



2021 Soybean Weed Control Update

Eric P. Prostko
Professor and Extension Weed Specialist
Dept. Crop & Soil Sciences



Soybean Weed Control (Currently)



- Start clean, use residuals, timely POST
- Narrow rows (<30")
- Systems
 - Conventional
 - RR (glyphosate)
 - LL (glufosinate)
 - LL-GT27 (glufosinate + glyphosate + isoxaflutole)
 - Alite 27 (BASF)
 - Balance Bean (Bayer)
 - Xtend (dicamba)
 - XtendFlex (dicamba + glyphosate + glufosinate)
 - Enlist (2,4-D choline)



Soybean Weed Control - 2019



Enlist

XtendFlex



Liberty

Xtend

SB-02-19
July 7
53 DAP

SB-01-18

August 3

**XTEND (dicamba)
System (PRE + POST)**

**LIBERTY
System (PRE + POST)**



Soybean Weed Control - 2019



NTC

Tricor 4L @ 8 oz/A (PRE)

Roundup Powermax 5.5SL @ 32 oz/A

+

Reflex 2SL @ 24 oz/A (22 DAP)

Old + Cheap + Still Good (i.e. metribuzin)



- Not a PPO (Valor or Reflex)
- Good on pigweed and sicklepod
- Can be applied PPI
 - Dryland fields?
- Issues (Be careful!!)
 - *soil texture, OM, pH*
 - *Varieties*
 - *Rotations*



TriCor 75DF

Metribuzin 75DF



Metribuzin Injury



Liberty-Link® Soybeans



LIBERTYLINK® 

Liberty®
Herbicide



FORFEIT 280

- Liberty 2.34SL @ 32-43 oz/A or generics
- VE-R1 (beginning bloom)
- 2 applications (5 days apart)
 - (87 oz/A/year total)
- Tank-mixes with POST grass herbicides may reduce grass control
 - Assure (10-21%); Fusilade (8-12%); Poast (25-41%); Select (4-22%)
- Residuals still needed
- **15 GPA, medium-coarse droplet size, small weeds, 9 am - 6 pm**

