



Challenges to Managing Weeds in Peanut for 2024

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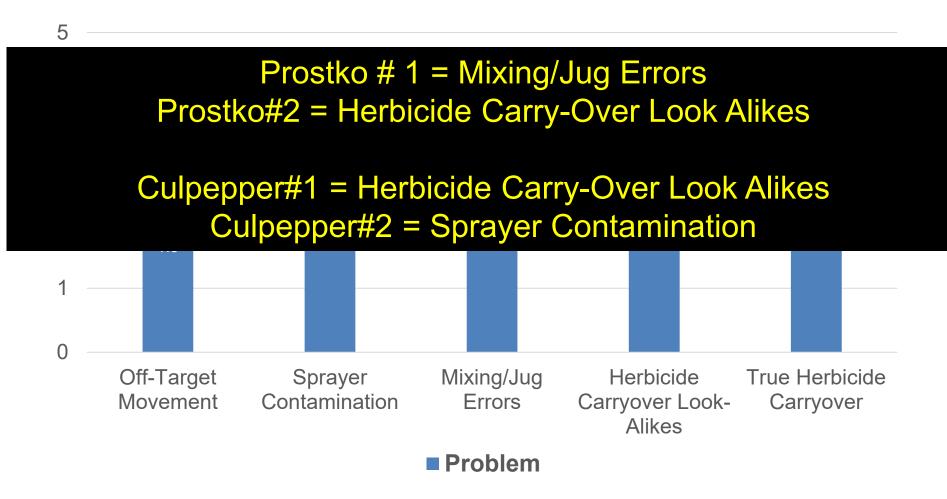


Challenges for Peanut Weed Control

- Preventing self-inflicted problems
 - i.e. human error
- Planting into fields with history of perennial weeds
- Timing
- Application
 - calibration, mixing,
 GPA, nozzle type,
 boom height, tractor
 speed
- Weather
- The Future



2023 Survey of Southern Row Crop Extension Weed Specialists Common Problems (1 = most common, 5 = least common)





Jug Management?



Generally, many of the most common problems are self-inflicted and could be minimized!

- Off-Target Movement
 - nozzles, pressure, MPH, GPA, boom height, DRA's, formulation, situational awareness
- Sprayer Contamination
 - proper cleaning (label), hose type (rubber or polyethylene), separate sprayers
- Mixing/Jug Errors
 - Non-labeled jugs, head in tank, color coded jugs/labels?, no assumptions
 - Carryover Look-Alikes
 - soil test, nematode test, grid-sampling is not absolute
- True Herbicide Carryover
 - follow labeled crop rotation restrictions, local experts/experience, sprayer calibration, overlap



Perennial Weeds in Peanut



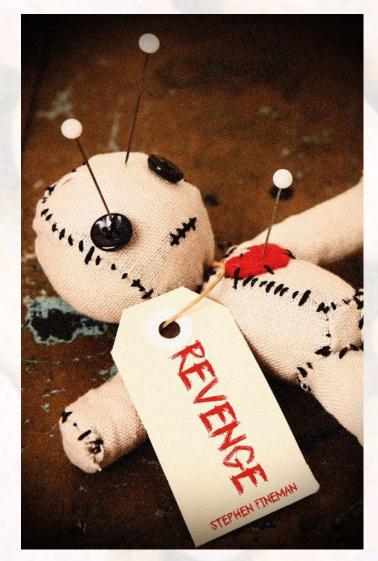
alligatorweed R. Ethredge, Seminole Co. 07/24/23

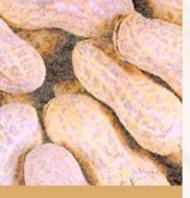


goldenrod? M. Frye, Wayne Co. 08/11/23



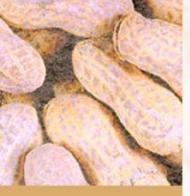
Revenge Spraying Rarely Works! Timing is everything!





Gramoxone 3SL @ 16 oz/A + Ultra Blazer 2SL @ 24 oz/A + 2,4-DB 1.75SL @ 16 oz/A + Anthem Flex 4SE @ 3 oz/A + PowerLock @ 8 oz/A Applied ~60 DAP/Mid-Afternoon application/12 GPA





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The New Norm for Application

Is this a bad combination????





