

# 2012: How Tillage and Application Timing of Reflex Affects Palmer Amaranth Control



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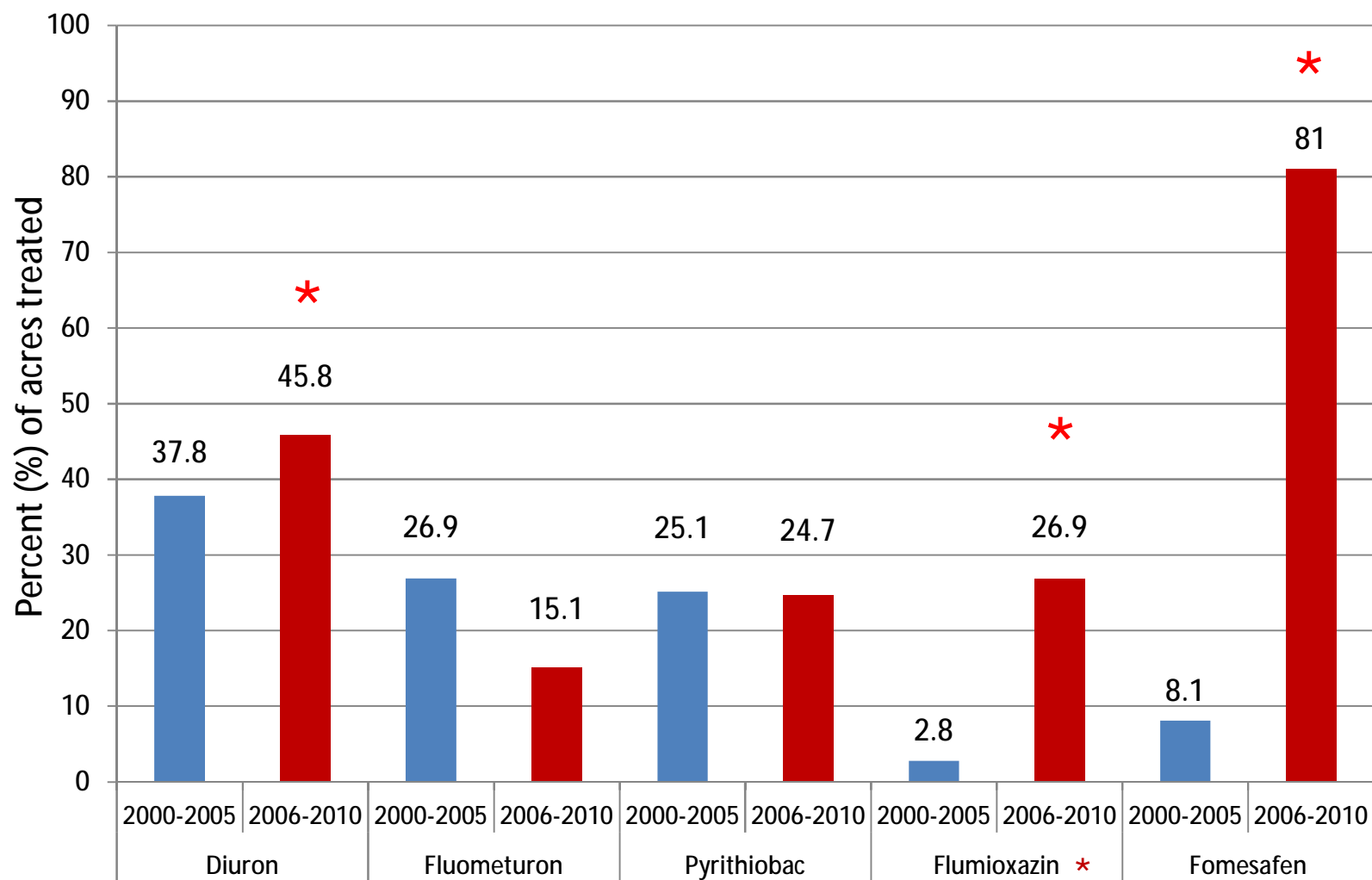
**<sup>1</sup> University of Georgia Cooperative Extension**

