

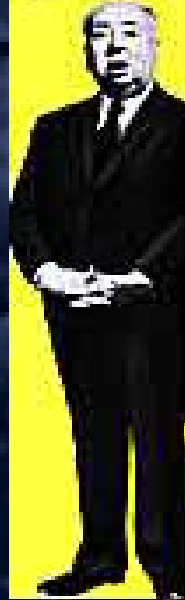
***Pigweeds:
“On Track
to Take
Over the
World”***

Ken Smith



"It could be the most terrifying motion picture
I have ever made!"— *Alfred Hitchcock*

— And
remember,
the next
scream
you hear
may be
your own!"



ALFRED HITCHCOCK'S "THE PIGS"

TECHNICOLOR®

Presented by
ROD TAYLOR · JESSICA TANDY
SUZANNE PLESHETTE — *Tippi* · TIPPI HEDREN

Based on Daphne Du Maurier's Classic Suspense Story



A Fascinating
New Personality

Screenplay by EVAN HUNTER · Directed by ALFRED HITCHCOCK

Top Ten Characteristics of an Ideal Weed !!

- 1. Germinate in many environments**
- 2. Discontinuous germination (internally controlled)**
- 3. Great longevity of seed**
- 4. Rapid growth through vegetative phase to flower**
- 5. Self-compatibility, but not complete autogamy**

Top Ten Characteristics of an Ideal Weed !!

- 6. Cross-pollination by different means**
- 7. Very high seed production in most conditions**
- 8. Long and short distance seed dispersals**
- 9. If perennial, Vegetative reproduction and brittleness**
- 10. Compete by special means – rosette, choking growth, allelochemicals**

Uno; Number 1; Grande Problem

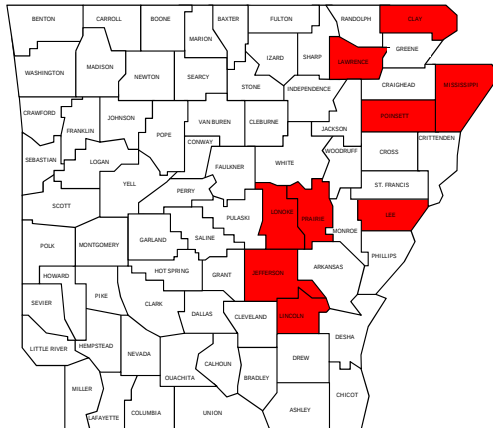


Palmer Resistance

- 1989 – DNA's (yellow herbicides)
- 1991 – ALS herbicides (Pursuit, Staple, Envoke)
- 1993 – Triazines (Atrazine, Bladex)
- 2005 – Glyphosate
- Multiple resistance (more than one herbicide family) is common.

