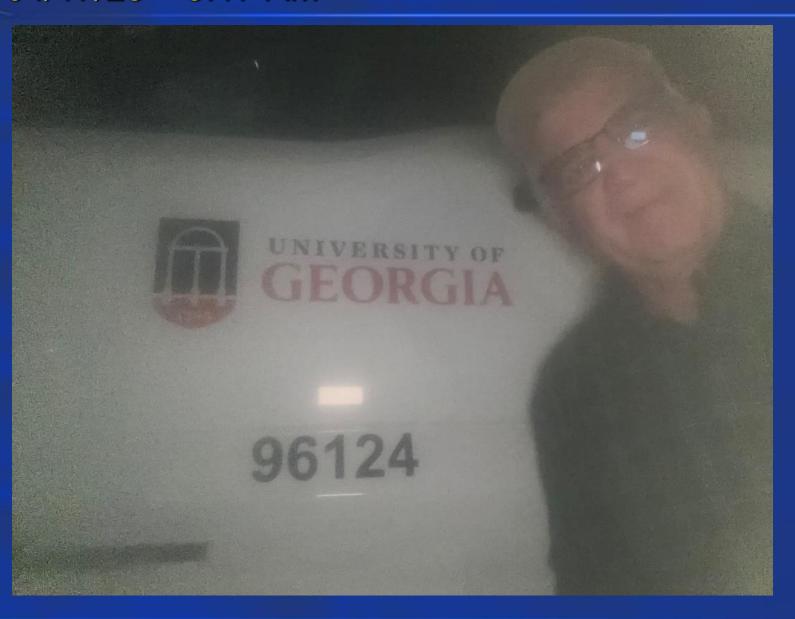


### Where is grain agronomist? 04/17/25 – 5:17 AM

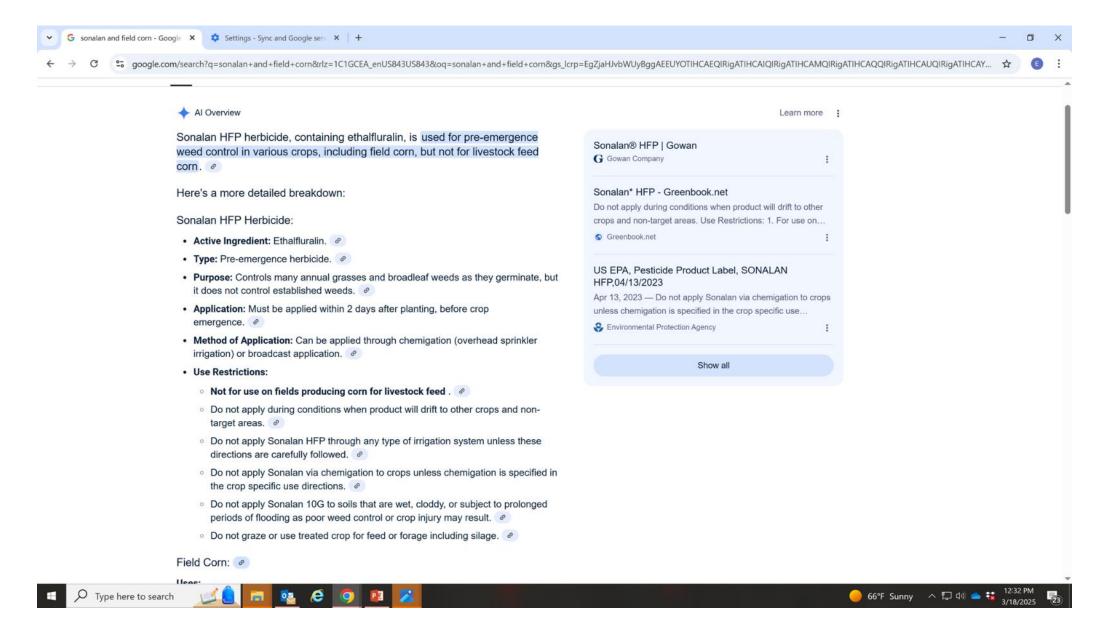


### **Topics for Discussion**

- > Al Recommendations
- Weed Control Costs
- Ryegrass
- ► Halex GT vs Home-Made
- > Enlist Corn
- ► V. Corn Control/Replant
- ➤ Boron???
- **Cocklebur**
- ➤V. peanut
- ➤ Post-Harvest
- **>** Problems

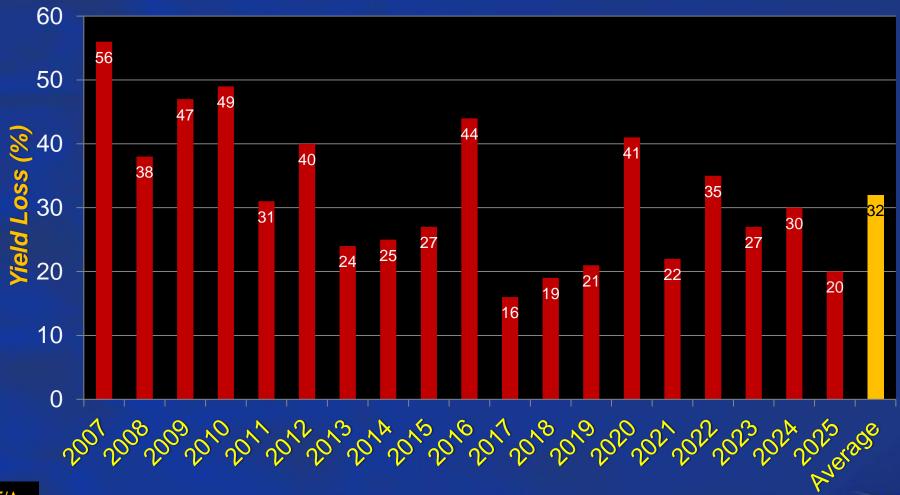


## Beware of Google/Al Recommendations!



Field Corn Yield Loss (%) Caused by Uncontrolled Weeds in UGA Weed Science Irrigated Research Trials (2007-2025)