# Tillage is now a common scene



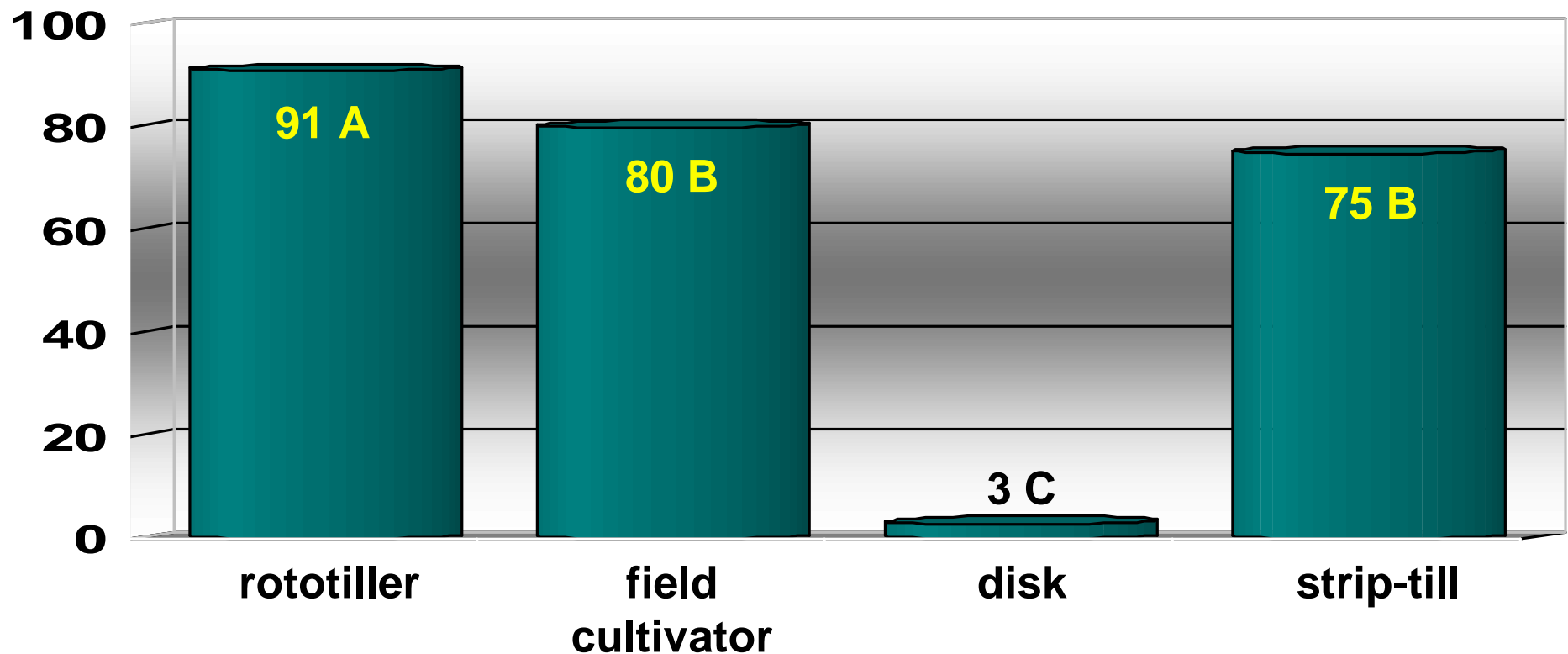
# Growers: Pre-plant\*/PRE herbicides applied

## Percent (%) of acres treated



# Percent control of Palmer amaranth by Reflex as impacted by tillage. 38 DAP.\*

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Prowl 1 pt/A + Reflex 1 pt/A