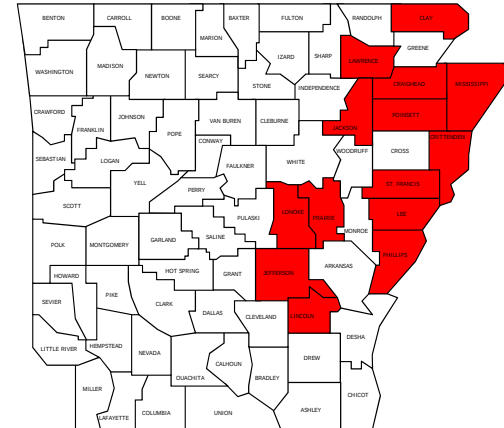
2006 Palmer a. Distribution

❖ Confirmed
Resistant at
Field Rate



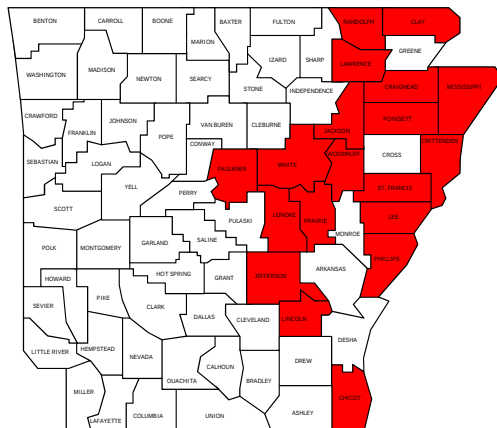
2007 Palmer a. Distribution

❖ Confirmed
Resistant at
Field Rate



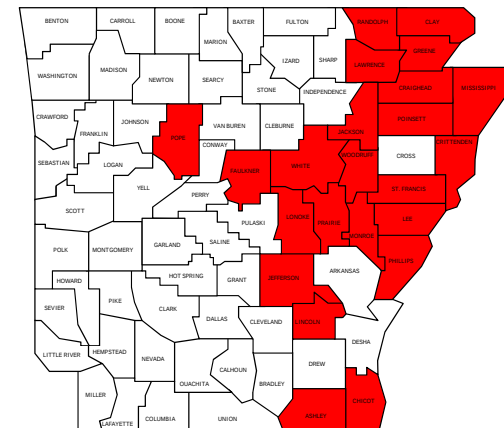
2008 Palmer a. Distribution

* Confirmed
Resistant to field
rate



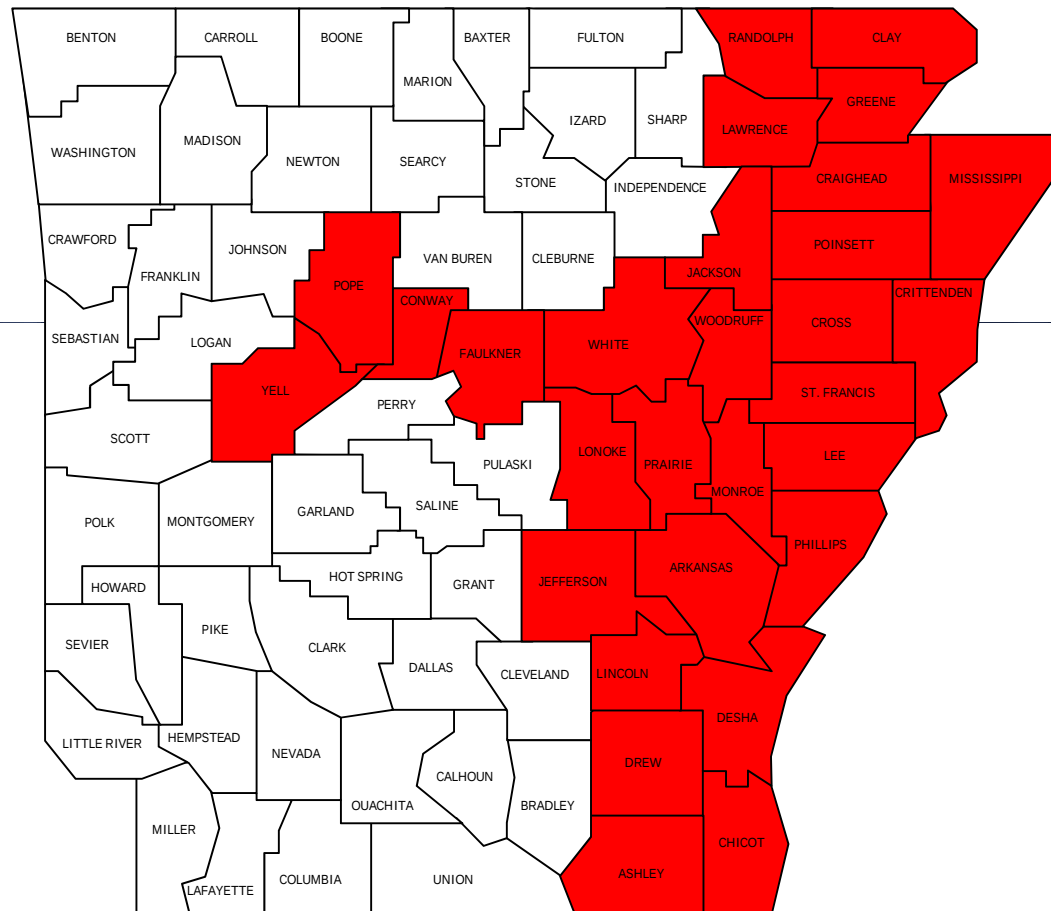
2009 Palmer a. Distribution

* Confirmed
Resistant to field
rate



2010 Palmer a. Distribution

* **Confirmed
Resistant to field
rate**



Multiple Mechanisms of Resistance



Identify Weakness of Enemy!!

