

Preparing for Brake® (fluridone) in Peanut – 2023

2022 UGA Weed Science Update
Chad Abbott & Eric P. Prostko
Dec. 7, 2022

UGA History with Brake®

- **SePRO Ag**
 - WSSA #12, PDS-inhibitor herbicide
 - Bleaching / Necrosis / Plant Death
 - Requires water for activation
 - Small seeded broadleaves & grasses
- **Section 18 for Brake in Peanut**
 - AL, MS, AR
 - Full Registration for Peanut Belt coming
- **Cotton: PRE @ 16 fl oz/A**
 - Too injurious on light soils for Peanut
 - Soil OM dependent – Midsouth can tolerate
 - \$170/gal ~ \$21.25/A



UGA History with Brake®

- 19 Total Field Trials – 2013
 - Ponder Farm, Ty Ty, GA
- Ph.D. Work 2020 – 2022
 - 8 Peanut Cultivars
 - Weed control trials
- 2022 – 2024
 - Application timings – Nick Shay
 - 1, 3, 5, 7 DAP
 - 1 X Rate



Cultivar Studies

- Study 1: 2019 -2021

- Cultivars:

- GA-18RU
- GA-06G
- GA-16HO

- Rates:

- 0 (NTC) oz/A
- 16 (1X) oz/A
- 32 (2X) oz/A
- 64 (4X) oz/A

- Study 2: 2021 – 2022

- Cultivars:

- AUNPL-17
- FIORUN-331
- TIFNV-HOL
- GA-20VHO

- Rates:

- 0 (NTC) oz/A
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- 24 (2X) oz/A

- Study 3: 2022

- Cultivar:

- GA-12Y

- Rates:

