



**BUSTIN' LOOSE: SOYBEAN  
RUST SWEEPS ACROSS  
TEXAS IN 2007**

**THOMAS ISAKEIT**

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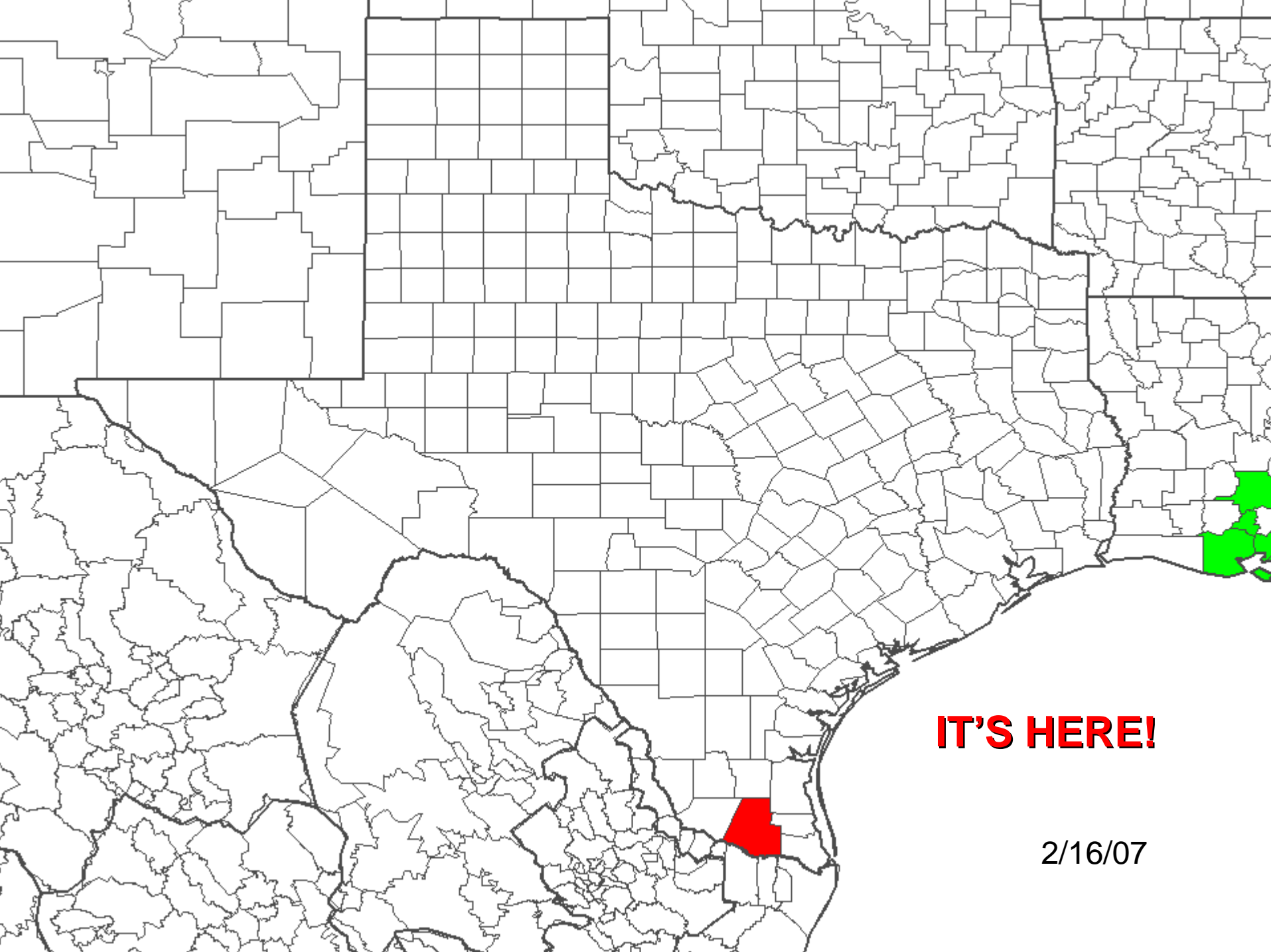
**IN 2007, SOYBEAN RUST WAS SO PREVALENT IN MY LIFE, IT PERMEATED MY DREAMS.....**



