

Cotton Weed Management - 2020

1. Herbicide updates (*Dicamba, Valor, Tavium*)
2. Weed management program
3. Plant bugs
4. Grass control
5. Spiderwort control
6. PPO resistance update
7. Glyphosate...is it safe for us to use?



Annual Dicamba Stewardship Training

2020 Using Pesticides Wisely

- **UGA/GDA have submitted label to allow for training every other year?**
- **U.S. EPA is considering our proposal.**
- **UPW meetings will be in March.**



UNIVERSITY OF GEORGIA
EXTENSION



UPW
using pesticides wisely



GEORGIA DEPARTMENT
OF AGRICULTURE

RESTRICTED USE PESTICIDE
For retail sale to and use only by Certified Applicators

DICAMBA GROUP 4 HERBICIDE

XTENDIMAX
With VaporGrip.
Technology

Dicamba 2020 Labels

same as 2019

RESTRICTED USE PESTICIDE
For retail sale to and use only by Certified Applicators

This label supersedes any previously issued labeling, including previously issued supplemental labeling. This EPA registration expires December 20, 2020. DO NOT use or distribute this product after December 20, 2020.

BASF
We create chemistry

Dicamba | Group 4 | Herbicide

SPECIMEN

Engenia
Herbicide

**Pesticide
license
required**

**2 applications
in cotton;
complete
within 60 d of
planting**

**Application
1 hr after
sunrise – 2
hr of sunset**

**“Do not apply
when wind is
blowing in the
direction of
neighboring
downwind
sensitive
crops.”**

**Avoid inversions,
winds 3-10 mph**

**Be smart, these
products are
volatile**



Will there be 2021 labels that are usable in our cotton?

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With **VaporGrip[®]**
Technology

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SPECIMEN

Engenia[®]

Herbicide

FILL OUT SURVEY IF YOU WANT INPUT!

Updating State Labels - Burndown

GROUP 14 HERBICIDE



VALOR
HERBICIDE **999SX**

FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN COTTON, DRY BEANS, FIELD CORN, FIELD PEAS, FLAX, LENTILS, PEANUT, SOYBEAN, SUGARCANE, SUNFLOWER AND SAFFLOWER, SWEET POTATO, WHEAT, FALLOW LAND AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS



Updating State Labels - Burndown



GROUP	14	HERBICIDE
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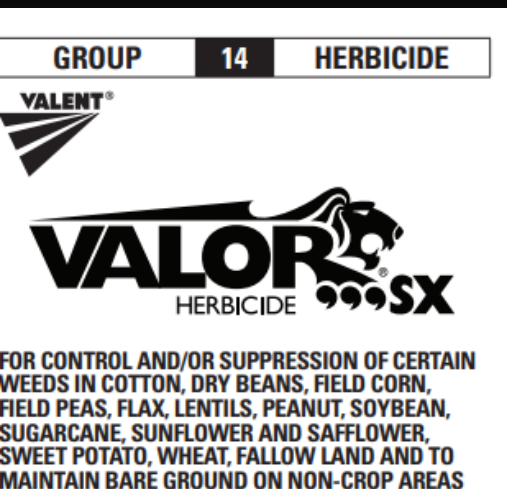
VALENT®



VALOR
HERBICIDE **999SX**

FOR CONTROL AND/OR SUPPRESSION OF CERTAIN WEEDS IN COTTON, DRY BEANS, FIELD CORN, FIELD PEAS, FLAX, LENTILS, PEANUT, SOYBEAN, SUGARCANE, SUNFLOWER AND SAFFLOWER, SWEET POTATO, WHEAT, FALLOW LAND AND TO MAINTAIN BARE GROUND ON NON-CROP AREAS

Updating State Labels - Burndown



Strip-till rig:

1. >30% residue = 7 days

2. 10-30% residue = 14 days; 0.5" rain

3. <10% residue = 21 days; 1" rain

No-till: 28 days + 0.5" (>10% cover) or 1" rain (<10% cover)

Tavium Registration for GA Cotton



DICAMBA GROUP 4 HERBICIDE

S-METOLACHLOR GROUP 15 HERBICIDE

Tavium[®]

Plus VaporGrip[®]
Technology

syngenta.

Herbicide

Foliar systemic broadleaf herbicide with residual grass and certain broadleaf weed control for dicamba-tolerant cotton and soybeans and non-dicamba-tolerant soybeans

Active Ingredients:

Diglycolamine salt of dicamba*: 17.7%

S-metolachlor***: 24.0%

Other Ingredients: 58.3%

Total: 100.0%

**XtendiMax +
Dual Magnum**

1. Overtop from full emergence through 6 lf cotton or 60 days after planting; whichever most restrictive.
2. Must have license to cover dicamba application.
3. Applicator must have attended UPW.

List Your Most Challenging Pests

Response	Times provided	Points by ranking*
Palmer amaranth (pigweed)	1773	4983
Morningglory	238	572
White flies	155	318
Dayflower (spiderwort)	131	254
Sicklepod	113	223
Stink bug	105	226
White mold	61	95
Nutsedge	48	82
Nematodes	47	94
Annual grasses	41	74

*Points were determined by giving 3 points for 1st choice of importance, 2 points for 2nd choice, and 1 point for 3rd choice. All locations – **1737 growers** participated

Cotton Management Program

- 1. Pigweed free at planting**
- 2. Two effective residual herbicides PRE**
- 3. Sequential POST applications**
- 4. Layby with directed/hooded applic**



Killing emerged weeds immediately prior to planting vs immediately after planting.



Roundup applied 4 hours before planting.



