

Grass Control in Corn, Cotton, and Soybean

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Old-school grass control

Corn	Cotton	Soybean
Acetochlor or metolachlor PRE and/or POST	Trifluralin PPI	Trifluralin PPI
Accent	Fluometuron +/- pendimethalin PRE	Alachlor, metolachlor PRE
	MSMA +/- prometryn or diuron directed	Graminicides as needed
	Graminicides as needed	



Revolution in mid-90's

No worries. Roundup's got it! Right?

johnsongrass



Italian ryegrass



goosegrass



junglerice/barnyardgrass



L. Steckel

L. Steckel

GR johnsongrass



GR johnsongrass

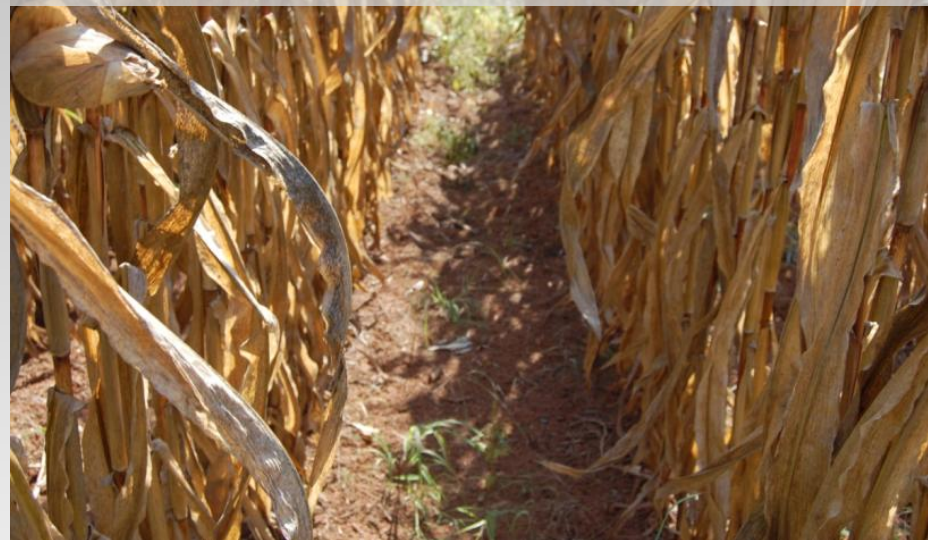
Nontreated



Corvus PRE



Capreno + Liberty POST



GR johnsongrass



Nontreated



2 weeks after last application



2 applications, 3 weeks apart



3 applications, 3 weeks apart

Missed grass



J. Bond – MS State Univ.

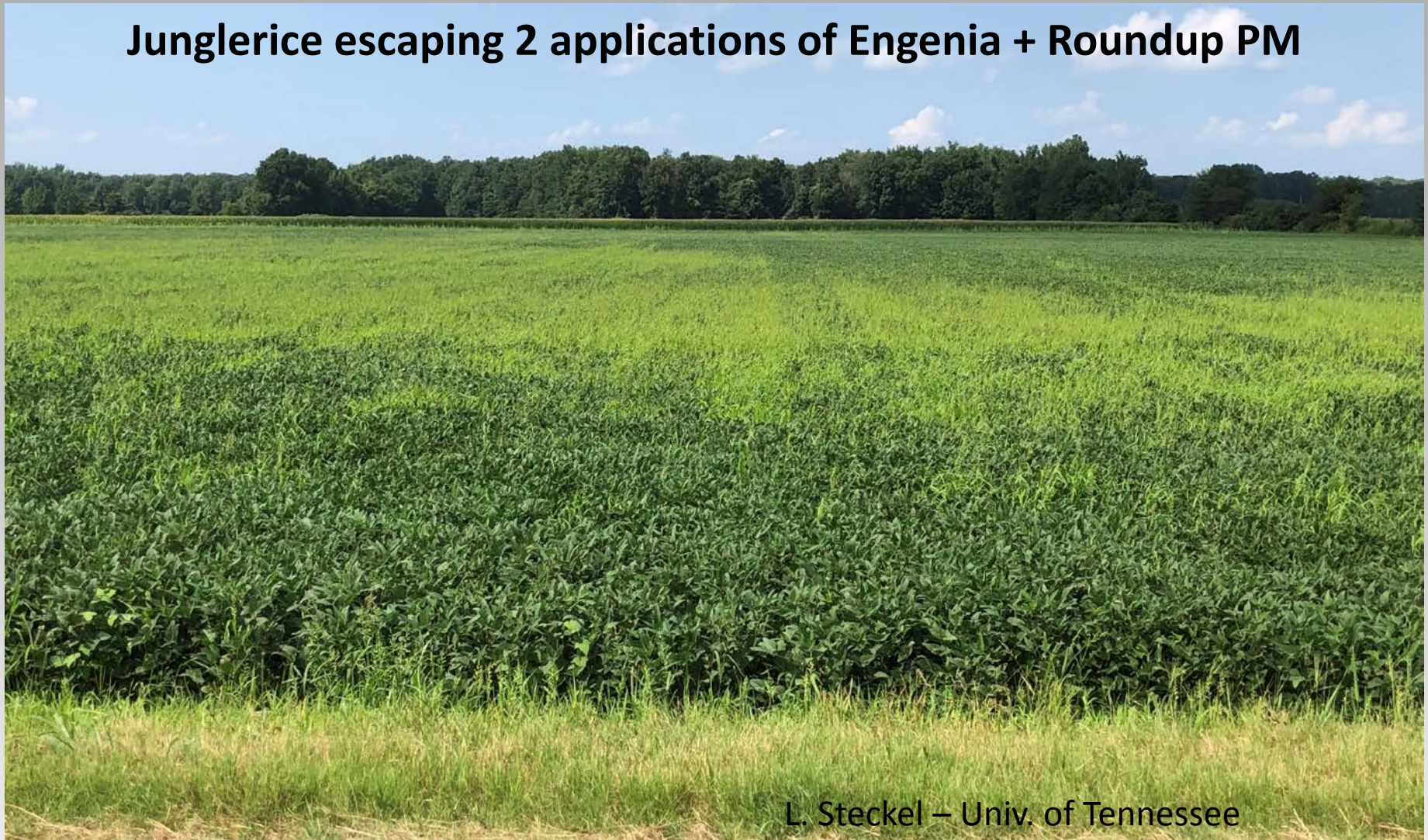
Missed grass