**MY MANTRA: "LOOK FOR YELLOW ON THE LEAVES..."**

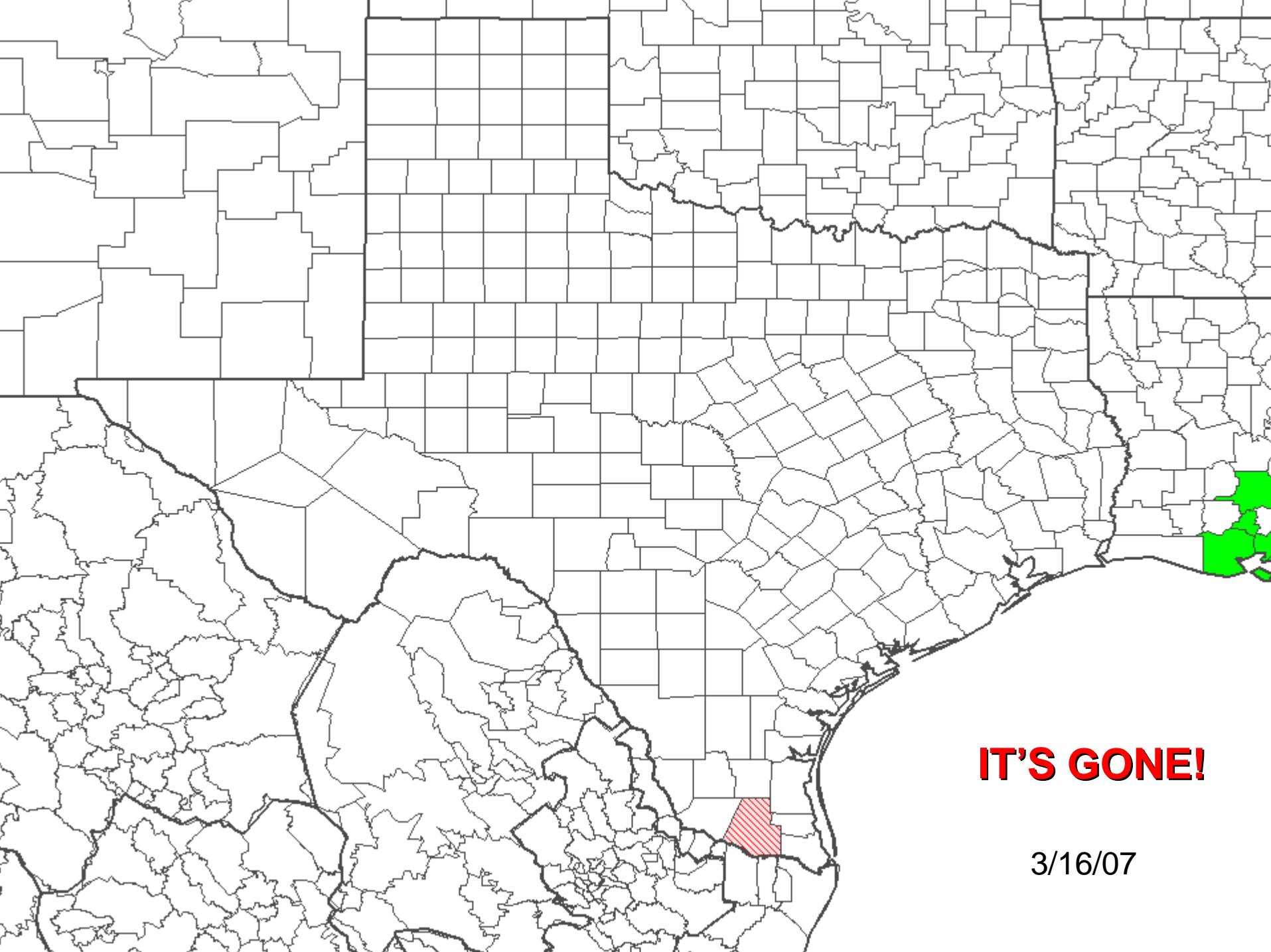


**...THEN, TURN THE LEAF OVER."**



**IT'S HERE!**

2/16/07

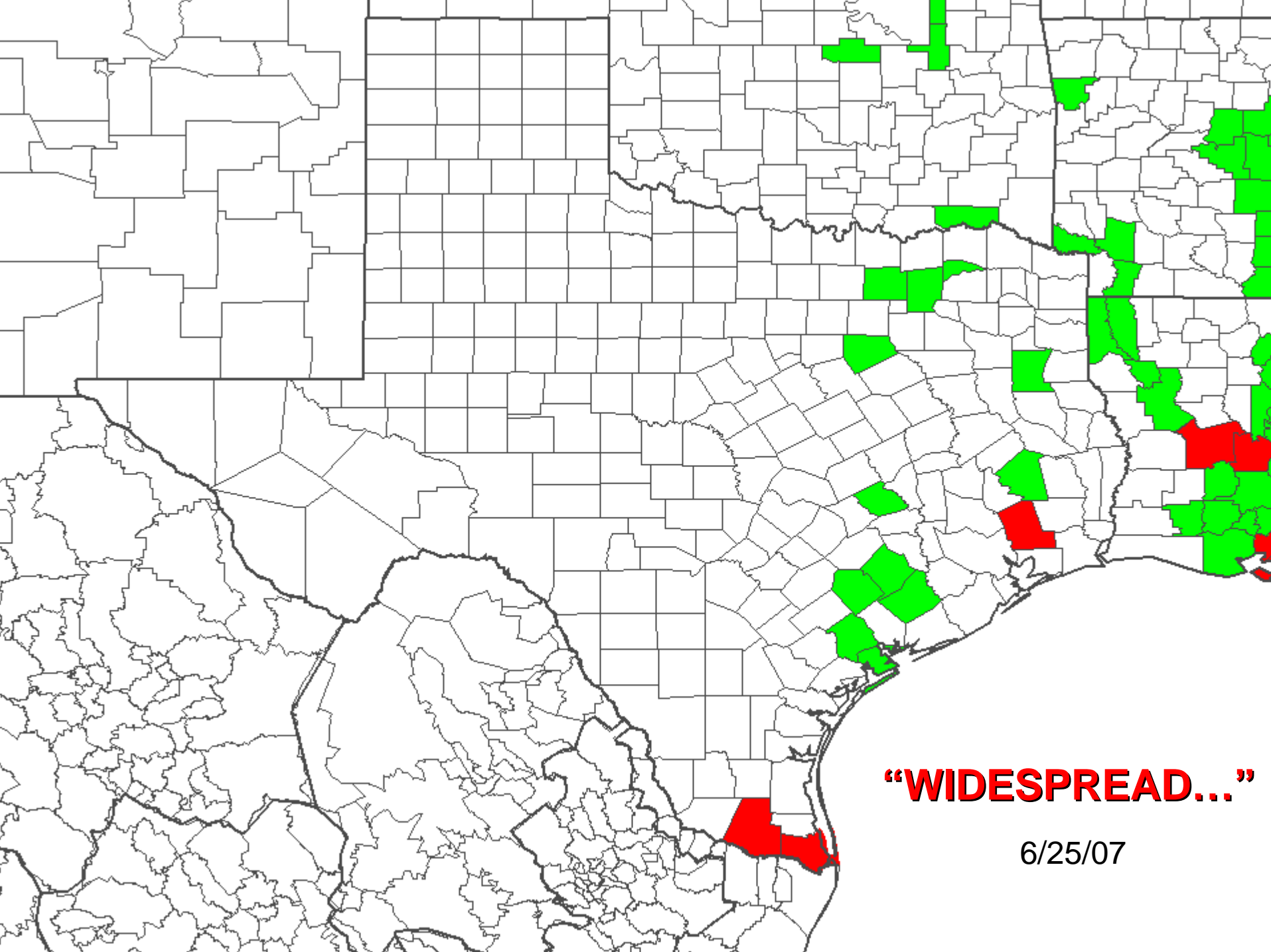


**IT'S GONE!**

3/16/07

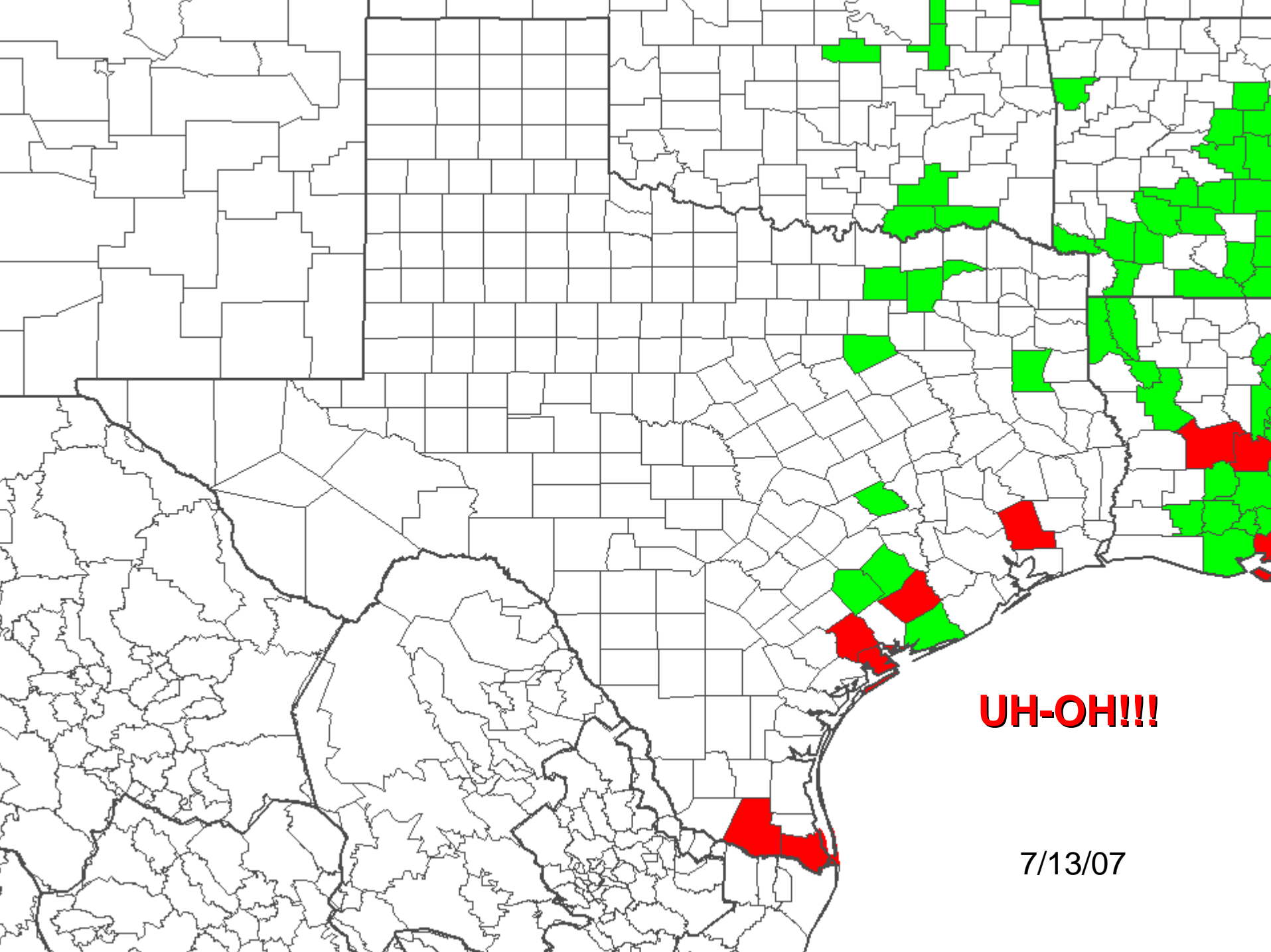






