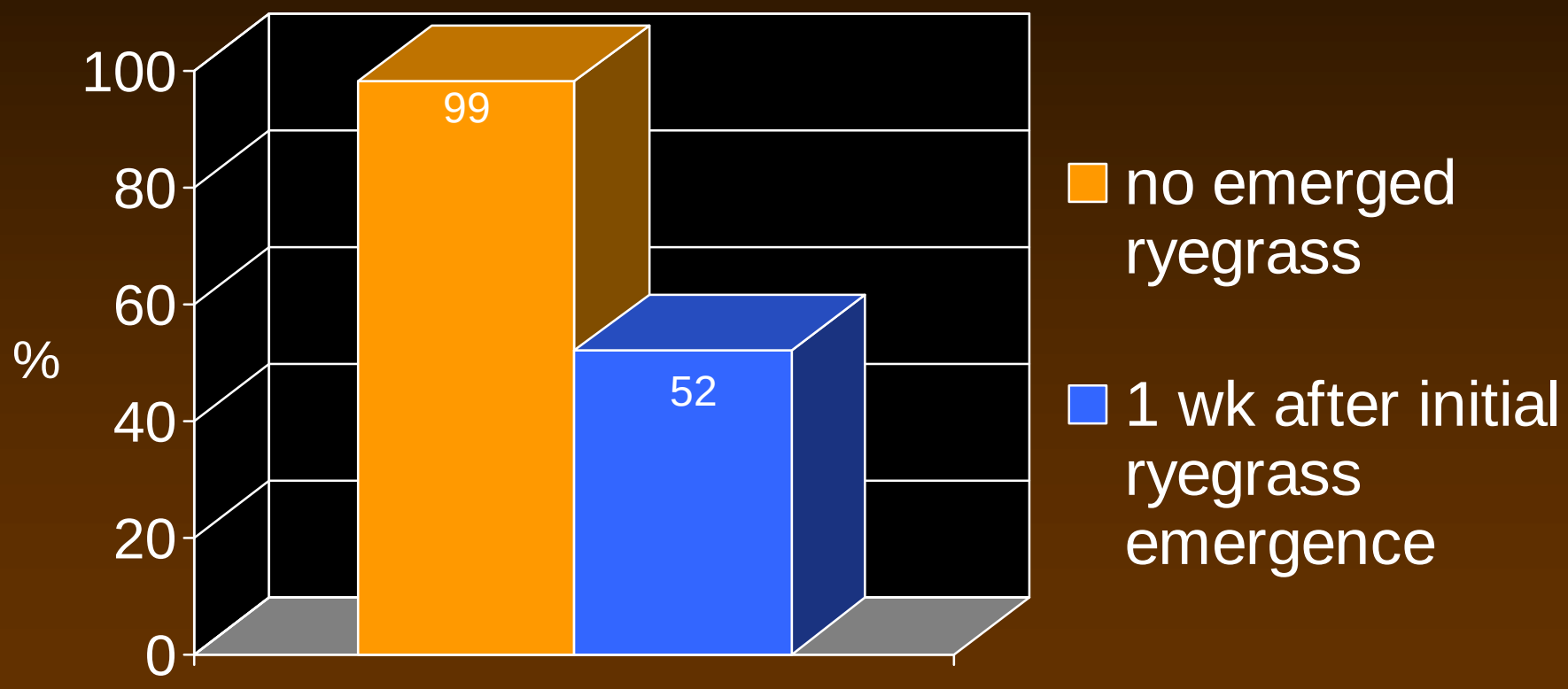
HISTORY: Hoelon till it stopped working then Osprey at least one time per year since available.

Prowl H20 Labeled For Wheat

- Residual control/suppression of ryegrass
- Must apply to wheat from 1st leaf stage until before flag leaf.
- May mix with any currently labeled wheat herbicide.

