



## Caparol® (prometryn) or Reglone® (diquat) for Weed Control in Peanut??

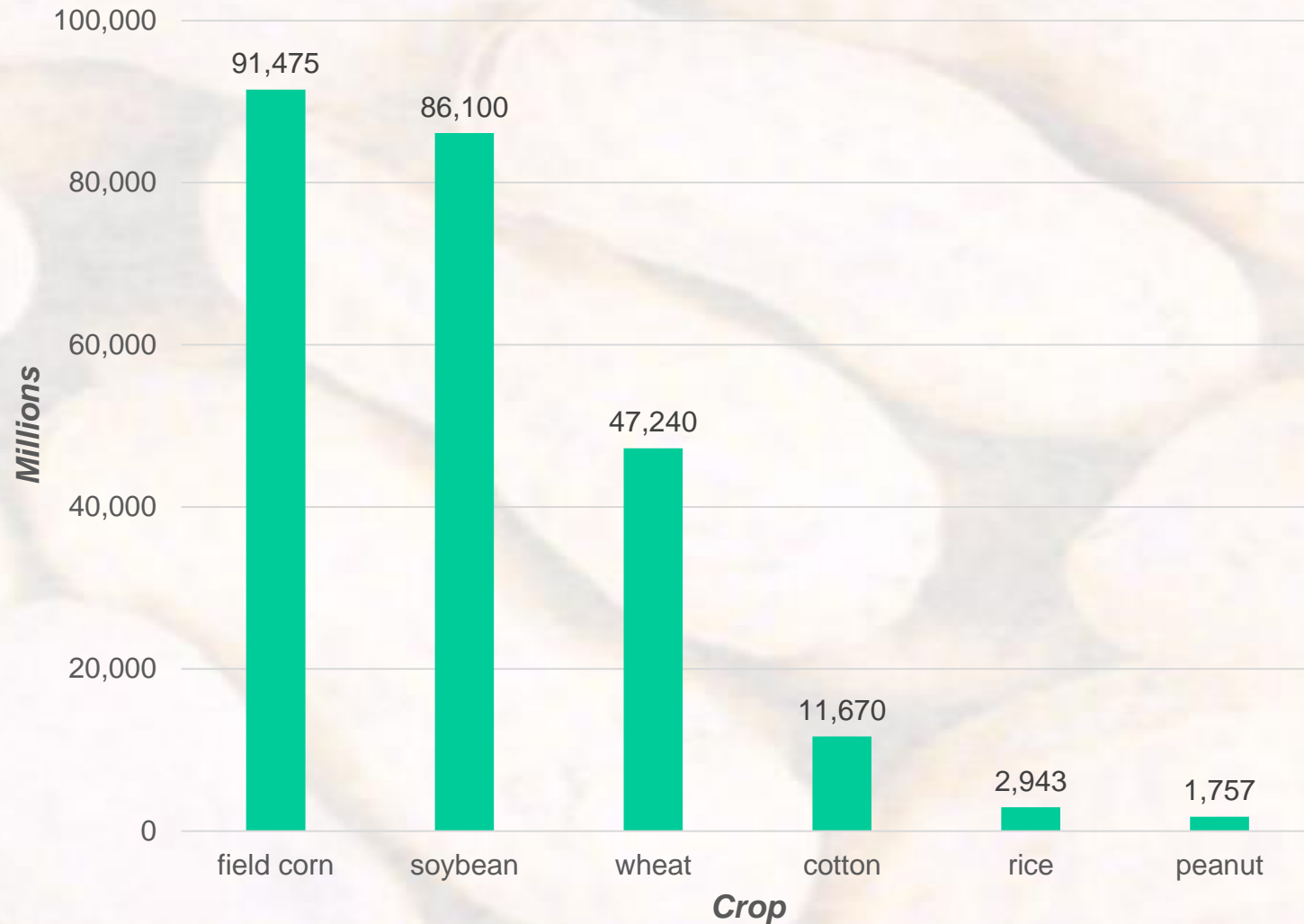
Eric P. Prostko\* and Nick J. Shay  
University of Georgia  
Dept. Crop & Soil Sciences





# U.S. Row Crop Production – 2024

## *Acres Planted*





# Peanut Herbicide History

## *Since the 1980's*

- Dual - 1980
- Poast - 1985
- **Premerge/Dinitro/  
Dyanap (dinoseb) was  
cancelled in 1986**
- Sonalan - 1988
- Classic - 1988
- Paraquat - 1988
- **Lasso (alachlor)  
Issues - 1991**
- Pursuit - 1991
- Zorial/Solicam - 1993
- Tough - 1992
- Select - 1996
- Cadre - 1996
- Frontier - 1996
- Dual Magnum - 1997
- Outlook - 1999
- Strongarm - 2000
- Valor - 2001
- Spartan - 2003
- Cobra - 2005
- Fusilade - 2009
- Warrant - 2014
- Zidua - 2017
- Anthem Flex - 2020
- Brake - 2023
- Rexovor - ??????????
- Liberty - ??????????



# The Future of Herbicides?



## 'Burns me to a crisp': Farmers allege link between popular herbicide paraquat and Parkinson's disease

Internal documents show the manufacturer has been aware of concerns for decades.

By [Cho Park](#) and [Jared Kofsky](#)  
November 28, 2023, 11:09 AM



FREE CASE EVALUATION: **800-553-8082**

### Lawsuit Information Center

LATEST NEWS & UPDATES ON CLASS ACTION LAWSUITS & PERSONAL INJURY SETTLEMENTS

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**MARCH 1, 2024**

#### Monsanto Roundup Lawsuit Update

by [Ronald V. Miller, Jr.](#)

📄 | [f](#) | [in](#)

In this post, our Roundup lawyers will give you:

1. an update on where things stand in the Roundup class action lawsuit in December 2023 (including updates from the last four trials, including the new **\$1.5 billion verdict** on November 20, 2023, and the **latest \$2.25 billion verdict in Philadelphia on January 26, 2024**).
2. the likely direction the Roundup litigation will likely take moving forward, and
3. the expected future settlement amounts in the Bayer Roundup lawsuit (Phase 2)

#### 40,000 Roundup Cases Left... and Counting

As of January 2024, Monsanto has reached settlement agreements in nearly 100,000 Roundup lawsuits. Monsanto paid approximately \$11 billion. Bayer has accomplished this by negotiating block settlement arrangements with plaintiffs' lawyers who have significant cases in the litigation... and by settling with plaintiffs before trial.

Although these settlements account for nearly 80% of all pending Roundup claims, over 40,000 active Roundup

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**800-553-8082**

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Email

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Message

I understand that submitting this form does not create an attorney-client relationship. I also understand that Miller & Zois works with multiple law firms on these claims and that I may be contacted by an affiliated law firm working with Miller & Zois on these lawsuits.

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Environment ▶ Climate crisis | Wildlife | Energy | **Pollution** | Green light

**America's dirty divide** This article is more than 1 year old  
US news

## 'Disturbing': weedkiller ingredient tied to cancer found in 80% of US urine samples

**CDC study finds glyphosate, controversial ingredient found in weedkillers including popular Roundup brand, present in samples**

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**OPEN SOCIETY FOUNDATIONS**

About this content  
**Carey Gillam**

An advertisement for the Kia EV9 electric vehicle, showing the car in a dark setting with the text "The Kia EV9 is here. Electric like you've never seen."





# PPO-Resistance (PRE and POST) Has Recently Been Confirmed in Georgia (Randell-Singleton et al. 2024)

Weed Technology

www.cambridge.org/wet

## Research Article

**Cite this article:** Randell-Singleton T, Hand LC, Vance JC, Wright-Smith HE, Culpepper AS (2024) Confirming resistance to PPO-inhibiting herbicides applied preemergence and postemergence in a Georgia Palmer amaranth population. *Weed Technol.* **38**(e23), 1–10. doi: 10.1017/wet.2024.12

Received: 22 June 2023  
Revised: 20 October 2023  
Accepted: 7 February 2024

**Associate Editor:**  
R. Joseph Wuertel, Syngenta

### Nomenclature:

Acifluorfen; flumioxazin; fomesafen; lactofen; oxyfluorfen; trifludimoxazin; Palmer amaranth; *Amaranthus palmeri* S. Watson; cotton; *Gossypium hirsutum* L.; peanut, *Arachis hypogaea* L.; soybean, *Glycine max* (L.)