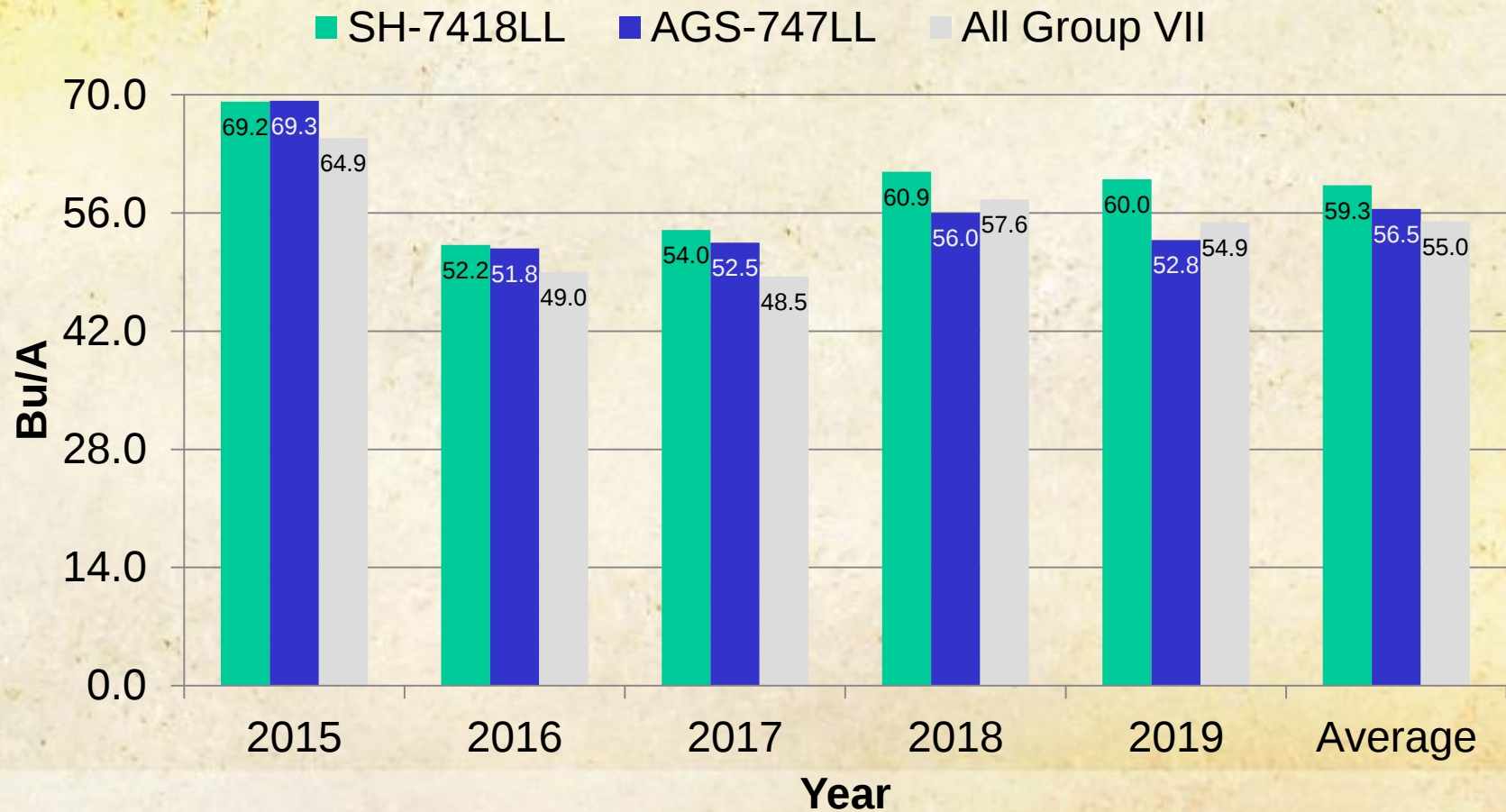
Liberty-Link Soybean Varieties



- Getting better and better!
- G13LL-7 and G13LL-44 developed by UGA Soybean Breeding Team
 - *Group VII's*
 - AGS 747LL (G13LL-7)
 - AGSouth
 - Southern Harvest 7418LL (G13LL-44)
 - Meherrin
- Others



Statewide Average Yield of UGA Developed LL Soybeans*



*Source: UGA OVT (6 locations/year, irrigated)

2,4-D/Dicamba Technologies



2,4-D choline



dicamba

Enlist™ Soybeans



- China approval in Jan 2019
- **Enlist One®**
 - 2,4-D choline
- **Enlist Duo®**
 - 2,4-D choline + glyphosate
- POST up to R2 (full bloom)
- 2 apps (12 days)
- Can be tank-mixed with glufosinate (Liberty) or others
- Check label/web-sites for restrictions (nozzles, wind speed, buffers, etc.)
- Varieties for GA????
 - **P53T90E (ind)**

