

# Overview of the 2011 NST\*R Validation Trials in Louisiana

Dustin Harrell

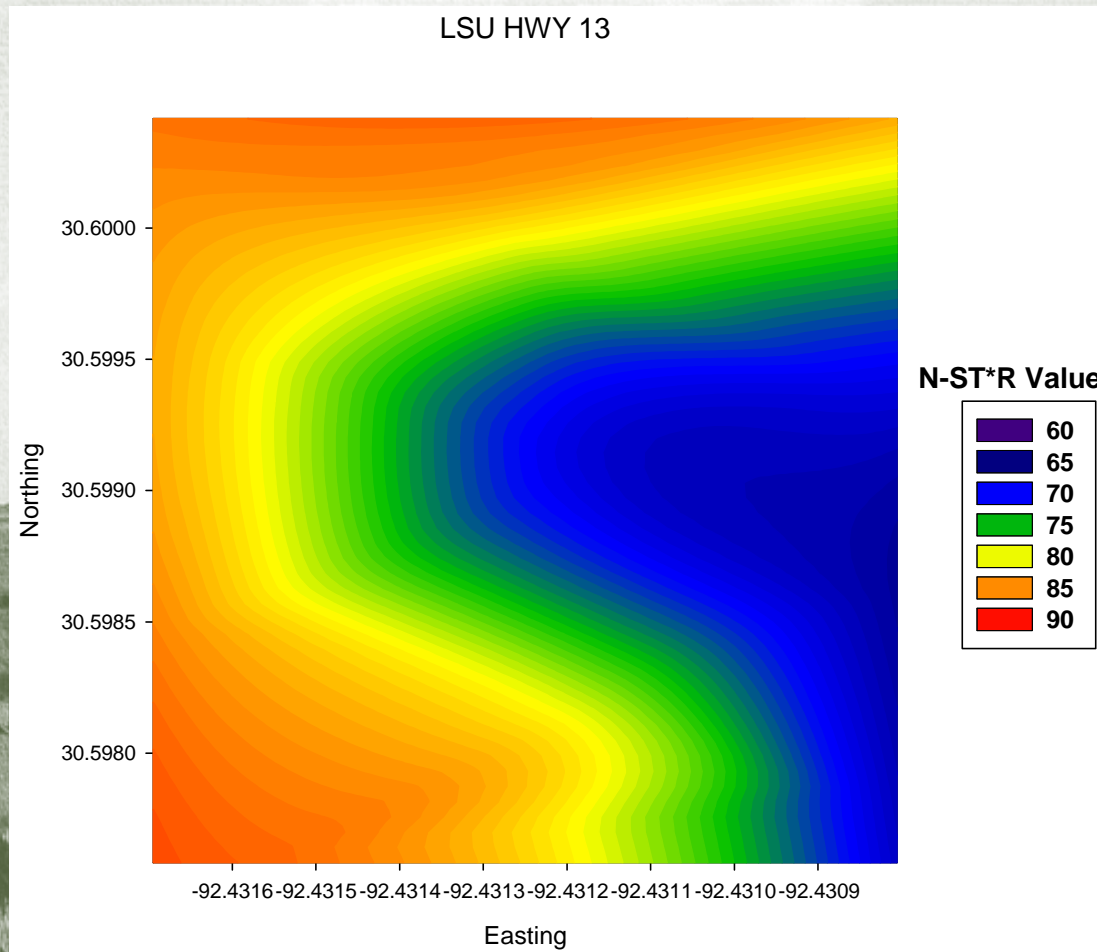