### Keywords:

Herbicide resistance; residual herbicides; postemergence herbicide applications

### Corresponding author:

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Email: trandell@uga.edu

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## Confirming resistance to PPO-inhibiting herbicides applied preemergence and postemergence in a Georgia Palmer amaranth population

Taylor Randell-Singleton<sup>1</sup>, Lavesta C. Hand<sup>2</sup>, Jenna C. Vance<sup>3</sup>, Hannah E. Wright-Smith<sup>4</sup> and A. Stanley Culpepper<sup>5</sup>

<sup>1</sup>Graduate Research Assistant, Department of Crop and Soil Science, University of Georgia, Tifton, GA, USA; <sup>2</sup>Assistant Professor, Department of Crop and Soil Science, University of Georgia, Tifton, GA, USA; <sup>3</sup>Research Professional, Department of Crop and Soil Science, University of Georgia, Tifton, GA, USA; <sup>4</sup>Assistant Professor, Department of Horticulture, University of Arkansas, Little Rock, AR, USA and <sup>5</sup>Professor, Department of Crop and Soil Science, University of Georgia, Tifton, GA, USA

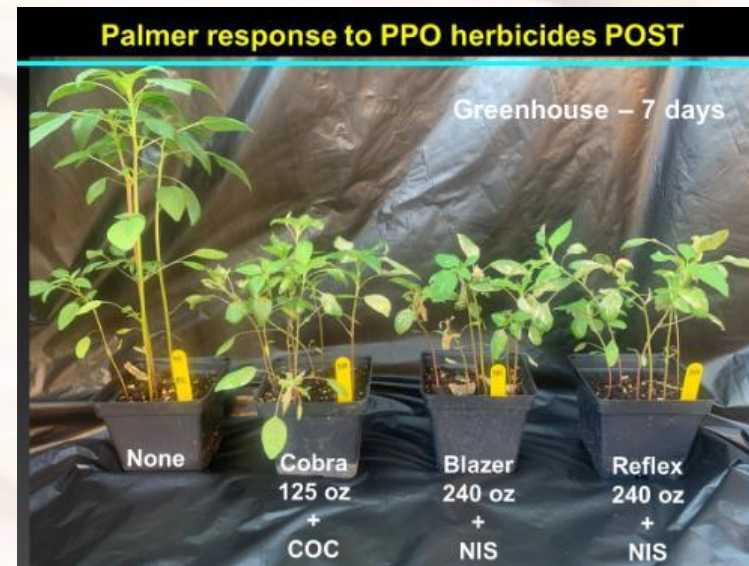
### Abstract

Herbicides that inhibit protoporphyrinogen oxidase (PPO) are used in more than 40 agronomic and specialty crops across Georgia to manage weeds through residual and postemergence (POST) control. In 2017, a population of Palmer amaranth exhibiting reduced sensitivity to POST applications of PPO-inhibiting herbicides was identified by the University of Georgia. Seed were collected from the site along with a known sensitive population; distance between the samples was 200 m, increasing the likelihood of similar environmental and genetic characteristics. To quantify sensitivity for both preemergence (PRE) and POST uses, 21 greenhouse dose-response assessments were conducted from 2017 to 2022. After conducting initial rate-response studies, 13 doses per herbicide were chosen for the POST experiment; field use rates of fomesafen (420 g ai ha<sup>-1</sup>), lactofen (219 g ai ha<sup>-1</sup>), acifluorfen (420 g ai ha<sup>-1</sup>), and trifludimoxazin (25 g ai ha<sup>-1</sup>) ranging from 0x to 4x the field use rate for the susceptible population, and 0x to 40x for the suspect population were applied. Herbicide treatments included adjuvants and were applied to plants 8 to 10 cm in height. Relative resistance factors (RRFs) were calculated for control ratings, mortality, and biomass, and ranged from 105 to 318, 36 to 1,477, 215 to 316, and 9 to 49 for fomesafen, lactofen, acifluorfen, and trifludimoxazin, respectively. In the PRE experiment, herbicide applications included five to nine doses of fomesafen (1x = 210 g ai ha<sup>-1</sup>), flumioxazin (1x = 57 g ai ha<sup>-1</sup>), oxyfluorfen (1x = 561 g ai ha<sup>-1</sup>), and trifludimoxazin (1x = 38 g ai ha<sup>-1</sup>); doses ranged from 0x to 6x for the suspect population and 0x to 2x for the susceptible population. Visual control, mortality, and biomass RRFs ranged from 3 to 5 for fomesafen, 21 to 31 for flumioxazin, 6 to 22 for oxyfluorfen, and 8 to 38 for trifludimoxazin. Results confirm that a Georgia Palmer amaranth population is resistant to PPO-inhibiting herbicides applied both PRE and POST.

### Introduction

A familiar pest to many farmers and weed scientists, Palmer amaranth is a persistent weedy presence across U.S. agronomic and specialty crops. Native to the arid southwestern U.S. and northern Mexico, populations have spread beyond these regions through expansion of crop landscapes and movements associated with modern agriculture (Roberts and Florentine 2022; Steckel 2007; Ward et al. 2013; Webster and Nichols 2012). Palmer amaranth was first noted outside its native habitat in 1915 in Virginia, and as of 2020, its presence has been documented in at least 27 of the 48 continental U.S. states (USDA-APHIS 2020). By 2022, 28 states reported that Palmer amaranth was one of the most common and troublesome weeds in agronomic or vegetable cropping systems (Van Wychen 2022).

The physiological and biological characteristics of Palmer amaranth have contributed to its rapid spread across regions, along with its rise as an impactful weed of agriculture production. As a dioecious and highly fecund species, possessing the ability to produce 600,000 seeds per plant, Palmer amaranth is a significant contributor to the soil weed seed bank (Keeley et al. 1987; Ward et al. 2013; Webster and Grey 2015). Seedlings rapidly emerge when favorable conditions arise and quickly complete their life cycle in response to changing environmental conditions (Ehleringer 1985; Jha et al. 2010a,b; Kistner and Hatfield 2018; Steckel et al. 2004). Once established, Palmer amaranth plants are extremely competitive with crop plants for resources (sunlight, water, nutrients, space, pollinating insects) through high photosynthetic rates, fast vegetative growth, diageotropism, and prolific root production (Capinera 2005;



## PRE Flumioxazin 3X on Problematic Population



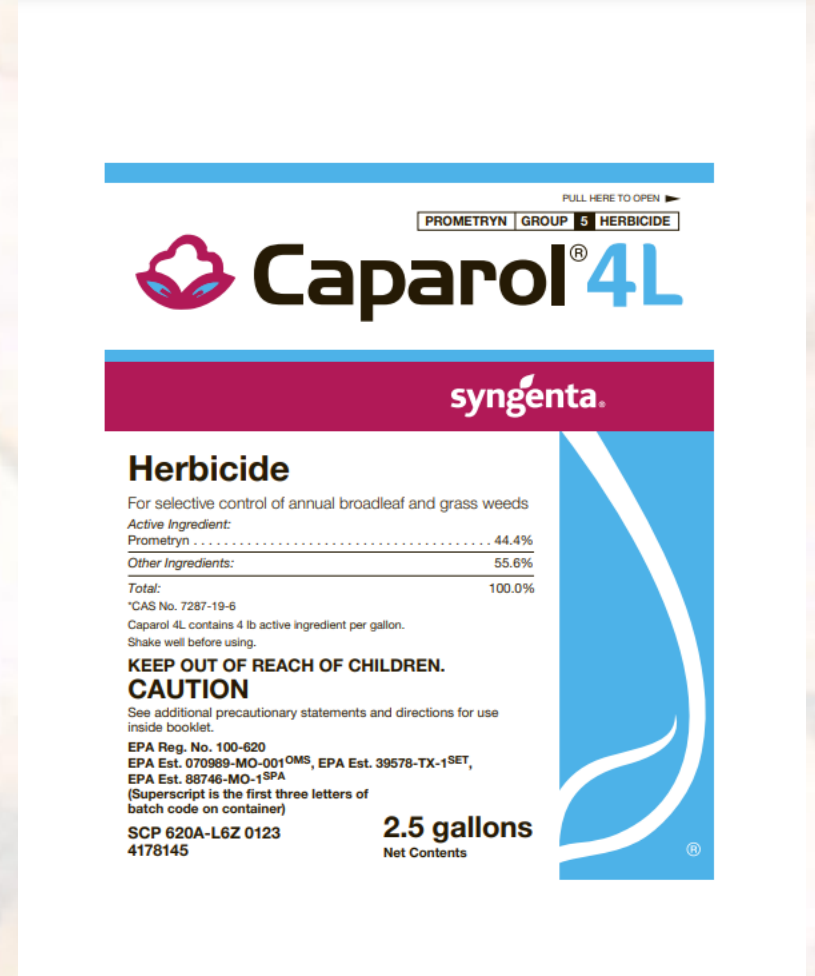
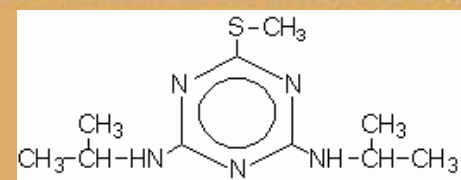
## PRE Fomesafen 3X on Problematic Population





# Caparol®

- Prometryn
- Commercially available in cotton in 1964
- Same herbicide family as atrazine
  - *Triazine*
- HRAC/WSSA Group 5
  - *PSII-Inhibitor*
- Peanut label in other countries?
  - *Australia*
- **2024 Prices**
  - *Caparol 4L @ 32 oz/A (~\$10) vs. Valor EZ 4SC @ 3 oz/A (~\$12)*





**CAUTION**

KEEP OUT OF REACH OF CHILDREN  
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

OzCrop

**Prometryn 900 WG****HERBICIDE**

ACTIVE CONSTITUENT: 900 g/kg PROMETRYN

GROUP **C** HERBICIDE

*Controls early competing weeds in carrots, chickpeas, cotton, peanuts, potatoes, sunflowers and other crops as per Directions for Use table.*

PACK SIZES:

**10 kg, 15 kg**

**NOT A DANGEROUS GOOD  
ACCORDING TO THE  
AUSTRALIAN DANGEROUS  
GOODS (ADG) CODE.**

**CMS Trade Pty. Ltd.**

ABN 35 086 927 157  
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Bondi Junction NSW 2022