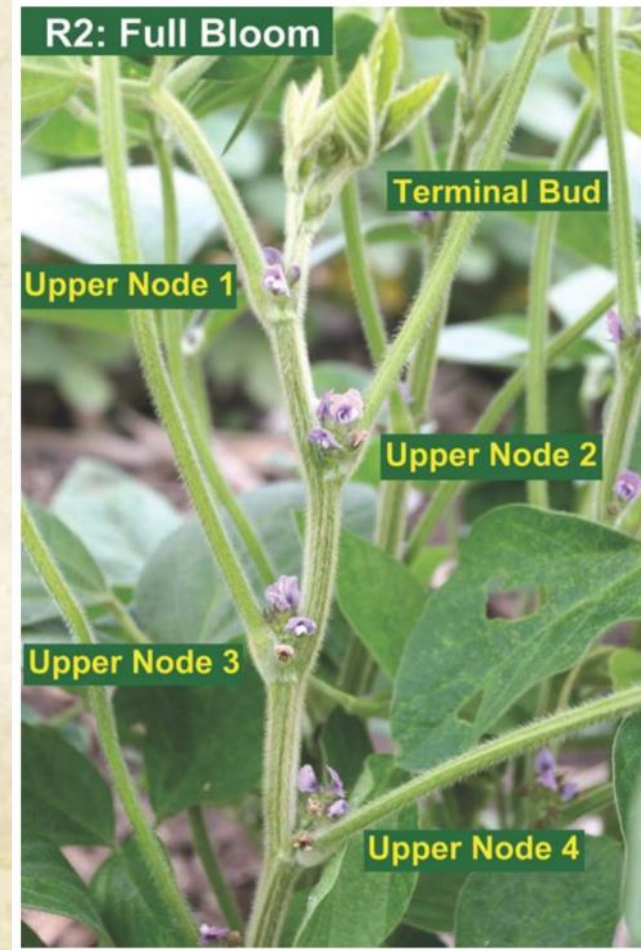


Photo: Dr. Shaun Casteel, Purdue Univ.

Xtend[®]/XtendFlex[®] Soybeans



- **Xtendimax[®] 2.9SL, Engenia[®] 5SL**
 - *Dicamba*
 - *POST up to R1 (beginning bloom) or June 30*
 - *2 apps (7 days)*
 - *Add a residual*
- **Tavium[®] 3.38SC**
 - *dicamba (1.12 ae) + s-metolachlor (2.26 lb)*
 - *56.5 oz/A*
 - *POST up to V4 or June 30*
 - *1 PPLNT/PRE + 1 POST*
 - *tank-mixes*
- Check Xtendimax label/web-sites for tank-mixes and restrictions (nozzles, wind speed, buffers, etc.)
- Engenia information

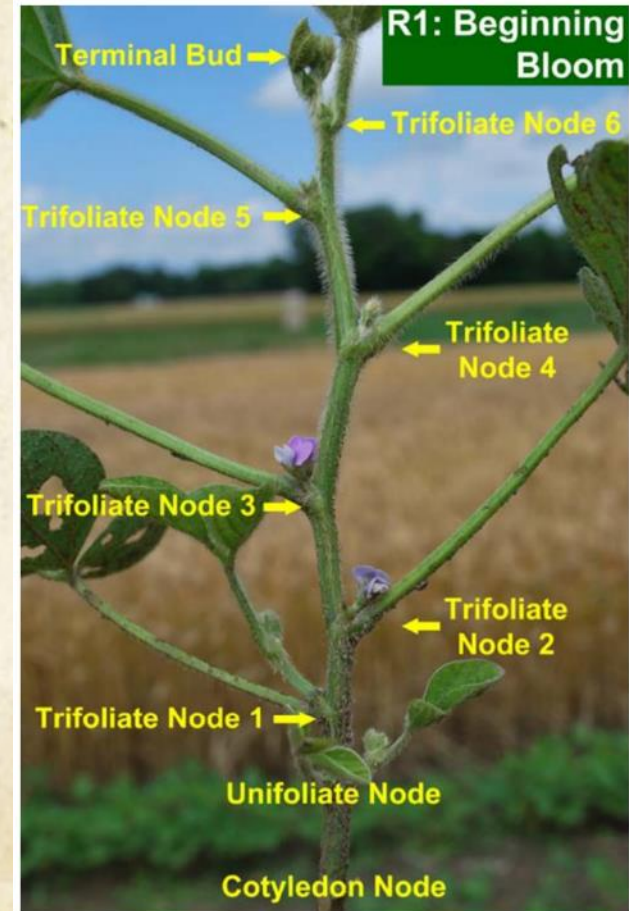


Photo: Dr. Shaun Casteel, Purdue Univ.