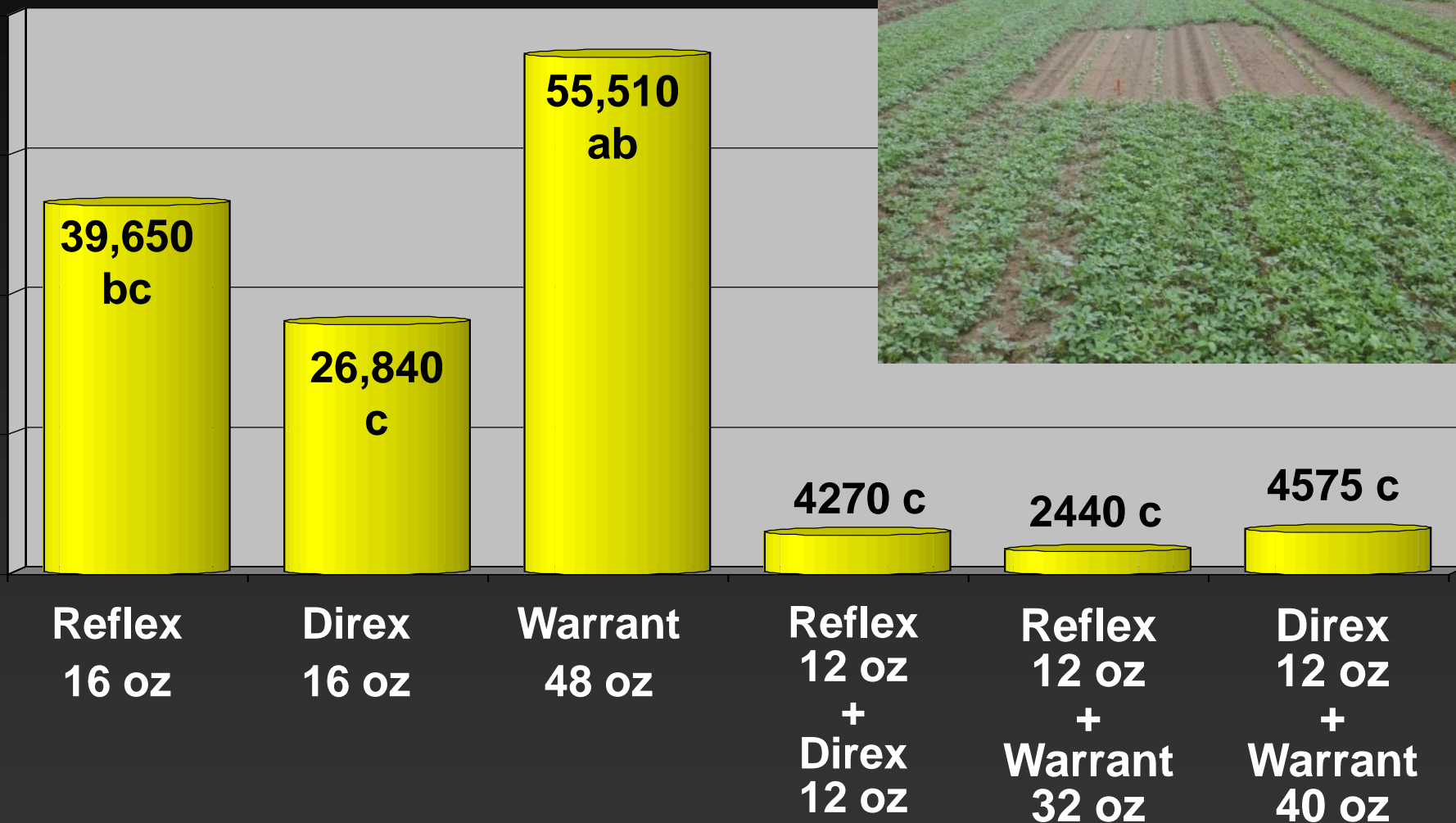
Roundup applied 1 hour after planting.

Cotton Management Program

1. Pigweed free at planting
2. Two effective residual herbicides PRE
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4. Layby with directed/hooded applic

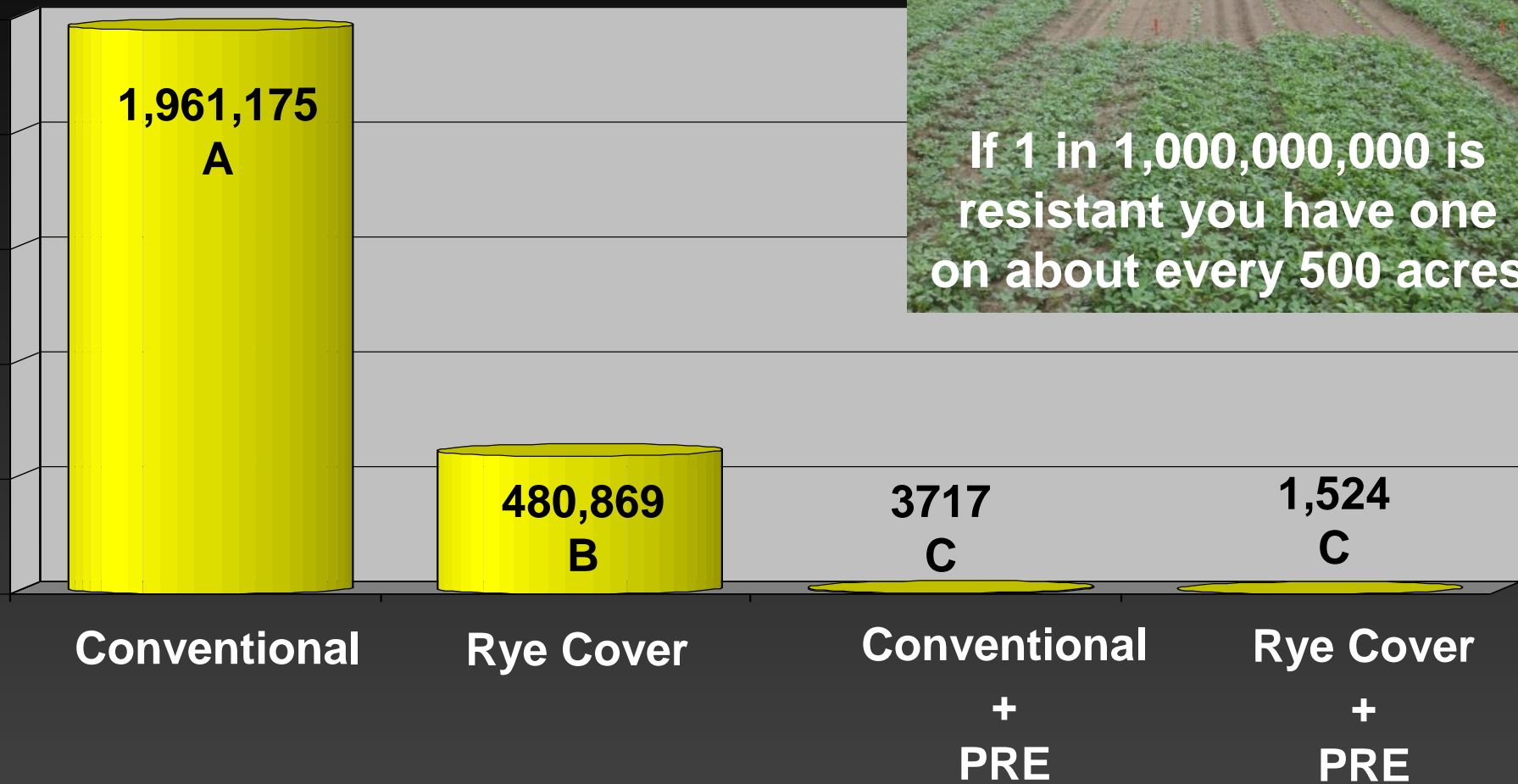


Number of emerged Palmer amaranth/A at 21 d.