TEL: 02 9369 5724

**OzCrop**

CROP & SITUATION	WEEDS CONTROLLED	STATE	RATE/HA	CRITICAL COMMENTS
<b>Peanuts</b> (pre-emergent)	Bladder Ketmia, Caltrop (Yellow Vine), Common Thornapple, Green Amaranth, Pigweed, Redroot Amaranth and suppression of Bellvine	Qld only	1.6-2.2 kg	Apply onto bare moist soil, at or within 2 to 3 days of sowing. Rainfall or irrigation is required to move the herbicide into the weed root zone. Sufficient rain or irrigation to thoroughly wet the soil through the weed root zone should be made or occur within 10 days of spraying. Use rates towards the higher end of the range on heavy soils. Use rates towards the lower end of the scale on lighter soils.
<b>Perennial Grass Seed Crops</b> Sirocco, Phalaris, Demeter Fescue, Currie Cocksfoot, Medea Ryegrass 3 to 6 leaf stage	<b>Less than 4 true leaves:</b> Amaranth (Powell's, Slim and Redroot), Amsinckia, Blackberry Nightshade, Capeweed, Chickweed, Corn Spurry, Corn Gromwell, Fumitory (Common White and Dense Flowered), Fat Hen, Lesser Nettle, Mountain Sorrel, Rough Poppy, Three-cornered Jack	NSW, Vic, SA, WA only	610 g to 1.2 kg	Spray when weeds are young and actively growing. Use the higher rate on heavy soils and for Three-cornered Jack. DO NOT use more than 1.1 litres per ha on Medea Ryegrass.
<b>Perennial Ryegrass Seed Crops</b> 3 to 6 leaf stage		Tas only		
<b>Potatoes</b> prior to emergence of the crop	<b>Less than 4 true leaves and pre-emergent:</b> Amsinckia, Blackberry Nightshade, Capeweed, Charlock, Chickweed, Corn Gromwell, Corn Spurry, Deadnettle, Fat-hen, Fumitory (Common, White and Dense Flowered), Hedge Mustard, Hexham Scent, Indian Hedge Mustard, Lesser Nettle, Mountain Sorrel, Powell's Slim and Redroot Amaranth, Rough Poppy, Threecornered Jack, Wild Radish <b>Pre-emergent:</b> suppression of Annual Ryegrass, Prairie Grass, Barnyard Grass and Summer Grass	Qld, NSW, Vic, Tas, WA only	1.3 to 1.8 kg	Apply in the late Autumn and Winter. Spray when weeds are actively growing. Use the lower rate on light soils and the higher rate on heavy soils.
<b>Sunflowers</b> (pre-emergent)	Bladder Ketmia, Caltrop (Yellow Vine), Green Amaranth, Morning Glory, Pigweed, Redroot Amaranth	Southern Qld, NSW only	1.6- 2.2 kg	Apply onto bare moist soil, at or within 2 to 3 days of sowing. Rainfall or irrigation is required to move the herbicide into the weed root zone. Sufficient rain or irrigation to thoroughly wet the soil through the weed root zone should be made or occur within 10 days of spraying. Use rates towards the higher end of the range on heavy soils. Use rates towards the lower end of the scale on lighter soils. Severe injury may result if heavy rain occurs between pre-emergence application and crop emergence.

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THE LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION.**

**WITHHOLDING PERIODS:**

**CHICKPEAS:**

**DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 9 WEEKS AFTER APPLICATION.**

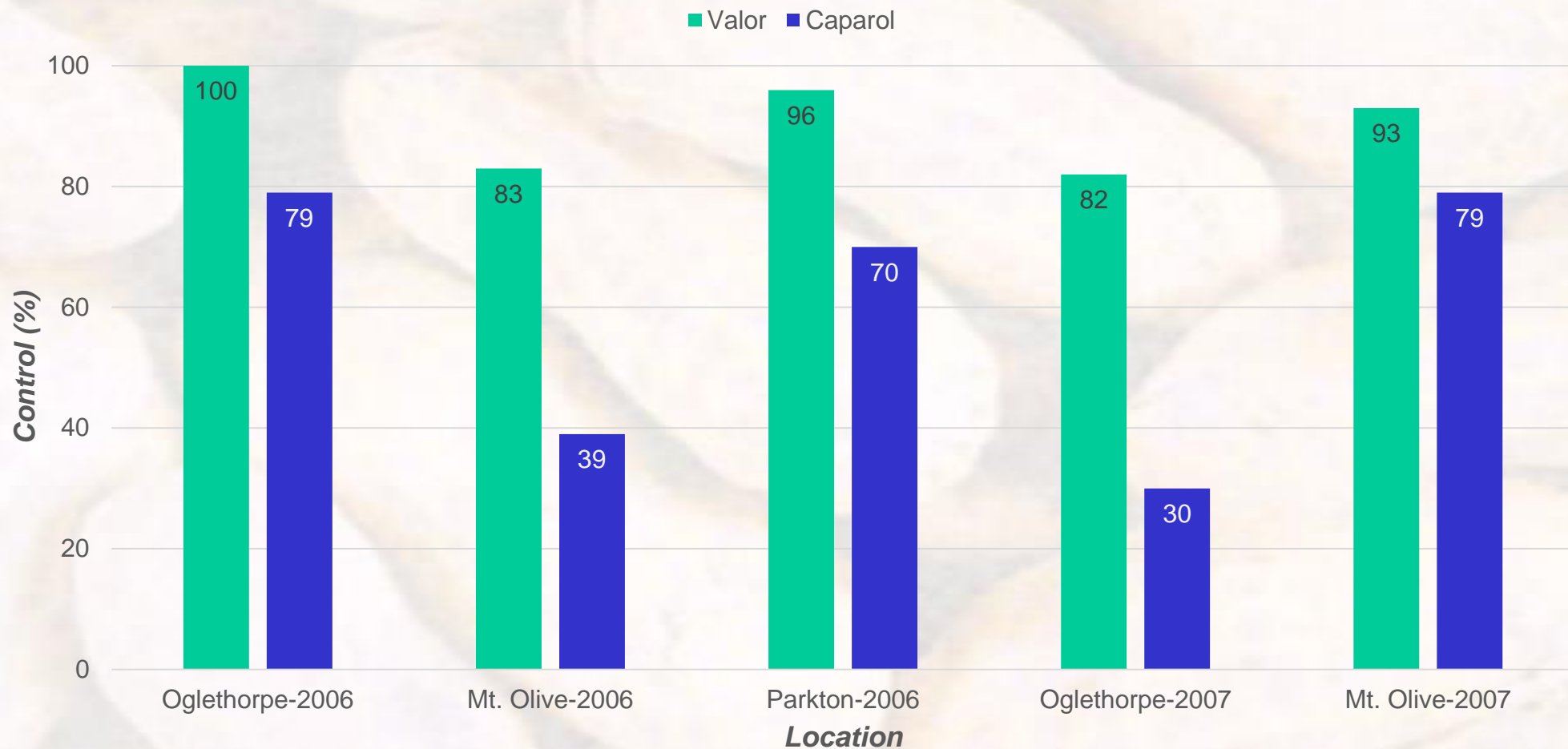
**CARROTS, CELERY, COTTON, PASTURES, PEANUTS, PERENNIAL SEED CROPS, POTATOES, SUNFLOWERS:**

**NOT REQUIRED WHEN USED AS DIRECTED.**



## Caparol® and Pigweed?

### Palmer Amaranth Control - 20 DAT\*



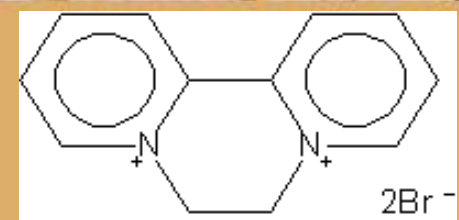
\*Source: Whitaker et al. 2011. *Journal of Cotton Science* 15:89-99.



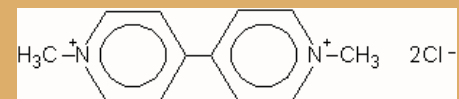


# Reglone®

- Diquat
- Been around since 1955
- Same herbicide family as paraquat
  - *Bipyridilium*
- Harvest Aid/Desiccant
  - *alfalfa, canola, clover, potato, tree/vine/small fruits/vegetables (non-bearing)*
- HRAC/WSSA Group 22
  - *PSI inhibitor*
- **2024 Prices**
  - *Gramoxone 3SL @ 8 oz/A (~\$2) vs. Reglone 2SL @ 12 oz/A (~\$8)*



diquat



paraquat

GROUP 22 HERBICIDE PULL HERE TO OPEN ▶

**Reglone®**  
Desiccant

syngenta.

**TO PREVENT ACCIDENTAL POISONING, NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS AND USE STRICTLY IN ACCORDANCE WITH ENTIRE LABEL**

*Active Ingredient:*  
Diquat dibromide [6,7-dihydrodipyrido (1,2-a:2',1'-c) pyrazinedium dibromide] ..... 37.3%

*Other Ingredients:* ..... 62.7%

*Total:* ..... 100.0%

Reglone Desiccant is formulated as a soluble liquid containing 2 lb diquat cation per gal as 3.73 lb salt per gal.

**KEEP OUT OF REACH OF CHILDREN. CAUTION**

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.)