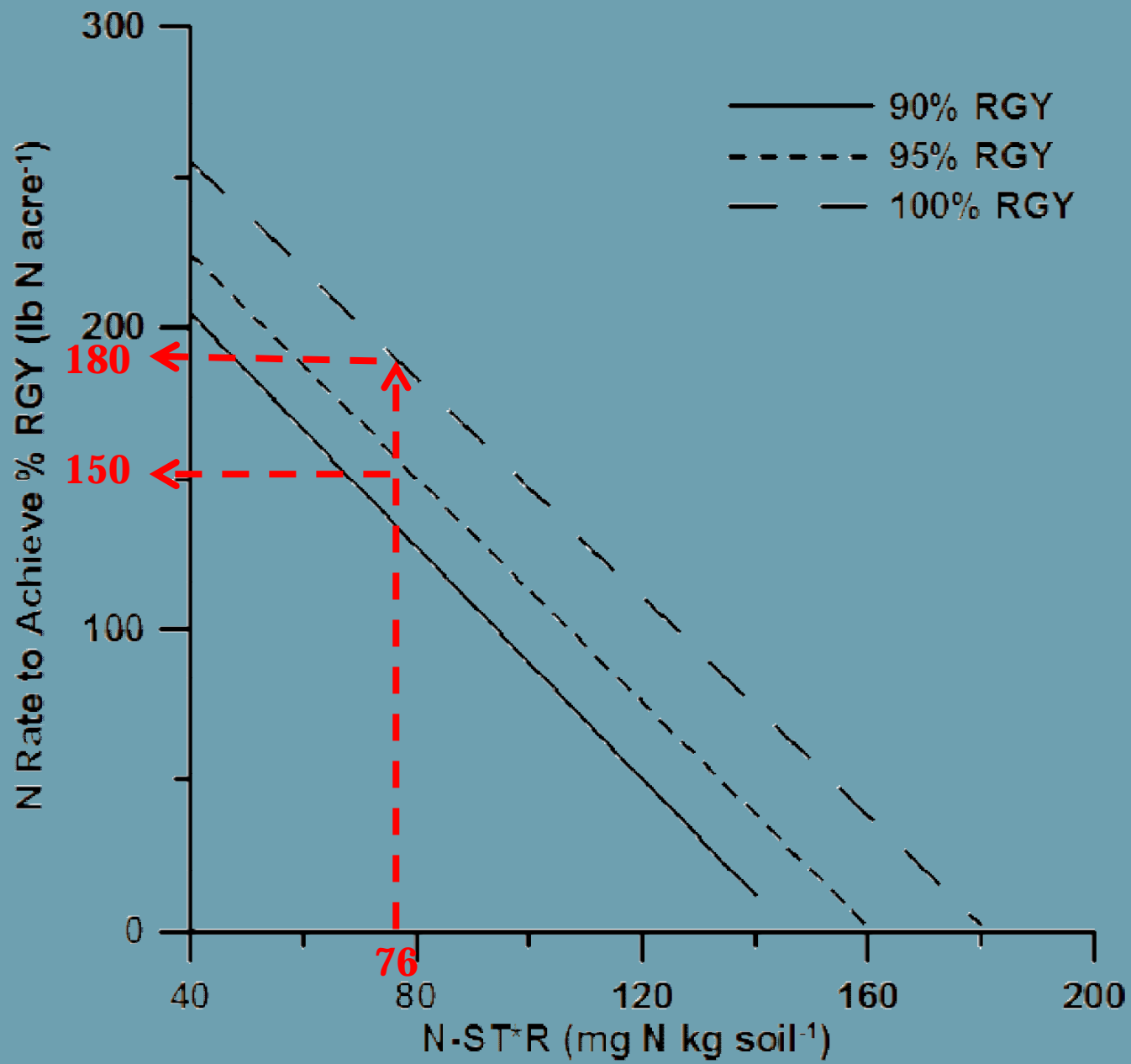
# Soil Sampling



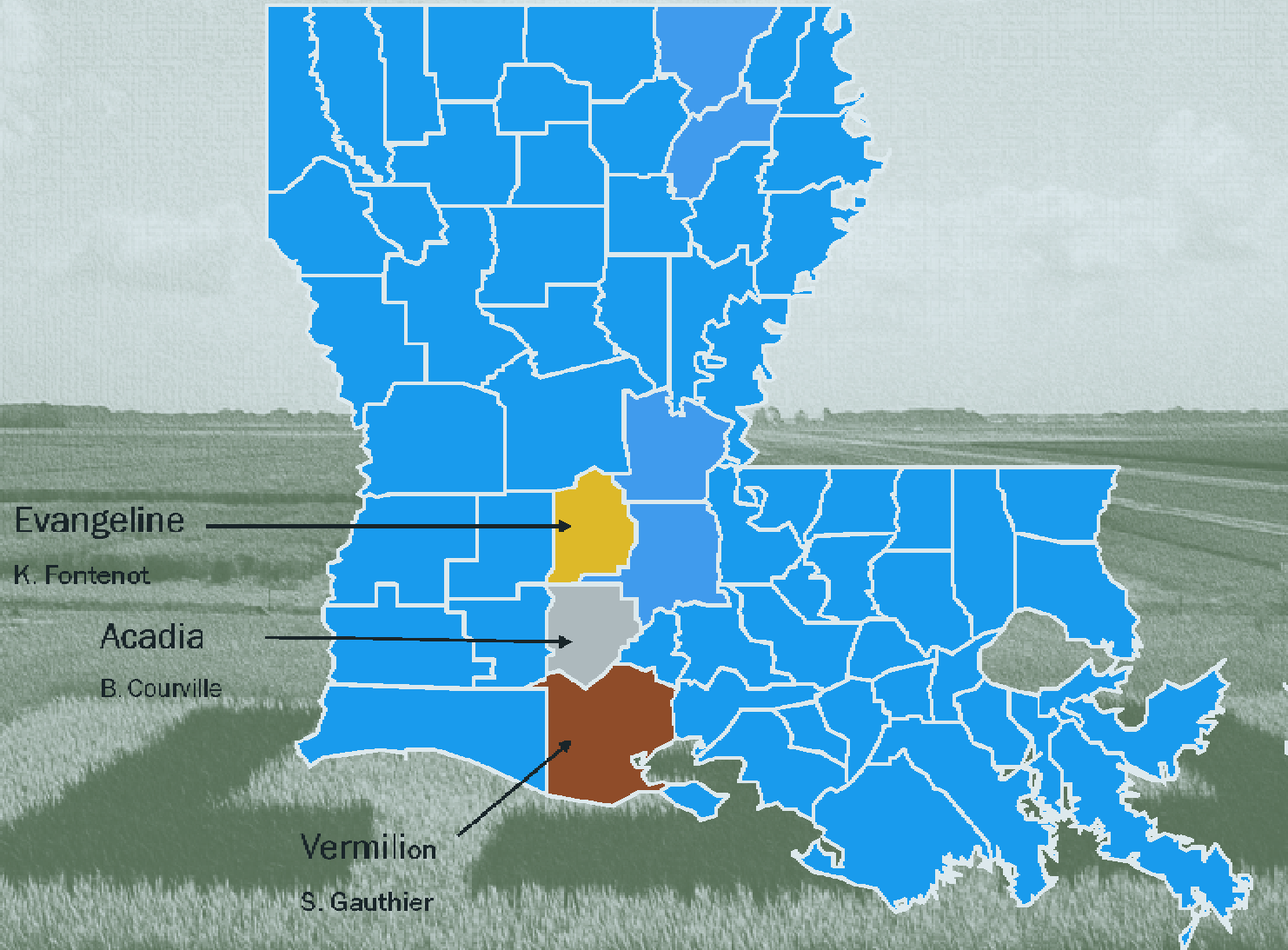
Feb. 22, 2011  
10-11 samples to 18"