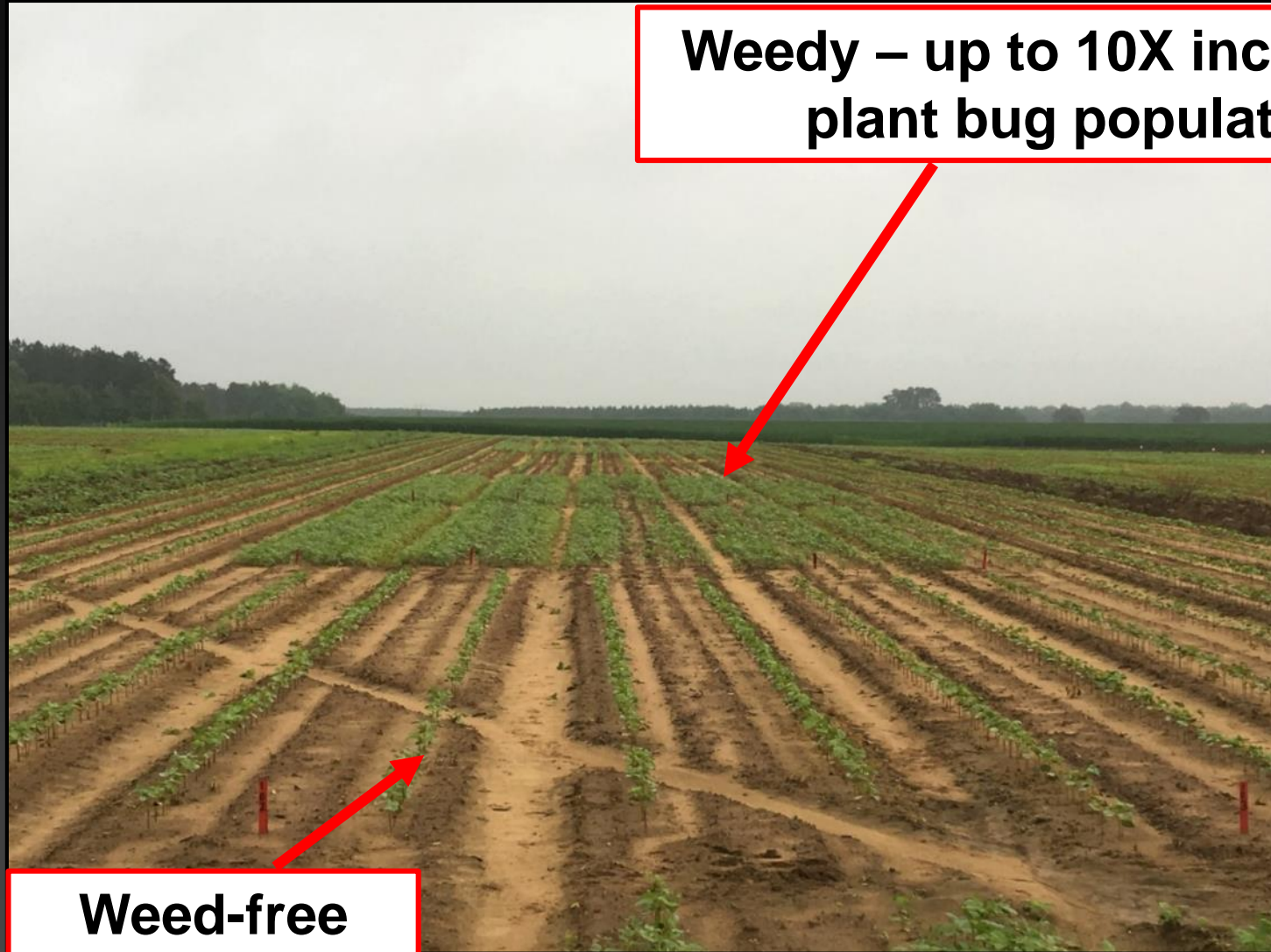


The non-treated control consisted of 1,464,000 per acre; LSD 21 K;

Number of emerged Palmer amaranth/A at POST 1.



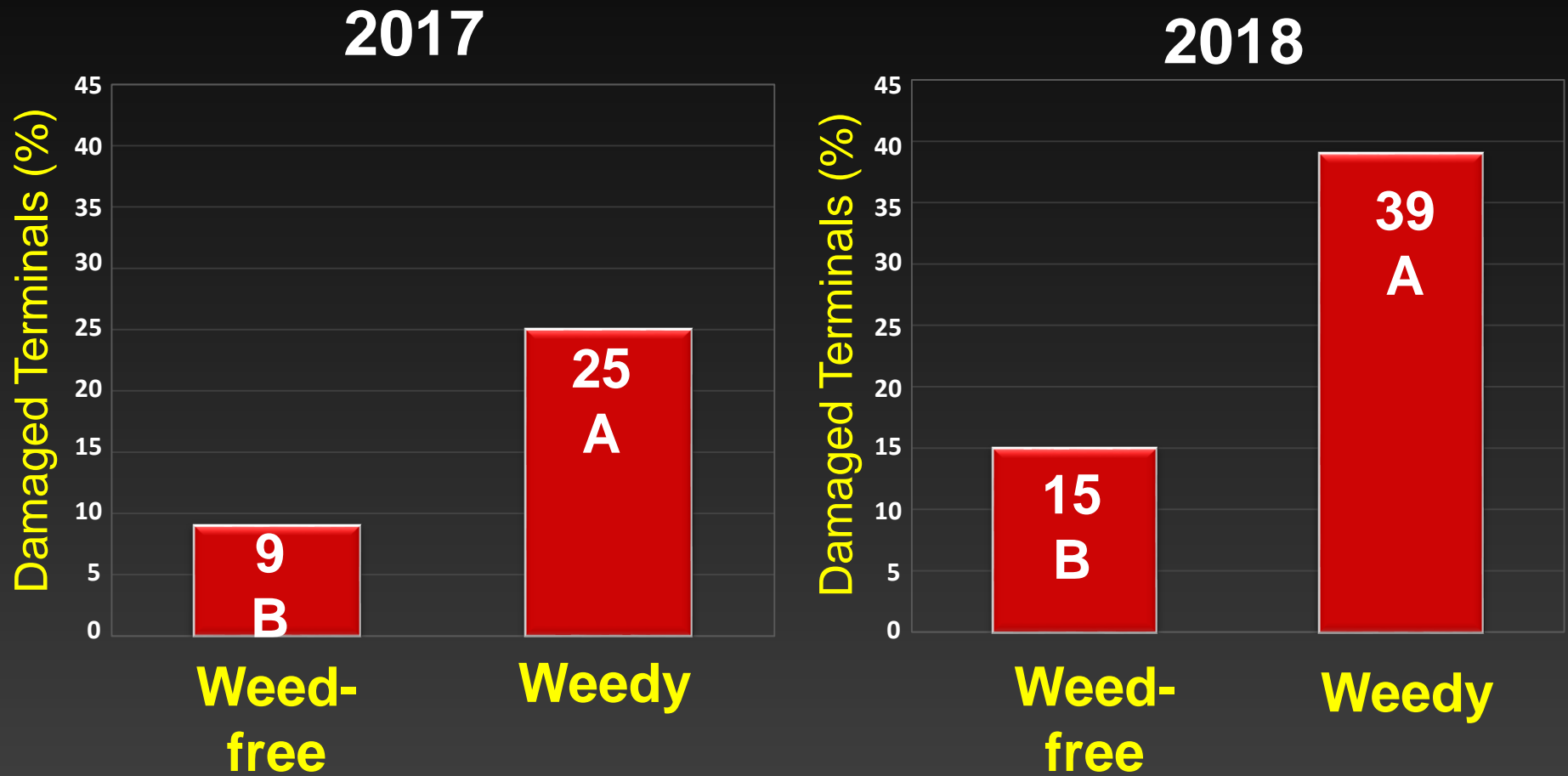
Weed Management System Influences Plant Bug Population. Ideal, GA.*