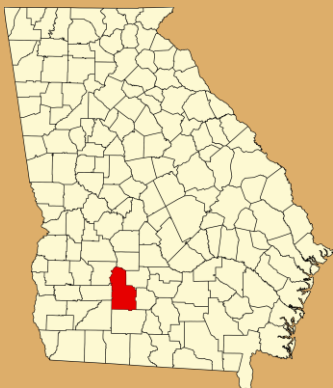
See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1061 EPA Est. 100-LA-001  
Product of United Kingdom  
Formulated in the USA

**2.5 gallons**  
Net Contents

SCP 1061A-L1G 0415 4055494

# Materials and Methods



- **UGA Ponder Farm (Ty Ty)**
  - *small plots, 15 GPA, 11002AIXR tips*
- **2022**
  - *Caparol 4L @ 24, 32, 48 oz/A alone and in tank-mixes*
  - *RCBD, 3 reps*
- **2023**
  - *Repeated 2022 Caparol test*
  - *Reglone 2SL @ 6.4 and 8.6 oz/A compared to Gramoxone 2SL*
    - *Lower rates (oopsy)*
- **ANOVA, P=0.10, Fisher's**





# Results - 2022

FROM THE GROUP OF HERBICIDES

## Caparol® 4L

syngenta.

**Herbicide**  
For selective control of annual broadleaf and grass weeds

Active ingredient:	44.4%
Inert ingredients:	55.6%
Total:	100.0%

Call No. 3857-184  
EPA Reg. No. 102-020  
EPA Est. 38588-AG-001-001, EPA Est. 38576-TX-181\*, EPA Est. 38546-MS-074  
\*Registration in the first three letters of each code as indicated.  
SOP 6204-L6Z 0123  
4/17/20

**2.5 gallons**  
Net Content

**CAUTION**  
See additional precautionary statements and directions for use on each container.

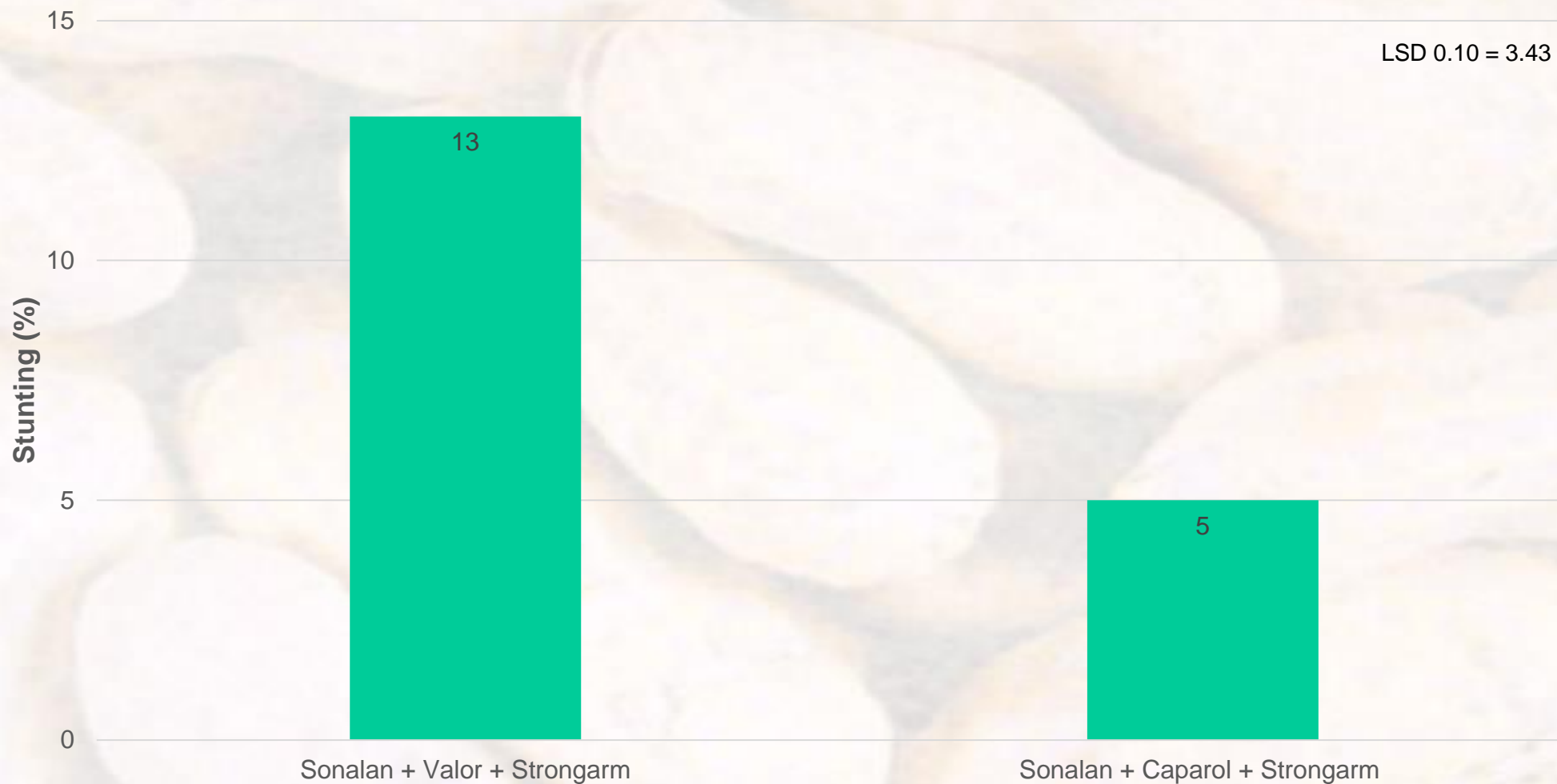
**KEEP OUT OF REACH OF CHILDREN**



Screven Co. 2021



# Peanut Stunting – 2022 (12 DAT)



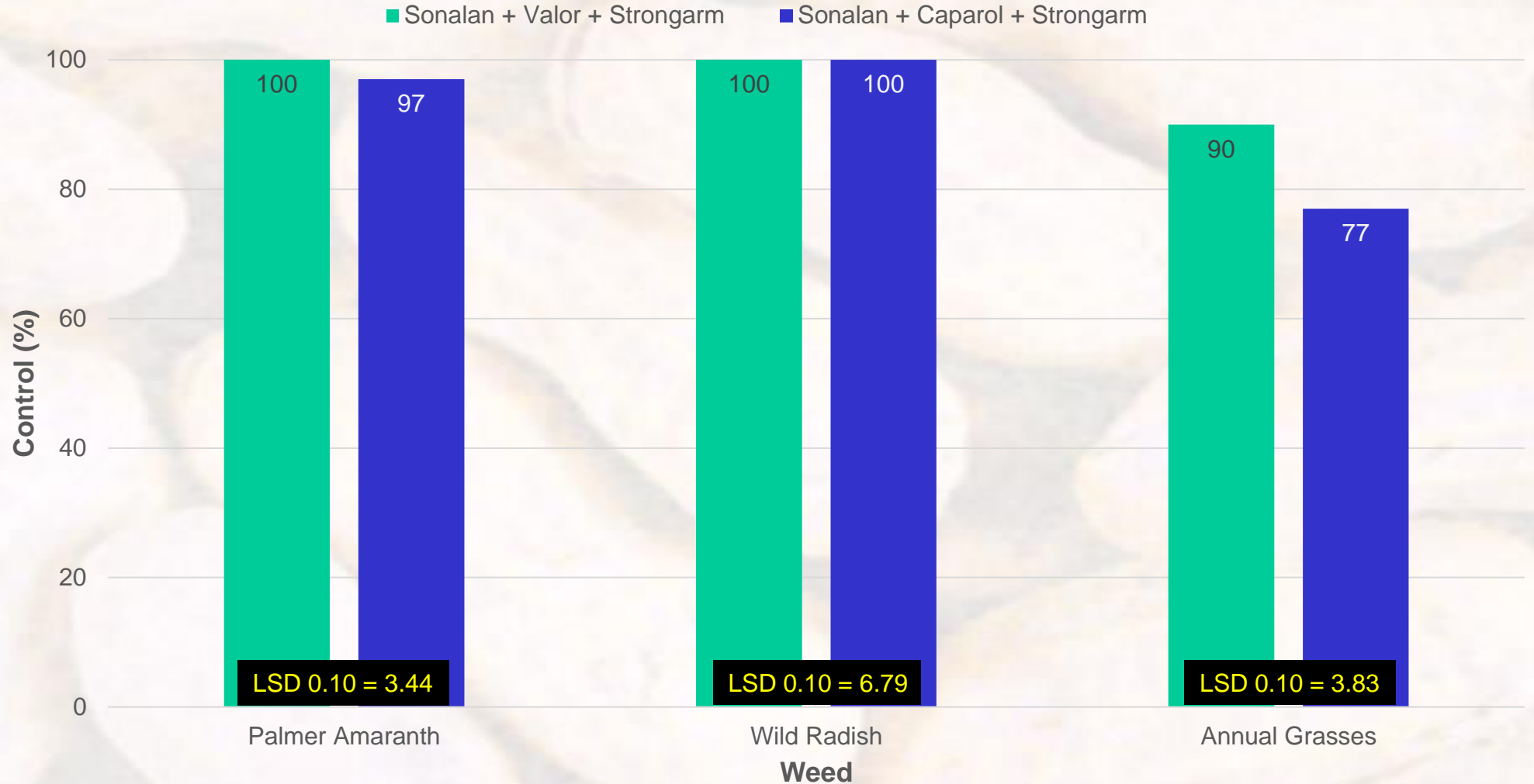
Sonalan HFP 4EC @ 32 oz/A  
Valor EZ @ 3 oz/A  
Strongarm 84WG @ 0.225 oz/A  
Caparol 4L @ 24 oz/A