J. Bond – MS State Univ.

Missed grass

Junglerice escaping 2 applications of Engenia + Roundup PM



L. Steckel – Univ. of Tennessee

Missed grass



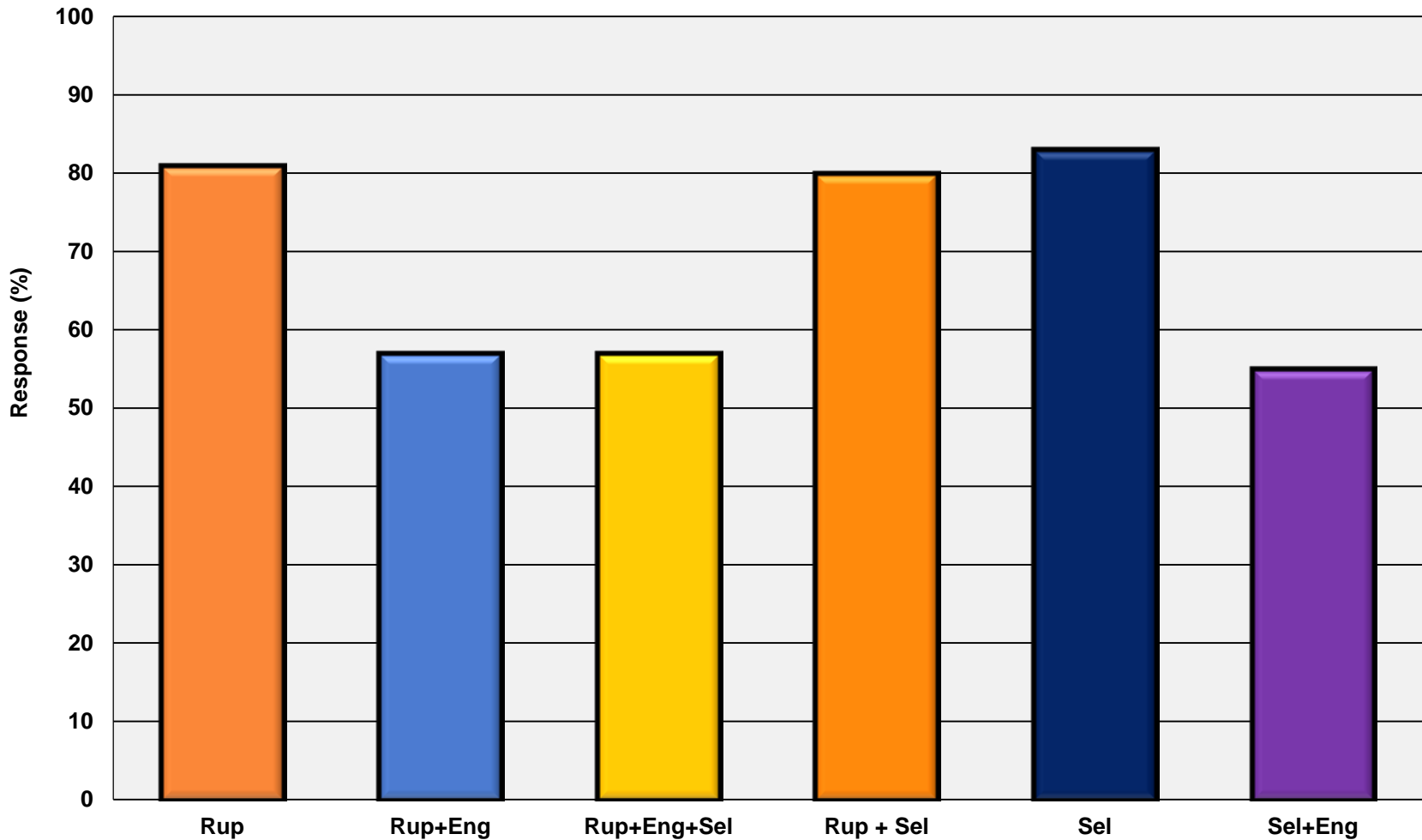
**Junglerice escaping
2 applications of
Engenia + Roundup PM
in cotton**

Missed grass



**Goosegrass escaping
2 applications of
Engenia + Roundup PM
in soybean**

Response of Junglerice Screen to Selected Herbicides across 3 locations



What is going on?

- Antagonism between dicamba and glyphosate or clethodim has been reported
- Rich Zollinger, Extension Weed Scientist at North Dakota St. Univ., posted on NDSU's Crop & Pest Report in 2017
 - <https://www.ag.ndsu.edu/cpr/weeds/grass-antagonism-with-dicamba-clethodim-07-06-17>
- Larry Steckel, Extension Weed Scientist at Univ. of Tennessee, posted on the Utcrops blog in 2019
 - <https://news.utcrops.com/2019/07/dicamba-tank-mixing-with-glyphosate-and-or-clethodim-effect-on-junglrice-control/>
- Both reported antagonism of clethodim and/or glyphosate by dicamba
- Scientific literature indicates this as well

What is going on?

- Poor coverage due to nozzles
- Poor coverage due to boom height
- Poor coverage due to sprayer speed
- Poor environmental conditions



What is going on?

- Resistance
 - Goosegrass in MS and TN
 - Johnsongrass in MS and LA
 - Italian ryegrass – MidSouth
 - Barnyardgrass/junglerice
 - Suspected populations in all MidSouth states

Junglerice escaped 40 oz of glyphosate



Solution?

- Don't tank-mix dicamba with clethodim...or any graminicide
- Program if you have GR Palmer amaranth and troublesome grasses
 - Spray dicamba alone
 - 5-7 days later, apply glyphosate + clethodim
- Old weed science rule
 - Broadleaf herbicide 1st, graminicide 7 days later
 - Graminicide 1st, broadleaf herbicide 2 days later

Solution?



Questions?