**“WIDESPREAD...”**

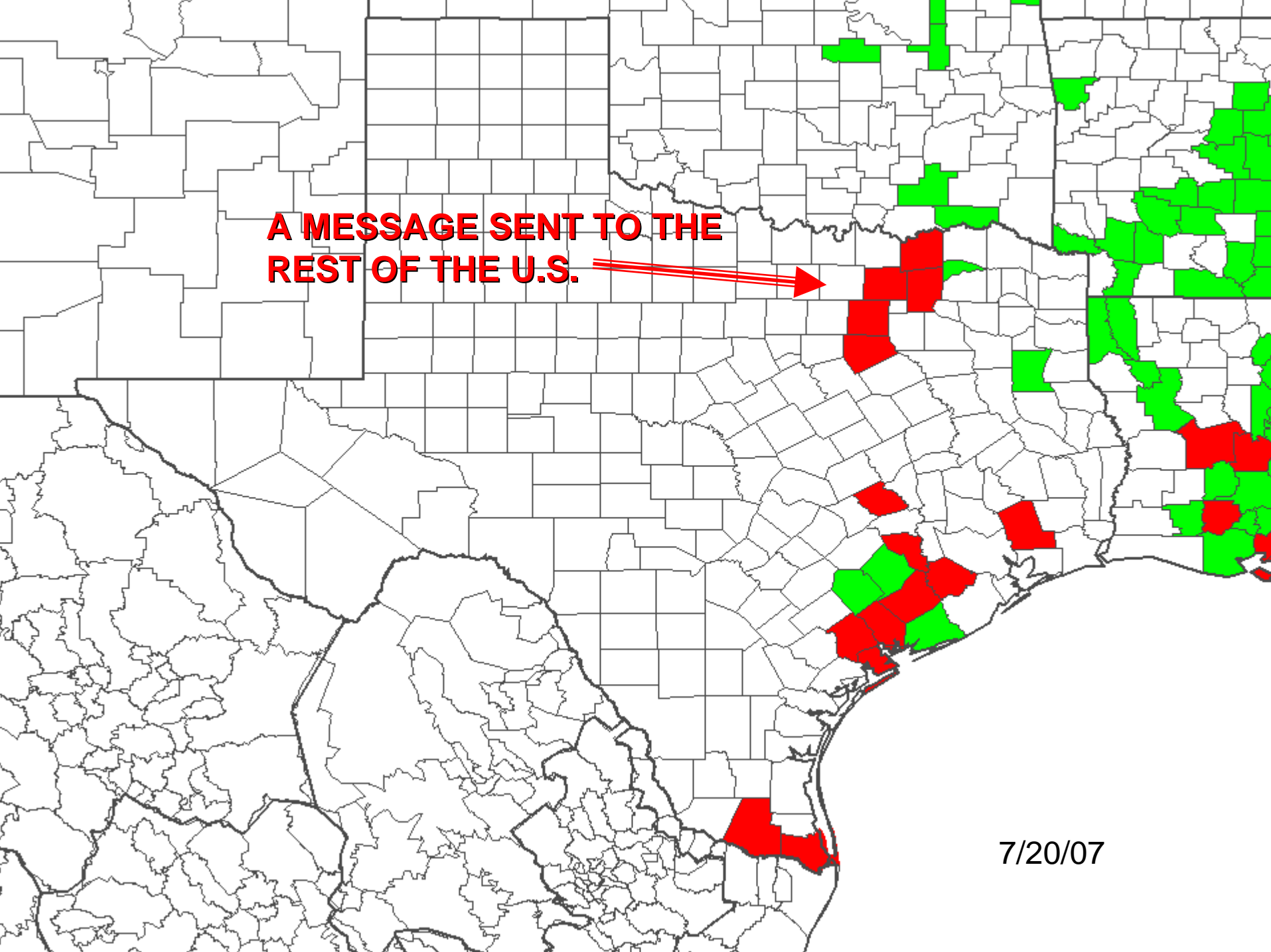
6/25/07



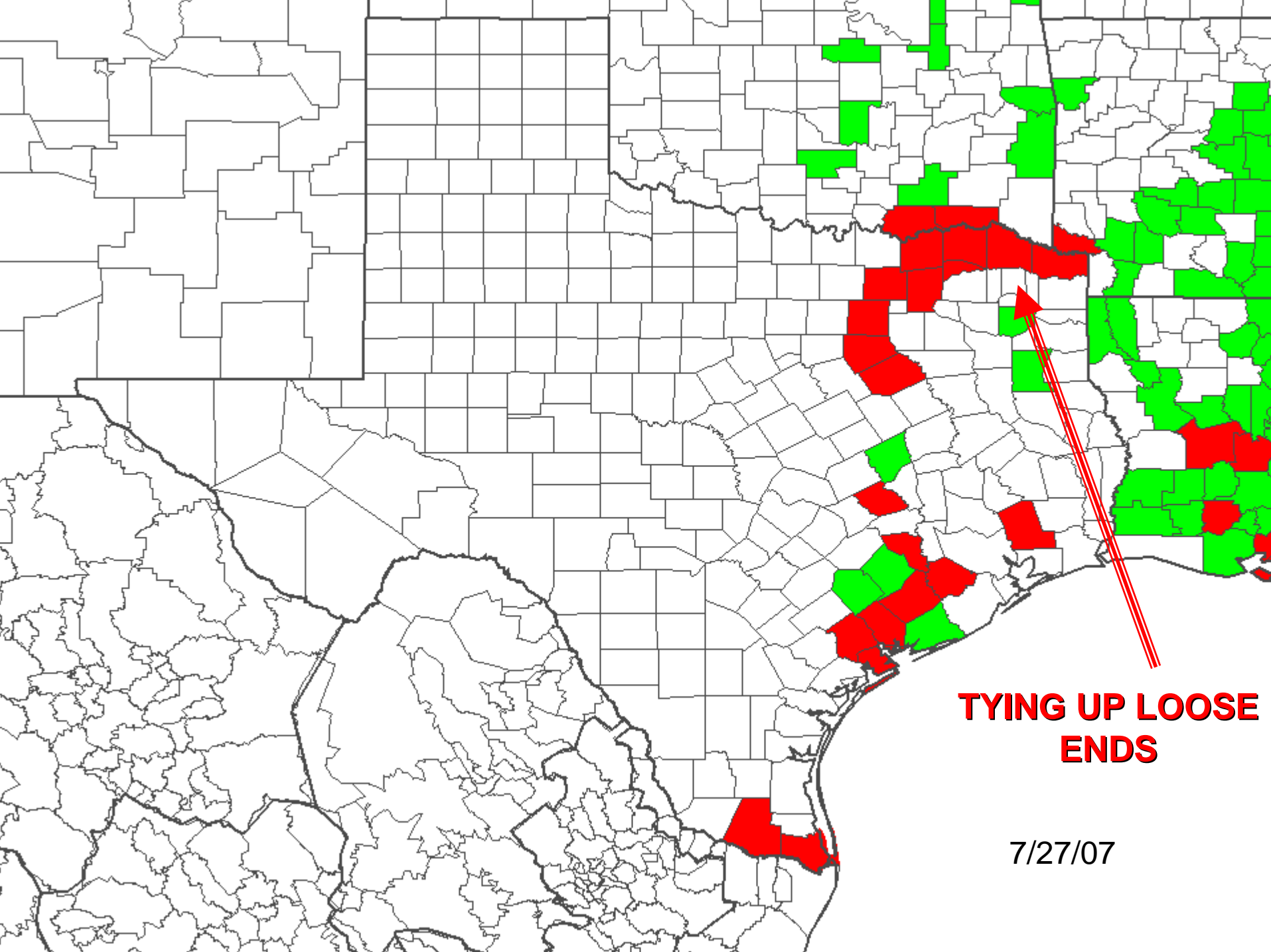
**UH-OH!!!**

7/13/07

**A MESSAGE SENT TO THE  
REST OF THE U.S.**

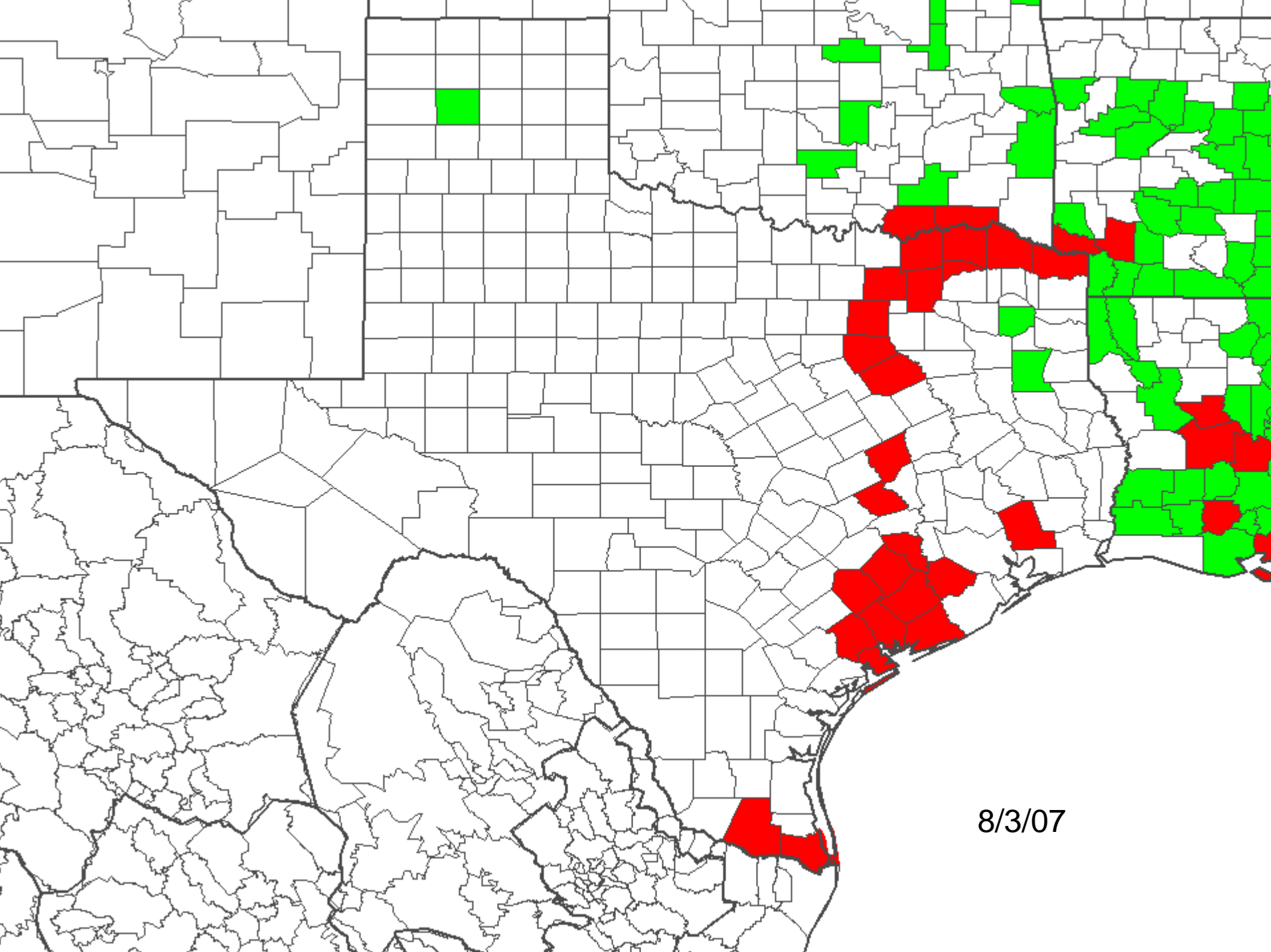


7/20/07

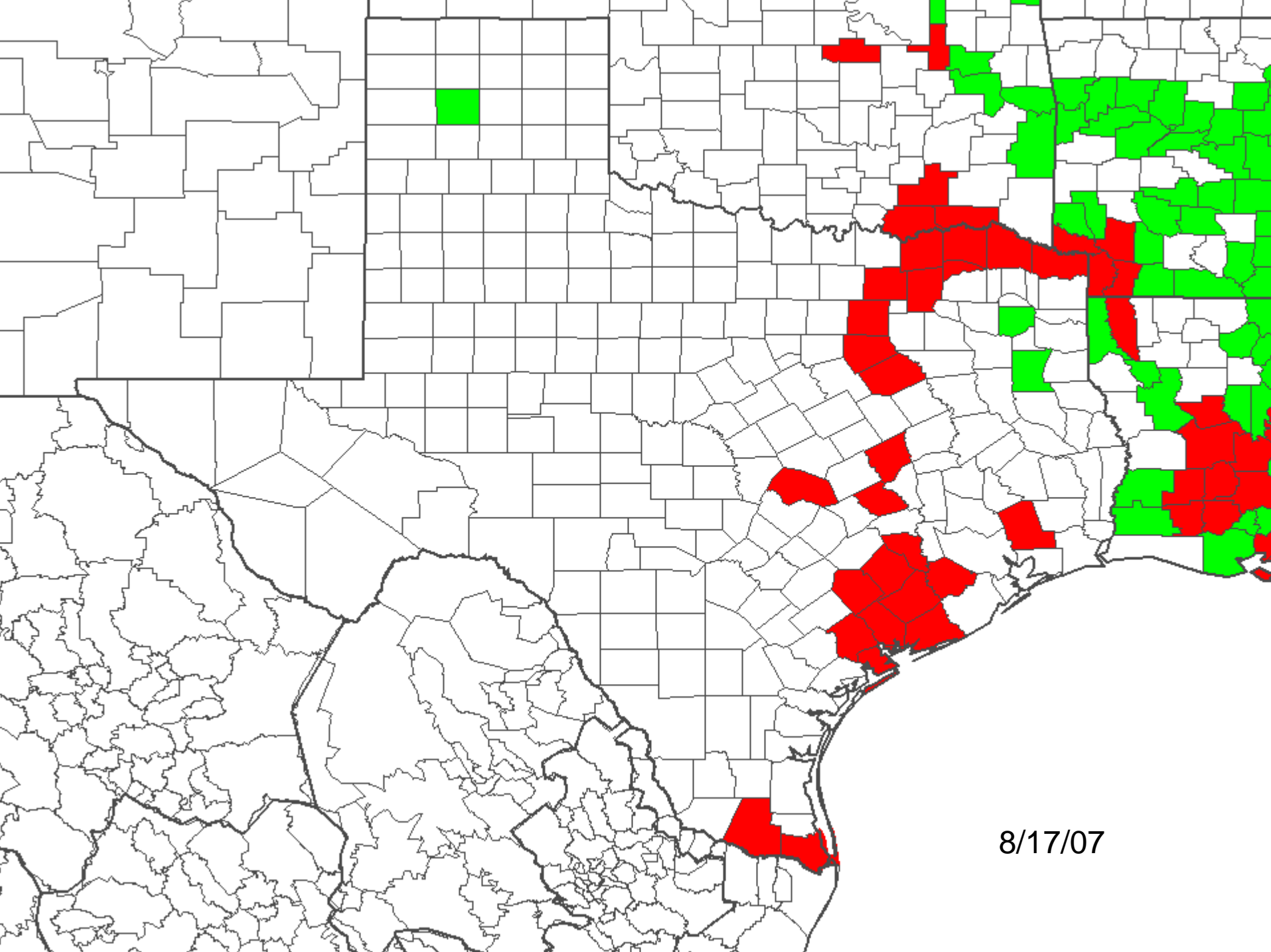