Xtendflex® Soybeans



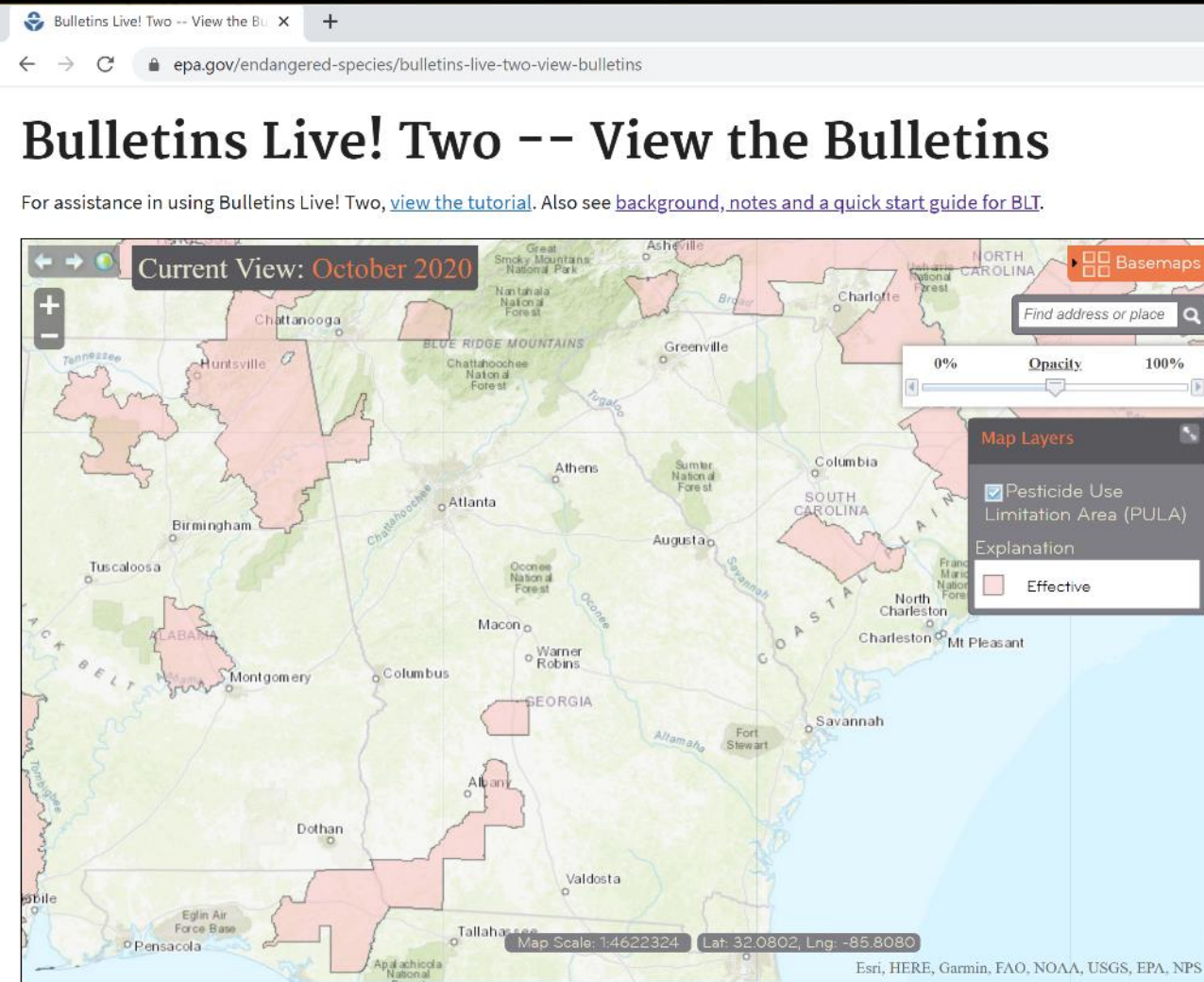
- Full approval
09/28/2020
- Dicamba, glyphosate,
glufosinate (Liberty)
- Cannot tank-mix
dicamba + Liberty
- Roundup + Liberty?