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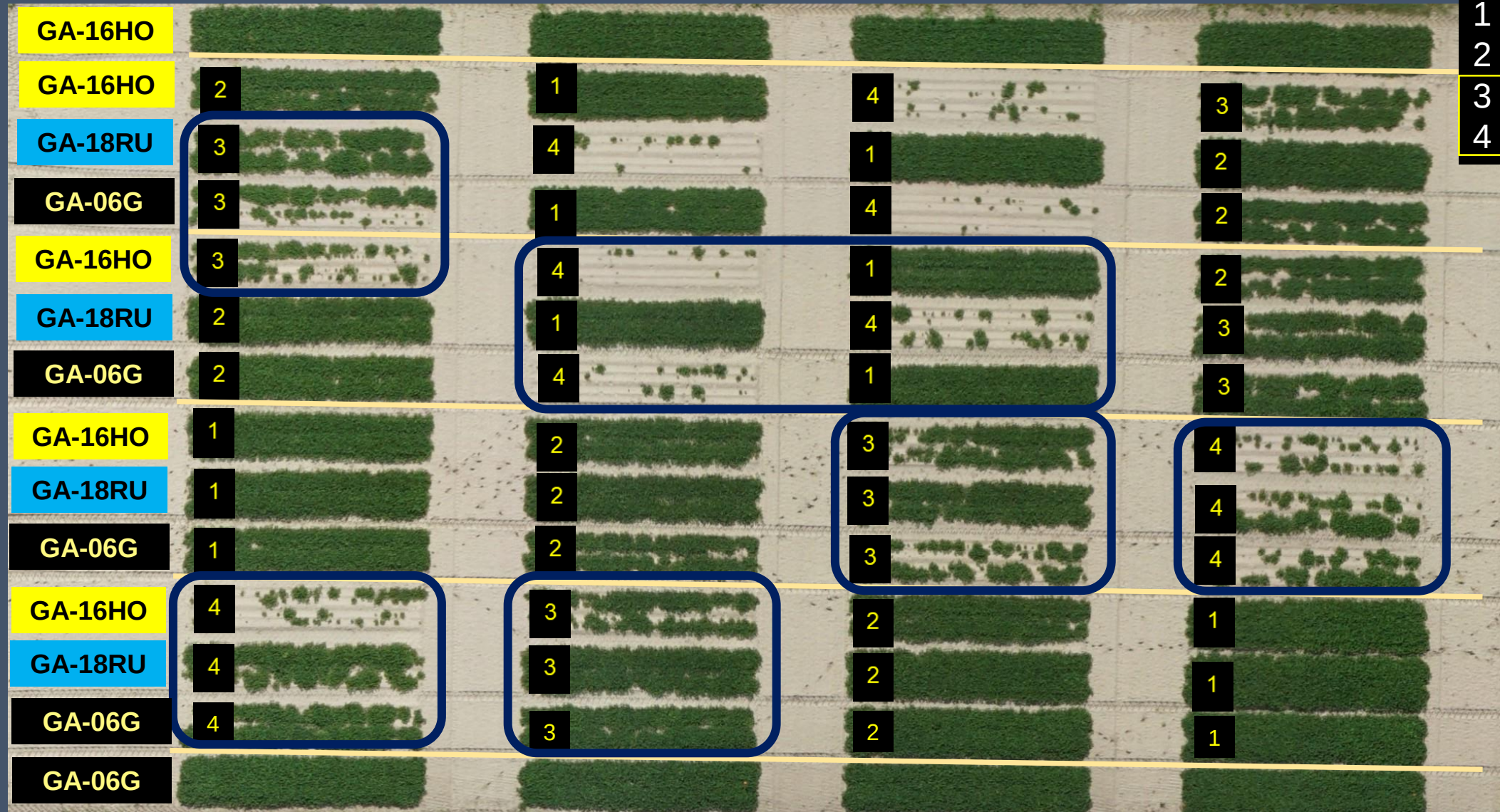
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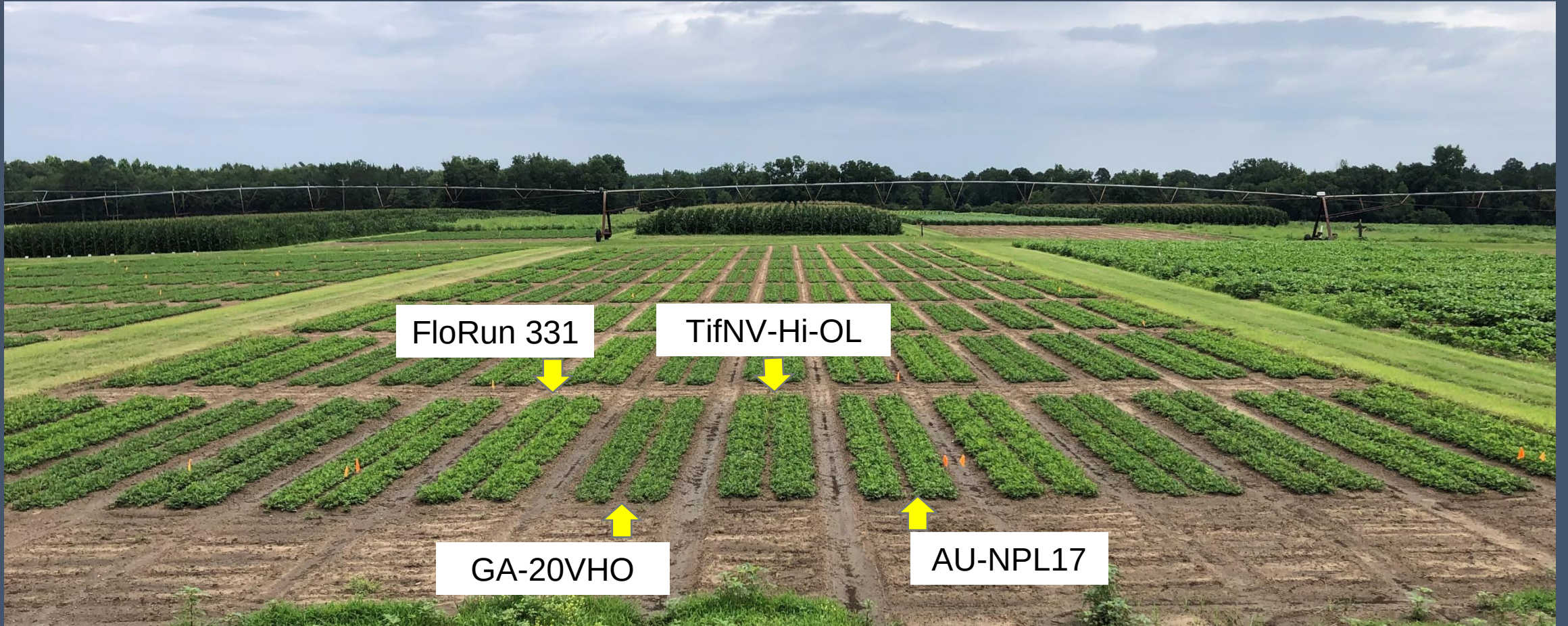
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Cultivar Study 1 - 2019