**TYING UP LOOSE  
ENDS**

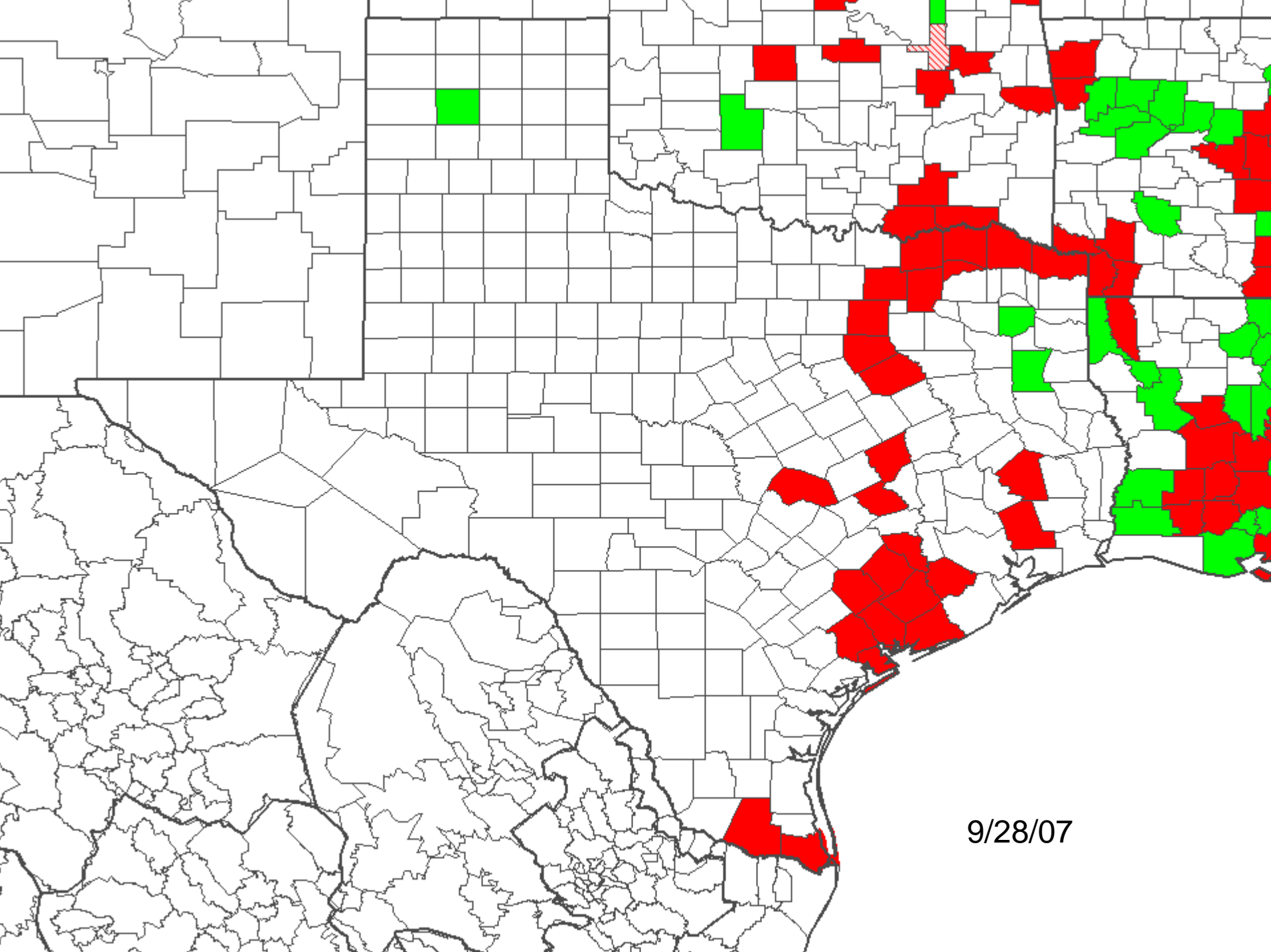
7/27/07



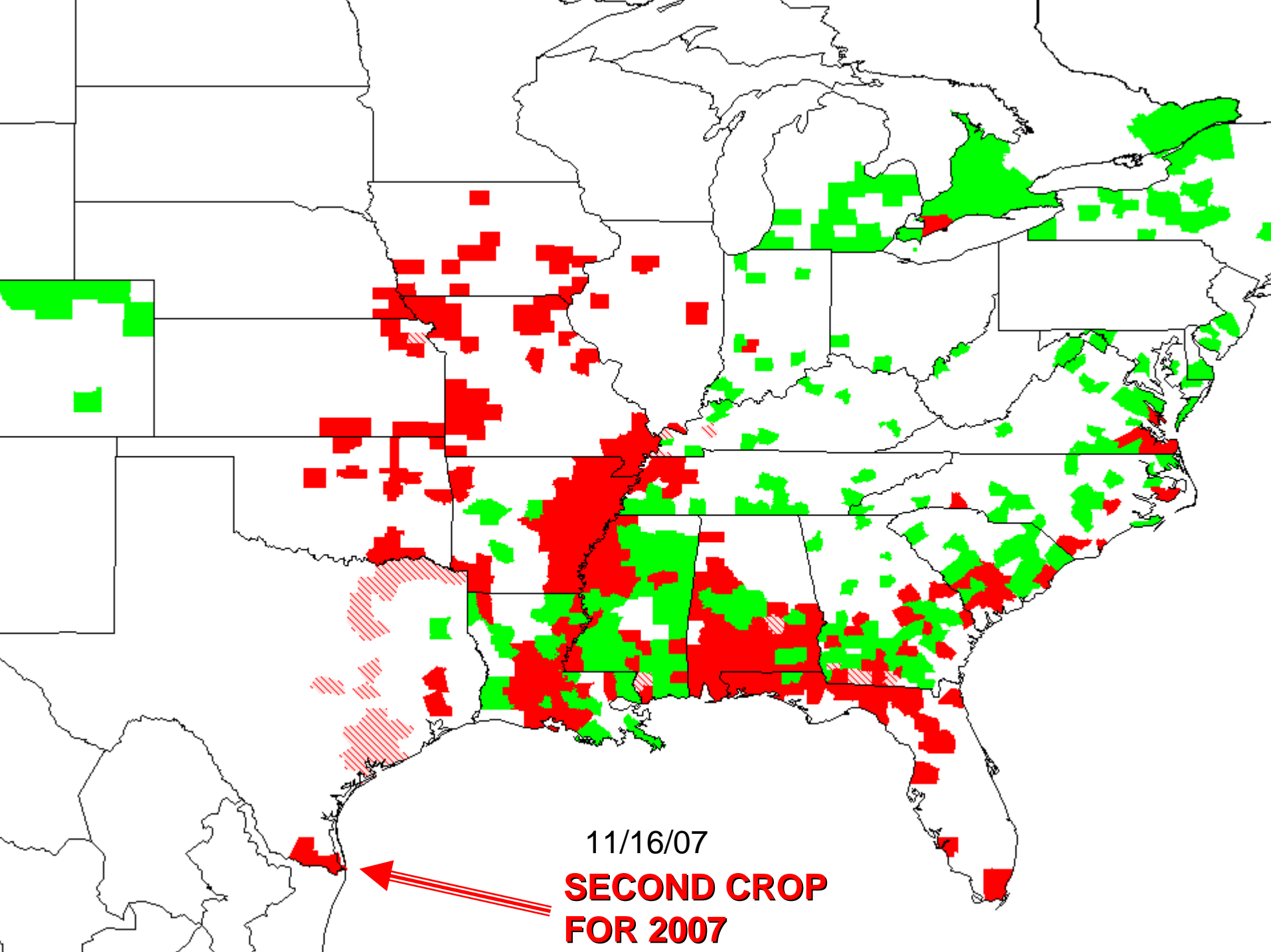
8/3/07



8/17/07



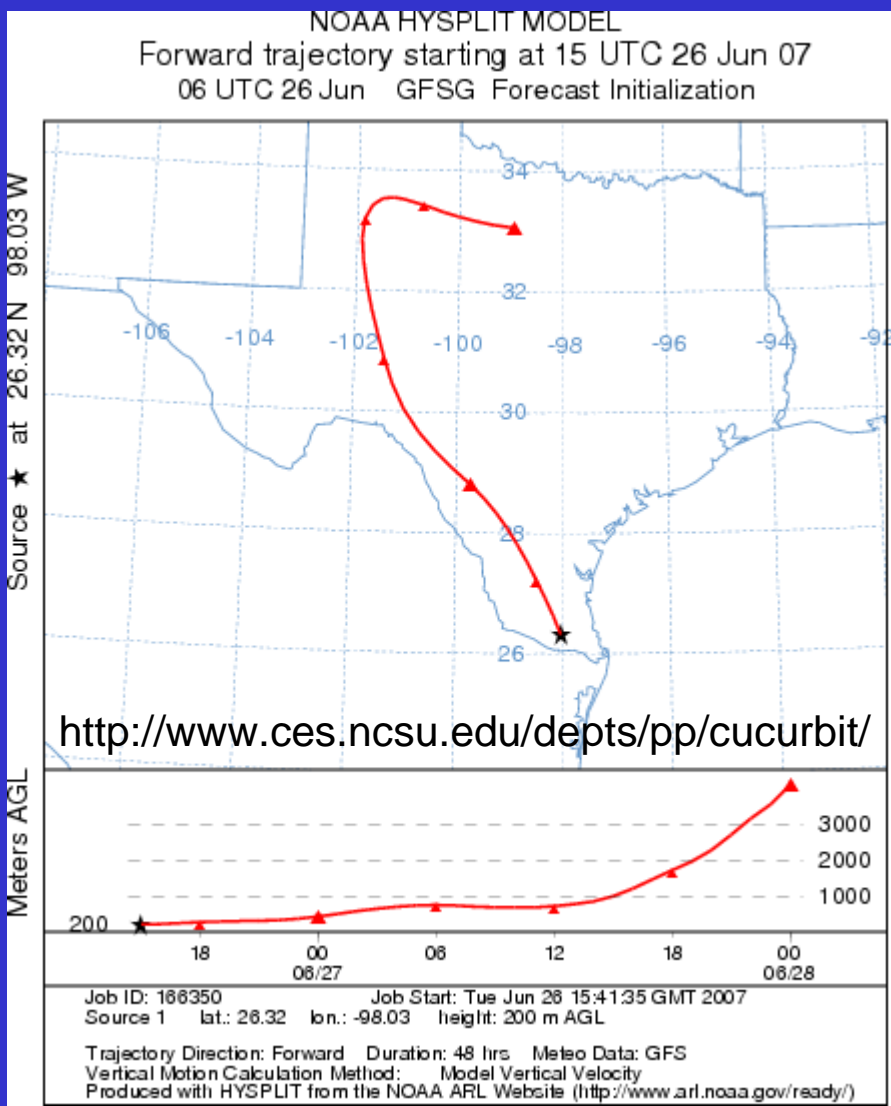
9/28/07



11/16/07

**SECOND CROP  
FOR 2007**

# No rust in the High Plains sentinel plot in 2007, but plenty