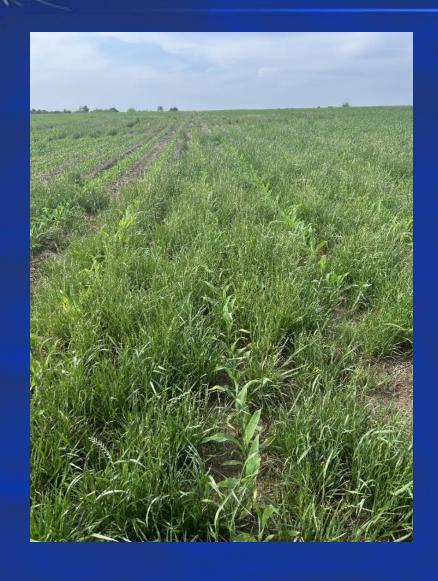
Treated vs. Non-treated



200 Bu/A X 0.32 X \$4.14 = \$265/A 250 Bu/A X 0.32 X \$4.14 = \$331/A 300 Bu/A X 0.32 X \$4.14 = \$397/A What about harvest? What about next year?

Year

### Ryegrass in Field Corn - 2025

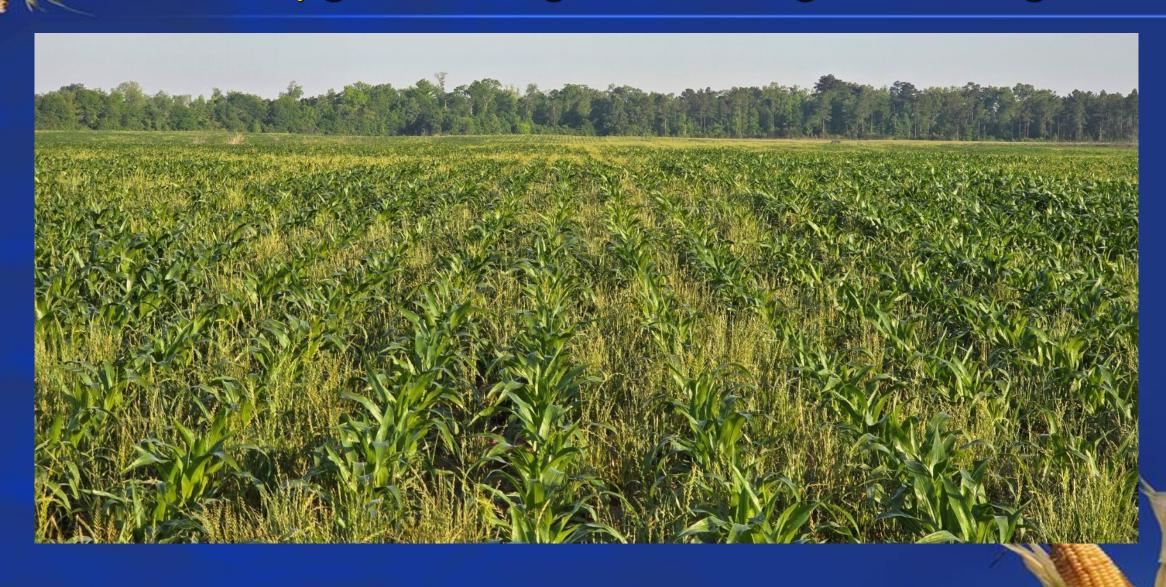


- Glyphosate resistant???
  - > Assume it is?
- Gramoxone preplant
  - ►2 apps
- Accent Q or Steadfast Q
  - Counter (INFR)?
  - > Hybrid Tolerance?
- Liberty
  - ➤ Need warm temps
- Enlist Corn?
  - Assure II (quizalofop)
    - > Hoelon (diclofop resistant population?)

### Ryegrass in Corn – 2025

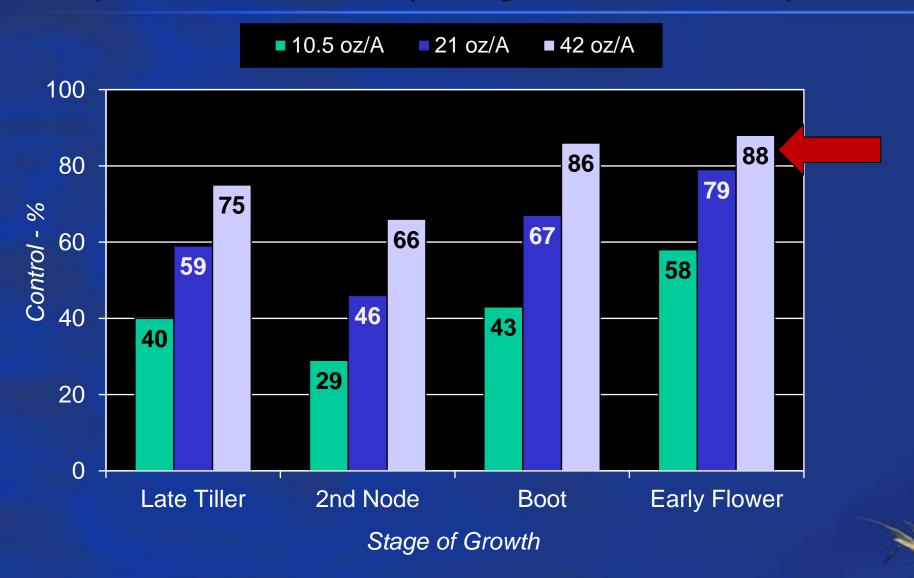
Treated with Liberty @ 43 oz/A + AMS @ 2 lbs/A + Atrazine @ 32 oz/A + Zidua @ 2 oz/A

no burndown wet weather wind



C. Traugh Seminole Co. April 17, 2025 7 DAT

# Annual Ryegrass Control (10-25 days after early flower application) with Roundup WeatherMax 5.5SL (*Averaged over 6 locations*)