**PPI- shallow incorporation**



**PPI-Disk**



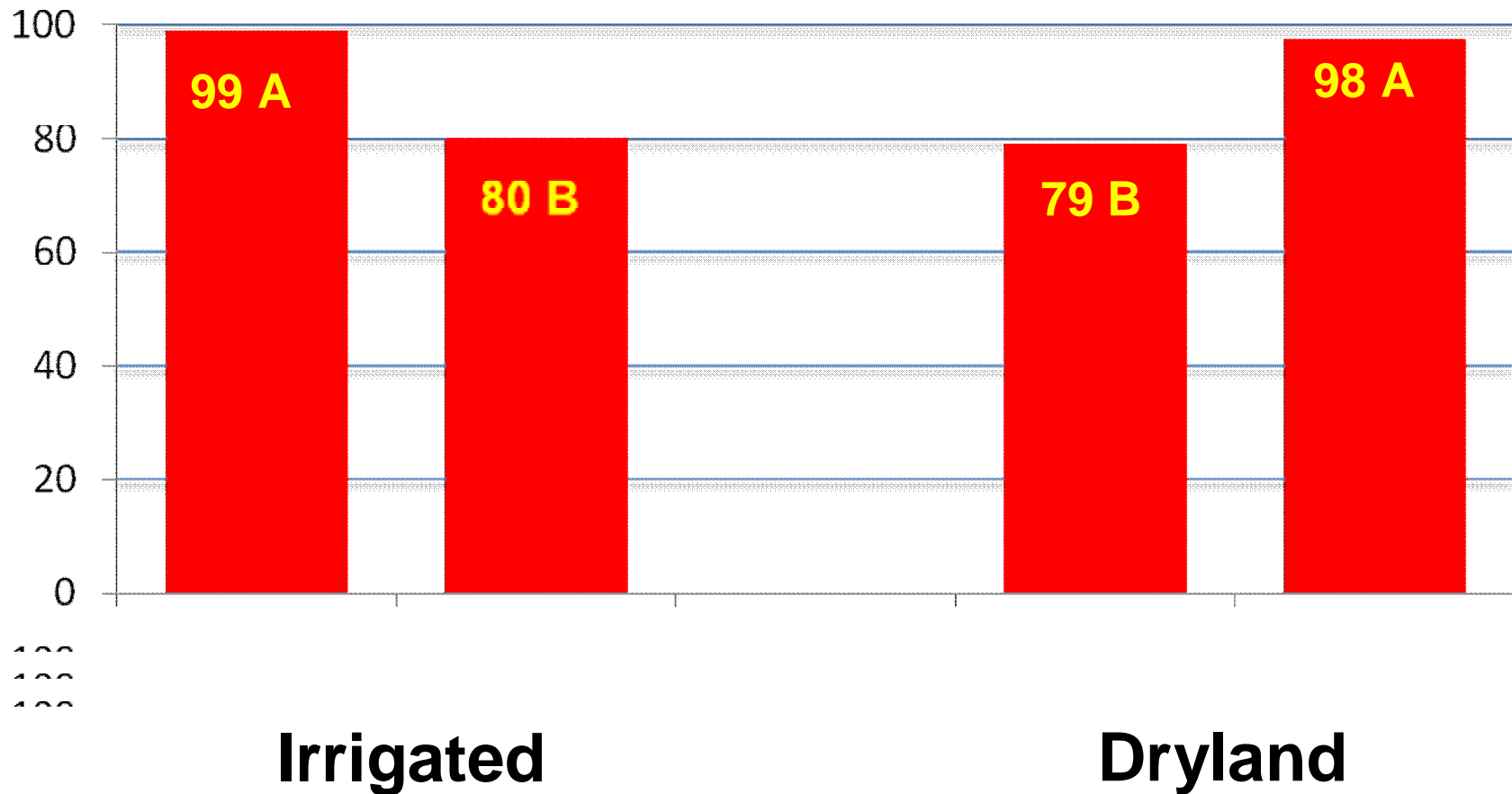
**Prowl (1 pt) + Reflex (1 pt)**

**30 days after treatment**

# Tillage in Cotton During 2010

<b>%PPI tillage</b>	<b>GA Counties</b>	<b>#</b>
<b>0</b>		<b>0</b>
<b>1-9</b>	<b>Worth, Pulaski, Tift, Berrien, Echols, Turner, Brooks, Pierce, Marion, Grady,</b>	<b>10</b>
<b>10-19</b>	<b>Emanuel, Montgomery, Atkins, Coffee, Lowndes, Dooly, Wilcox, Thomas, Crisp, Schley, Webster, Colquitt</b>	<b>11</b>
<b>20-29</b>	<b>Bullock, Jefferson, Treutlen, Wheeler, Daugherty</b>	<b>5</b>
<b>30-50</b>	<b>Effingham, Telfair, Tattnall, Dodge, Toombs, Jeff Davis, Bleckly, Early, Lanier, Irwin, Lee, Macon</b>	<b>13</b>
<b>&gt;50</b>	<b>Jenkins, Johnson, Washington, Screven, Wayne, Laurens, Randolf, Decatur, Seminole, Miller, Taylor Ben Hill</b>	<b>12</b>