# Location not used





# Test Locations



# Hardee Farms

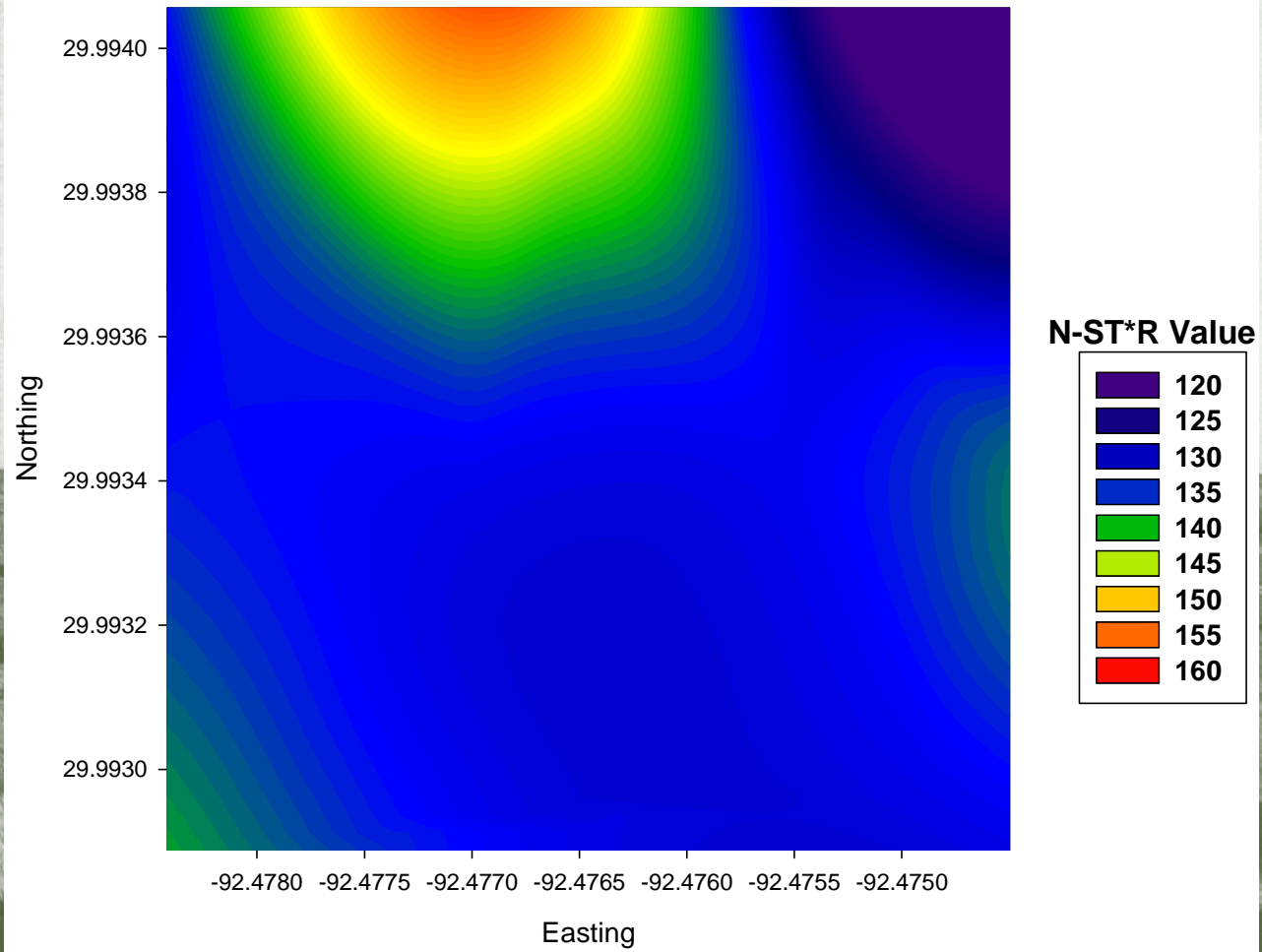


# Hardee Farm

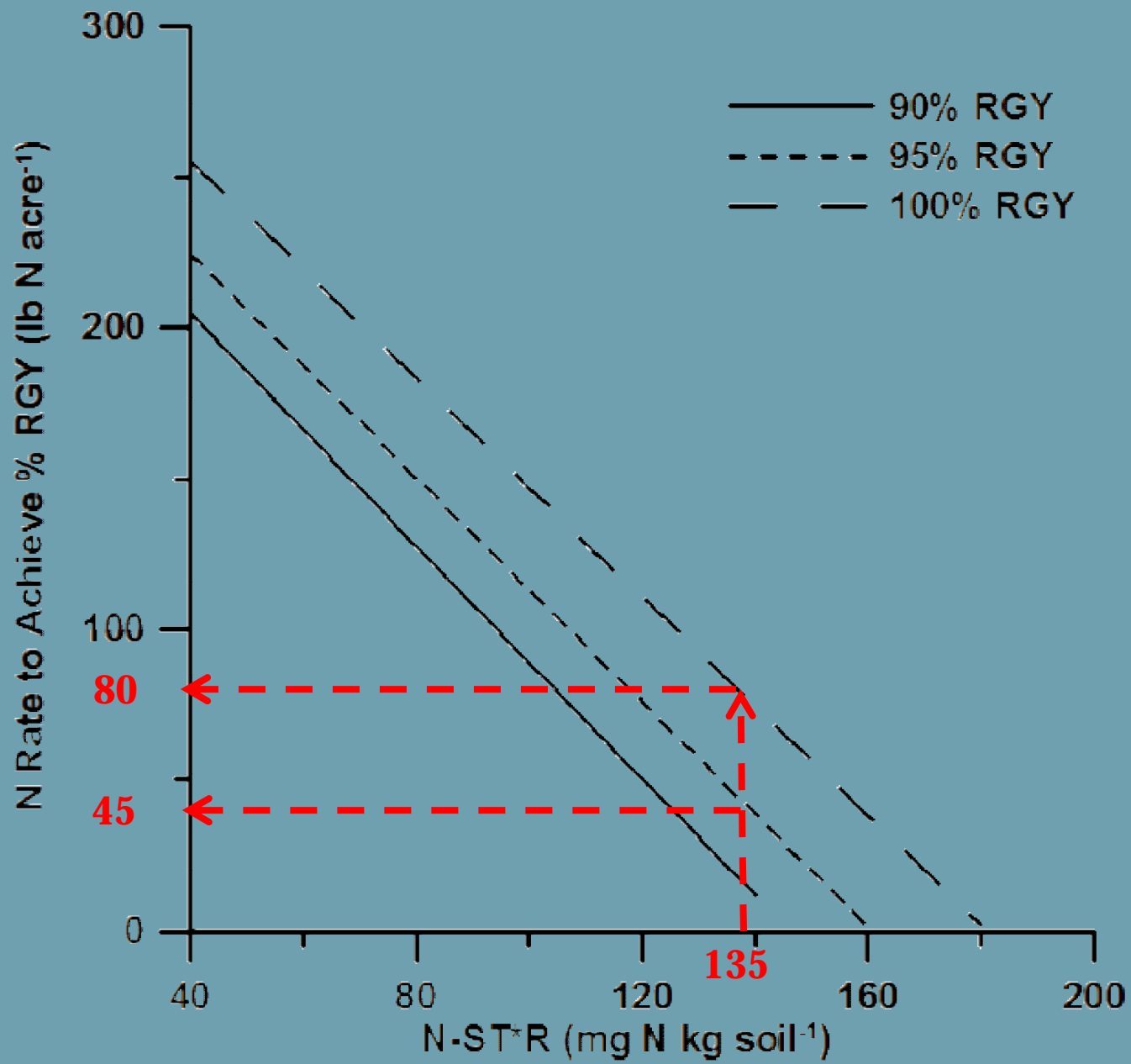
- Farmer: Dwight & Richard Hardee
- Location: Gueydan (VP)
- Soil: Kaplan SL
- Rotation:
  - Rice (08), Soybean (09), Soybean (10)

- Variety: CL151
- Seeding: ds @ 70 lb, no-till following beans
- Estimated N rate: 135 lb/A
- 150 lbs DAP; Zinc sulfate

### D. Hardee







# N ST\*R

## Recommendations

- 95% RGY = 45 lbs
  - 42 lbs N (AMS 200 SPF)
- 100% RGY = 80 lbs
  - 84 lbs N (AMS 400 SPF)
- FP = 135 lbs N
  - 76.5 (200 AMS PF + 75 Urea GR)