Roundup P-Max @ 28.4 oz/A + Tavium (VG)
56.5 oz + Intact @ 0.5% v/v + Class Act
Ridion @ 1% v/v



GA Endangered Species Concerns for DT Soybeans



- 310' downwind buffer
- 57' omni buffer
- Seminole, Decatur, Mitchell, Worth, Dooly
- parts of Floyd, Chattooga, Bartow

Hooded Sprayer Reduces Downwind Buffer Requirement (240' to 110' and 310' to 240')



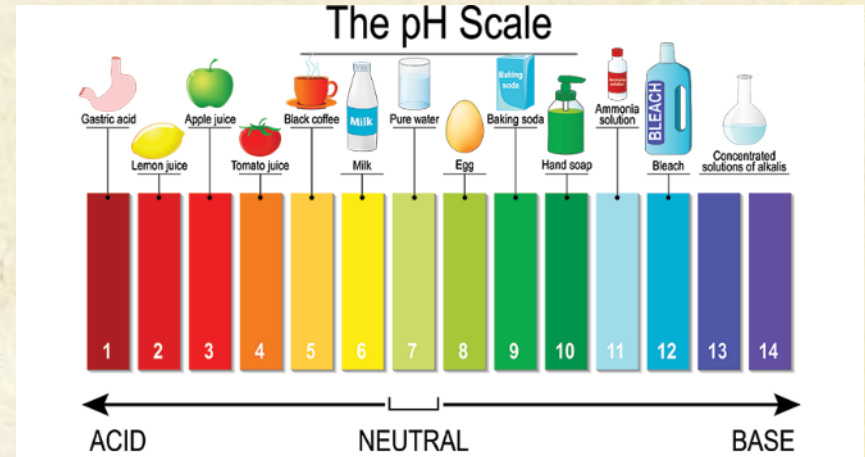
Redball 642E is the only approved hooded sprayer

Dicamba Soybeans - 2021

DRA, VRA, pH Buffers



- Drift Reduction Adjuvant (DRA)
- Volatility Reduction Adjuvant (VRA)
- pH Buffering Adjuvant (PHBA)
- DRA + VRA
 - *Xtendimax, Tavium*
- DRA + PHBA
 - *Engenia*



Alite™ 27



SPECIMEN

RESTRICTED USE PESTICIDE

May injure susceptible non-target plants.
For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial and certified applicators must ensure that all persons involved in these activities are informed of the precautionary statements.



We create chemistry

ISOXAFLUTOLE GROUP 27 HERBICIDE

Alite™ 27

Herbicide

For: weed control in isoxaflutole-resistant soybean grown in select counties in certain states.

This product can only be used on GT27 or isoxaflutole-resistant soybean. Crops not containing a gene expressing an HPPD protein will not be tolerant to Alite 27 Herbicide

[In the state of MN and WI use is only allowed in accordance with the State Specific Product Bulletin.]

ACTIVE INGREDIENT(S):	
Isoxaflutole [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethylbenzoyl) isoxazole]	40.50%
OTHER INGREDIENTS:	59.50%
TOTAL:	100.00%

Contains 4.00 pounds isoxaflutole per U.S. gallon

EPA Reg. No. 7969-433

EPA Est.

KEEP OUT OF REACH OF CHILDREN

CAUTION

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours a Day 1-800-832-HELP (4357)

BASF
26 Davis Drive
Research Triangle Park, North Carolina 27709

- Isoxaflutole
 - WSSA Group 27 (HPPD)
- GT27 soybeans only
- Only labeled for use in these GA counties
 - Atkinson, Berrien, Clinch, Echols, Evans, Lanier, Lowndes
- PPI or PRE
- 1.5-2.0 oz/A
- Restricted use
- Varieties/Data?
- Rotations: field corn = 0 months; small grains = 4 months; grain sorghum = 6 months; peanut = 11 months; cotton = 10 months

Harvest Aids

Soybeans



Herbicide	Rate/A (oz)	Adjuvant	Time of Application		PHI (days)
			Determinate	Indeterminate	
paraquat 2 lb gal 3 lb/gal	16 10.7	NIS @ 0.25% v/v	Fully mature 50% leaf drop Yellow leaves	<30% moisture or 65% of pods mature brown	15
Sharpen 2.85SC	1-2	MSO @ 1% v/v	Fully mature 50% leaf drop Yellow leaves	> 65% mature brown pods and > 70% leaf drop or < 30% seed moisture	3

*Glyphosate and Aim are also labeled (more for weed control than crop dessiccation).