# Percent Palmer Amaranth control with Reflex PPI and PRE in 2010.



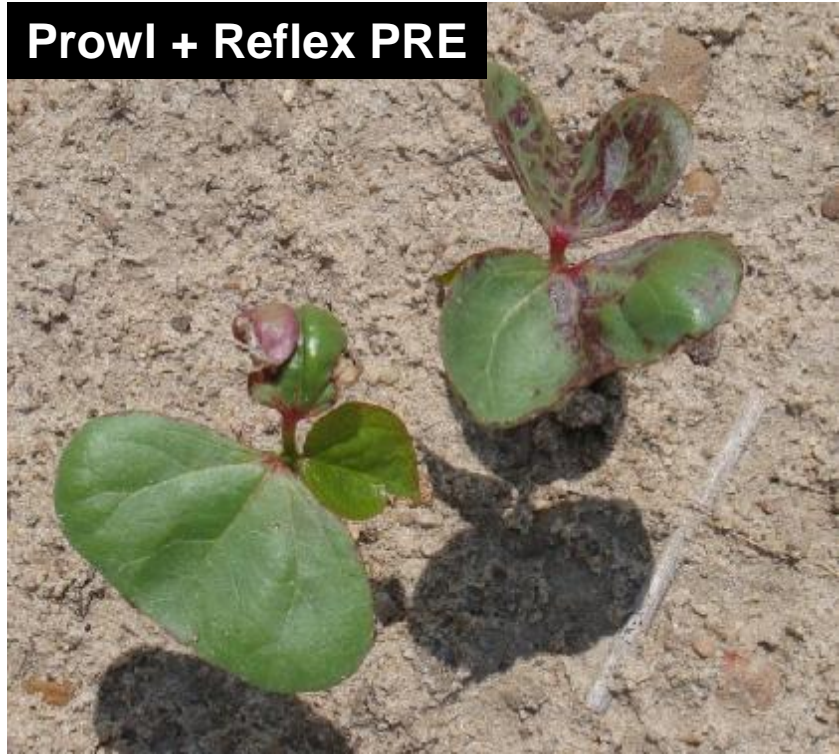
# Reflex: Soil moist at planting; rainfall 13 DAT.





**Cotton injury is a big concern for growers!!**





Irrigated May 13  
Planted May 14  
Irrigated May 19 during emergence

# Objective

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To determine if PRE, PPI or PRE and PPI split applications (PPI fb PRE) of Reflex has an impact on Palmer amaranth control.

# Materials and Methods

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- Tift County
- Plot Size 6 by 25 feet
- Replicated 4 times
- Randomized Complete Block Design
- DP 1050 BRF
- 10 Treatments