Each trt. avg. of 4 sub samples

Dwight Hardee

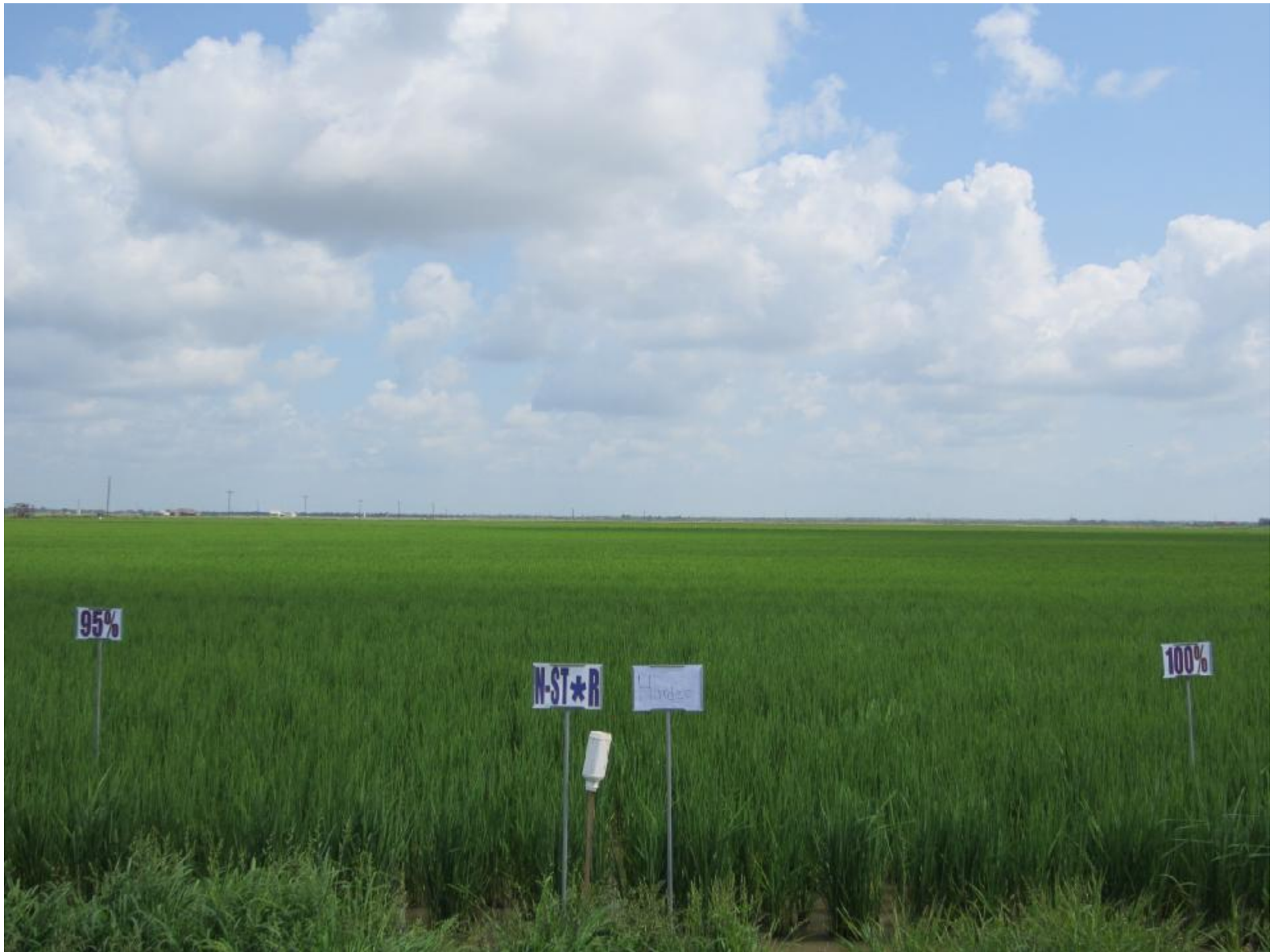


5/2/2011 21% @ 200#  
46% @ 25# Green Ring  
46% @ 25# 10 days after Green Ring  
147.3 ac

|                  |                            |     |
|------------------|----------------------------|-----|
| 21%<br>@ 200lbs. | 21%<br>@ 400lbs.<br>(450#) | 46% |
|------------------|----------------------------|-----|

**16 acre field**  
**200 flown on 95%**  
**Second pass on 100%**

Map: Burnett Rd



# N ST\*R

## Rec. and Results

- 95% RGY = 45 lbs
  - 42 lbs N (AMS 200 SPF)
- 100% RGY = 80 lbs
  - 84 lbs N (AMS 400 SPF)
- FP = 135 lbs N
  - 76.5 (200 AMS + 75 Urea)

41 bbl



41.5 bbl



41.5 bbl



Each trt. avg. of 4 sub samples

# R & N Farms



# R & N Farms

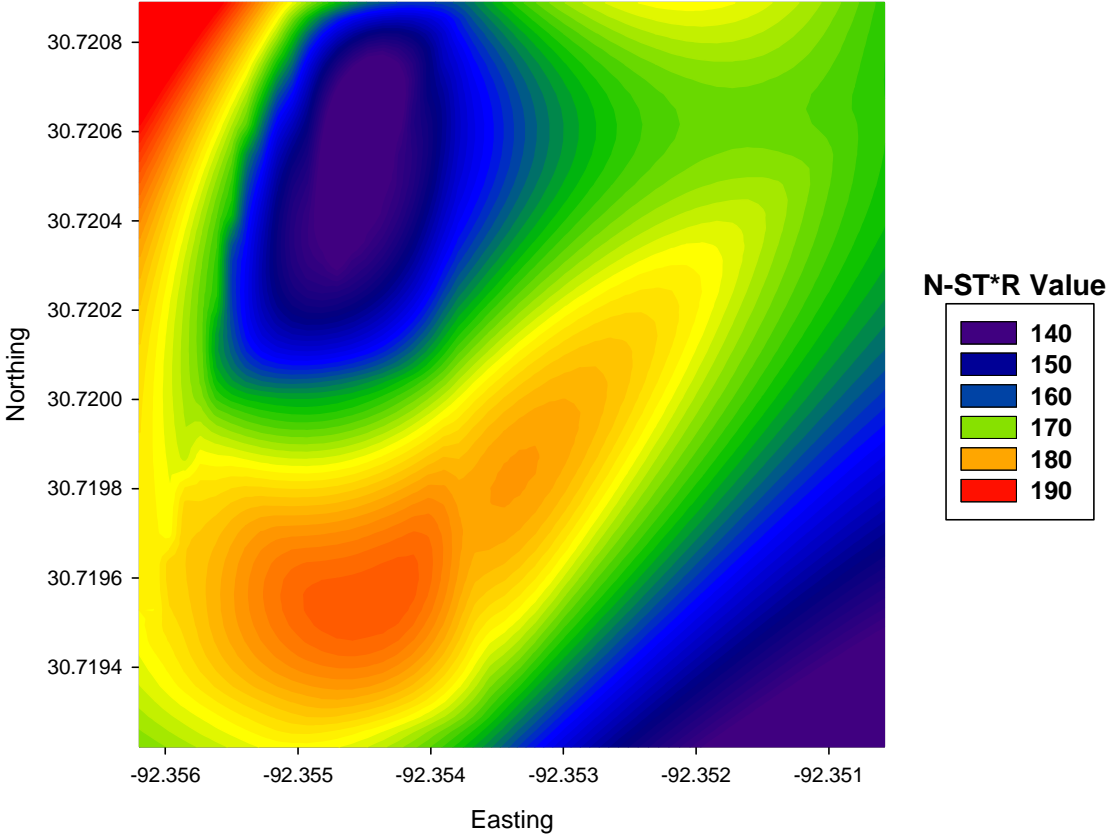
- Farmers: Richard and Neil Fontenot
- Location: Vidrine
- Soil: Crowley Vidrine Complex
- Variety: CL151
- History:
  - Soybean (08), Rice (09), Soybean (10)
- Seeding: drill seeded, CT