Important Soybean Stages for Harvest Aids



or later

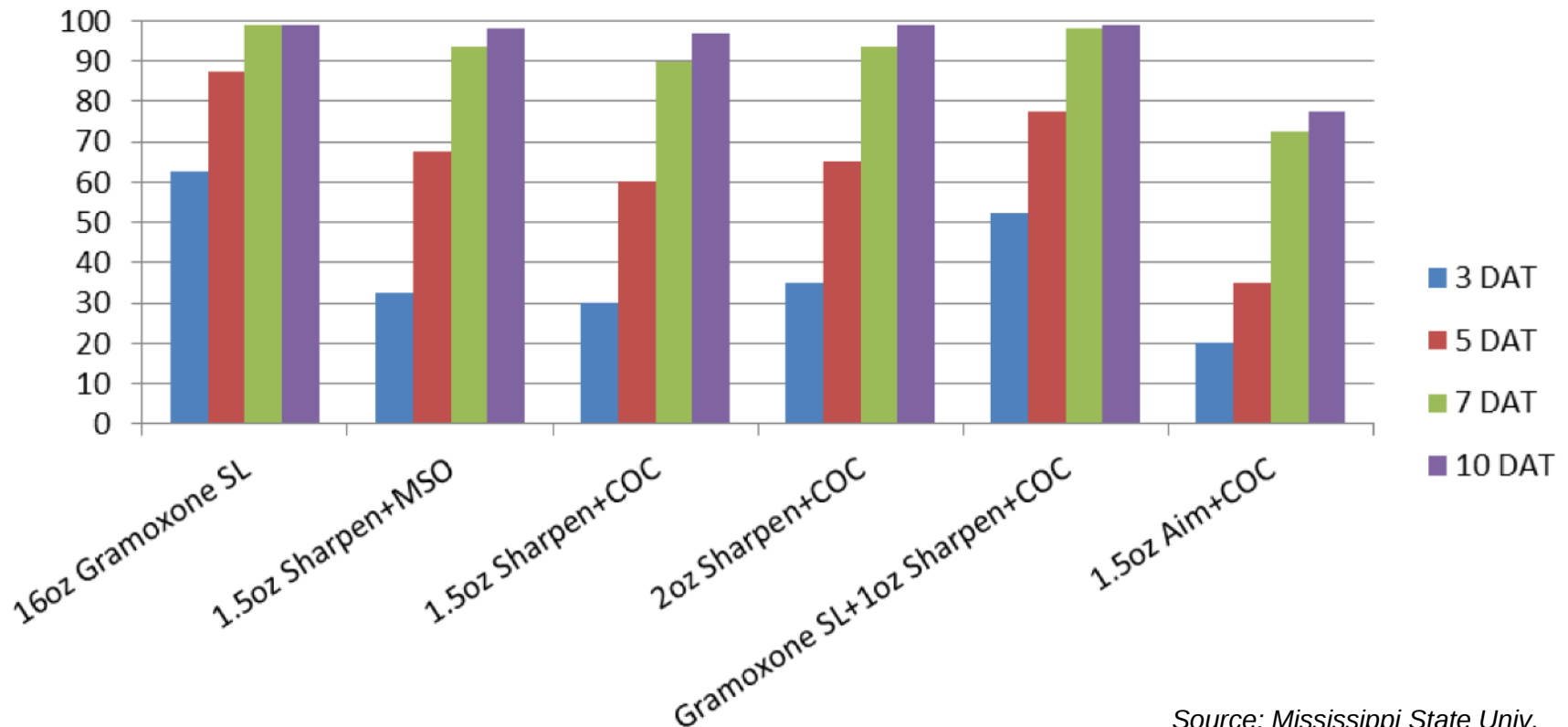
R5-R6 = 11-20 days (15 avg.)

R6-R7 = 9-30 days (18 avg.)

Harvest Aids



Soybean Defoliation/Desiccation with Various Soybean Harvest Aids



Source: Mississippi State Univ.

Questions/Comments