### Brand Name Halex GT vs Home-Made Halex GT



- Brand Name Halex GT 4.389SC
  - > \$42/gal @ 58 oz/A = \$19.03/A
    - > 0.947 lbs ai/A s-metolachlor + 0.947 lbs ae/A glyphosate (K-salt) + 0.0947 bs ai/A mesotrione
- Home-Made Halex GT
  - ➤ Incinerate 4SC (mesotrione) = \$165/gal @ 3 oz/A = \$3.87/A
  - CornerStone 5 Plus 5.5SL (glyphosate-IPA, 4 lb ae/gal) = \$15/gal @ 30.3 oz/A = \$3.55/A
  - Charger Basic 7.62EC (s-metolachlor) = \$40/gal @ 16 oz/A = \$5.00/A
- \$19.03/A vs. \$12.42/A (\$6.61/A savings)
- But mesotrione labels say.....

**Do not** apply Incinerate Herbicide postemergence in a tank mix with emulsifiable concentrate grass herbicides, unless specifically addressed under one of the tank mix sections of this label, or injury may occur.

### Home-Made Halex GT - 2025

- **≻**Roundup
- Dual Magnum
- Generic Callisto
- Is this potential injury worth \$6.61/A??
- Who will pay for new innovations/discovery?



### Field Corn Weed Control – 2025 Halex GT (Applied 16 DAP, V3-4, P2042VYHR)



NTC

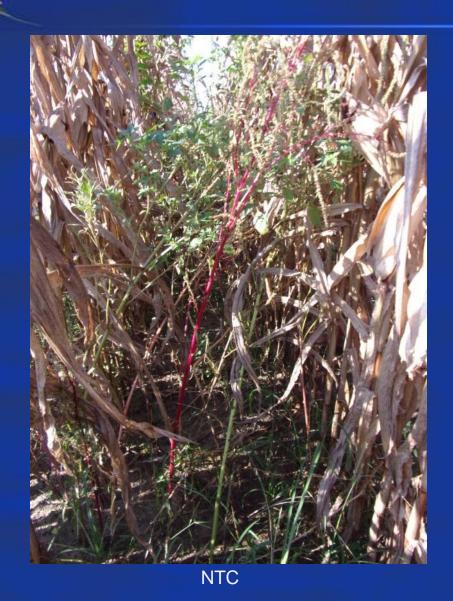


Halex GT 4.389SC @ 58 oz/A Aatrex 4L @ 64 oz/A Induce @ 0.25% v/v



RUPM3 5.88SL @ 25.3 oz/A
Callisto 4SC @ 3 oz/A
Dual Magnum 7.62EC @ 16 oz/A
Aatrex 4L @ 64 oz/A
Induce @ 0.25% v/v

### Field Corn Weed Control - 2025





Applied 16 DAP

### Enlist™ Herbicide Tolerant Corn

#### **Robust Tolerance**

- Robust tolerance to PRE and POST applications of 2,4-D
- Post application from emergence to V8
- · Robust tolerance to FOP herbicides for breeding selection

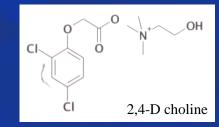










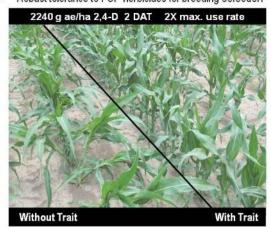


- tolerance to 2,4-D, quizalofop, glyphosate, glufosinate
  - Trait 2014
  - Enlist Duo® 2014
  - Enlist One® 2017
- Colex-D™ technology
  - > 2,4-D choline
  - lower volatility (than ester)
  - enhanced handling/mixing characteristics
  - reduced odor
- 1 PRE application + 2 POST applications (30" or V8 stage, 12 days apart)
- Enlist Duo®
  - DMA-Glyphosate (1.71 lb ae/gal) + 2,4-D choline (1.63 lb ae/gal)
  - > 3.5 pt/A
- Enlist One®
  - 2,4-D choline (3.8 lb ae/gal)
  - > 1.5-2.0 pts/A

## Enlist™ Herbicide Tolerant Corn Programs

#### **Robust Tolerance**

- Robust tolerance to PRE and POST applications of 2,4-D
- Post application from emergence to V8
- Robust tolerance to FOP herbicides for breeding selection

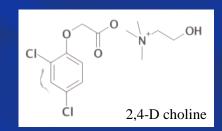












### Program #1

- > 1) Atrazine PRE followed by
- 2) Liberty + Enlist One + One of the following (Anthem Maxx, Dual Magnum, Enversa, Outlook, Prowl, Warrant, Zidua) POST

### Program #2

- 1) One of the following PRE (Dual Magnum, Enversa, Outlook, Warrant) followed by
- 2) Liberty + Enlist One + Atrazine POST

### Enlist Field Corn Weed Control - 2025





NTC



Aatrex 4L @ 32 oz/A

Applied 14 DAP (V3-V4)

### Enlist™ Field Corn Weed Control - 2025









NTC

Liberty Ultra 1.76SL @ 24 oz/A

Enlist One 3.8SL @ 32 oz/A

Dual Magnum 7.62EC @ 16 oz/A

Applied 14 DAP (V3-V4)