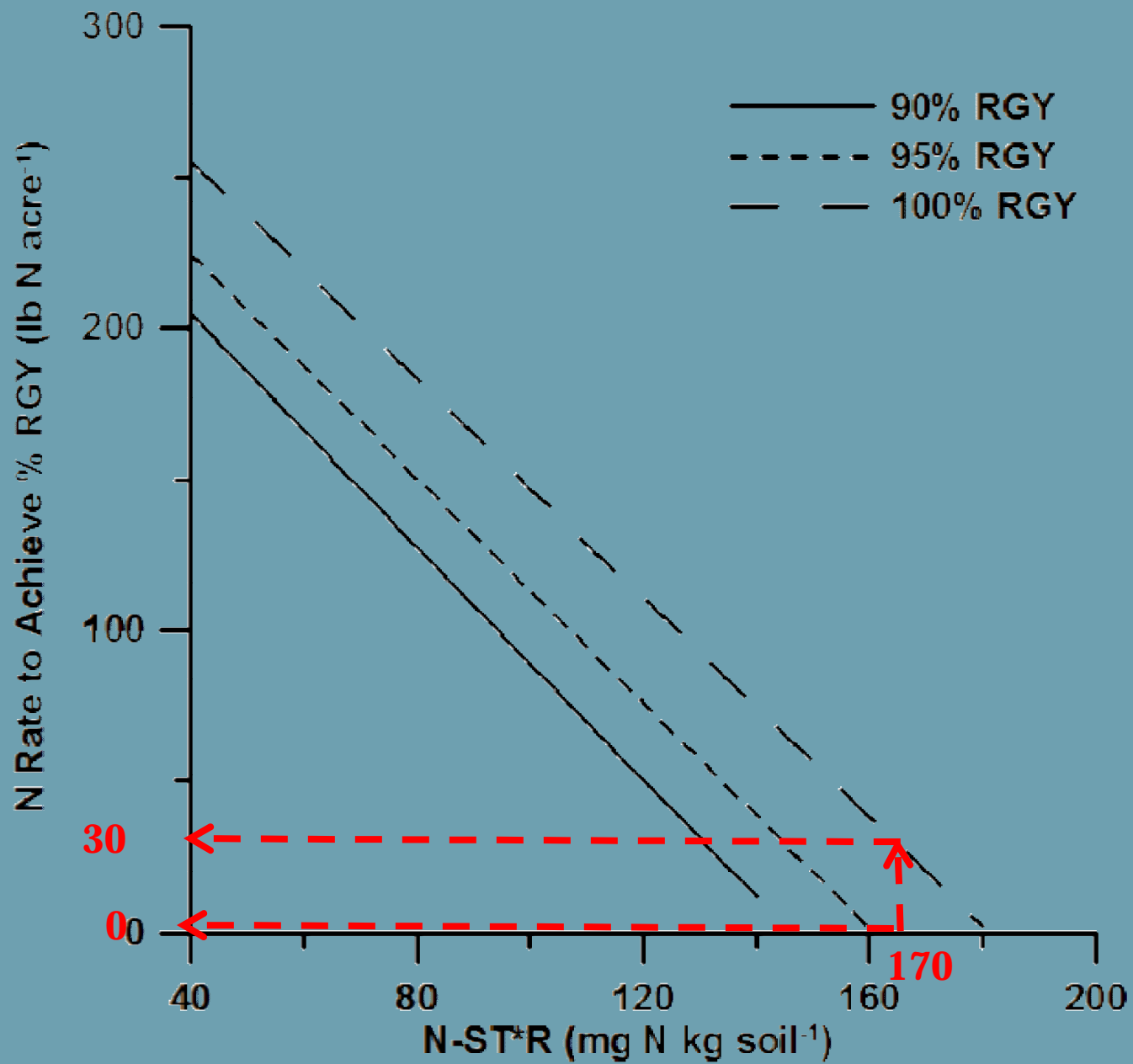


20 AC



Miller Lake





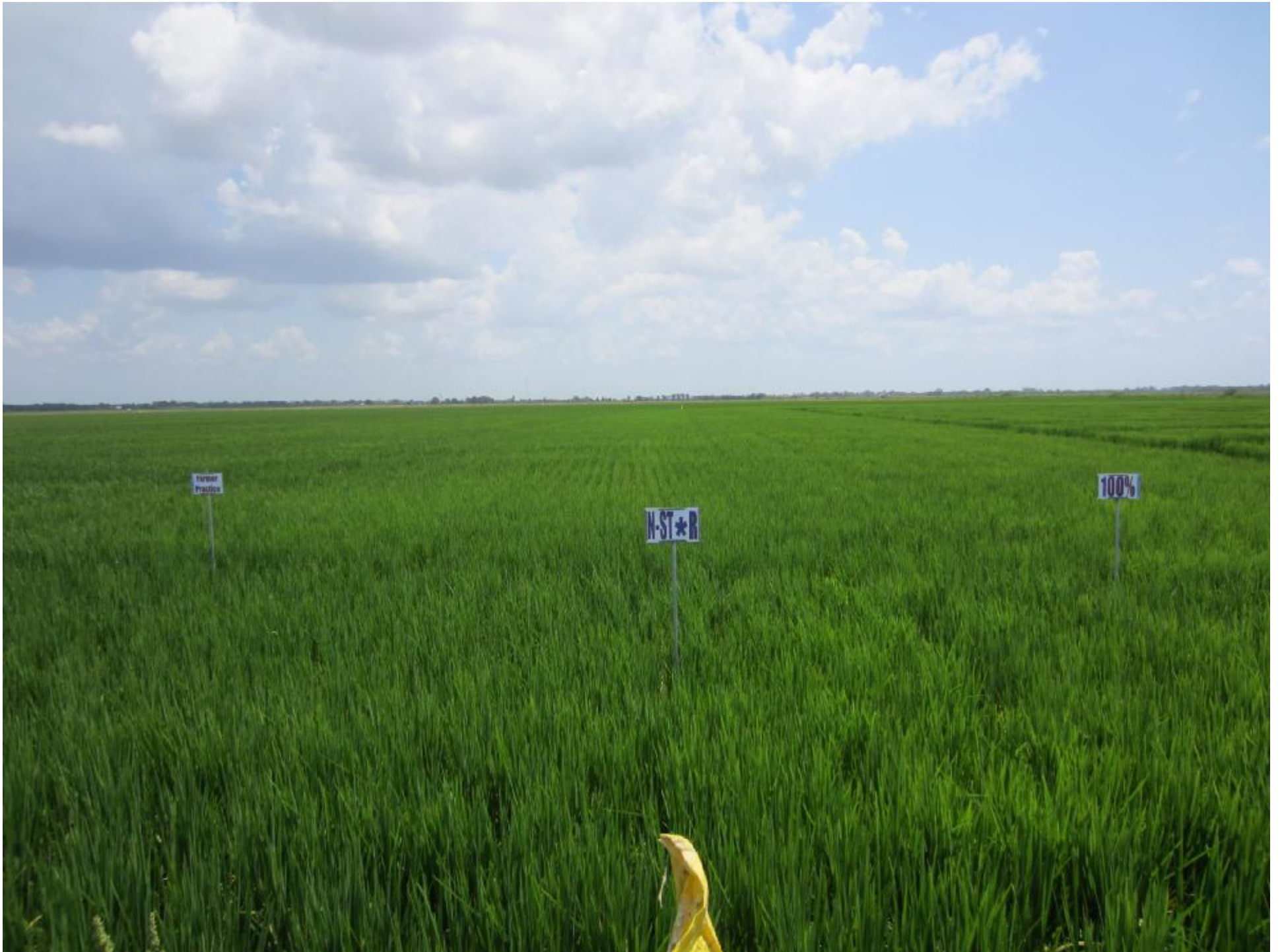
# N ST\*R

## Rec. and Results

- 95% RGY = 0 lbs N
- 100% RGY = 35 lbs N
  - 35 (Urea @ 76 lbs experimental applicator)
- FP = 140 lbs N
  - 200 lb Agrotain treated urea @ PF +
  - 180 lbs 27-0-17 blend GR