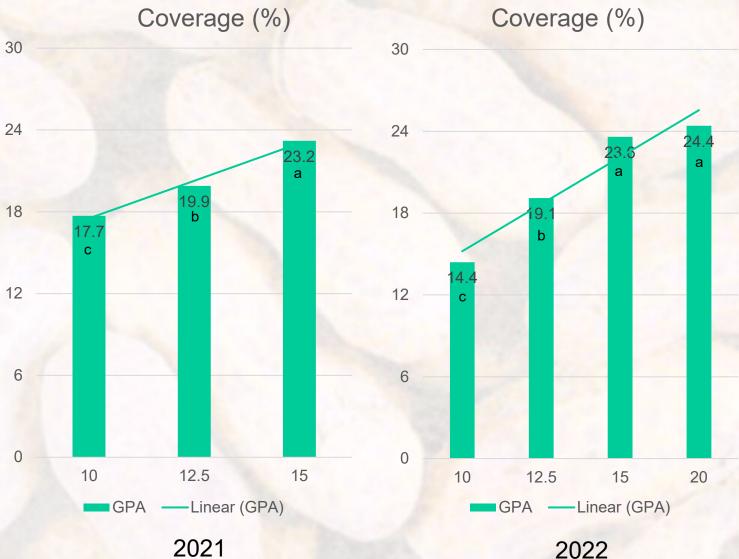


Tractor Speed Effects on Spray Coverage (%) – 30" Boom Height – 15 GPA

18 y = -1.1802x + 17.49 $R^2 = 0.7231$ 15 **Coverage (%)** 6 3 0 2 8 4 6 10 0 **Speed (MPH)**

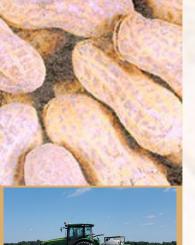


Water Volume Effects on Spray Coverage (2021-2022)



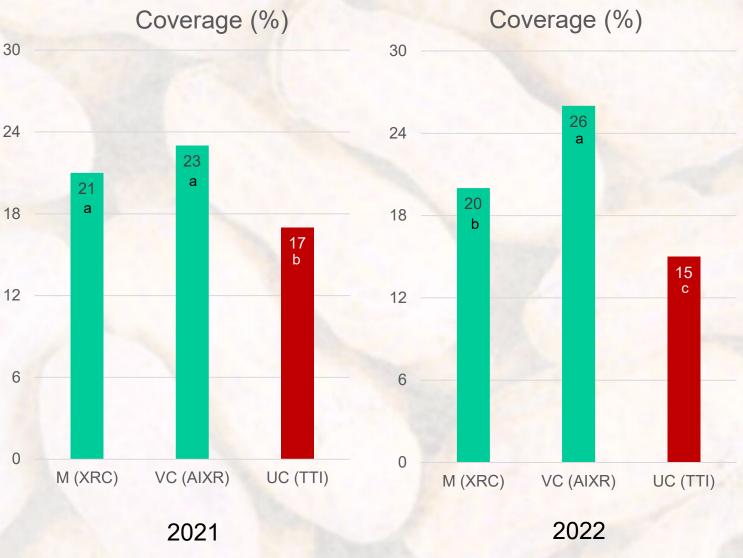
30" boom height 10 MPH 18" nozzle spacing

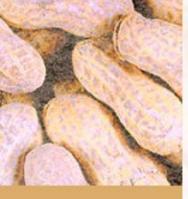
Sapkota et al.



30" boom height 10 MPH 18" nozzle spacing

Droplet Size Effects on Spray Coverage (2021-2022)





Weather and Herbicides

- Moisture is needed
 to move residual
 herbicides into weed
 germination zone
- Moisture is needed to help keep weeds actively growing
- Moisture can delay applications
- Moisture can wash off herbicides
 - rain-free period



Georgia Rainfall June 12-June 22, 2023





I sprayed herbicide X and it did not work, what happened?

- Rate
- Timing
- Environment
 - Hot/dry
 - Rain-free period
- Calibration/Mixing
- Coverage
 - Droplet size
 - Nozzle type, pressure
 - Boom height
 - Tractor speed
- Resistance



Annual Grass Control in Peanut SelectMax 0.97EC @ 24 oz/A + Agridex @ 1% v/v 15 GPA, 3.5 MPH, AIXR11002 nozzles



07/31/23 0 DAT 08/07/23 7 DAT

08/11/23 11 DAT



The Future

- Preplant label for Liberty?
 - IR4 Program
- Rexovor?????
 - Trifludimoxazin
 - BASF
- Older products?
 - Caparol, Reglone
- Nothing else?





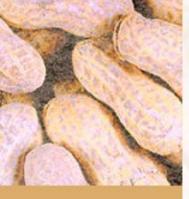
Peanut Weed Control - 2023



<u>"The Program"</u>

- 1) Weed-free at planting (tillage/cover crops/herbicides)
- 2) Twin Rows (if possible)
- 3) Multiple Over-Lapping Residuals (PRE/EPOST/POST)
- 4) Timely POST's (3" or less)
- 5) Prevent Seed-Rain from Escapes (hand-weeding, non-selective applicators/mowing)

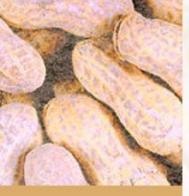
PE-14-23 July 24 83 DAP



All About The Pod - Podcast







Questions/Comments

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