Weedy – up to 10X increase in plant bug population

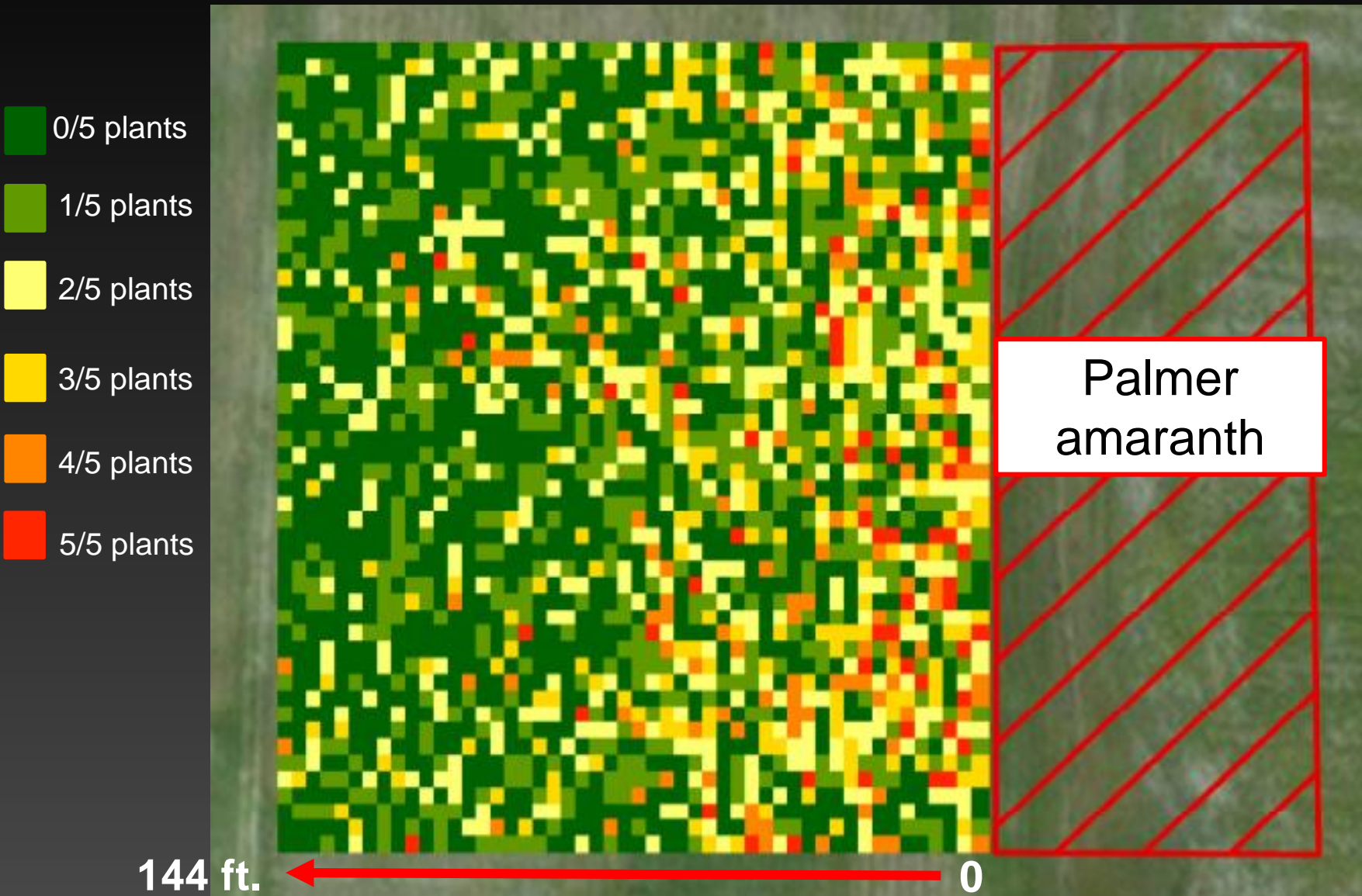
Weed-free

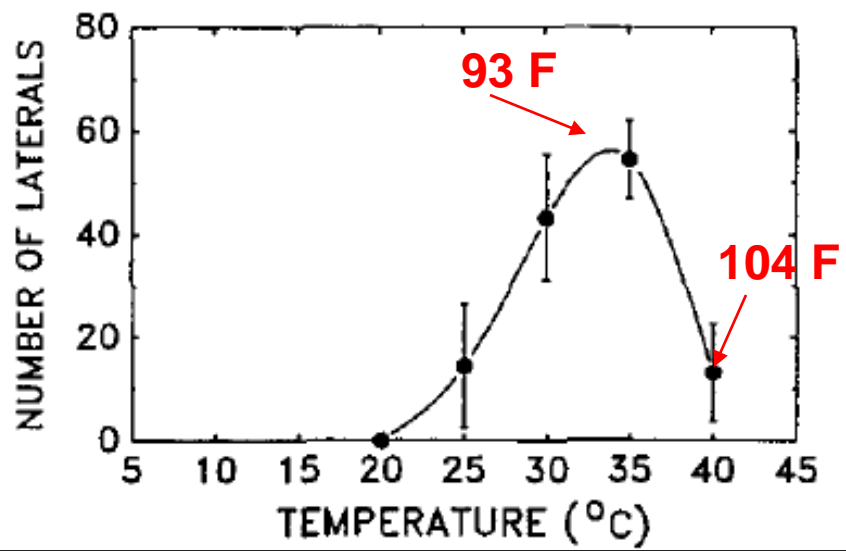
Damaged Terminals vs Weed Management System. Ideal, GA.



Weed Management System

Palmer amaranth Adjacent to Cotton Influences Damage from Tarnished Plant Bug.





Influence of seed depth and moisture at planting.



0.35" deep
moist

0.7" deep
moist

0.35" deep
Very dry

0.7" deep
Very dry

Influence of seed depth and moisture at planting.

