



# Cotton

## Foliar Diseases

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**Research Station**





# *Foliar Diseases*

- ✓ **Bacterial Blight (*Xanthomonas*)**
- ✓ **Ascochyta Blight (*Ascochyta*)**
- ✓ **Cercospora (*Cercospora*)**
- ✓ **Alternaria (*Alternaria*)**



**Most  
Common**

**Alternaria  
Cercospora**





# ***Alternaria***



- ✓ **Alternaria: *Alternaria macrospora***
- ✓ **Brown Lesions / Purple Margin**
- ✓ **Concentric rings**
- ✓ **Gray and dry, shot hole**
- ✓ **Centers Sooty (Spores)**



# Cercospora



- ✓ Cercospora (*C. gossypina*)
- ✓ Early: Red Lesions
- ✓ White to Light Brown Center
- ✓ Concentric zones / Red Margins
- ✓ Dark Gray Center / Spores







# Disease Development

✓ **Overwinters on Plant**

**Debris**

✓ **Warm (68-86F)**

✓ **Wet / High RH**





# Disease Development

- ✓ Senescing Plants
- ✓ Stress
- ✓ Nutrient Def.







# **Are Fungicides Needed To Manage Foliar Disease?**



# Evaluations

**2005 – 1 Trial**

**2006 - 1 Trial**

**2007 - 2 Trial**





# Fungicides Used

✓ **Quadris 2.08SC**

**(6.2 and 9.0 fl oz/A)**

✓ **Headline 2.08EC**

**(6.14 fl oz/A)**



# Materials and Methods

## Spray Data

**2005: 15.9 GPA @ 40psi / Flat Fan 80015 or 8002**

**2006: 15.9 GPA @ 35psi / Flat Fan 8002**

**2007: 11.5-15.9 GPA @ 35-40psi / ULD or Flat Fan 8002**

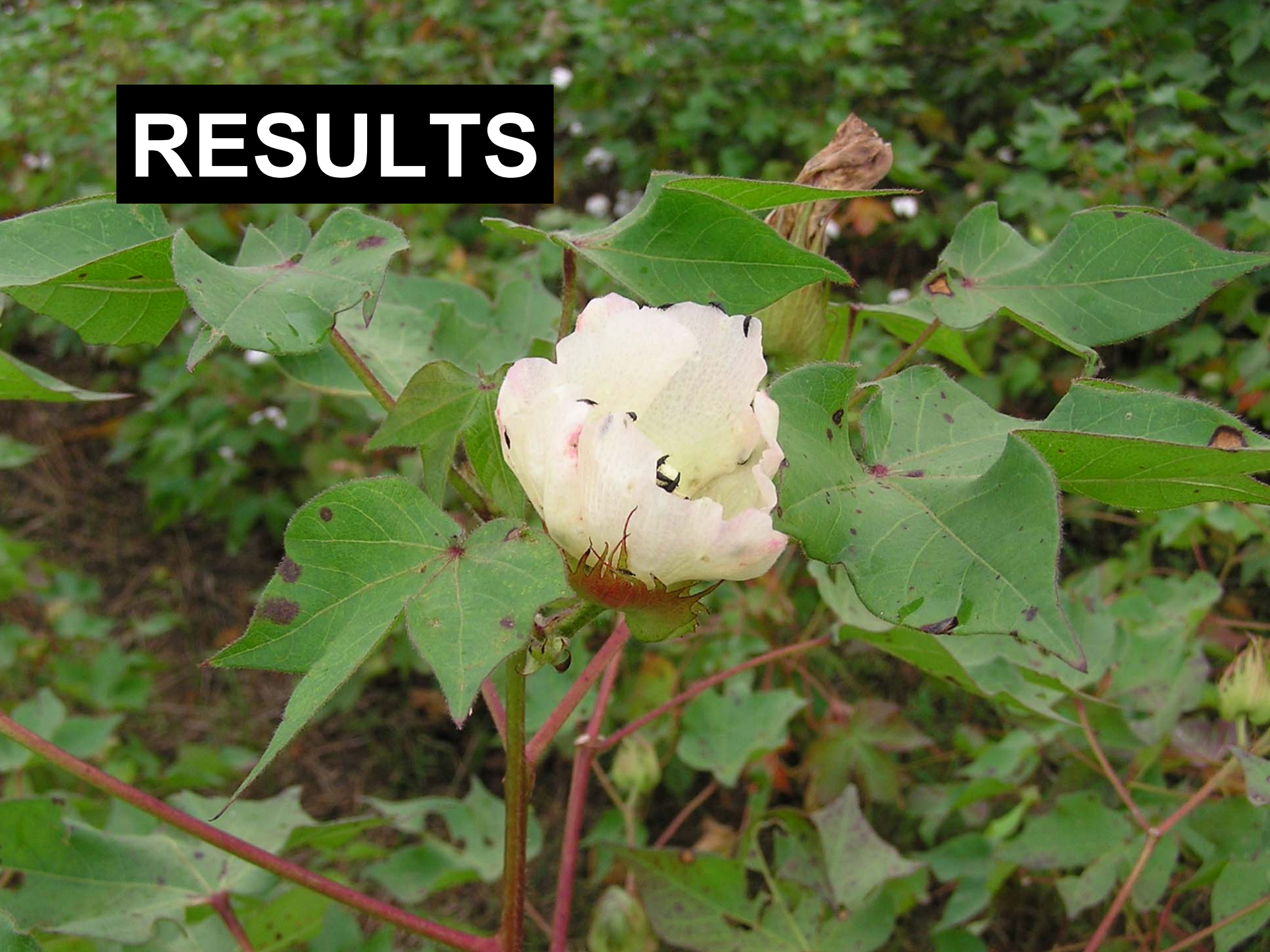


# **Materials and Methods**

## **Data Collection**

- ✓ **Monitored Plots for Disease**
- ✓ **Rated for Incidence and Severity  
Late Season (Foliar / Hardlock)**
- ✓ **Harvested Mechanical Picker**