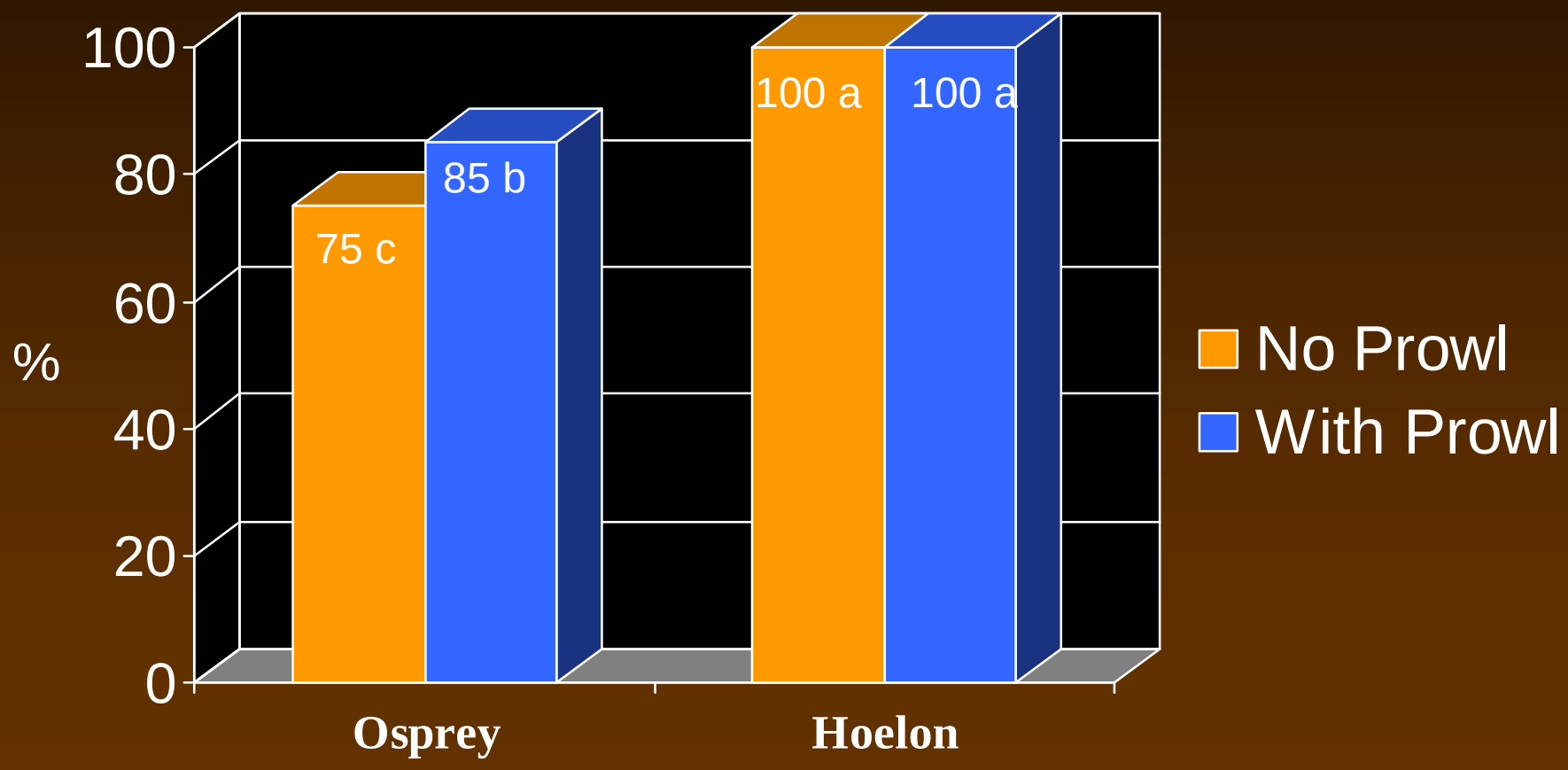
Will help on resistance!!!!

Late-season ryegrass control with Prowl H20 applied POST to 1 leaf wheat. Plains, GA. 2007.*



*Prowl H20 2.5 pt/A

Late-season ryegrass control with Prowl H20 applied in mixture with Osprey or Hoelon. Plains, GA. 2007.*



*Prowl H20 2.5 pt/A; Hoelon 2 pt/A; Osprey4.75 oz + NIS and UAN.