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- 2. Discontinuous germination (internally controlled)**
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Identify Weakness of Enemy!!

1. Germinate in many environments
2. Discontinuous germination (internally controlled)

~~**3. Great longevity of seed**~~

4. Rapid growth through vegetative phase to flower
5. Self-compatibility, but not complete autogamy

Thought For The Day

“The soil seedbank must be stable or decreasing in order to be sustainable!”

R fb R fb R fb R

Not Sustainable

“Zero”

U of A UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE

**No
Escapes
Allowed**



**No
Seed
Produced**

**Soil Weed Seedbank
Reduction Program**

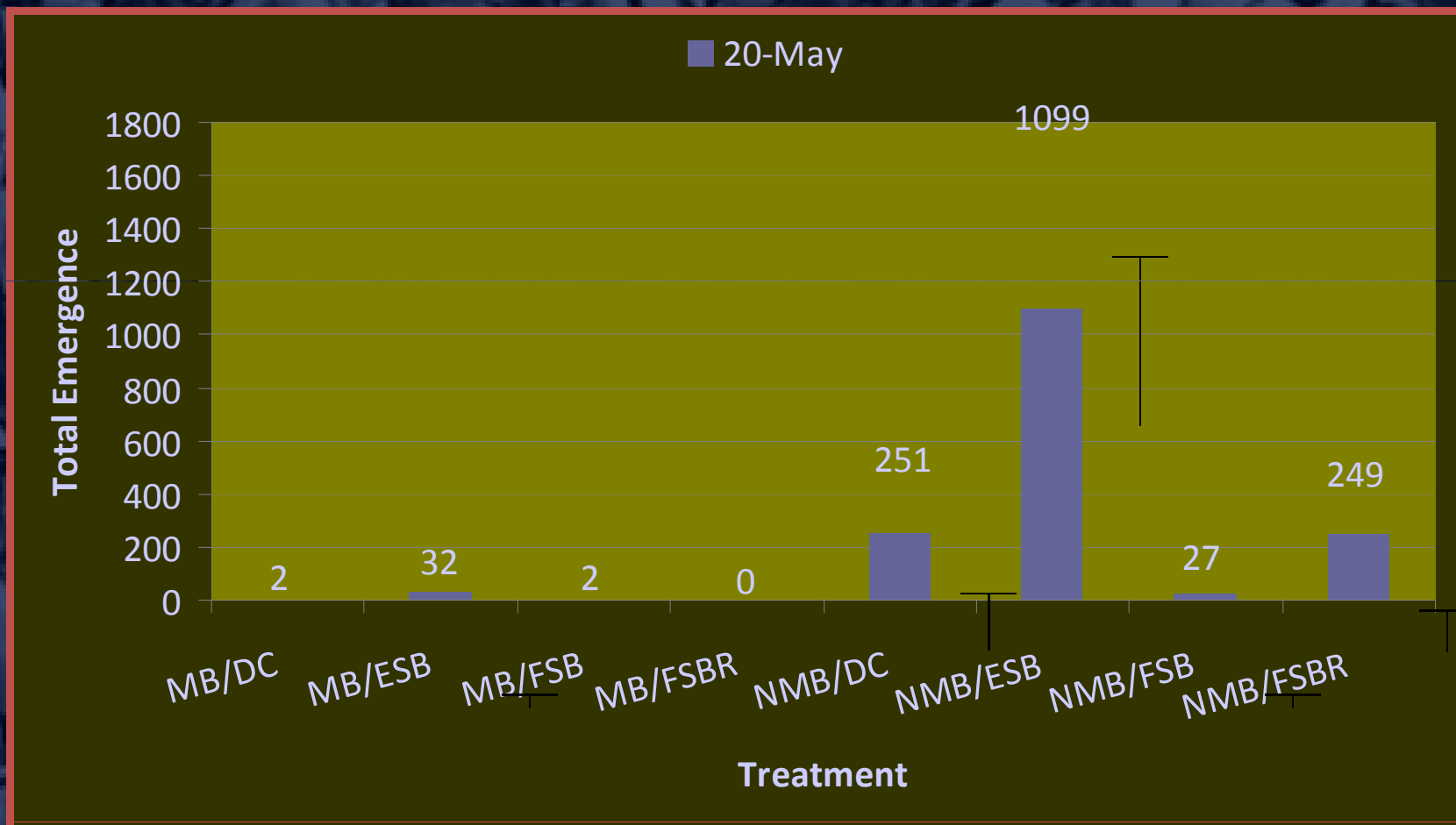
“Tolerance”

**Program to
Demonstrate
Reduction of
Seedbank over
Time**

Options?