Reflex 16 oz/A

7%

0.35" deep moist

7%

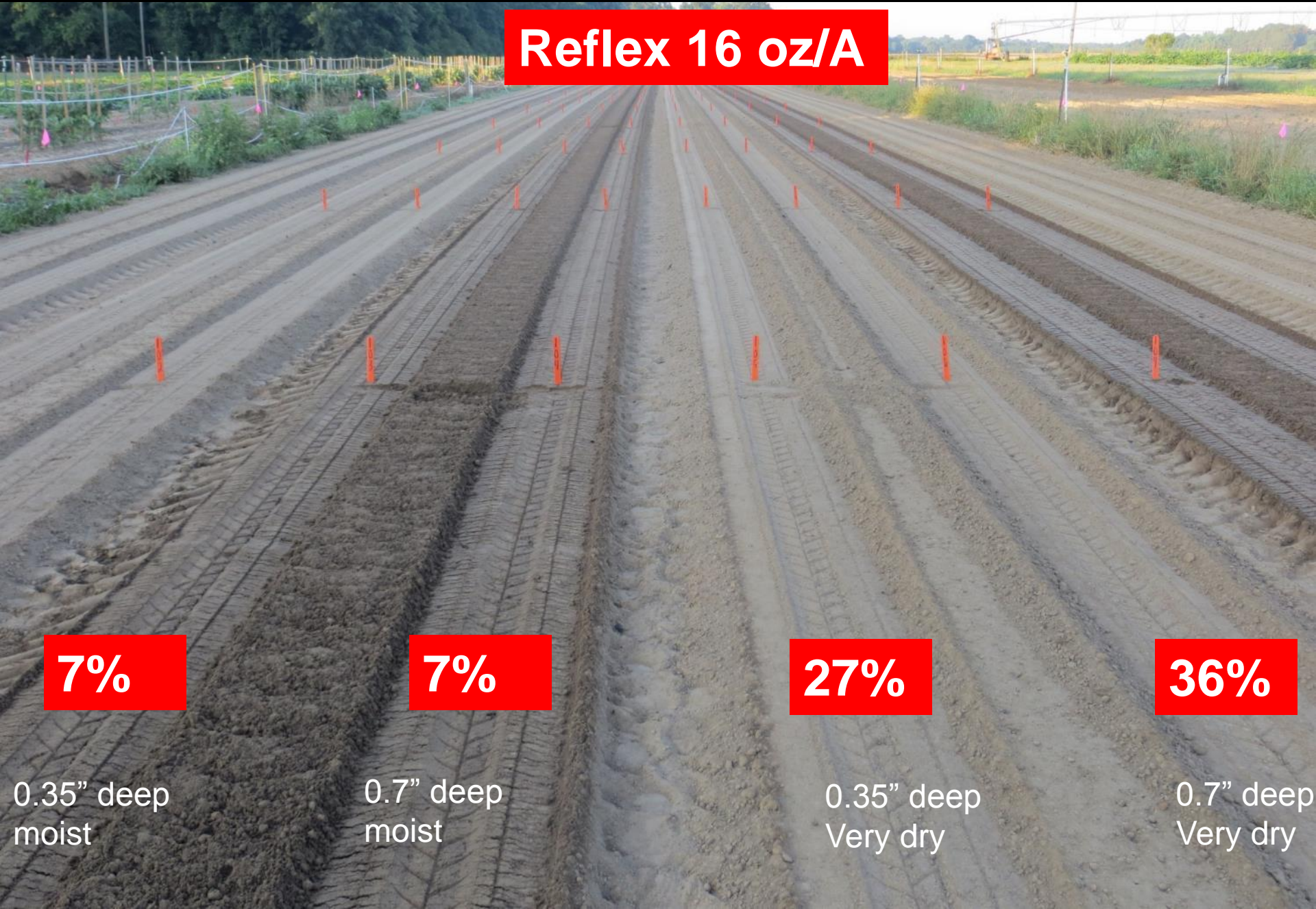
0.7" deep moist

27%

0.35" deep Very dry

36%

0.7" deep Very dry



Influence of seed depth and moisture at planting.

Warrant 3 pt/A

4%

0.35" deep moist

4%

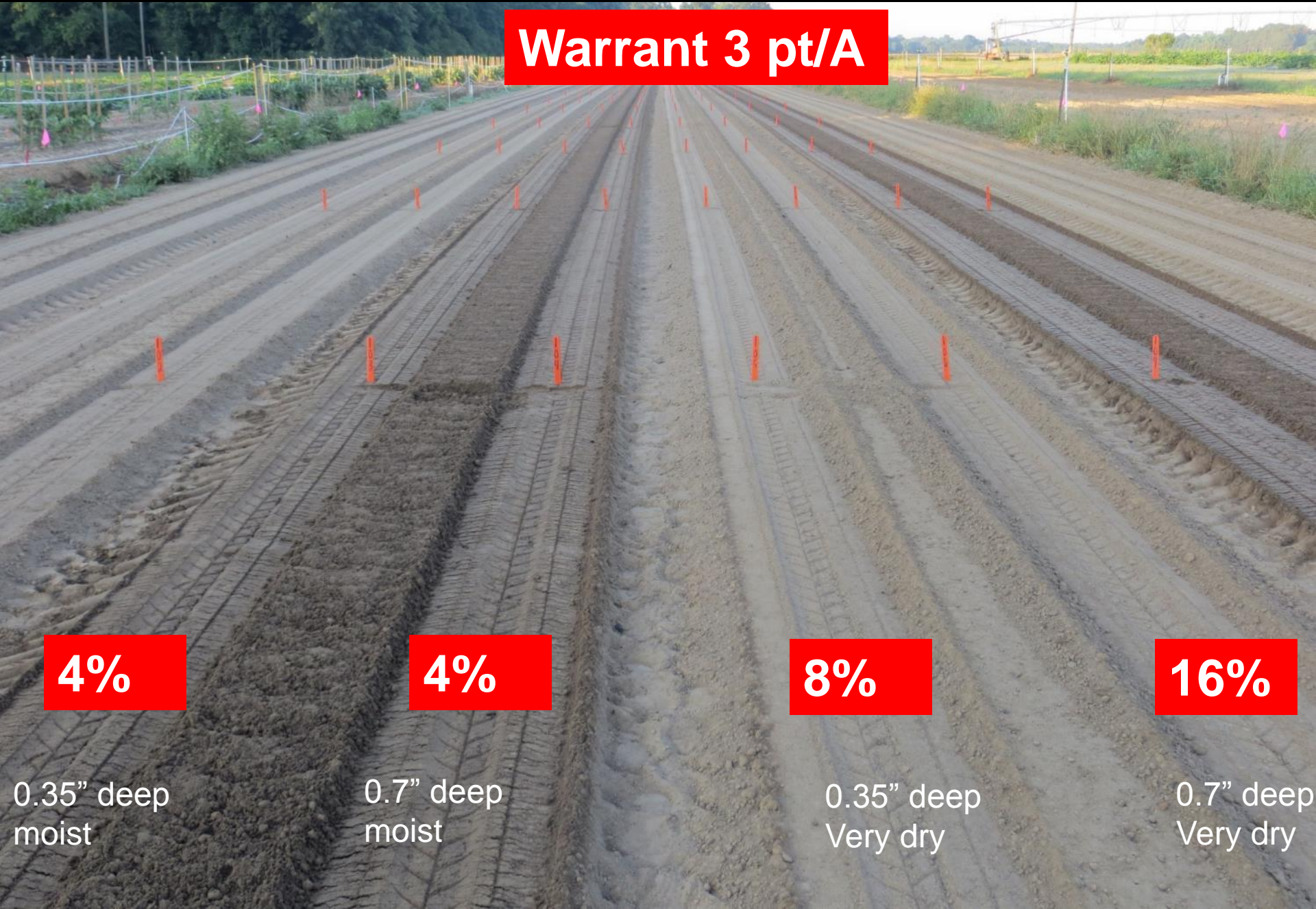
0.7" deep moist

8%

0.35" deep Very dry

16%

0.7" deep Very dry



Influence of seed depth and moisture at planting.