1 = NTC
 2 = 16 oz/A
 3 = 32 oz/A
 4 = 64 oz/A

Cultivar Study 2 - 2021



Weather Variability – Variable Injury

	2019	2020	2021
Planting Date	May 1	April 28	May 8
sand-silt-clay-OM (%)	92-6-2-0.62	94-4-2-0.93	94-4-2-0.93
Daily Avg. Max Air Temp (F) ¹	89	83	85
Daily Avg. Min Air Temp (F) ¹	65	61	61
Average 2" Soil Temp (F) ¹	85	79	82
Total Rainfall (in) ¹	2	4.4	2.9
Total Irrigation (in) ¹	1.6	1.3	2.4
Total Rainfall/ Irrigation – 14 DAP	2.9 in of 3.6 in (83% of total I/R in first 30 DAP BY 14 DAP)	2.2 in of 5.7 in (39% of total I/R in first 30 DAP by 14 DAP)	1.5 in of 5.3 in (28% of total I/R in first 30 DAP by 14 DAP)

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Brake[®] Symptomology



GA-16HO; 20 DAP; 64 oz/A



GA-16HO; 40 DAP; 64 oz/A

Cultivar Trial - Results & Summary

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- Study 3: 2022

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- 48 (4X) A

P = 0.1

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Peanut Weed Control - 2022

Valor + Strongarm vs. Brake + Strongarm



NTC



PRE (1 DAP)
Prowl H₂O 3.8SC @ 32 oz/A
Valor EZ 4SC @ 3 oz/A
Strongarm 84WG @ 0.225 oz/A



PRE (1 DAP)
Prowl H₂O 3.8SC @ 32 oz/A
Brake 1.2SL @ 12 oz/A
Strongarm 84WG @ 0.225 oz/A

Peanut Weed Control - 2022

Valor + Strongarm vs. Brake + Strongarm



NTC



PRE (1 DAP)

Prowl + **Valor** + Strongarm

POST (27 DAP)

Cadre 2AS @ 4 oz/A

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

Dual Magnum 7.62EC @ 16 oz/A



PRE (1 DAP)

Prowl + **Brake** + Strongarm

POST (27 DAP)

Cadre 2AS @ 4 oz/A

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

Dual Magnum 7.62EC @ 16 oz/A

PE-04-22
June 2
36 DAP
Rep 1

Peanut Weed Control - 2022

Valor + Strongarm vs. Brake + Strongarm



NTC



PRE (1 DAP)

Prowl + **Valor** + Strongarm

POST (27 DAP)

Cadre 2AS @ 4 oz/A

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

Dual Magnum 7.62EC @ 16 oz/A



PRE (1 DAP)

Prowl + **Brake** + Strongarm

POST (27 DAP)

Cadre 2AS @ 4 oz/A

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

Dual Magnum 7.62EC @ 16 oz/A

PE-04-22
June 16
50 DAP
Rep 1

Peanut Weed Control - 2022

Valor + Strongarm vs. Brake + Strongarm



NTC



PRE (1 DAP)