Each trt. avg. of 4 sub samples





Farm Practice

N-ST \* R

100%



# N ST\*R

## Rec. and Results

- 95% RGY = 0 lbs N

37 bbl



- 100% RGY = 35 lbs N

43.5 bbl



- FP = 140 lbs N

45 bbl

Combine yield monitor average across area

# GFP Farm

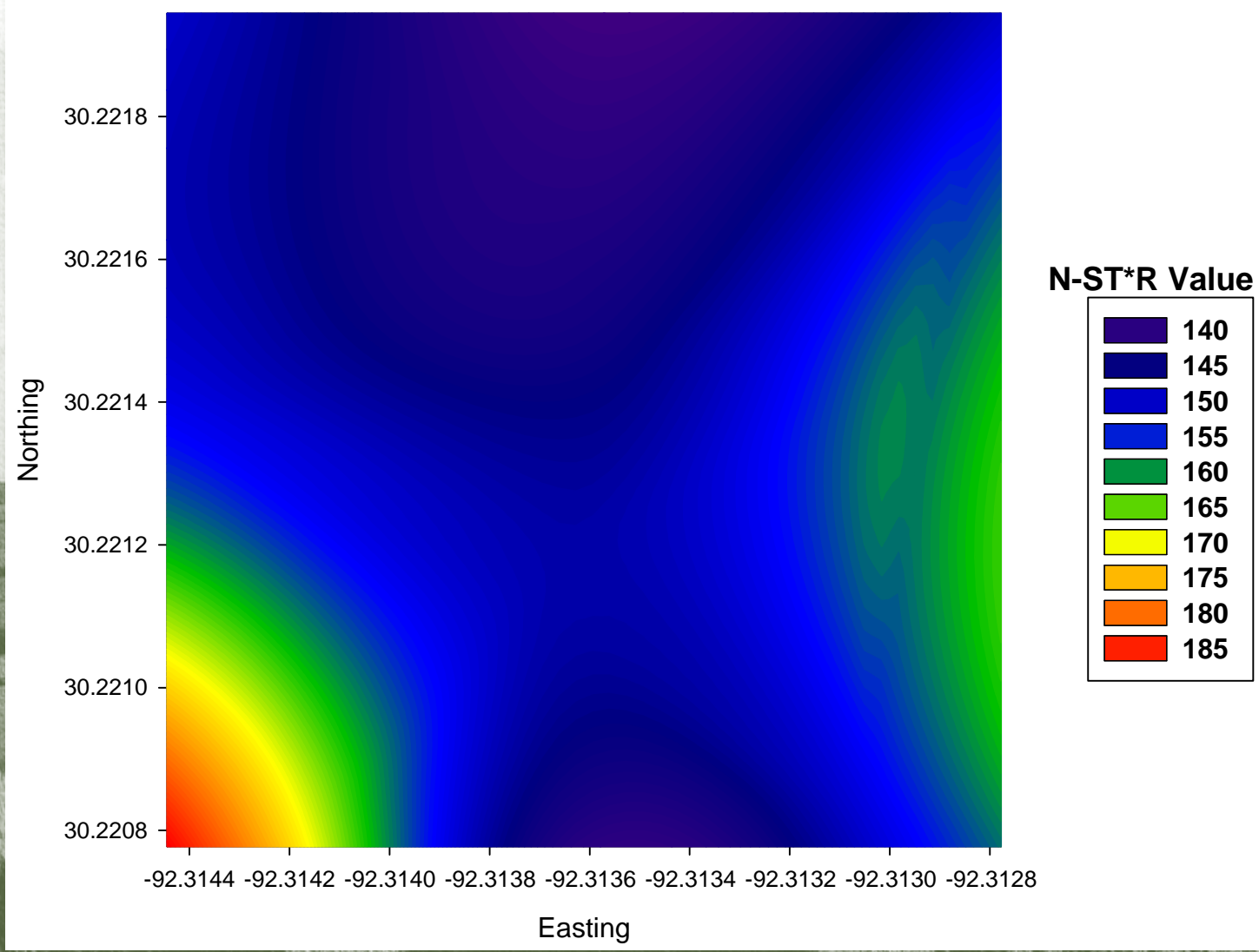


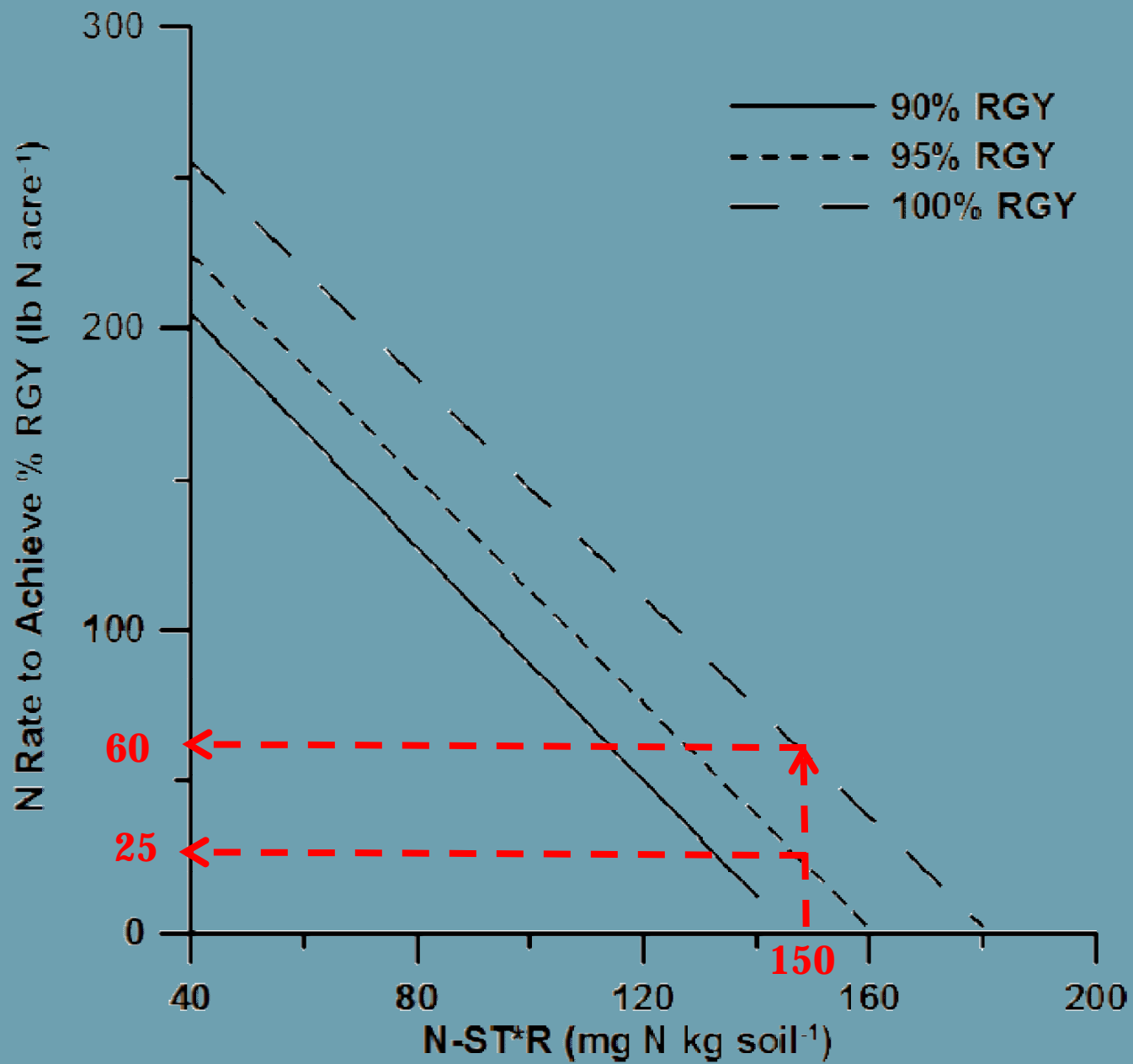


# GFP Farm

- Farmer: Paul and Fred Zaunbrecher
- Location: Rayne
- Soil: Patouville – Crowley SL complex
- Variety CL131
- Seeding: dry broadcast @ 80 lbs
- History:
  - fallow (10),
  - rice-crawfish (09),
  - fallow (08)

# GFP





# N ST\*R

## Recommendations

- 95% RGY = 25 lbs N
  - 119 lbs of AMS (21%) SPF
- 100% RGY = 60 lbs N
  - 33% blend @ 182 lbs SPF
- FP = 180 lbs N
  - 461 lbs of 39% blend @ PF