Direx 16 oz/A

0%

0.35" deep moist

0%

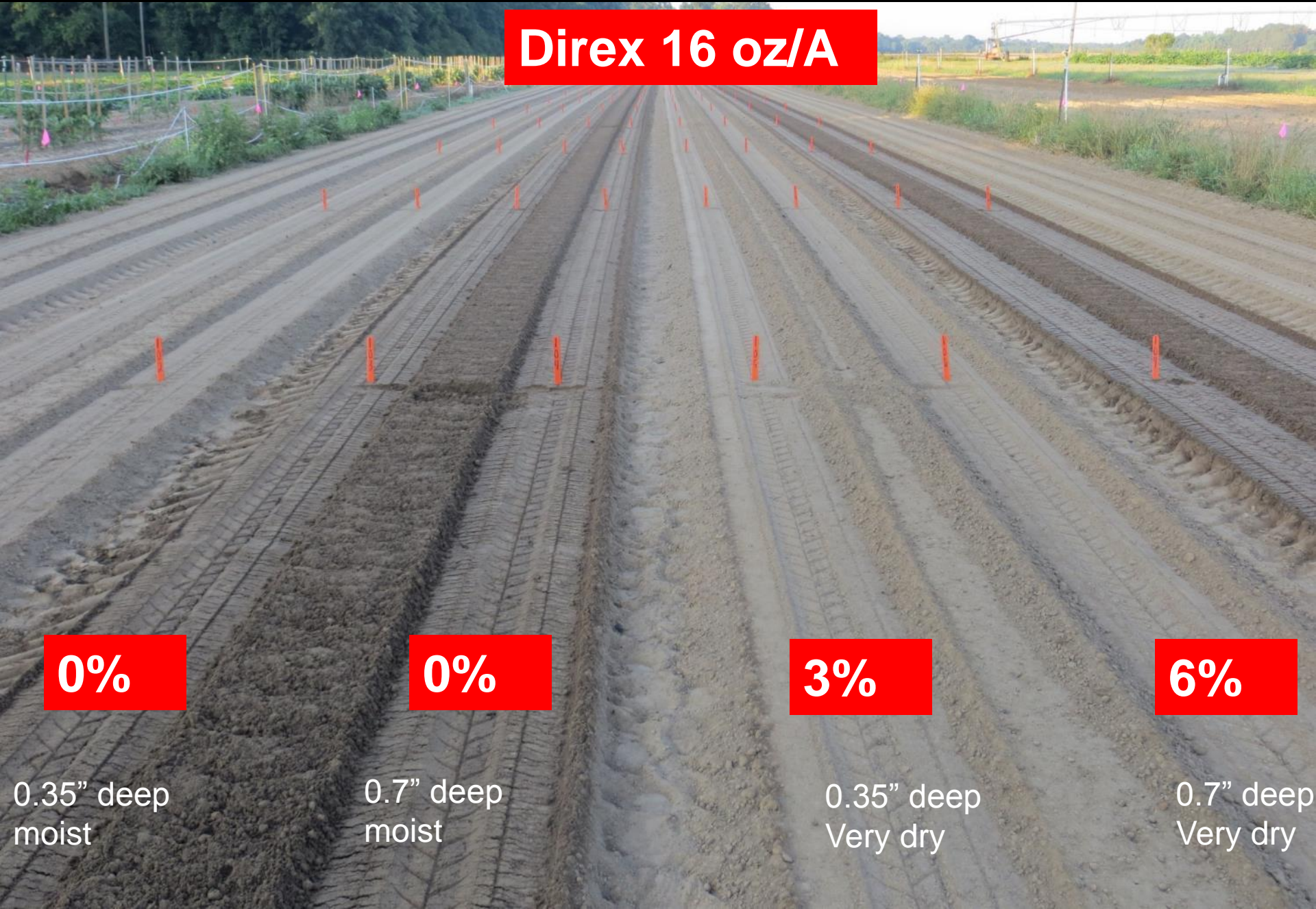
0.7" deep moist

3%

0.35" deep Very dry

6%

0.7" deep Very dry

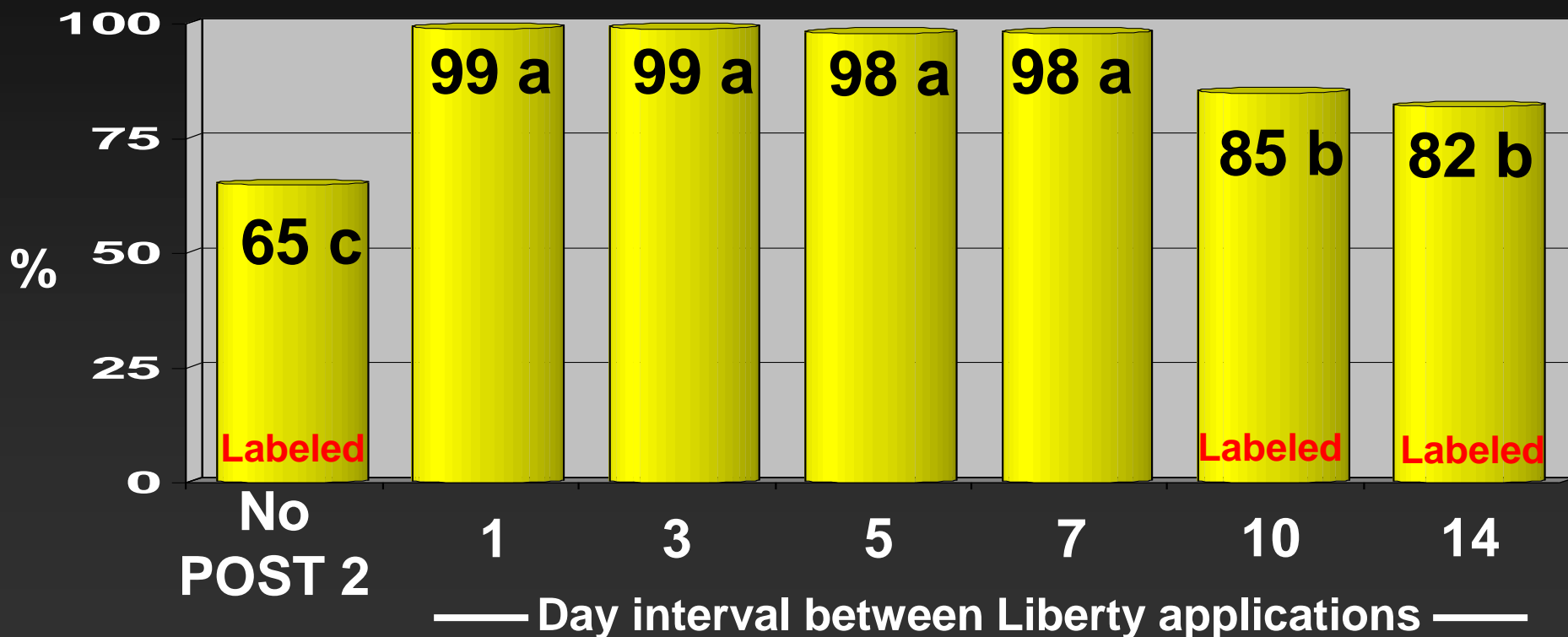


Cotton Management Program

1. Pigweed free at planting
2. Two effective residual herbicides PRE
- 3. Sequential POST applications**
4. Layby with directed/hooded applic



Interval Between Liberty Applications Influences Palmer Control at Harvest.*



*Data pooled over 3 locations from TyTy GA and over herbicide option. Palmer 6-8" at time of initial Liberty application.