Liberty Ultra 1.76SL @ 24 oz/A

Enlist One 3.8SL @ 32 oz/A

Outlook 6EC @ 12.8 oz/A

Applied 14 DAP (V3-V4)

### Enlist Field Corn Weed Control - 2025





NTC



Liberty Ultra 1.76SL@ 24 oz/A

Enlist One 3.8SL @ 32 oz/A

Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A

Applied 14 DAP (V3-V4)

### Enlist Field Corn Weed Control - 2025









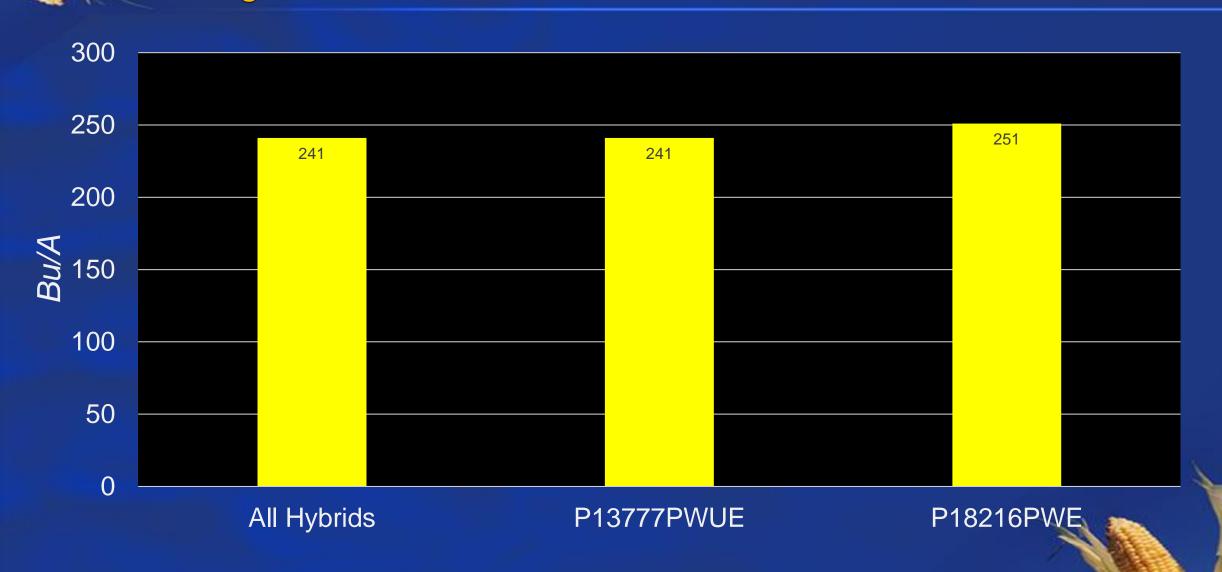
Liberty Ultra 1.76SL @ 24 oz/A

Enlist One 3.8SL @ 32 oz/A

Anthem Maxx 4.3SC @ 3 oz/A

Applied 14 DAP (V3-V4)

# Enlist Field Corn Hybrids for Georgia – 2025 *Averaged Over 22 Locations*



# Enlist One/ESA/Runoff Mitigation (4-6 credits)

#### **Management of Runoff**

A variety of factors including soil type, slope, and weather conditions (e.g., rainfall) can influence volume and intensity of water running off the treated field. The applicator must evaluate all factors and make appropriate adjustments when applying this product. Land management, field condition and application practices that reduce, to the maximum extent practicable, runoff from treated fields, must be implemented by land managers/users of this product.

To reduce the potential for runoff and avoid off field impact from treated fields to maximum extent practicable, applicator must plan/schedule applications to maximize time between an application of this product and anticipated rainfall (or planned irrigation). Application must take place no less than 48 hours prior to irrigation or predicted rainfall (by NOAA/ National Weather Service, or other similar forecasting service).

For land with **Hydrologic Soil Groups\* A & B**: The land manager/ applicator must effectively implement measures in the following tables to equal a **minimum of 4 credits**.

For land with **Hydrologic Soil Groups\* C & D**: The land manager/ applicator must effectively implement the measures in the following tables to equal a **minimum of 6 credits**.

		Credits							
	3 applications	0							
Applications may be made at any time during crop development but must maintain a minimum 12-day retreatment interval.									
	1 application	4							
Residue Tillage Management: no-till, strip-till, ridge-till, and mulch-till									
30 ft off-field vegetative buffer on down slope	HSG A or B	2							
	HSG C or D	0							
100 ft off-field vegetative buffer on down	HSG A or B	4							
slope	HSG C or D	1							
s with a minimum width of 30 ft.		2							
		2							
egetation along the contours of the field with a m	inimum width of 3 ft.	2							
		2							
		2							
		1							
		1							
	dge-till, and mulch-till  30 ft off-field vegetative buffer on down slope  100 ft off-field vegetative buffer on down slope s with a minimum width of 30 ft.	p development but must maintain a minimum  2 application  1 application  dge-till, and mulch-till  30 ft off-field vegetative buffer on down slope  HSG A or B  HSG C or D  100 ft off-field vegetative buffer on down slope  HSG A or B  HSG C or D							

<sup>\*</sup>Hydrologic Soil Group (HSG) definitions: A = Sand, loamy sand, or sandy loam; B = Sandy clay loam; C = Silt loam or loam; D = Clay loam, silty clay loam, sandy clay, silty clay or clay.