■ PRE Treatment





# Peanut Weed Control – 2022 (22 DAT)



Sonalan HFP 4EC @ 32 oz/A  
Valor EZ @ 3 oz/A  
Strongarm 84WG @ 0.225 oz/A  
Caparol 4L @ 24 oz/A





# Peanut Weed Control - 2022

*Valor + Strongarm vs. Caparol + Strongarm*



NTC



Sonalan HFP 4EC @ 32 oz/A  
Valor EZ 4SC @ 3 oz/A  
Strongarm 84WG @ 0.225 oz/A  
Applied PRE (1 DAP)



Sonalan HFP 4EC @ 32 oz/A  
Caparol 4L @ 24 oz/A  
Strongarm 84WG @ 0.225 oz/A  
Applied PRE (1 DAP)





# Peanut Weed Control - 2022

## *Valor + Strongarm vs. Caparol + Strongarm*



NTC



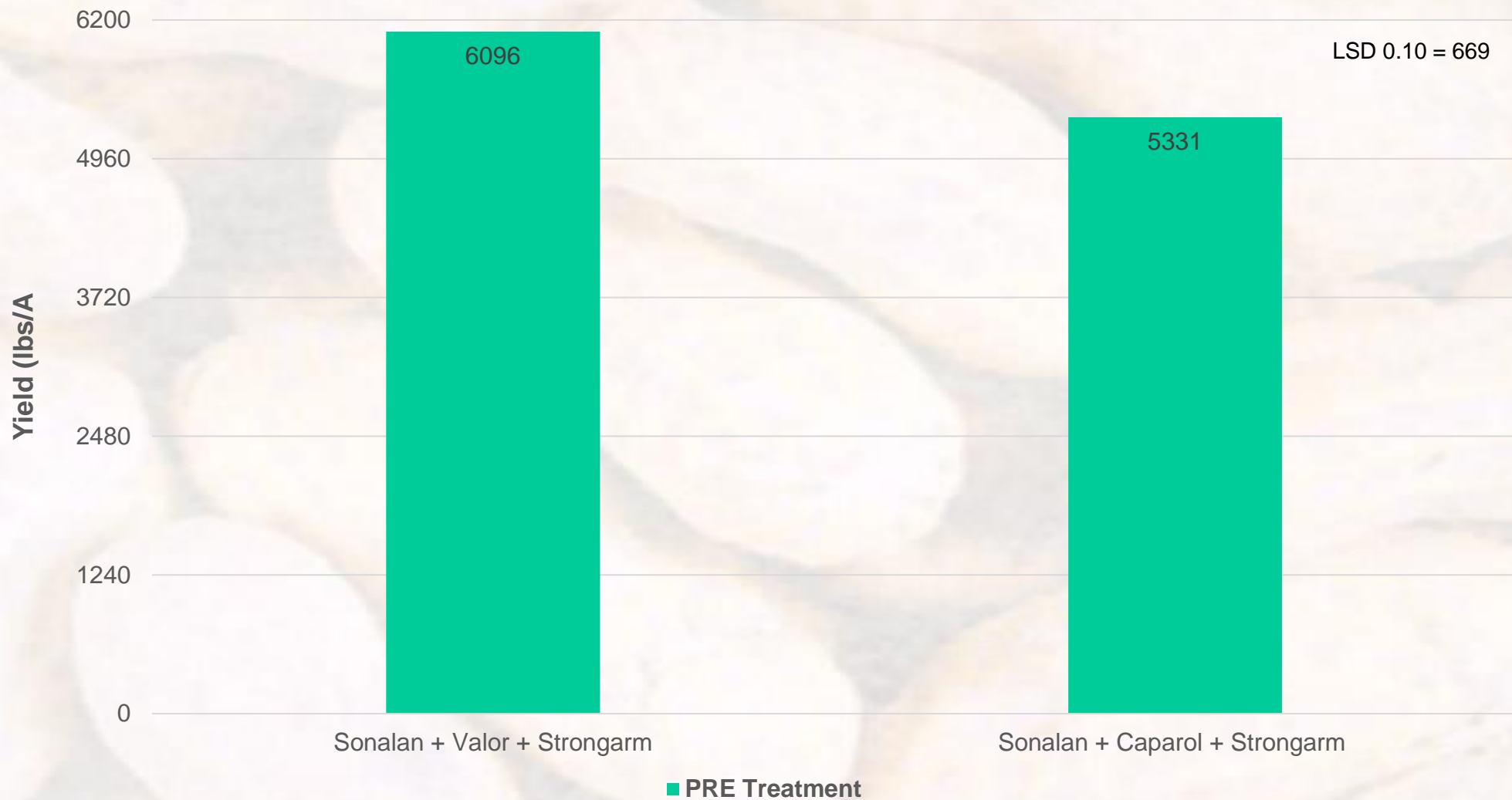
Sonalan HFP 4EC @ 32 oz/A  
**Valor EZ 4SC @ 3 oz/A**  
Strongarm 84WG @ 0.225 oz/A  
**PRE (1 DAP)**  
Cadre 2AS @ 4 oz/A  
2,4-DB 2SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
**POST (27 DAP)**



Sonalan HFP 4EC @ 32 oz/A  
**Caparol 4L @ 24 oz/A**  
Strongarm 84WG @ 0.225 oz/A  
**PRE (1 DAP)**  
Cadre 2AS @ 4 oz/A  
2,4-DB 2SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
**POST (27 DAP)**



# Peanut Yield – 2022



Sonalan HFP 4EC @ 32 oz/A  
Valor EZ @ 3 oz/A  
Strongarm 84WG @ 0.225 oz/A  
Caparol 4L @ 24 oz/A





# Results - 2023

Herbicide

**Caparol<sup>®</sup> 4L**

syngenta.

Herbicide  
For selective control of annual broadleaf and grass weeds.

Active ingredient	44.4%
Inert ingredients	55.6%
Total	100.0%

Call us: 1-800-394-4444  
Always follow the label directions and use caution.  
Read the entire label.


**KEEP OUT OF REACH OF CHILDREN.  
CAUTION**

See additional precautionary statements and directions for use on the label.

EPA Reg. No. 100-000  
EPA Est. 170000-000-0000, EPA Est. 30076-TS-1491,  
EPA Est. 30076-TS-0774  
(Supplemental to the first three letters of each code see website)