- Cultural practices
- Change technology (change herbicides)
- Soil residual herbicides

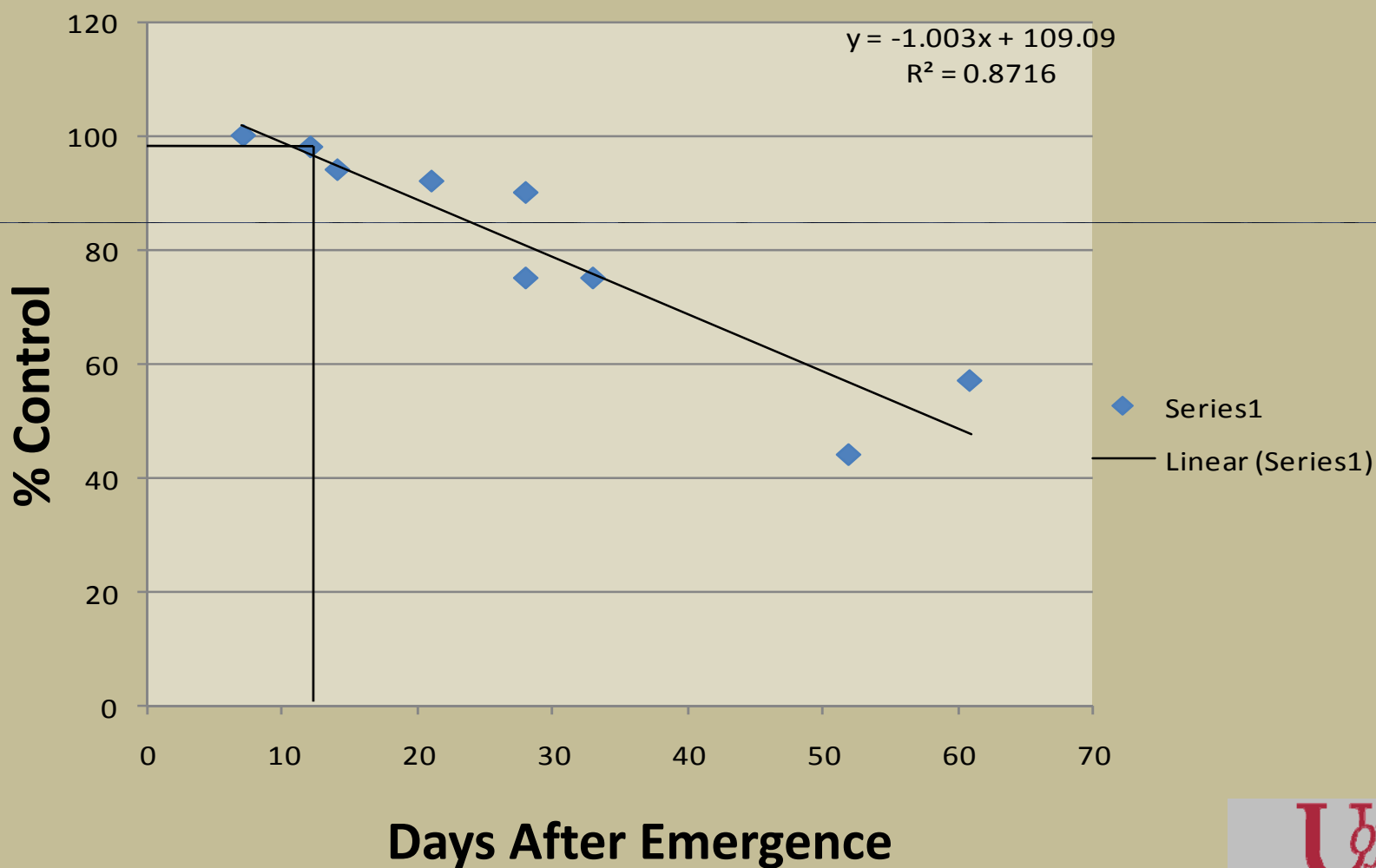
Results



Change Technology

- Liberty Link
- Dicamba
- 2,4-D
- GAT ?