Prowl + **Valor** + Strongarm

POST (27 DAP)

Cadre 2AS @ 4 oz/A

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

Dual Magnum 7.62EC @ 16 oz/A



PRE (1 DAP)

Prowl + **Brake** + Strongarm

POST (27 DAP)

Cadre 2AS @ 4 oz/A

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

Dual Magnum 7.62EC @ 16 oz/A

PE-04-22

July 6

70 DAP

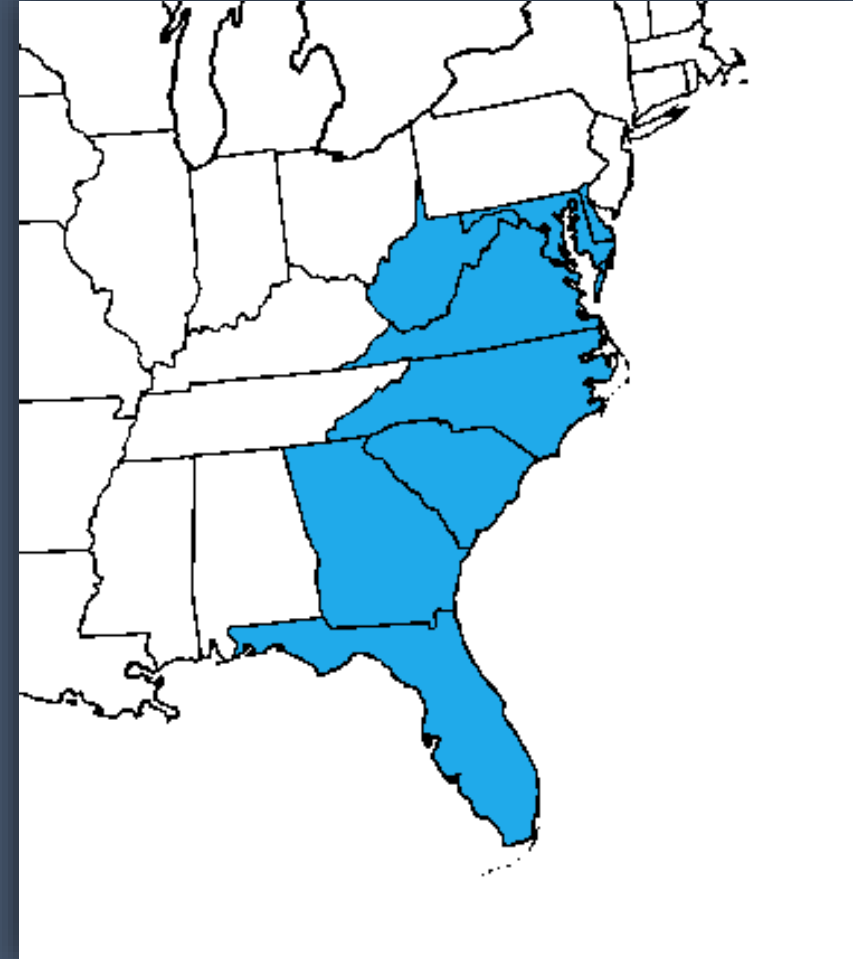
Rep 2

Weed Control Summary

- Stunting: Brake < Valor ~ 50 DAP
- Brake w/ Prowl + SA = Valor w/ Prowl + SA
- > 80% Weed Control
- Additional MOA in Chemical Tool Box
- Used with Cotton program
- Advise 12 oz/A rate, confident 2X rate is safe
- Less \$\$ than Cotton

SePRO Update

- Brake Registration for 2023 on track with EPA
- Continued Collaboration with UGA
- Peanut / Cotton / Permanent Crop Research
 - Looking to continue University / Extension trials
- Call me for On-farm Questions or Problems
 - Technical Development Manager
 - Located in Tifton
 - Territory from Florida to Virginia



Thank You! Questions?