# Application Methods

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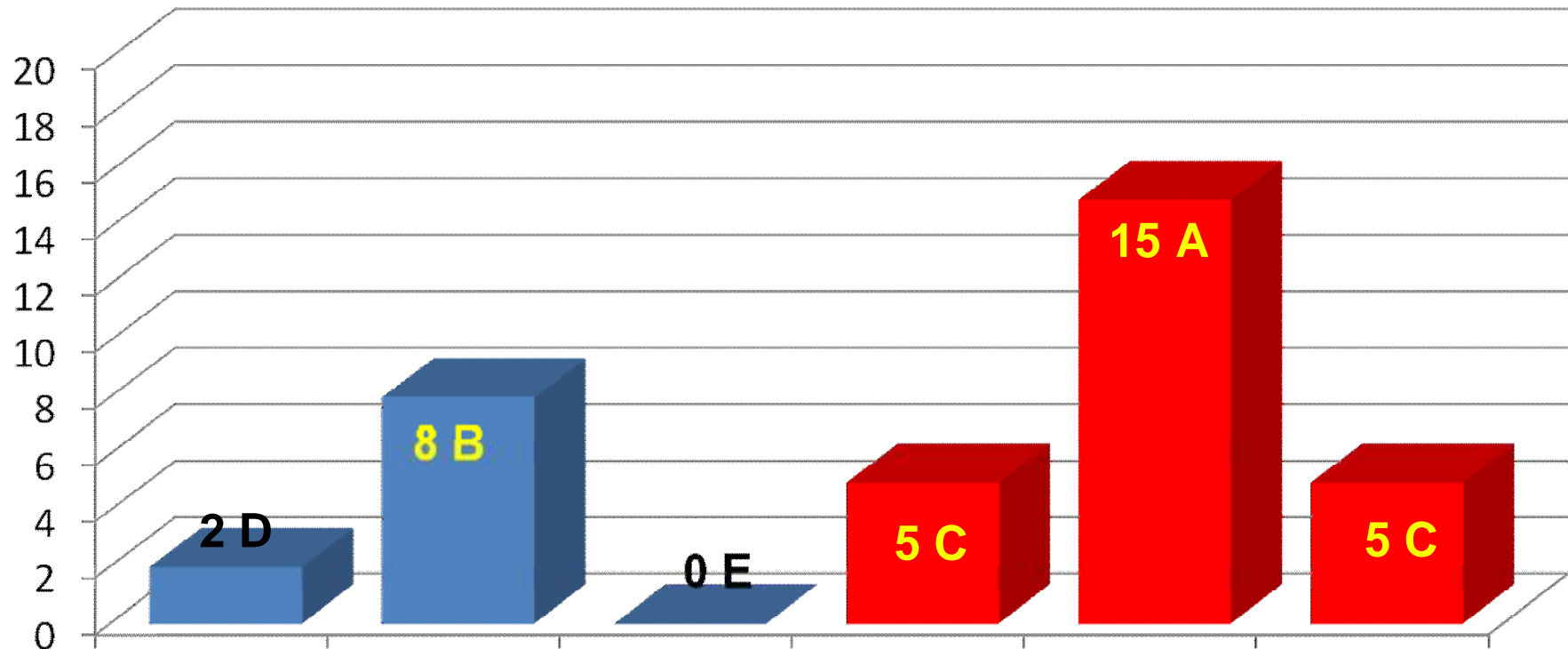
- PPI with a field cultivator before planting
- PRE immediately after planting
- Irrigated (no irrigation or rainfall for 7 DAT)

# Herbicide Treatments: Comparison 1