Axiom Labeled For Wheat

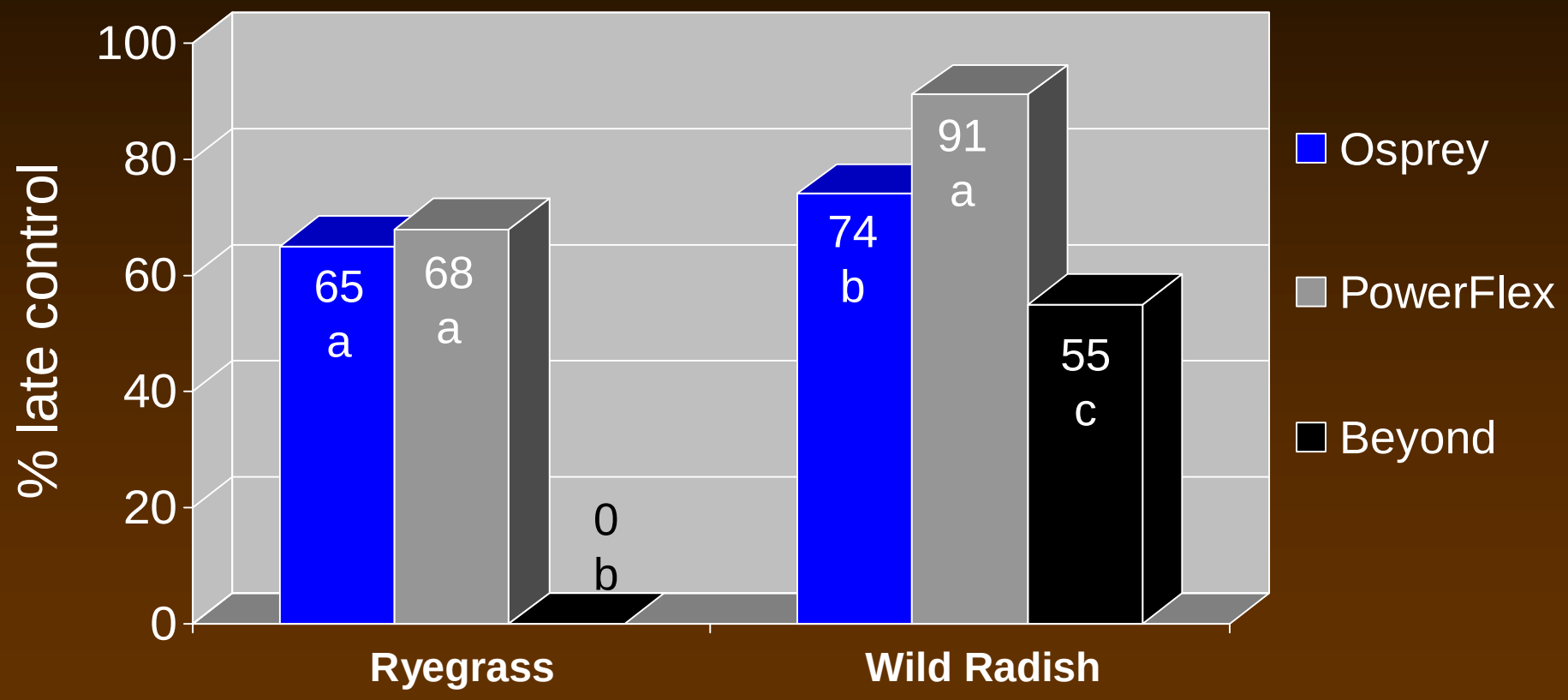
- Spike application to wheat (pray the ryegrass is not up before product is activated)
- Generally 6 to 8 oz/A
- Excellent broadleaf control
- Ryegrass control is either good or very poor depending on when it emerges
- Only option for some growers due to resistance
- Injury can be significant if very heavy rains and cold conditions occur after application

Will help on resistance!!!!

Annual bluegrass

- Limited knowledge and limited research
- Osprey and Axiom are good, PowerFlex????

How good is Beyond in Clearfield Wheat compared to other ALS options? Tifton, 2010.



Five tiller ryegrass and blooming radish.
Osprey 4.76 oz + NIS + UAN, PowerFlex 3.5 oz + COC, Beyond 6 oz + UAN + COC