## Volunteer Corn/Replant?



# Field Corn Control with Select Max 0.97EC @ 6 oz/A + Induce @ 0.25% v/v







NTC

Applied V3-V4 28 DAT

# Field Corn Control with Gramoxone 3SL @ 32 oz/A + Tricor 4F @ 4 oz/A + Induce @ 0.25% v/v







NTC

Applied V3-V4 17 DAT

Applied V5-V6 7 DAT

### Boron?

### **LIQUID BORON 10%**

**GUARANTEED ANALYSIS** 

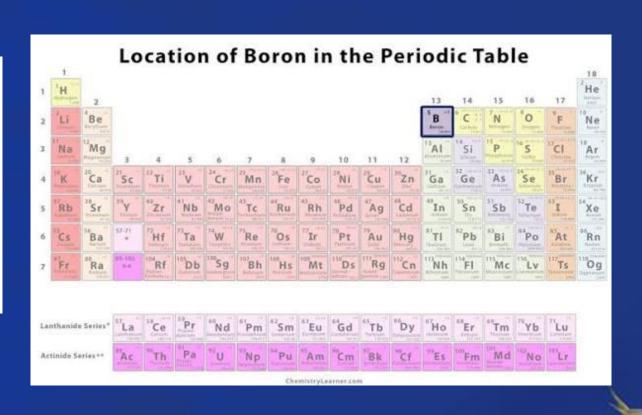
Boron (B) ...... 10.0%

Derived from: Boric acid

**KEEP OUT OF REACH OF CHILDREN** 







### Roundup + Atrazine + Zidua + Boron - 2025



NTC



Roundup PowerMax3 5.88SL @ 27 oz/A Aatrex 4L @ 64 oz/A Zidua 4.17SC @ 2.5 oz/A

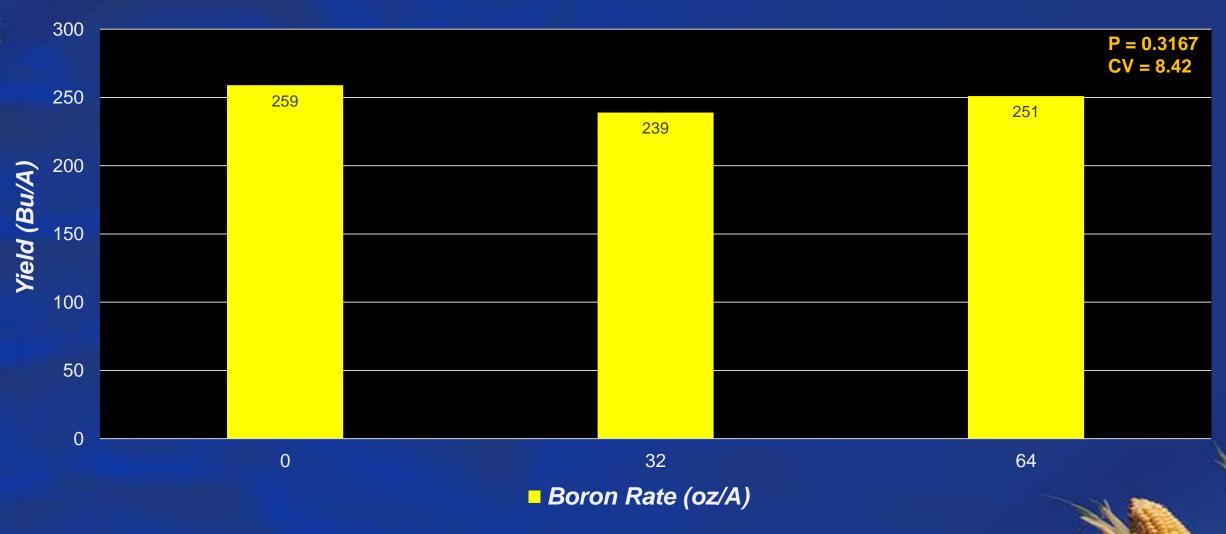


Roundup PowerMax3 5.88SL @ 27 oz/A Aatrex 4L @ 64 oz/A Zidua 4.17SC @ 2.5 oz/A 10% Liquid Boron @ 32 oz/A



Roundup PowerMax3 5.88SL @ 27 oz/A
Aatrex 4L @ 64 oz/A
Zidua 4.17SC @ 2.5 oz/A
10% Liquid Boron @ 64 oz/A

## Roundup PowerMax3 5.88SL @ 27 oz/A + Aatrex 4L @ 64 oz/A + Zidua 4.17SC @ 2.5 oz/A ± 10% Liquid Boron @ 32 oz/A or 64 oz/A



CN-08-25 Pioneer P13777PWUE Applied 14 DAP (V3-V4)

### Surtain Herbicide

- Surtain 1.628SC
  - saflufenacil (Sharpen) 0.626 lbs/gal
  - pyroxaslfone (Zidua) 1.002 lbs/gal
- solid encapsulated herbicide technology
- > 11 oz/A
- > PRE-V3
- residual control only
- Have not been a huge fan of pyroxasulfone applied PRE?
  - **>** injury



Saflufenacil	Group	14	Herbicide
Pyroxasulfone	Group	15	Herbicide

### Surtain™

#### Herbicide

#### For residual preemergence weed control in field corn

#### Active Ingredients\*:

 1H-pyrazol-4-yl[methyl]sulfonyl]-4,5-dihydro-5,5-dimethylisoxazole
 10.919

 Other Ingredients:
 32.273

 Total:
 100.009

1.002 pounds of pyroxasulfone per gallon formulated as a water-based suspension concentrate

EPA Reg. No. 7969-50

EPA Est. No

#### KEEP OUT OF REACH OF CHILDREN

#### CAUTION/PRECAUCIÓN

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete First Aid, Precautionary Statements, Directions For Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions

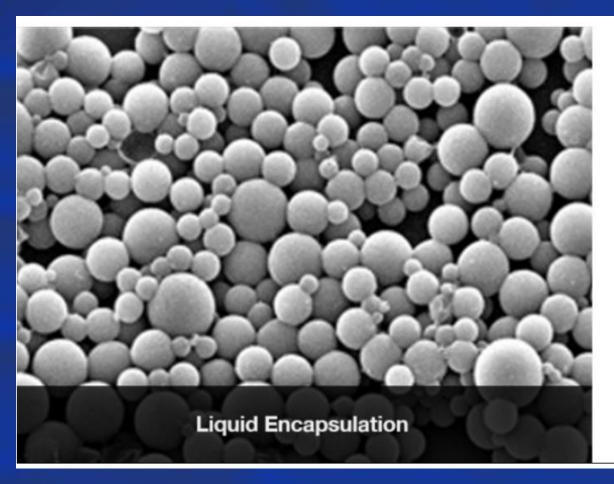
In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

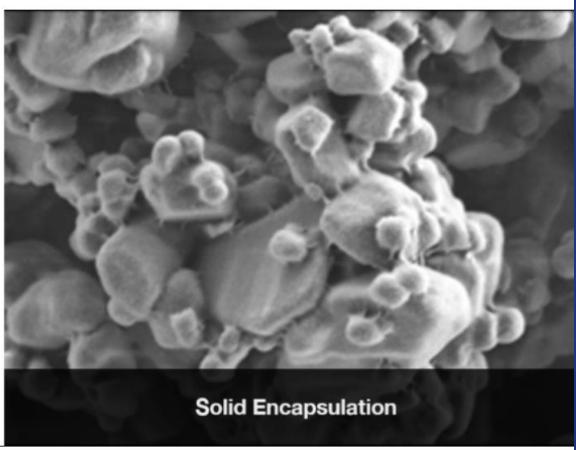
Shake container well before use. Recirculation is advised for bulk tanks or totes.

#### Net Contents:

BASF Agricultural Solutions US LLC 2 TW Alexander Drive Research Triangle Park, NC 27713

### Surtain (saflufenacil + pyroxasulfone) Encapsulation

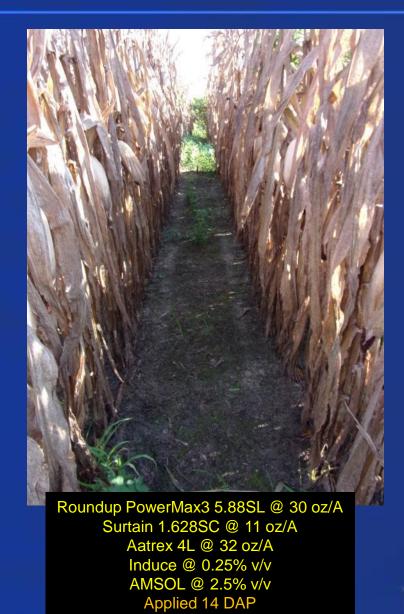




Surtain

### Field Corn Weed Control - 2025





CN-06-25 August 19 138 DAP

### Cocklebur in Field Corn



**PRE:** Acuron, Atrazine, Corvus, Resicore, Sharpen

**POST:** Armezon, Atrazine, Basagran, Callisto, Capreno, Clarity, Enlist One, Halex GT, Impact, Laudis, Liberty, Revulin Q, Roundup, Sandea, Status





\*2 seeds/bur \*now/later \*can emerge from 6"

# Peanut Control? Peanuts: V4-5; 2-3" tall;4-5" wide







Laudis 3.5SC @ 3 oz/A Aatrex 4L @ 64 oz/A Agridex @ 1% v/v AMSOL @ 2.5% v/v



Roundup PowerMax3 5.5SL @ 30 oz/A Laudis 3.5SC @ 3 oz/A Aatrex 4L @ 64 oz/A AMSOL @ 2.5% v/v

### **BD/TSW Control in Field Corn**



### Residuals

Dual Magnum, Outlook, Warrant, Zidua, Anthem Maxx

### **POST**

- >2,4-D (crop injury issues unless Enlist hybrid)
- Basagran
- ➤ Halex GT/Callisto

### Lay-By/Hood

- **≻**Aim
- **Evik**
- ▶ Gramoxone

### Post-Harvest

▶Gramoxone, 2,4-D

### Benghal Dayflower/Tropical Spiderwort – HPPD's





Callisto 4SC @ 3 oz/A Agridex @ 1% v/v

## BD/TS Control in Field Corn





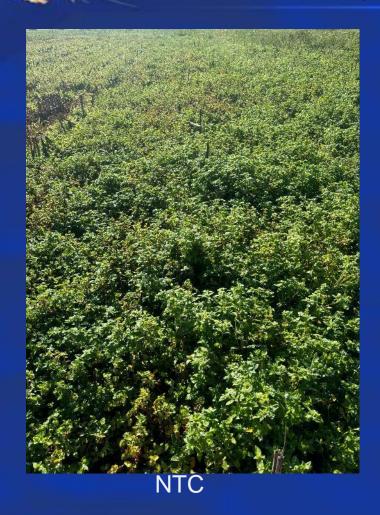
Untreated



Gramoxone Max 3SC @ 16 oz/A
Dual Magnum 7.62EC @ 1.33 pt/A
Herbimax @ 1% v/v
Lay-By