of cucurbit downy mildew all the way up there, moving from south Texas



# SEVERE RUST IN VICTORIA COUNTY, MID-JULY, 2007



# LOSSES?

- LESS SOYBEAN ACREAGE IN TEXAS IN 2007 (80,000 ACRES):  
NO YIELD LOSS DATA
- HEAVIEST RUST AROUND VICTORIA, LESS FURTHER NORTH
- REDUCED YIELD IN VICTORIA AREA DUE TO DIRECT EFFECTS OF EXCESSIVE RAIN

# LRGV: WESLACO SENTINEL PLOTS...



**... THEY  
DIDN'T WORK!**

# ELLIS COUNTY SENTINEL PLOT....



...HEAVY RUST OUTSIDE OF SENTINEL PLOT

# **RUST DIAGNOSIS: easy in the south, not in the north**



**SOUTH: NOTHING ELSE OR DISTINCTIVE**



**NORTH: MORE "CLUTTER"**

# **WE NEED LOCALLY- GENERATED THRESHOLD AND FUNGICIDE EFFICACY DATA**

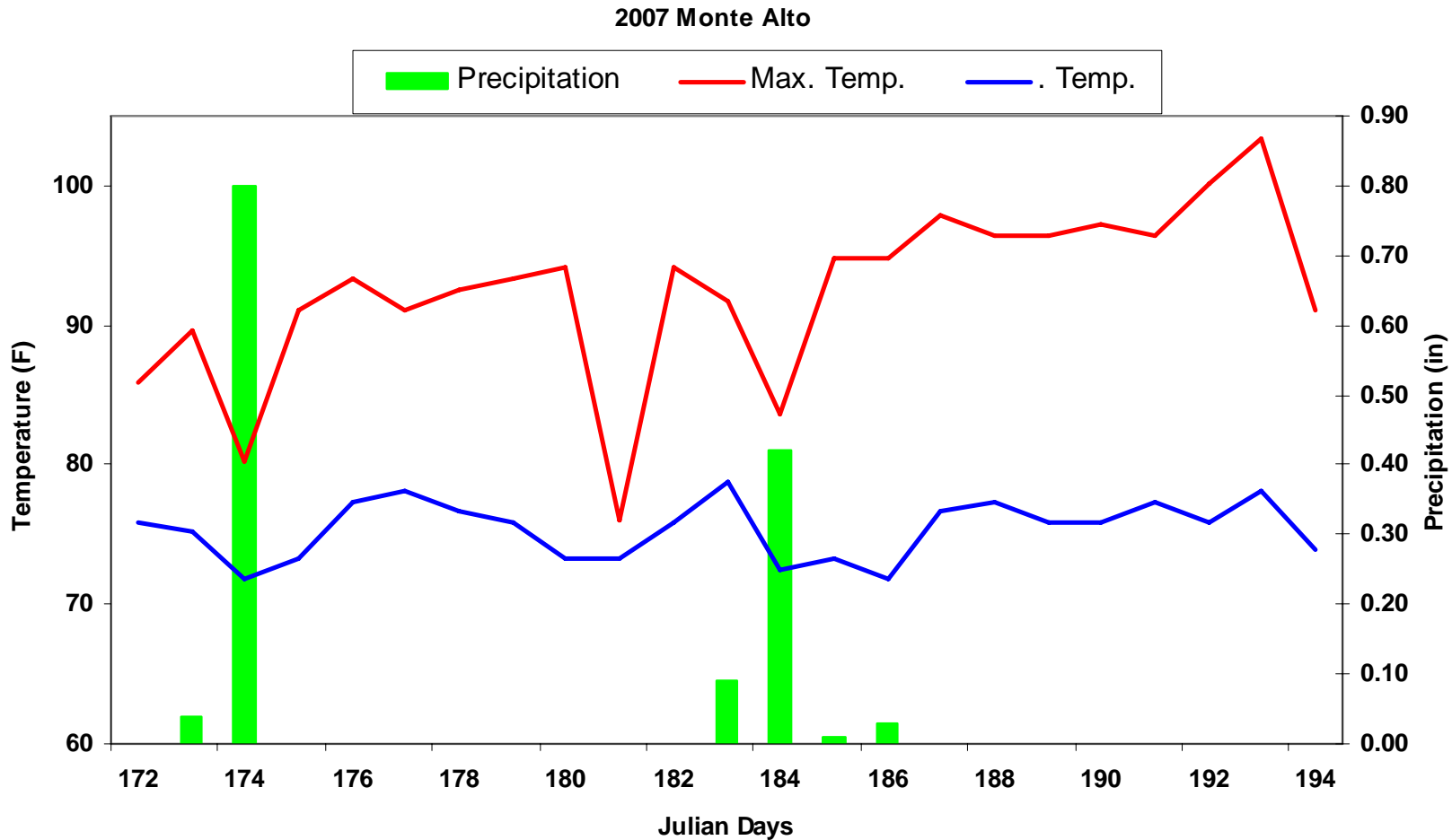
- DON'T NEED A "PROGRAM" OF SPRAYS**
- ONE SPRAY, R1 TO R3, OR NONE**
- EARLY-MATURING VARIETY FOR SOME  
AREAS**