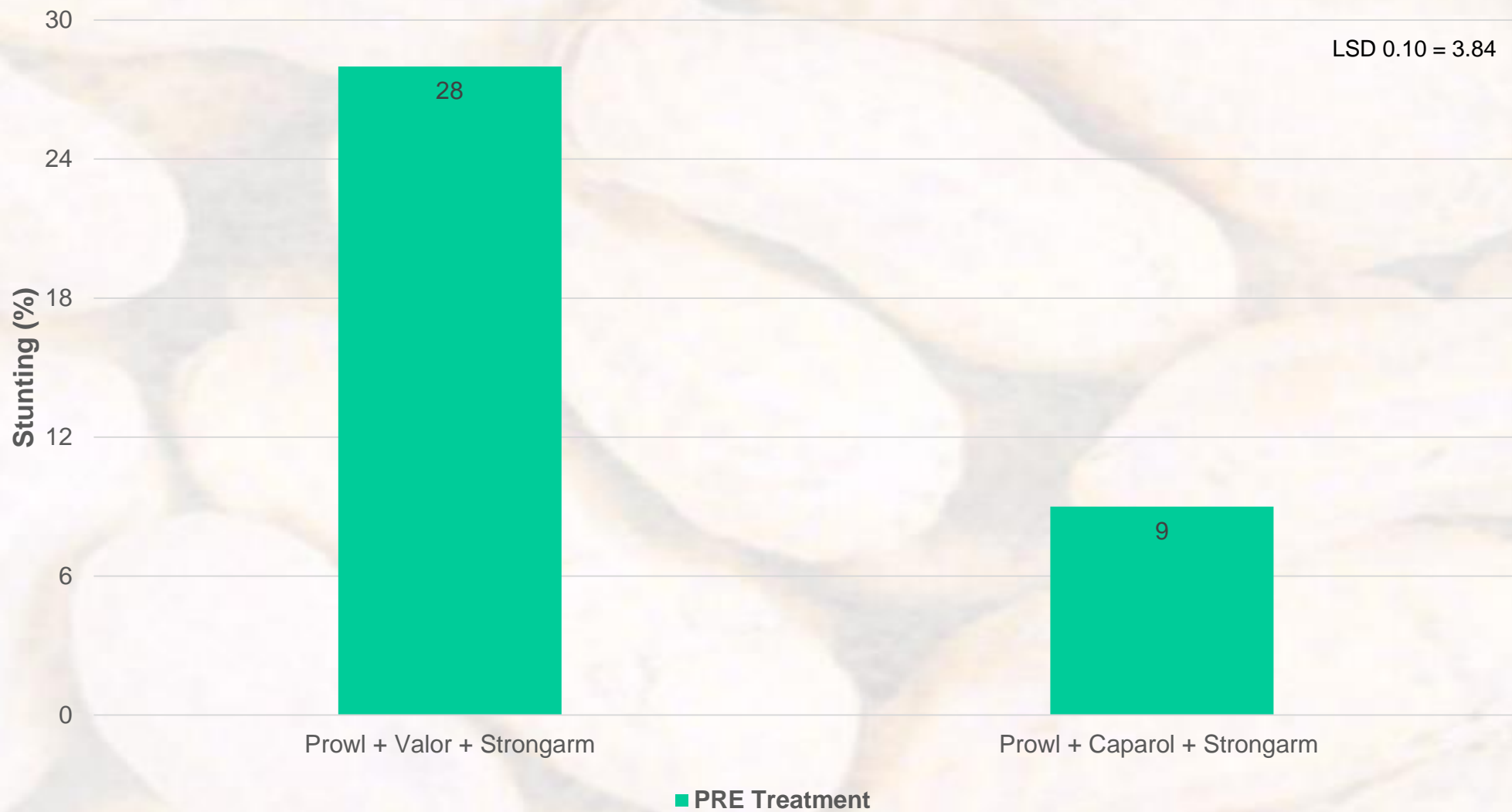
SCF 0204-LAZ 0123  
470346

**2.5 gallons**  
Net Contents





## Peanut Stunting – 2023 (14 DAT)

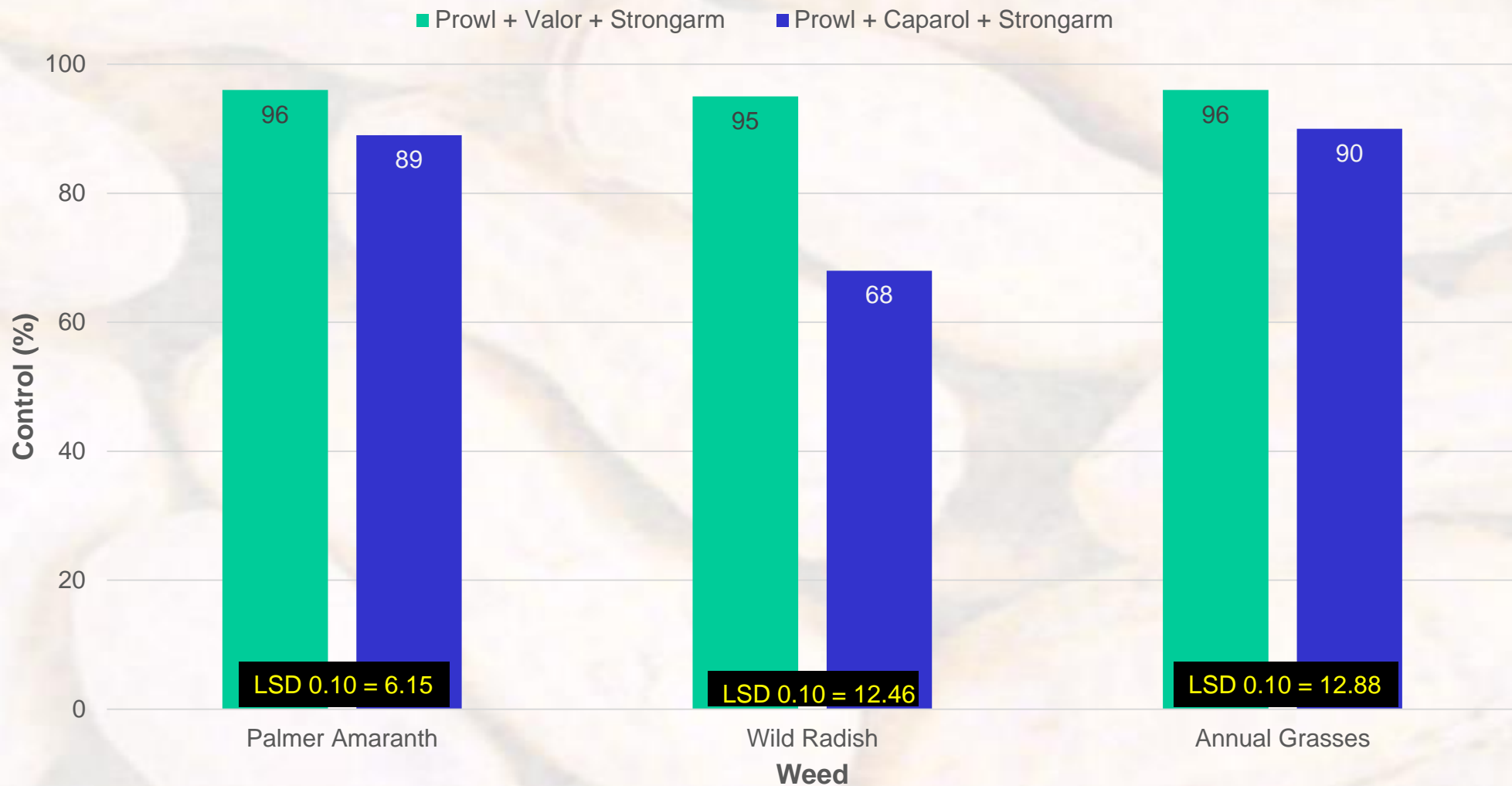


Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A  
Valor EZ @ 3 oz/A  
Strongarm 84WG @ 0.225 oz/A  
**Caparol 4L @ 32 oz/A**





# Peanut Weed Control – 2023 (20 DAT)



Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A  
Valor EZ @ 3 oz/A  
Strongarm 84WG @ 0.225 oz/A  
Caparol 4L @ 32 oz/A



# Peanut Weed Control – 2023

*Valor + Strongarm vs. Caparol + Strongarm*

*1<sup>st</sup> rainfall/irrigation event was 8 DAP (0.5" irrigation)*



NTC



Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A  
**Valor EZ 4SC @ 3 oz/A**  
Strongarm 84WG @ 0.225 oz/A



Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A  
**Caparol 4L @ 32 oz/A**  
Strongarm 84WG @ 0.225 oz/A





# Peanut Weed Control - 2023

## *Valor + Strongarm vs. Caparol + Strongarm*



NTC



Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A  
**Valor EZ 4SC @ 3 oz/A**  
Strongarm 84WG @ 0.225 oz/A  
PRE (1 DAP)  
Cadre 2AS @ 4 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
2,4-DB 2SL @ 16 oz/A  
POST2 (28 DAP)

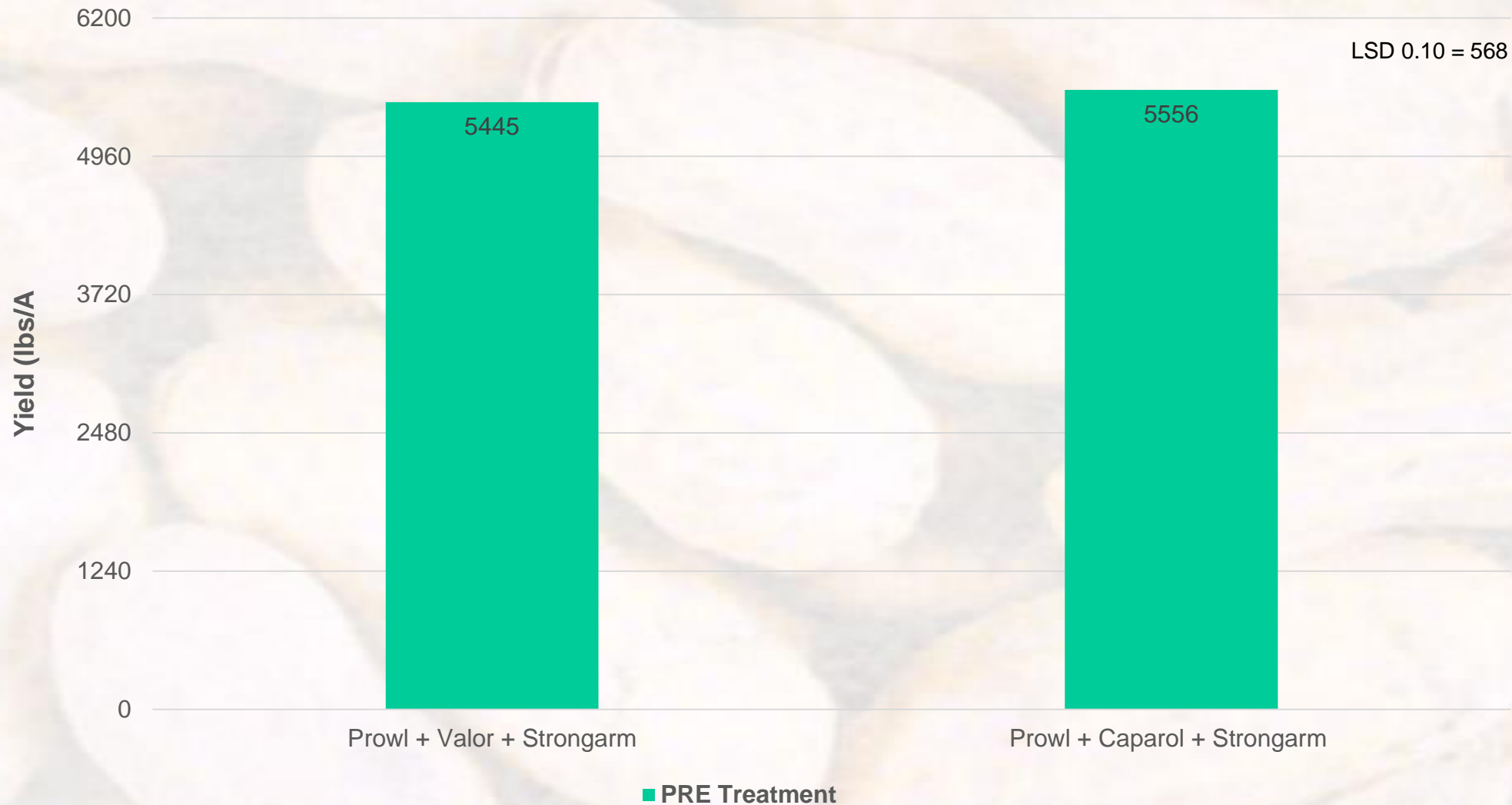


Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A  
**Caparol 4L @ 32 oz/A**  
Strongarm 84WG @ 0.225 oz/A  
PRE (1 DAP)  
Cadre 2AS @ 4 oz/A  
**Cobra 2EC 12.5 oz/A**  
Dual Magnum 7.62EC @ 16 oz/A  
2,4-DB 2SL @ 16 oz/A  
POST1 (22 DAP)

PE-14-23  
June 28  
56 DAP



# Peanut Yield – 2023



Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A  
Valor EZ @ 3 oz/A  
Strongarm 84WG @ 0.225 oz/A  
Caparol 4L @ 32 oz/A



# Reglone®

GROUP 22 HERBICIDE PULL HERE TO OPEN



## Reglone® Desiccant

syngenta.