Influence of Palmer amaranth age on Ignite (0.4 lb ai/A) control

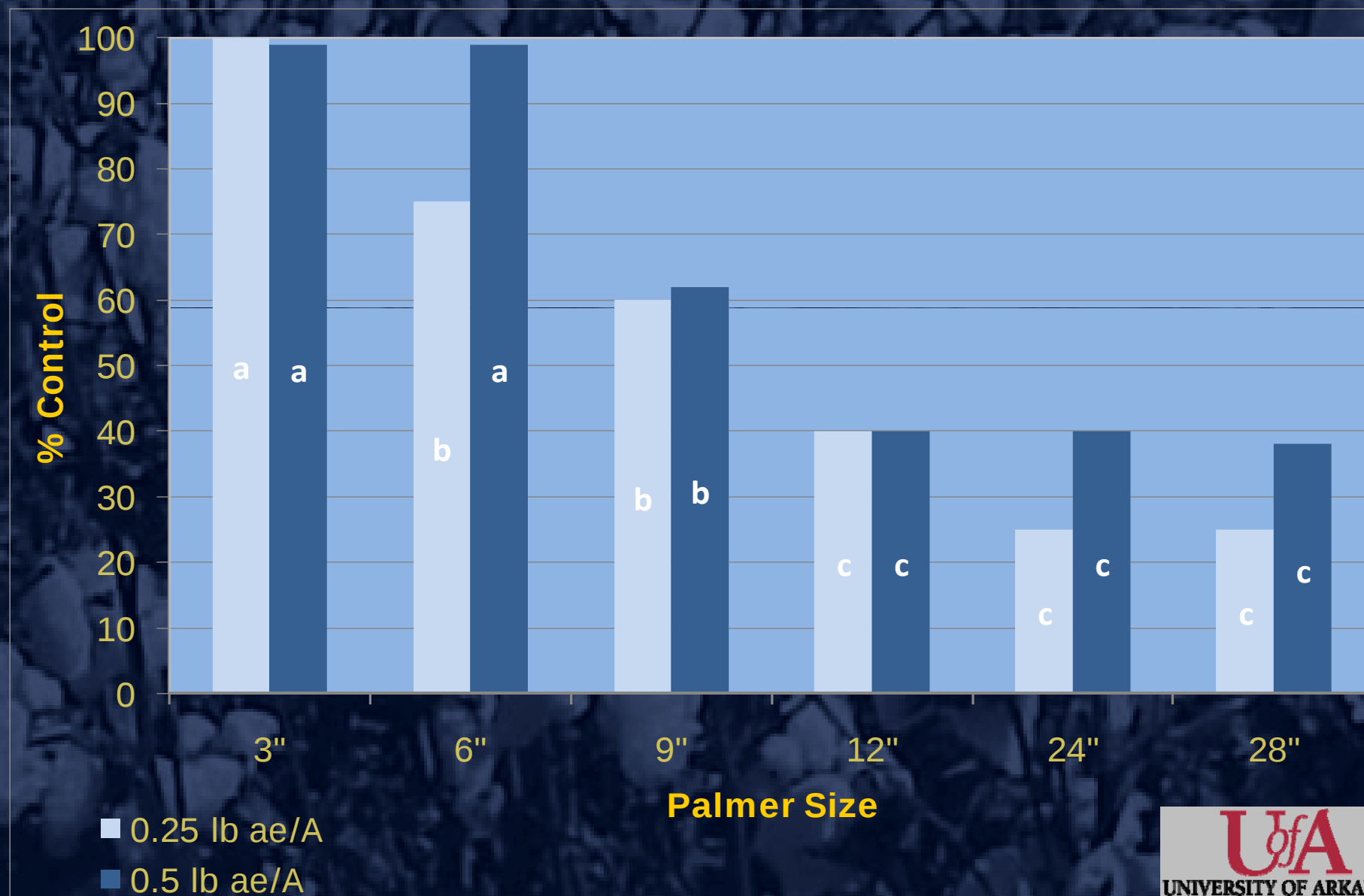




WideStrikeTM
Insect Protection

IT'S NOT LIBERTY LINK

Dicamba Palmer a. Control 40 DAA



Cotoran

Envoke

Reflex