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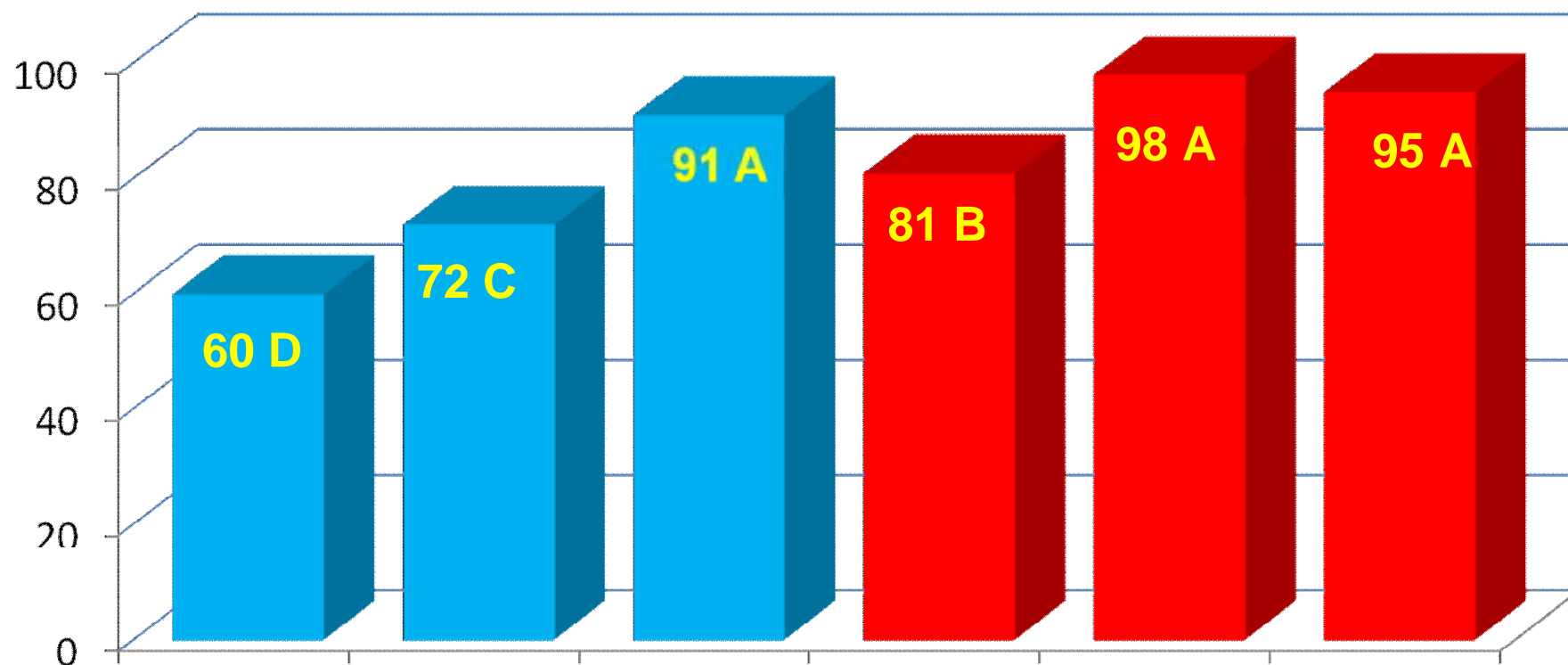
- PPI Options:
  - Prowl + Reflex 1 pt/A
  - Prowl + Reflex 1.5 pt/A
- PRE Options:
  - Prowl + Reflex 1 pt/A
  - Prowl + Reflex 1.5 pt/A
- Split (PPI fb PRE)
  - Prowl + Reflex 0.5 pt/A fb Reflex 0.5 pt/A
  - Prowl + Reflex 0.75 pt/A fb Reflex 0.75 pt/A