## Post-Harvest Tropical Spiderwort Control – 2024

COMBE: 12-16" tall; flowering; POST1 = 09/10/24; POST2= 09/17/24





Gramoxone 3SL @ 32 oz/A Induce @ 0.25% v/v POST1 + POST2



Roundup P-MAX3 5.88 SL @ 32 oz/A Enlist One 3.8SL @ 24 oz/A POST1 + POST2

### Post-Harvest





# Post-Harvest Weed Control - 2021 Gramoxone 2L @ 3 pts/A + Tricor 4L @ 8 oz/A + NIS @ 0.25% v/v



09/24/21
Day of Application



10/22/21 28 Days After Treatment (strips left on purpose as checks)

## Special Problems



### Imazapyr/Triclopyr Contamination – Drone Application



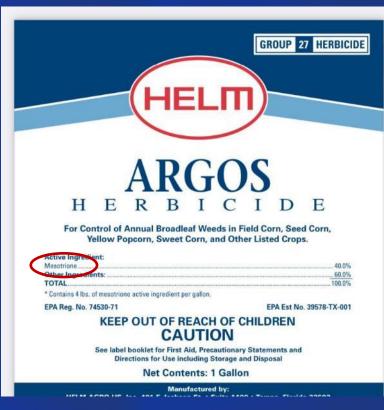


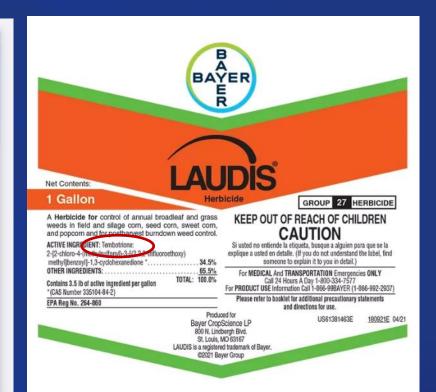


Triclopyr = 0.01 mg/kgImazapyr =  $3.8 \mu\text{g/kg}$ 

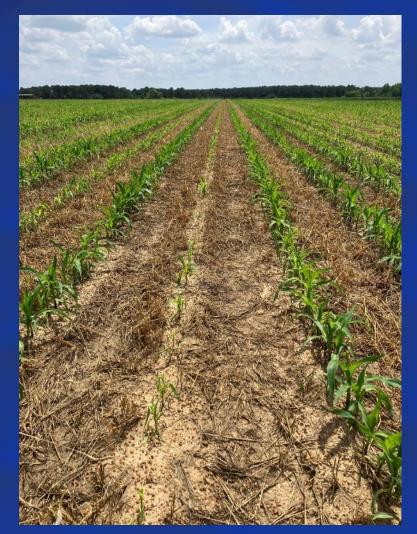
# Name Recognition? Counter INFR







### Reflex (fomesafen) Carryover on Field Corn





#### ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after applying Reflex Herbicide at directed rates:

Rotational Crops	Planting Time From Last Reflex Herbicide Application
Bean, Dry Bean, Snap Cotton Potato Soybean Soybean, Succulent (edamame)	0 months
Bean, Lima Pea, Succulent Peanut Small Grains including Wheat, Barley, Rye	4 months
Corn, Field Corn, Seed Corn, Sweet <sup>5</sup> Pepper (transplanted) <sup>1</sup> Popcorn <sup>4</sup> Pumpkin <sup>2</sup> Rice Tomato (transplanted) <sup>1</sup> Watermelon <sup>2</sup>	10 months
Bean, Succulent (other than edamame, snap bean and lima bean) Cantaloupe <sup>2</sup> Cucumber <sup>2</sup> Edible-podded beans and peas not otherwise specified in this table Eggplant Pea, Dry Pepper, (direct-seeded) Squash <sup>2</sup> Sweet Potato Tomato (direct-seeded)	12 months
Sorghum <sup>3</sup>	18 months
All other crops not listed above	18 months

<sup>&</sup>lt;sup>1</sup> 4 months in Region 1 <sup>2</sup> 8 months in Region 1

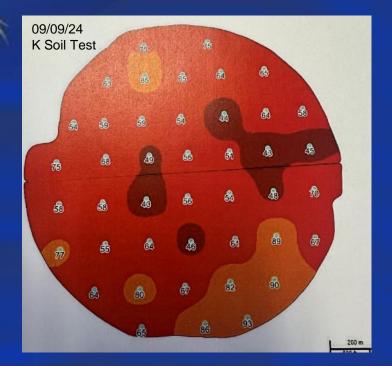
Restriction: DO NOT graze rotated small grain crops for harvest forage or straw for livestock.

<sup>&</sup>lt;sup>3</sup> 10 months in Region 1

<sup>&</sup>lt;sup>4</sup> 12 months in the states of Ohio, Kentucky, Illinois, Indiana, Iowa, and Regions 4 and 4a when applied at rates of

<sup>&</sup>lt;sup>5</sup> 18 months in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont

### Field Corn/Potash – 2025 Integra 6410





Riden Soil & Fertility 343 Pleasant Grove Church Rd. Poulan, GA 31781 Phone: 229-776-5392

Soil Analysis Report

Jun 30, 2025 11:07 AM 1 of 1

SAMPLE DATE	BARCODE	FIELD#	PHOSPHOI (lbs/a)	RV.	POTASSIUM (lbs/a)	M	(lbs/a)	CALCIUM (lbs/a)	ZINC (lbs/a)	MANGANESE (lbs/a)	COPPER (lbs/a)	WATER pH	BUFFER pH	LIME RECOMMEND (tns/a)
06/27/2025		JACKSON/BAD/1	135		27		96	1212	16.8	33	6.1	6.3		0.00
06/27/2025		JACKSON/GOOD/1	147		47		145	1304	16.4	29	5.6	6.4		0.00
06/27/2025		JACKSON/BAD/2	127		27		85	1182	15.9	33	5.8	6.3		0.00
06/27/2025		JACKSON/GOOD/2	144	V	34		70	1223	17.4	36	6.9	6.0		0.50



## Pigweed Symptoms





### **Pigweed Tissue Tests**



#### **Plant Tissue Analysis**

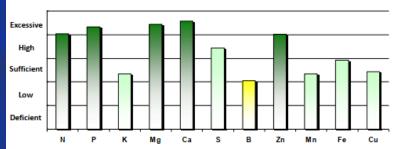
"Improving Growth. With Science"

Waters Agricultural Laboratories, Inc.