**TO PREVENT ACCIDENTAL POISONING, NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS AND USE STRICTLY IN ACCORDANCE WITH ENTIRE LABEL**

*Active Ingredient:*

Diquat dibromide [6,7-dihydrodipyrdo (1,2-a:2',1'-c) pyrazinedium dibromide] .....	37.3%
<i>Other Ingredients:</i> .....	62.7%
<i>Total:</i> .....	100.0%

Reglone Desiccant is formulated as a soluble liquid containing 2 lb diquat cation per gal as 3.73 lb salt per gal.

**KEEP OUT OF REACH OF CHILDREN.  
CAUTION**

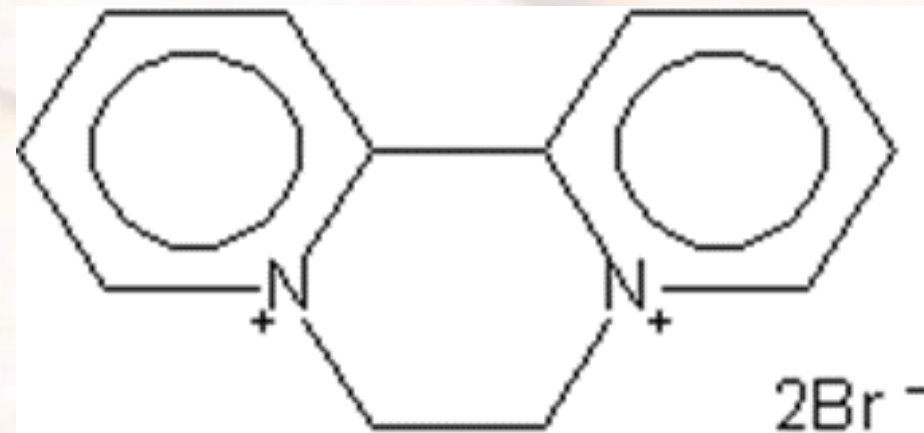
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See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-1061 EPA Est. 100-LA-001  
Product of United Kingdom  
Formulated in the USA

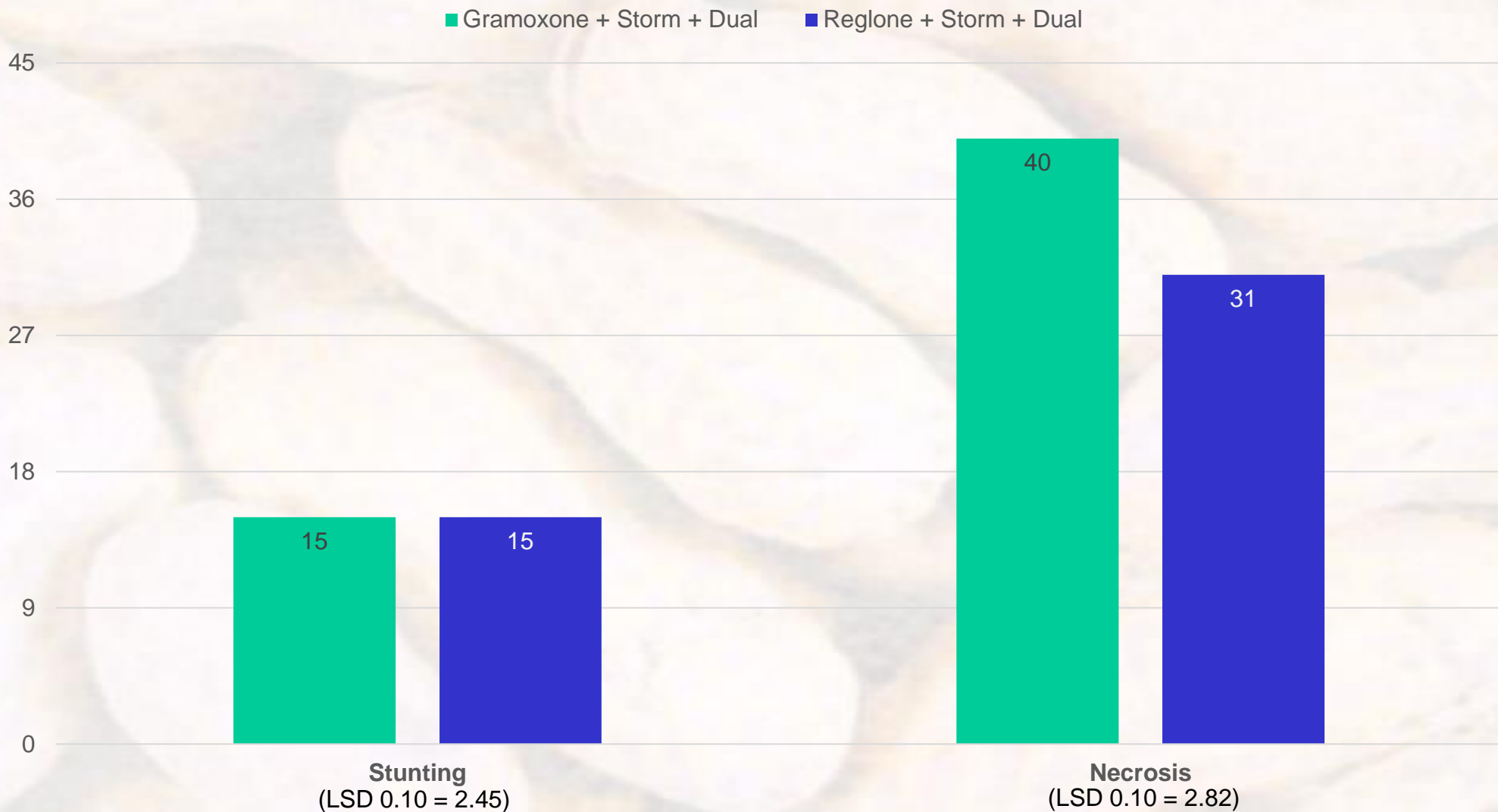
**2.5 gallons**  
Net Contents

SCP 1061A-L1G 0415 4055494





# Peanut Injury (%) – 2023 (2 DAT)



Gramoxone 2SL @ 12 oz/A  
Storm 4SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
Reglone 2SL @ 8.6 oz/A