# Percent cotton injury with Reflex PPI, PRE, or Split Applied at 12 DAT.



Prowl H2O 2 pts/A included with all treatments.

# Percent Palmer Amaranth control with Reflex PPI, PRE, or Split Applied at 35 DAT.



Prowl H2O 2 pts/A included with all treatments.



Non-treated



Prowl + Reflex 1 pt PPI



Prowl + Reflex 1 pt PRE



# Prowl + Reflex ½ pt fb ½ pt Split Application

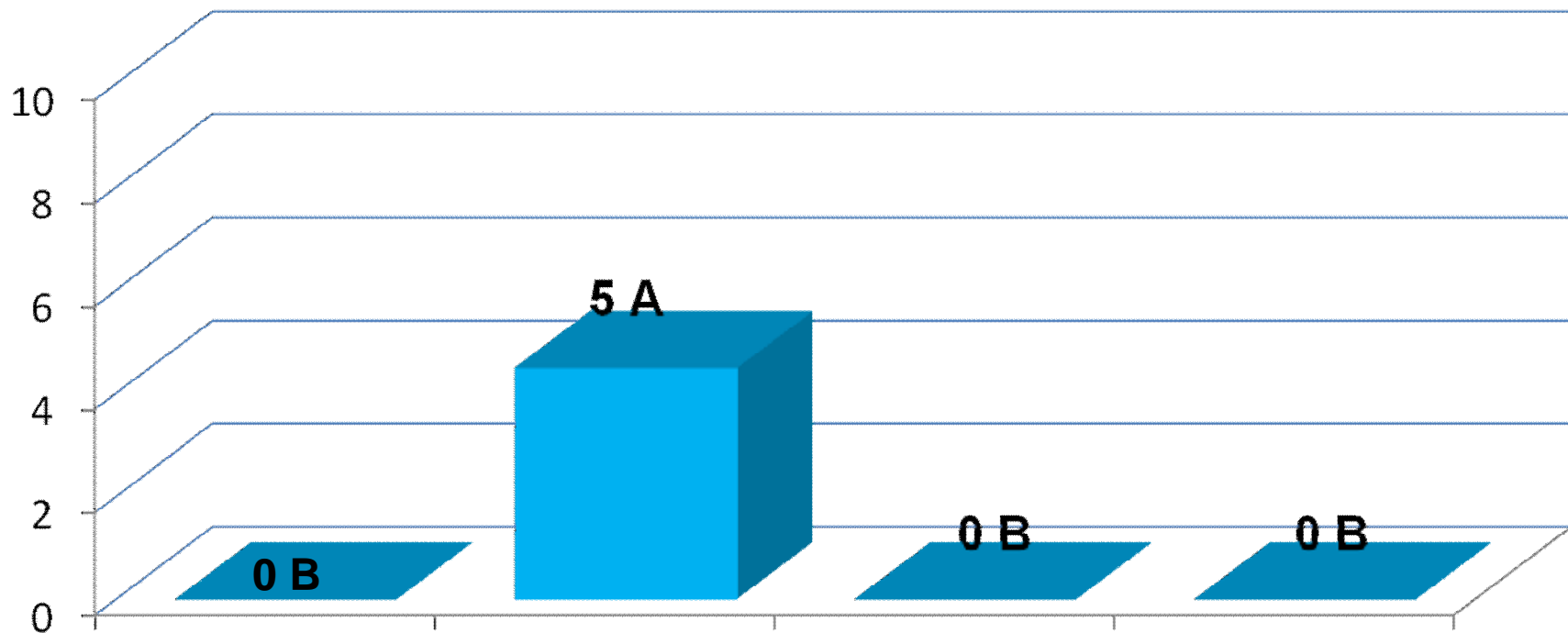


# Herbicide Treatments: Comparison 2

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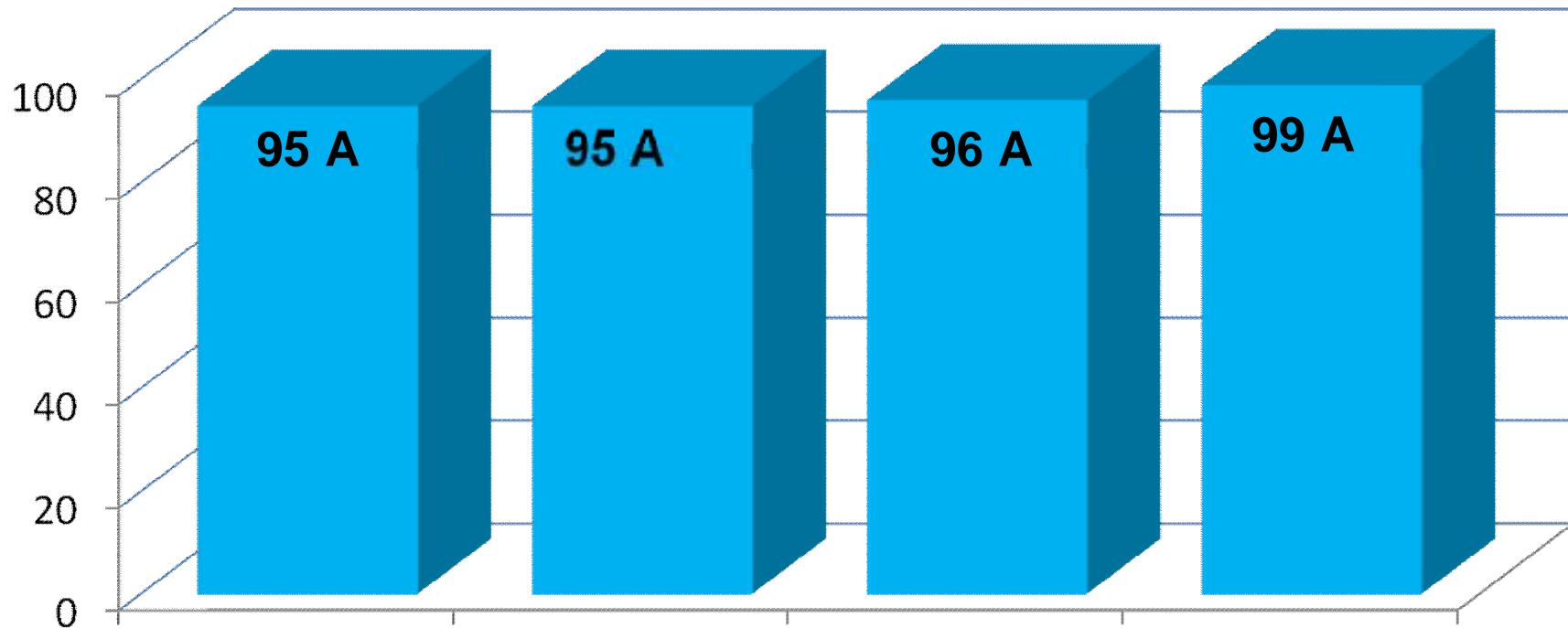
- Split (PPI fb PRE)
  - Prowl + Reflex 0.75 pt/A fb Reflex 0.5 pt/A
  - Prowl + Reflex 0.75 pt/A fb Reflex 0.75 pt/A
  - Prowl + Reflex 1 pt/A fb Reflex 0.5 pt/A
  - Prowl + Reflex 0.75 pt/A fb Reflex 0.5 pt/A + diuron