257 Newton Hwy | Camilla, GA 31730- | Phone (229) 338-7218

Customer	Sample	Sample ID: SHELLMAN PALMER PIGWEED											
RIDEN SOIL & FERTILITY				Grower:	Grower: NICK CHAMOUN				Received: 7/14/2025				
	FarmID:	FarmID: NICK CHAMOUN				Processed: 7/15/2025							
343 PLEASA	FleidID:					Lab Number: 244511PT							
POULAN, GA 31781-				Crop:	Crop: PEANUTS					Layer ID:			
UNITED STA	TES			Stage:	Stage: EB				Rep. Name:				
Plant Tiss	ue Labor	atory Data	E 244511F	Ť									
Element	N 96	P %	K %	Mg %	Ca %	8 %	B (ppm)	Zn (ppm)	Mn (ppm)	Fe (ppm)	Cu (ppm)		
Result	5.60	0.80	2.18	1.44	3.81	0.41	27	77	142	279	12		

#### **Plant Analysis Ratings**



Plant Ra	Plant Ratios - Actual / Sufficient												
Ratio	N/8	N/K	P/8	P / Zn	K/Mg	K/Mn	Ca/B	Fe / Mn	Ca/K	Ca / Mg			
Actual	13.7	2.6	2.0	103.9	1.5	153.5	1411.1	2.0	1.8	2.7			
Sufficient	13.8	1.7	1.3	93.8	4.3	125.0	382.4	0.9	0.7	3.0			

ote: A soil sample was not submitted with Plant tissue sample, therefore a thorough analysis is not possible. The results and recommendations are based only on the Plant analysis.

Peanut Field

(K = 2.1%)

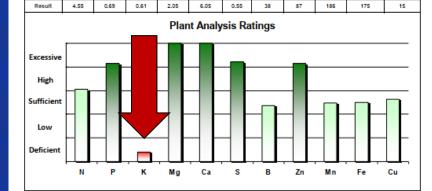


#### **Plant Tissue Analysis**

Waters Agricultural Laboratories, Inc.

267 Newton Hwy | Camilla, GA 31730- | Phone (229) 338-7216

Customer	932			Sample	ID: SHEL	LMAN P	ALMER B/	AD					
RIDEN SOIL	& FERTILIT	Y		Grower: NICK CHAMOUN FarmID: NICK CHAMOUN					Received: 7/14/2025 Processed: 7/15/2025				
343 PLEASA	NT GROVE	CHURCH RE	)	FieldID:					Lab Number: 244512PT				
	POULAN, GA 31781- UNITED STATES								Layer ID: Rep. Name:				
Plant Tiss	ue Labora	atory Data	: 244512F	Ή									
Element	N %	P %	K %	Mg %	Ca %	8 %	B (ppm)	Zn (ppm)	Mn (ppm)	Fe (ppm)	Cu (ppm)		



Plant Ratios - Actual / Sumicient										
Ratio	N/8	N/K	P/8	P / Zn	K/Mg	K/Mn	Ca / B	Fe / Mn	Ca/K	Ca / Mg
Actual	8.3	7.5	1.3	79.3	0.3	32.8	1592.1	0.9	9.9	3.0
Sufficient	13.8	1.7	1.3	93.8	4.3	125.0	382.4	0.9	0.7	3.0
Recomm	endation (	`omments								

The following Plant nutrient levels are low, deficient or borderline: Potassium

- Apply 30 lbs of Potassium per acre. Note: Be sure to apply 400-500 lbs, gypsum if potassium is applied to inhibit any pod-not problems. -Above applications should be made only if crop is NOT within 30 days of maturity. If more than one foliar application is made, suggest that 1/2 be applied now and 1/2 5-7 days leter. Use only material approved for follar application.

> Corn Field (Bad) K = 0.61%



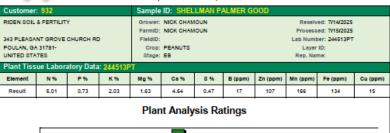
"Improving Growth.

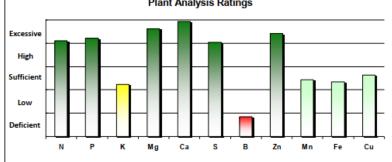
With Science"

#### **Plant Tissue Analysis**

Waters Agricultural Laboratories, Inc. 257 Newton Hwy | Camilla, GA 31730- | Phone (229) 338-7216

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Plant Ratios - Actual / Sufficient												
Ratio	N/8	N/K	P/8	P / Zn	K/Mg	K/Mn	Ca/B	Fe / Mn	Ca/K	Ca / Mg		
Actual	12.8	3.0	1.6	68.2	1.3	122.3	2729.4	0.8	2.3	2.9		
Sufficient	13.8	1.7	1.3	93.8	4.3	125.0	382.4	0.9	0.7	3.0		
Recomm	Recommendation Comments											

- Apply 2 libs. of solubor per acre, application should be applied as a foliar spray in a minimum of 25 gallons per acre of water or applied through intgation. - Above applications should be made only if crop is NOT within 30 days of maturity. If more than one foliar application is made, suggest that 1/2 be applied now and 1/2 5-7 days later. Use only material approved for follar application.

Corn Field (Good) K = 2.03%

## Questions/Comments?