Prowl

Soil Residual Herbicides

Dual

Direx

Treflan

Staple

Warrant

Caparol

Valor

Palmer Control 34 Days Following Layby



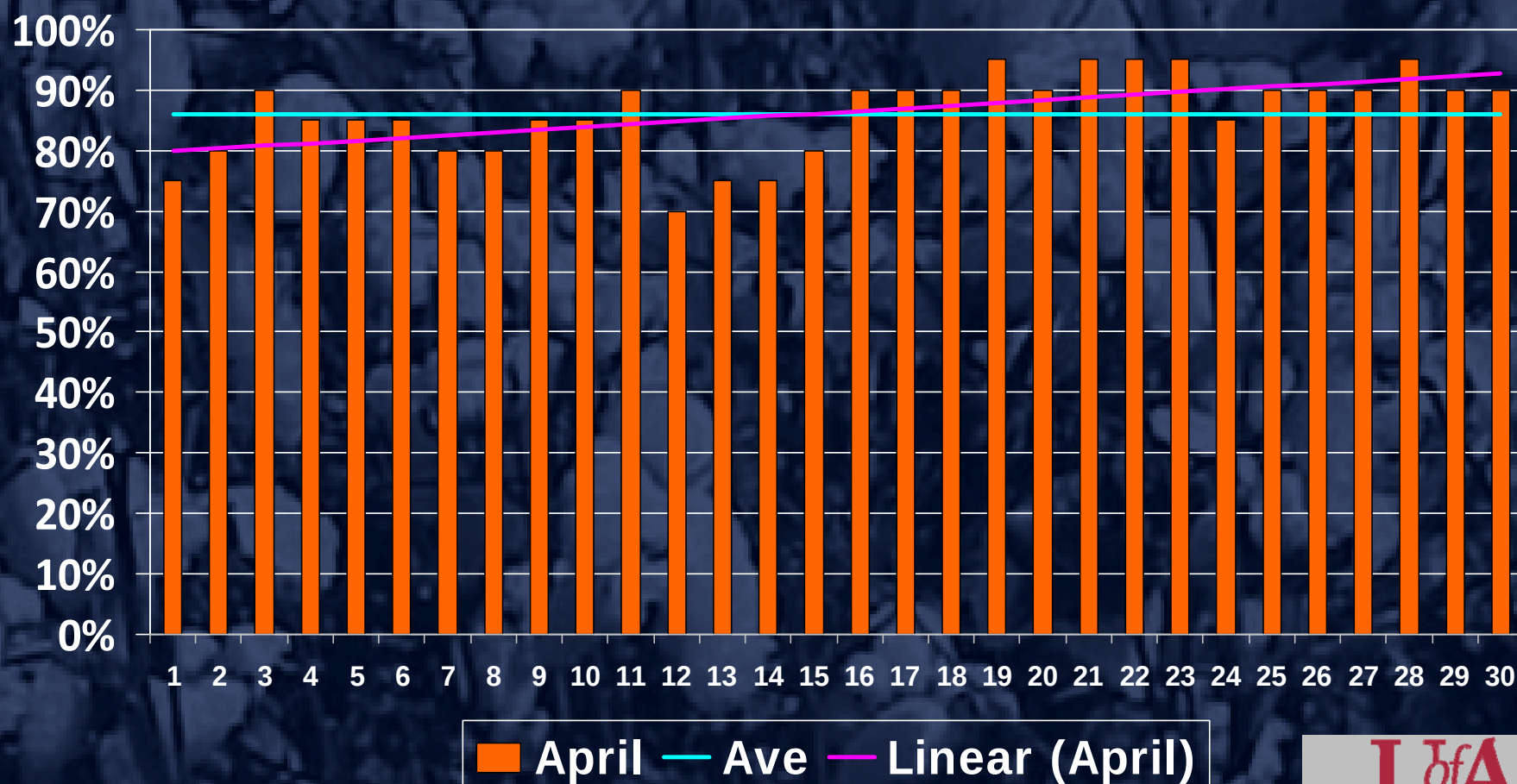
Moisture for Activation

Not enough water!!

Too much water!!