# RIO FARMS 2007- RUST 22 DAYS AFTER APPLYING QUILT

Treatment	Rust on upper canopy leaves 7/13/07, R6 to R7		Yield (bu/A) (± st. dev.)
	Incidence (%)	Severity (%)	
Control	≈ 100	≈ 1	55.9 (± 3.7)
Quilt	≈ 100	≈ 1	57.4 (± 5.7)

- First detection in lower canopy at R5:  
1% incidence / 0.1% severity
- Quilt applied 1 week after detection, at R6

# RIO FARMS TRIAL - 2007



# COLLEGE STATION TRIAL 2007 – EFFECT OF 2<sup>nd</sup> APPLICATION

Second Fungicide	Rust 2 weeks after 2 <sup>nd</sup> Application*		Rust 4 weeks after 2 <sup>nd</sup> Application*		Yield (bu/A) (± std. dev.)
	Incidence (%)	Severity (%)	Incidence (%)	Severity (%)	
<b>Not done</b>	<b>15.2</b>	<b>0.05</b>	<b>77.7</b>	<b>0.25</b>	<b>46.2 (± 10.8)</b>
<b>Domark</b>	<b>0</b>	<b>0</b>	<b>1.4</b>	<b>0</b>	<b>56.7 (± 9.2)</b>
<b>Quilt</b>	<b>0</b>	<b>0</b>	<b>1.9</b>	<b>0.02</b>	<b>61.2 (± 7.2)</b>

\*Upper canopy leaves

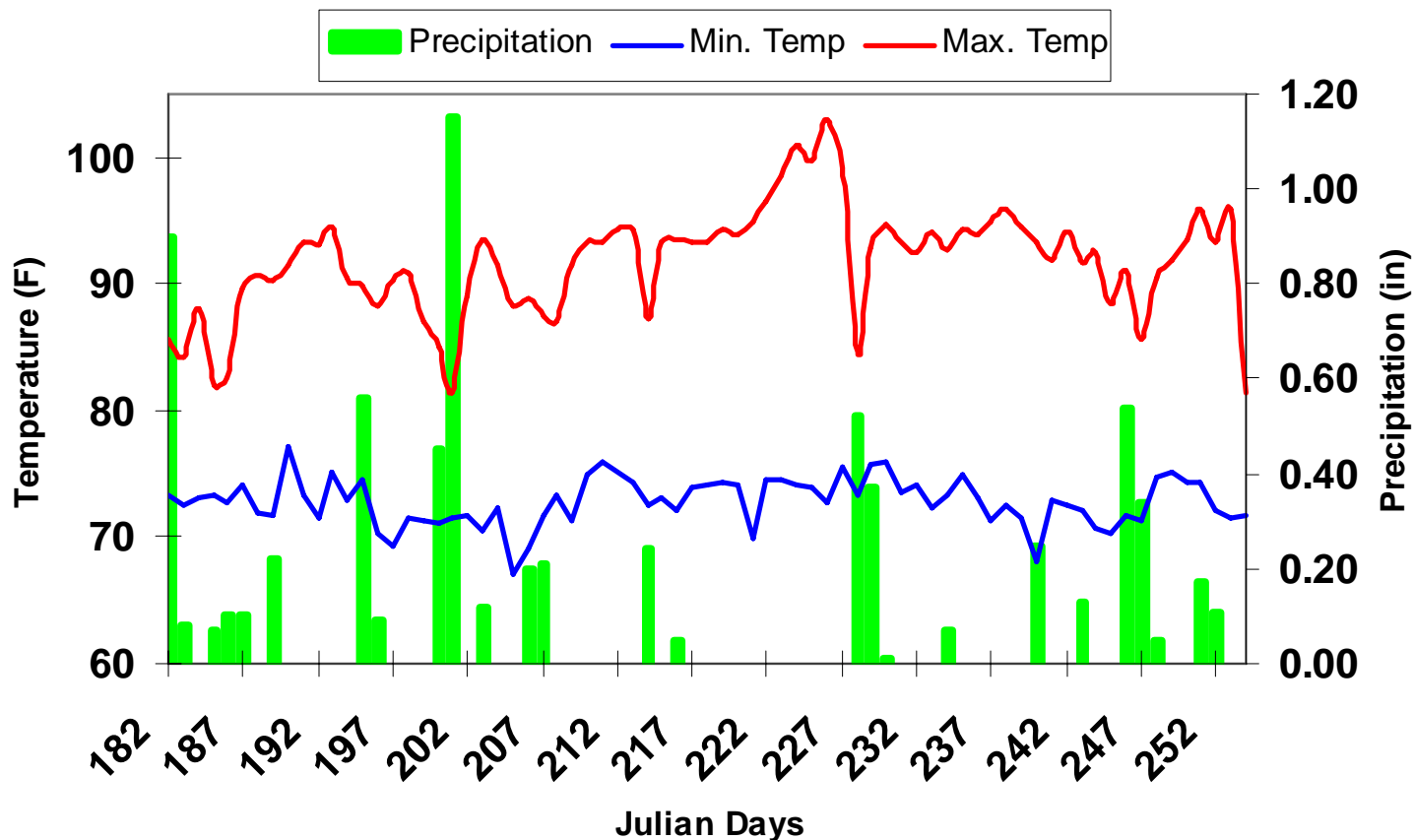
7/12: The whole field was treated at R4 with Quilt

7/16: Rust detected at R4 - 2% Incidence / 0.1% in lower canopy

7/31: Second fungicide application at R5. (Same amount of disease)

# COLLEGE STATION 2007

## Bottom Farm 2007



Day 193 First treatment; Day 197 First detection; Day 212 Second treatment

# PROBABLY A GREATER IMPACT ON YIELD FROM INSECTS



# THANKS TO....



**NORTH CENTRAL SOYBEAN  
RESEARCH PROGRAM**