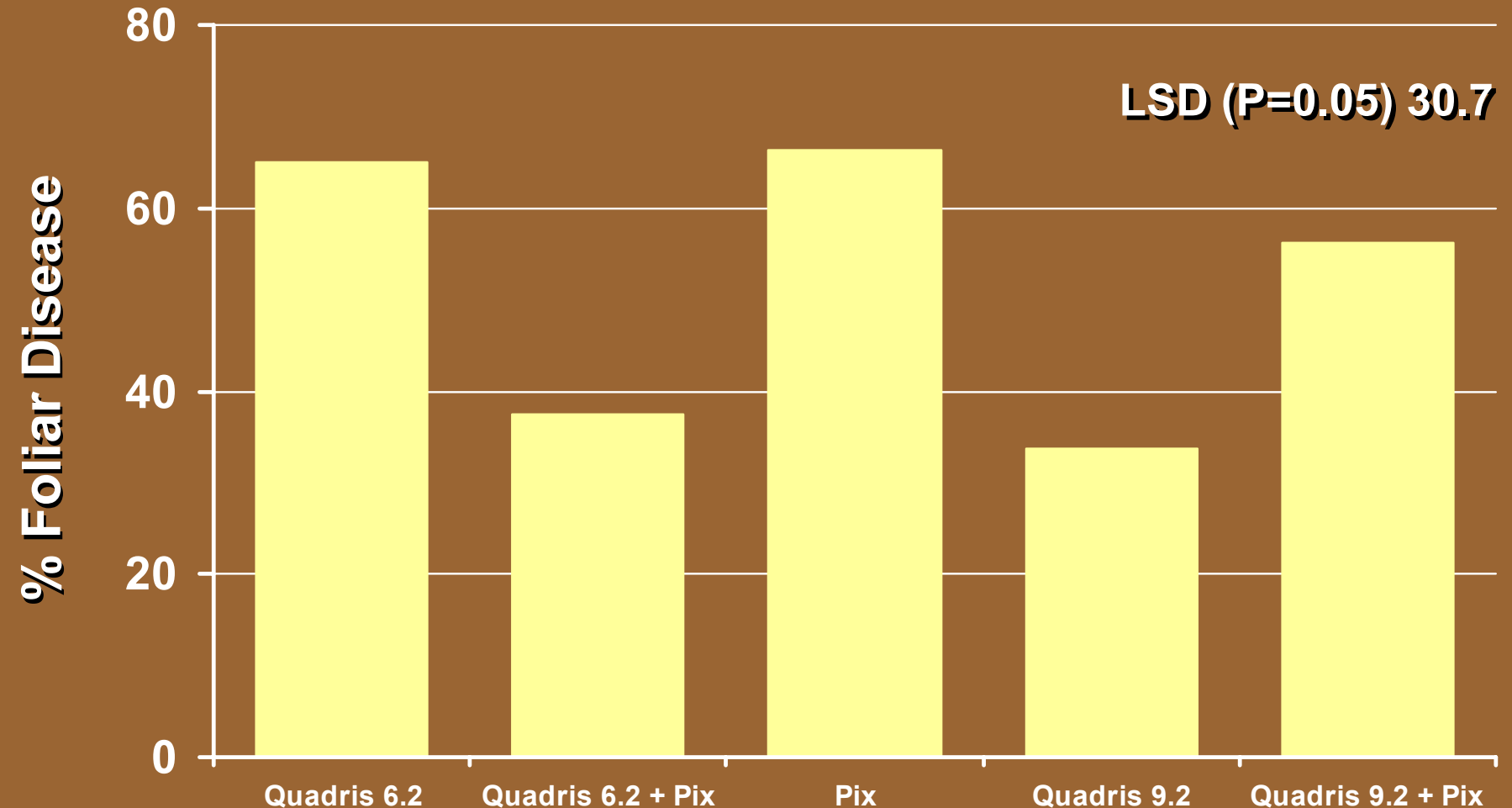
# RESULTS







# 2005 Hardlock Foliar Disease Study



# Quadris Study, 2005

Treatment (fl oz/A) <sup>1</sup>	Yield (lb/A)
Pix (8.0)	2543
Pix (8.0) + Quadris (6.2)	2547
Quadris (6.2)	2652
Pix (8.0) + Quadris (9.2)	2906
Quadris (9.2)	2561
LSD (P=0.10)	386

Applications were made at First Flower and 14 Days later.

MRCT0506



# Quadris Study, 2006

Treatment (fl oz/A) <sup>1</sup>	2006		Yield (lb/A)
	% Red	% Foliar	
Pix (8.0)	63.8	2.0	1884
Pix (8.0) + Quadris (6.0)	60.0	1.0	2165
Quadris (6.0)	65.0	1.0	2241
Pix (8.0) + Quadris (9.0)	65.0	1.0	2107
Quadris (9.0)	56.3	1.0	1932
LSD (P=0.05)	37.2	1.3	684

Applications were made at First Flower and 14 Days later.

MRCT0605

# Quadris Study, 2007

Treatment (fl oz/A) <sup>1</sup>	% Foliar			Yield (lb/A)
	Incidence	Severity	% Vigor	
Pix (8.0)	100	12.5	92.5	2764
Pix (8.0) + Quadris (6.0)	100	11.3	95.0	2910
Pix (8.0) + Quadris (9.0)	100	17.5	95.0	2966
LSD (P=0.05)	0	8.0	4.9	415

Applications were made at First Flower and 28 Days later.

MRCT0701

# Headline Study, 2007

Treatment (fl oz/A) <sup>1</sup>	GS @ Appl	% Discolor Leaves	Yield (lb/A)
Check	--	8.8	2758
Headline (6.14)	A	5.0	2919
Headline (6.14)	B	6.8	2850
Headline (6.14)	AB	4.0	3077
LSD (P=0.05)	--	11.0	414

Applications: First Flower + 14 Days (A) and 14 Days later (B).

MRCT0708



# ***SUMMARY***

- ✓ **Disease was Low in 06 and 07**
- ✓ **Fungicides Did Not Affect Disease**
- ✓ **Fungicides Did Not Improve Yields ?????**
- ✓ **Results May Differ Under More Pressure ?????**



# ***THANK YOU***



- ✓ **Myra Purvis**
- ✓ **Co-Workers**
- ✓ **Student / Farm Labor**
- ✓ **BASF**
- ✓ **Syngenta**