Cotton Management Program

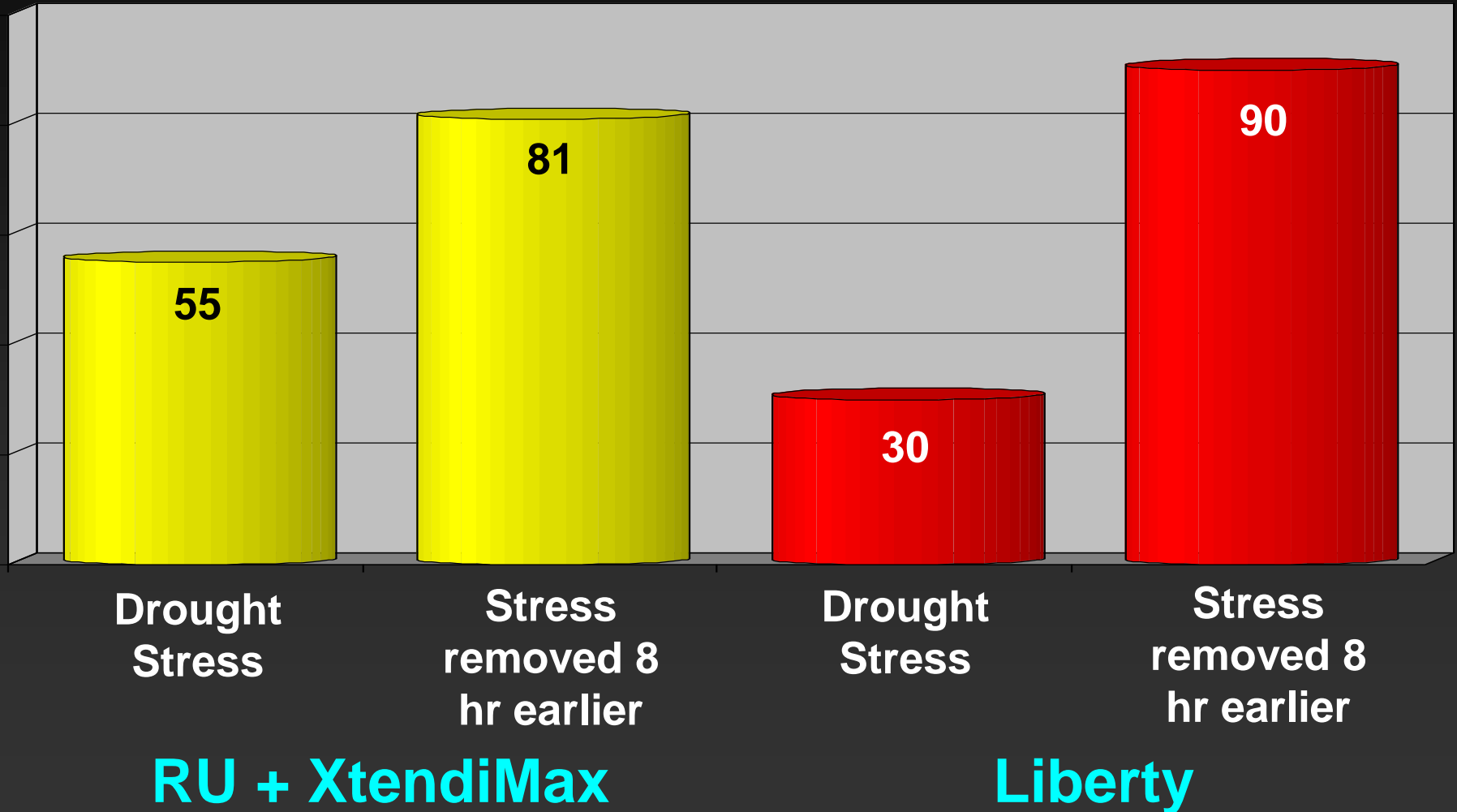
1. Pigweed free at planting
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Hot Topics – 2019 - Review



Palmer 5" Response to Herbicides As Influenced by Varying Moisture Stress




Grass Complaints From Roundup + Dicamba Continue



Grass Complaints From Roundup + Dicamba Continue

- 1. START WITH THE CORRECT PRE!!!!**
- 2. No less than 32 oz/A PowerMax II or labeled alternative equivalent**
- 3. Less than 4" grass; goosegrass less than 2"**
- 4. Environmental conditions huge impact**
- 5. Sequential grass treatment may be needed**

- 
- A close-up photograph of a small, vibrant purple flower with a white center, nestled among several bright green, serrated-edged leaves. The leaves have a slightly wavy margin and prominent veins. The background is a soft-focus green, suggesting a dense plant growth.
1. Warrant PRE
 2. Dual/Warrant
 3. 2,4-D excellent
 4. Dicamba – twice
 5. Liberty – no good