April Activation Probabilities

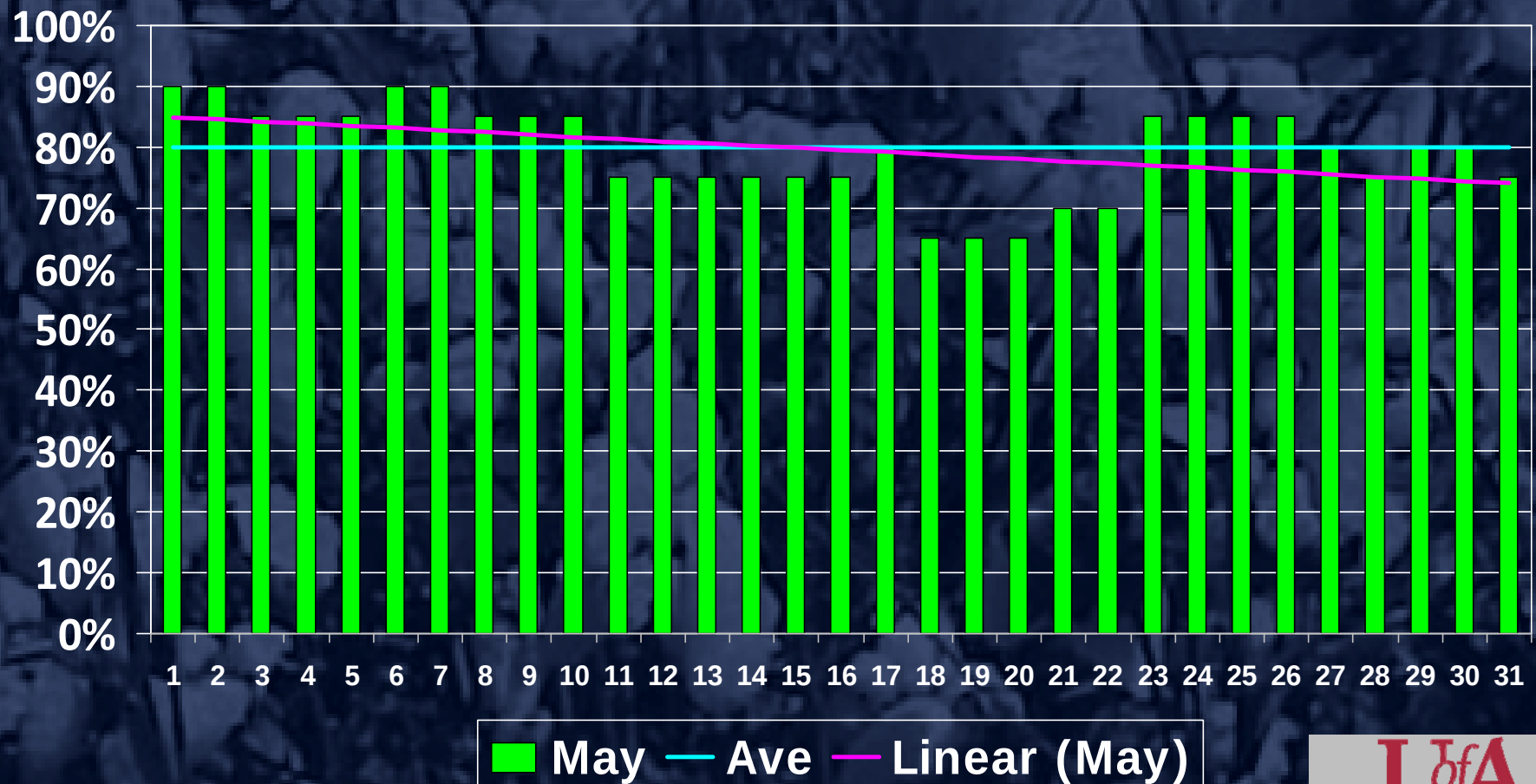
0.25" within 10 days



Keiser 20 yr.

May Activation Probabilities

0.25" within 10 days



Keiser 20 yr.

Suggestions

- Reflex PrePlant – 1 pt
–or
- Cotoran, Direx or Caparol PRE
- Roundup 1 X + Dual Mag at 1 lf
- Scout, Scout, Scout
- Roundup as needed for grass
- Post-direct if needed
- Valor 2 oz or Direx 1 pt layby
- Never let pigweed germinate!

“Proper” Hand Hoeing is an Option



I Don't Think So!!