## Peanut Injury – 2 DAT



NTC



Gramoxone + Storm + Dual Magnum

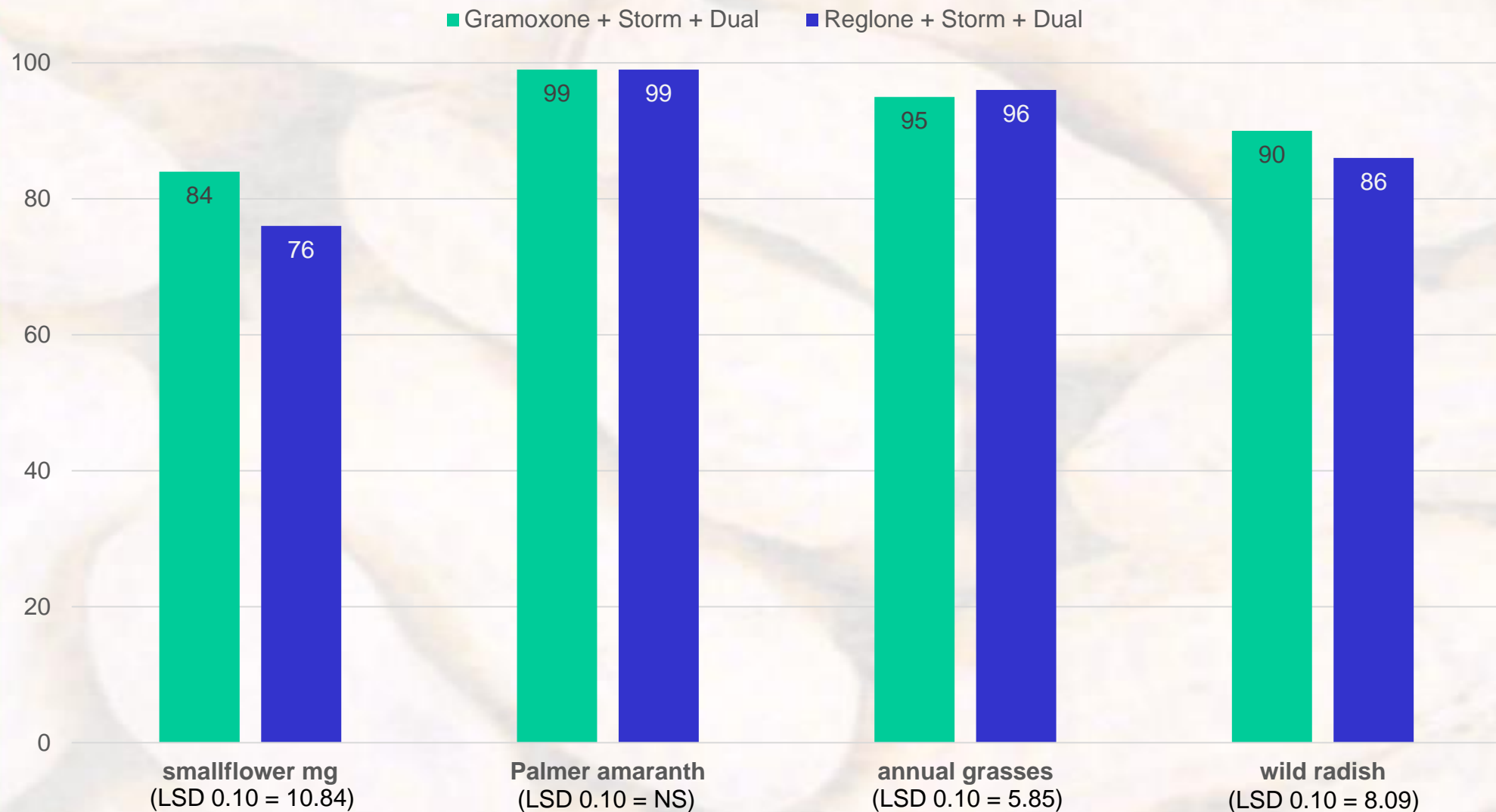


Reglone + Storm + Dual Magnum





# Weed Control (%) – 2023 (8 DAT)



Gramoxone 2SL @ 12 oz/A  
Storm 4SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
Reglone 2SL @ 8.6 oz/A





# Gramoxone vs. Reglone - 2023



**NTC**



**Gramoxone 2SL @ 12 oz/A**  
Storm 4SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
*Applied 13 DAP*  
Cadre 2AS @ 4 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
2,4-DB 2SL @ 16 oz/A  
*Applied 27 DAP*



**Reglone 2SL @ 8.6 oz/A**  
Storm 4SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
*Applied 13 DAP*  
Cadre 2AS @ 4 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
2,4-DB 2SL @ 16 oz/A  
*Applied 27 DAP*

PE-12-23  
June 7  
35 DAP



# Gramoxone vs. Reglone - 2023



**NTC**



**Gramoxone<sup>®</sup> SL 2.0**

**Gramoxone 2SL @ 12 oz/A**

Storm 4SL @ 16 oz/A

Dual Magnum 7.62EC @ 16 oz/A

Applied 13 DAP

Cadre 2AS @ 4 oz/A

Dual Magnum 7.62EC @ 16 oz/A

2,4-DB 2SL @ 16 oz/A

Applied 27 DAP



**Reglone<sup>®</sup>**

**Reglone 2SL @ 8.6 oz/A**

Storm 4SL @ 16 oz/A

Dual Magnum 7.62EC @ 16 oz/A

Applied 13 DAP

Cadre 2AS @ 4 oz/A

Dual Magnum 7.62EC @ 16 oz/A

2,4-DB 2SL @ 16 oz/A

Applied 27 DAP

PE-12-23

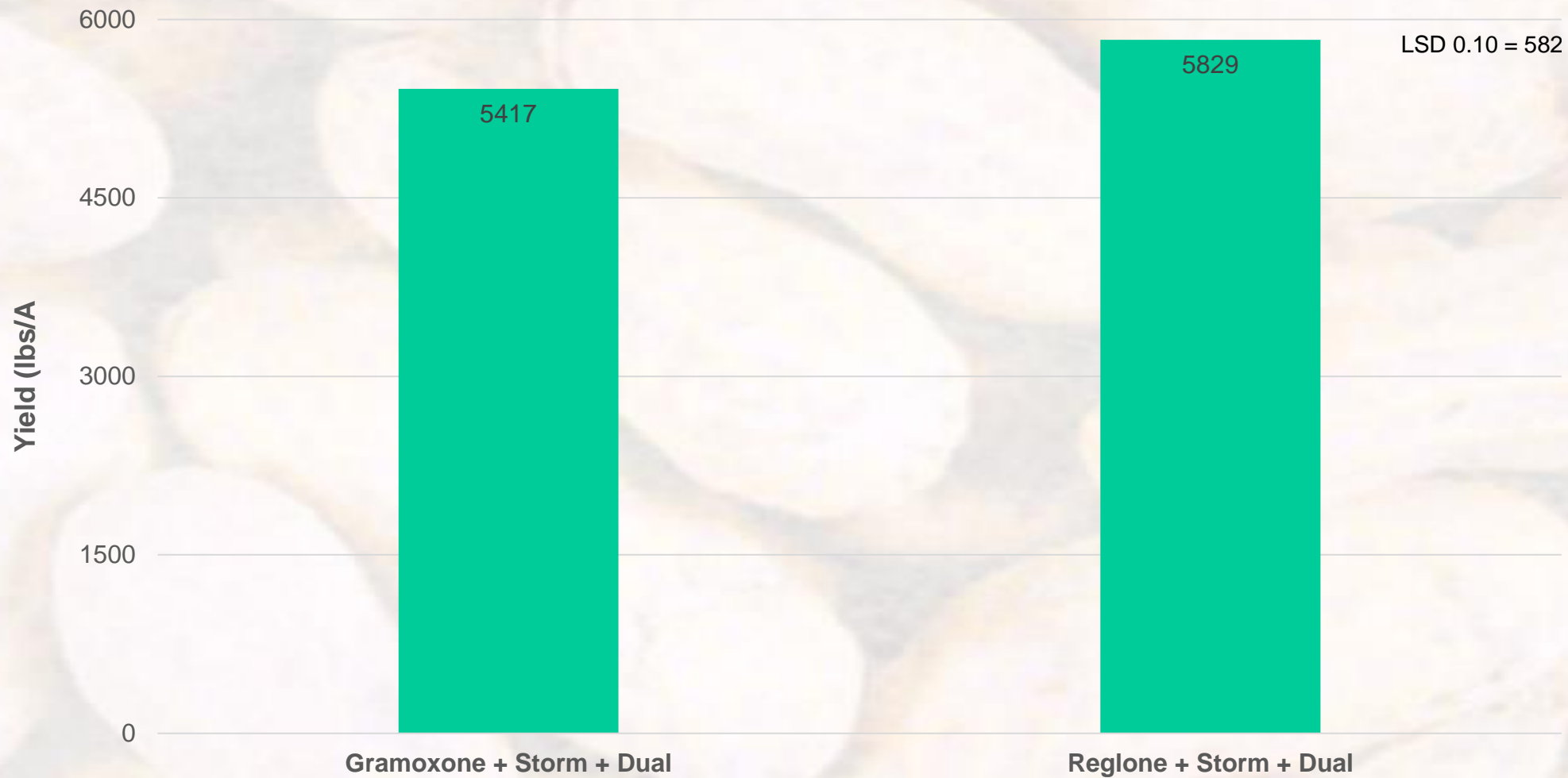
July 24

83 DAP





# Peanut Yield – 2023



Gramoxone 2SL @ 12 oz/A  
Storm 4SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
Reglone 2SL @ 8.6 oz/A

## Summary/Future

- **Caparol®**
  - *Less injurious than Valor*
  - *Less effective than Valor*
  - *Moisture activation issues*
  - *OK in PRE + POST system?*
- **Reglone®**
  - *Less or more injurious than Gramoxone??*
    - *rate*
  - *Similar weed control to Gramoxone*
  - *\$/A*
- **Future**
  - *Repeated studies in 2024*
  - *Caparol tank-mixes with Valor, Brake, Rexovor (ALS-resistant AMAPA)*
  - *Appropriate rates for Reglone*







# Gramoxone vs. Reglone - 2024



NTC



**Gramoxone 3SL @ 8 oz/A**  
Storm 4SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
EPOST (13 DAP)  
Cadre 2AS @ 4 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
Butyrac 20 2SL @ 16 oz/A  
POST (34 DAP)



**Reglone 2SL @ 12 oz/A**  
Storm 4SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
EPOST (13 DAP)  
Cadre 2AS @ 4 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
Butyrac 20 2SL @ 16 oz/A  
POST (34 DAP)





# Weed Control in Peanut - 2024



NTC



Prowl H<sub>2</sub>O 3.8SC @ 32 oz/A  
**Caparol 4L @ 32 oz/A**  
Brake 1.2SL @ 12 oz/A  
*PRE*  
Cadre 2AS @ 4 oz/A  
Butyrac 200 2SL @ 16 oz/A  
Dual Magnum 7.62EC @ 16 oz/A  
POST (34 DAP)

PE-07-24  
June 28  
59 DAP





Questions/Comments?  
[www.gaweed.com](http://www.gaweed.com)