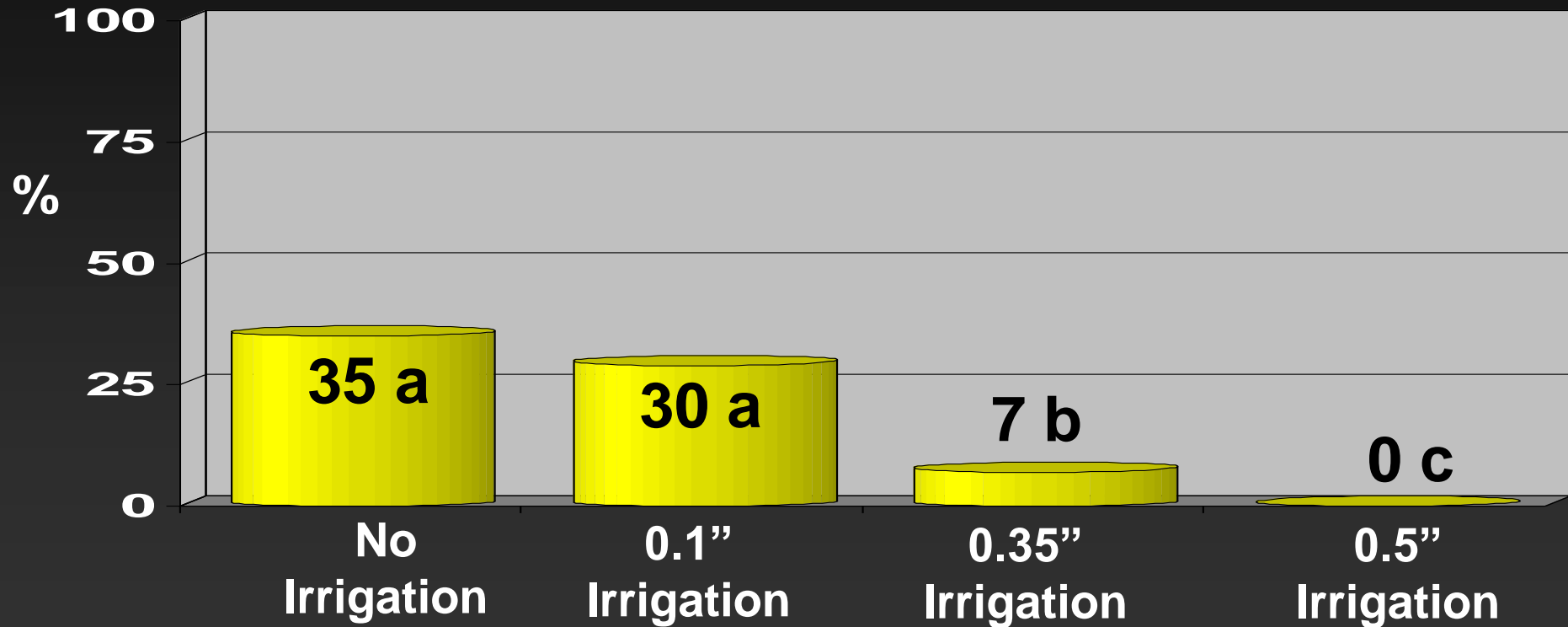
Currently, greatest concern with dicamba technology is volatility!

Anything new?



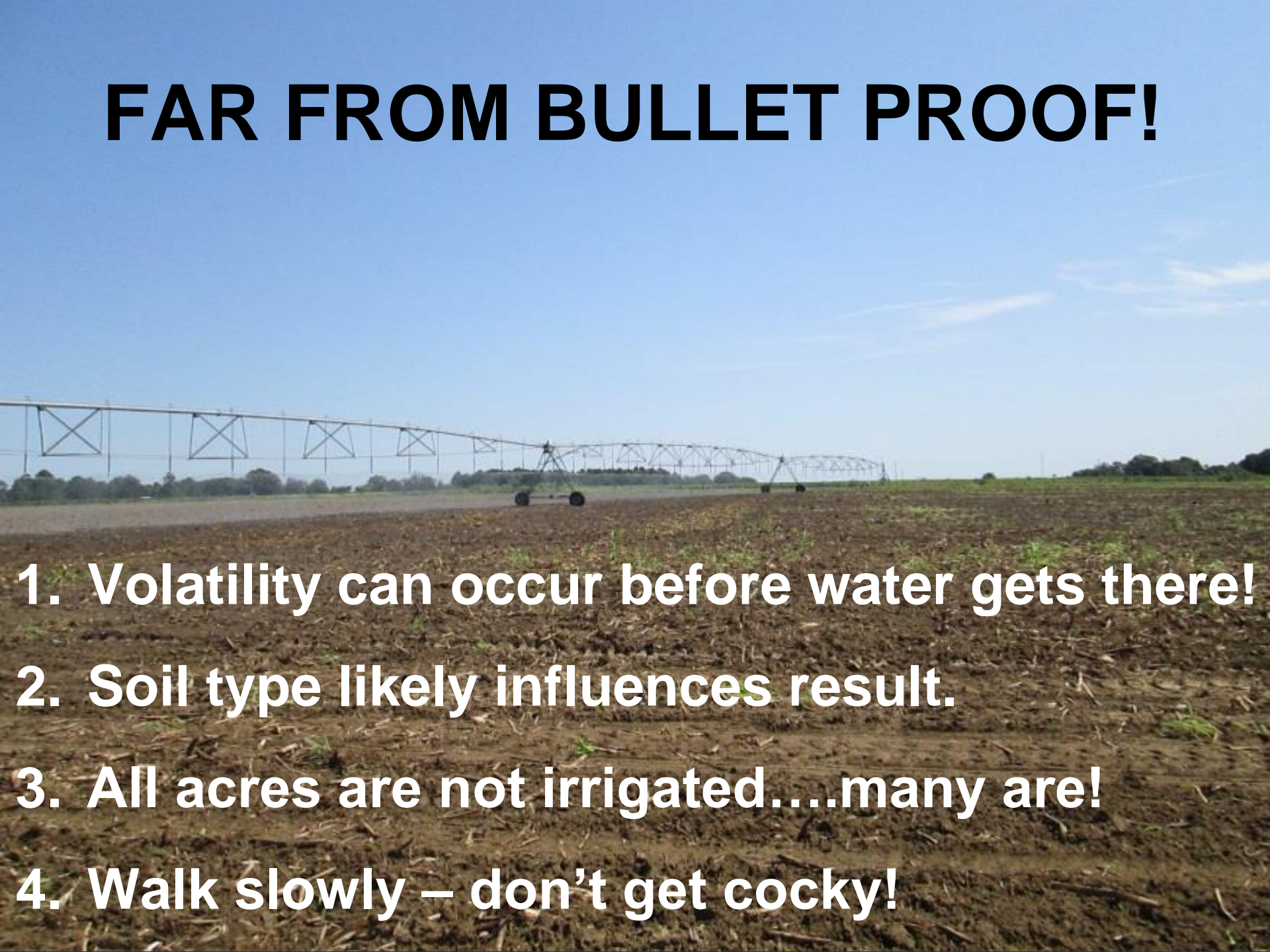
Irrigation Influences Volatility! Tunnels, 2019.

% soybean damage from volatility



*RU PMAX + XtendiMax 3X. Need 4 hr of drying time.

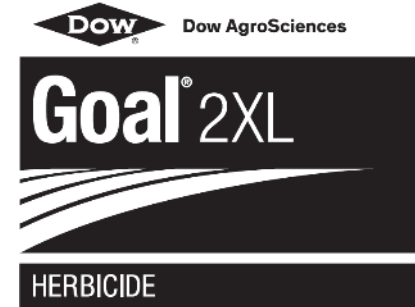
FAR FROM BULLET PROOF!

- 
- A large center pivot irrigation system is visible in a field. The system consists of a long metal structure supported by multiple towers, with a central pivot point. The field is dark brown, likely from recent plowing or irrigation. The sky is clear and blue.
1. Volatility can occur before water gets there!
 2. Soil type likely influences result.
 3. All acres are not irrigated....many are!
 4. Walk slowly – don't get cocky!

PPO Resistance Will Be Devastating



GROUP 14 HERBICIDE



PALMER Amaranth Resistant to PPO Herbicides

Reflex 96 oz/A + NIS; Palmer 2”



Sensitive

Problem site

Questions?



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UPW
using pesticides wisely



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