# Percent cotton injury with Reflex Split Applied at 12 DAT.



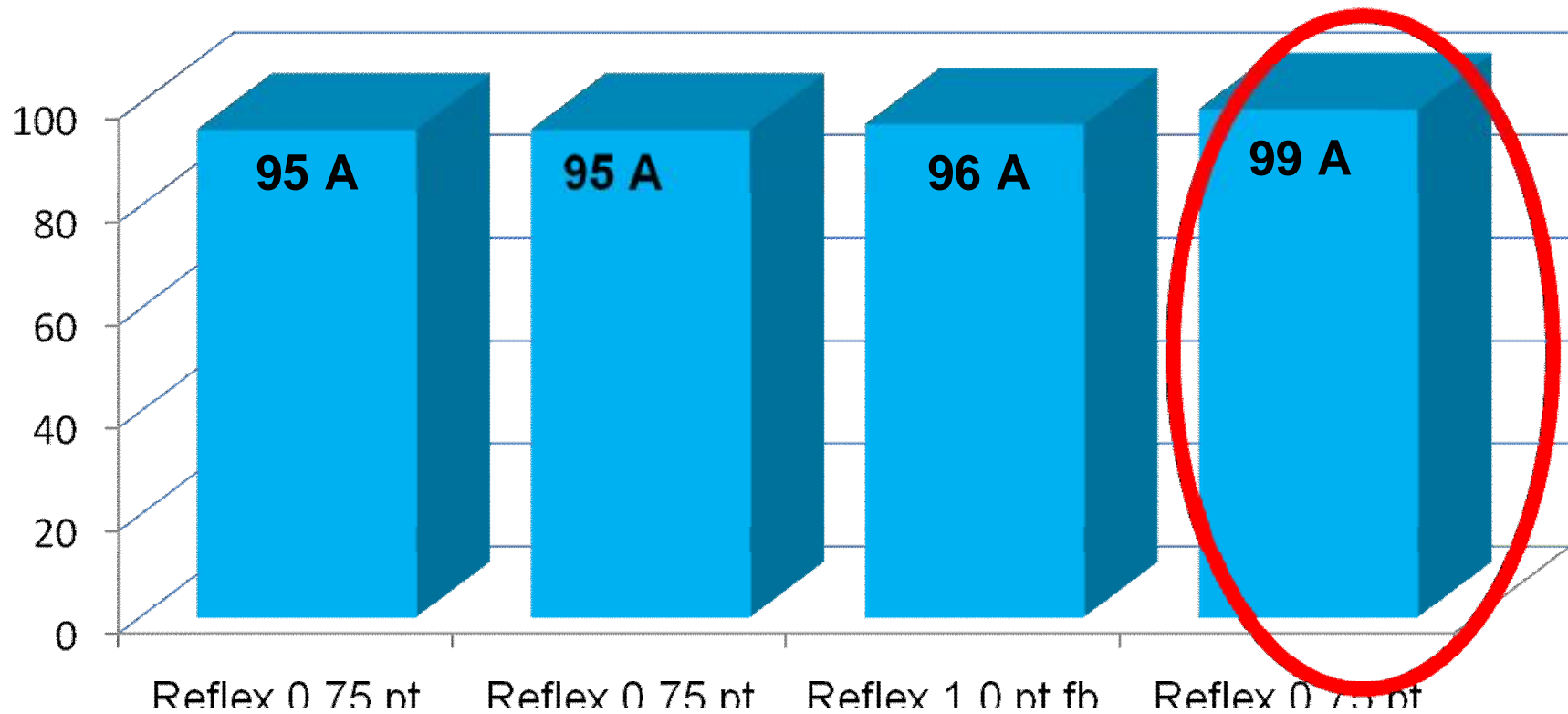
Prowl H2O 2 pts/A included with all treatments.

# Percent Palmer control with Reflex Split Applied at 35 DAT.



Prowl H2O 2 pts/A included with all treatments.

# Percent Palmer control with Reflex Split Applied at 35 DAT.



Prowl H2O 2 pts/A included with all treatments.



# Conclusions

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- In irrigated production, PRE applications are more effective if injury is not a concern.
- In dryland production, the split applications give you the best of both worlds.

# Any Questions?