- 95% RGY = 25 lbs N

40.3 bbl



- 100% RGY = 60 lbs N

42.9 bbl



- FP = 180 lbs N

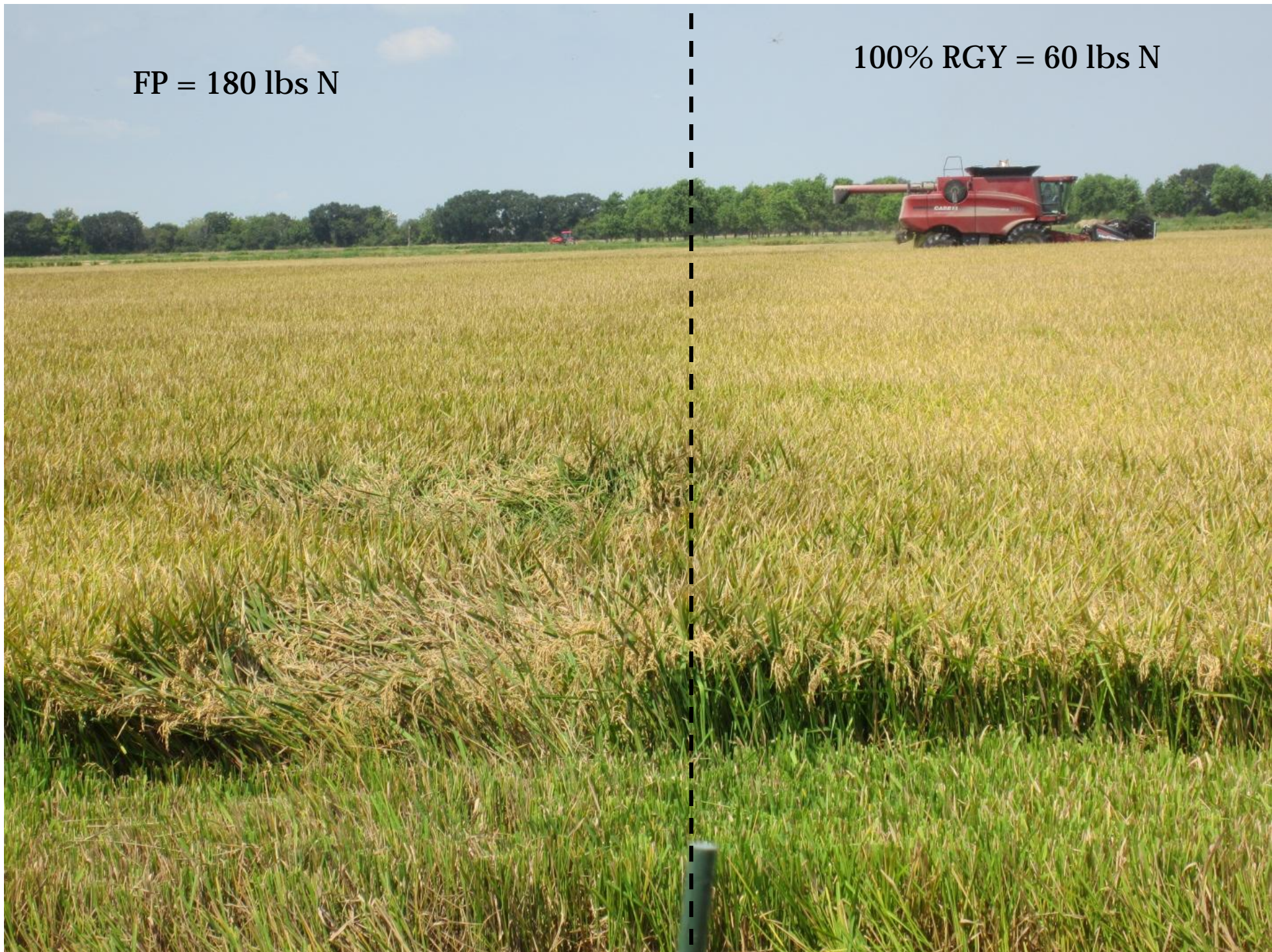
40.8 bbl

Avg. of four subsamples weighed in weigh wagon



**FP = 180 lbs N**

**100% RGY = 60 lbs N**



# John and Matthew Zaunbrecher

Gueydan, LA



- Farmer: John & Matthew Zaunbrecher

- Soil: Kaplan SL

- Gueydan, LA

- Variety: CL151

- Seeded: drill seeded march 20

- History:

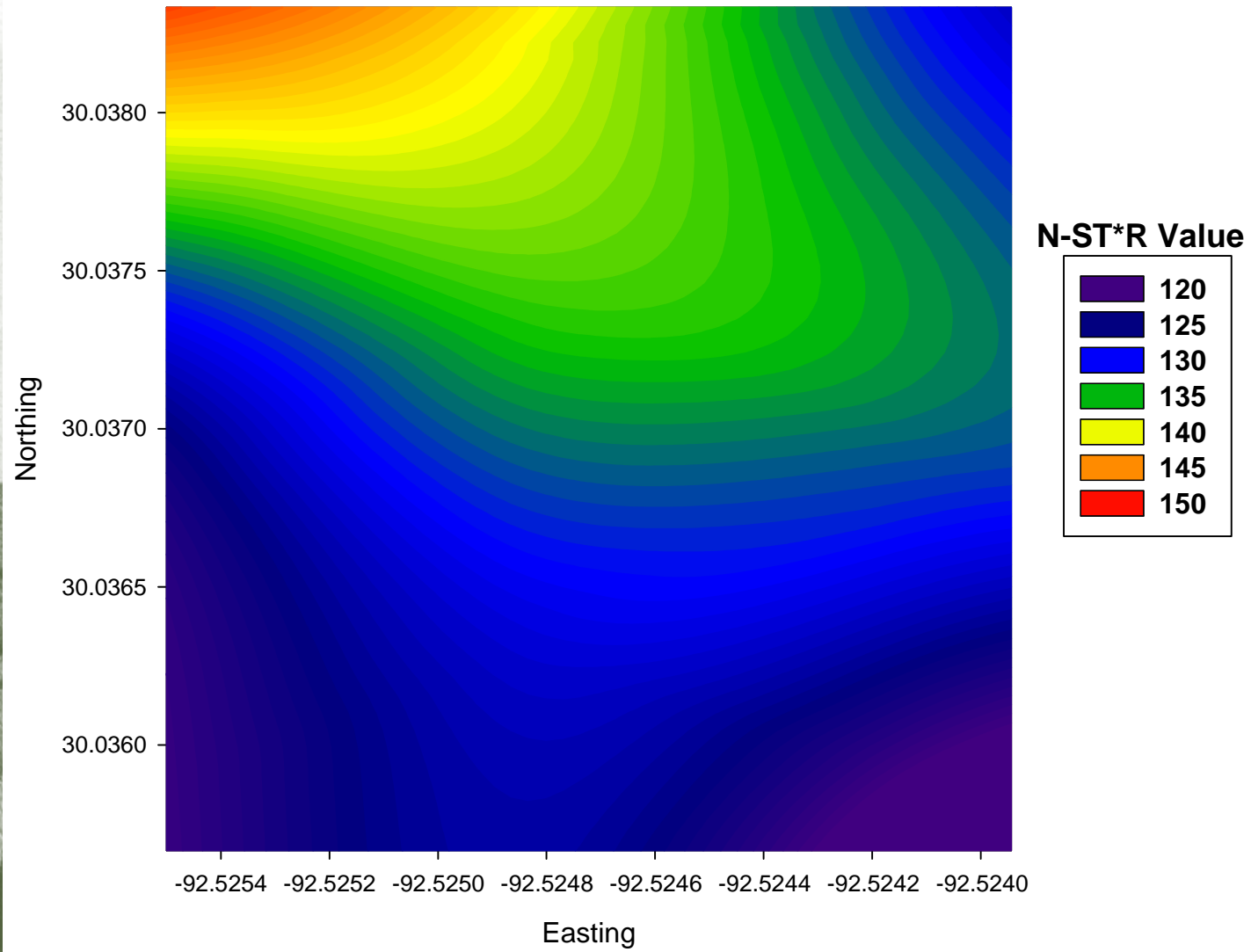
- fallow 2 years b/c salt irrigation water (surface)

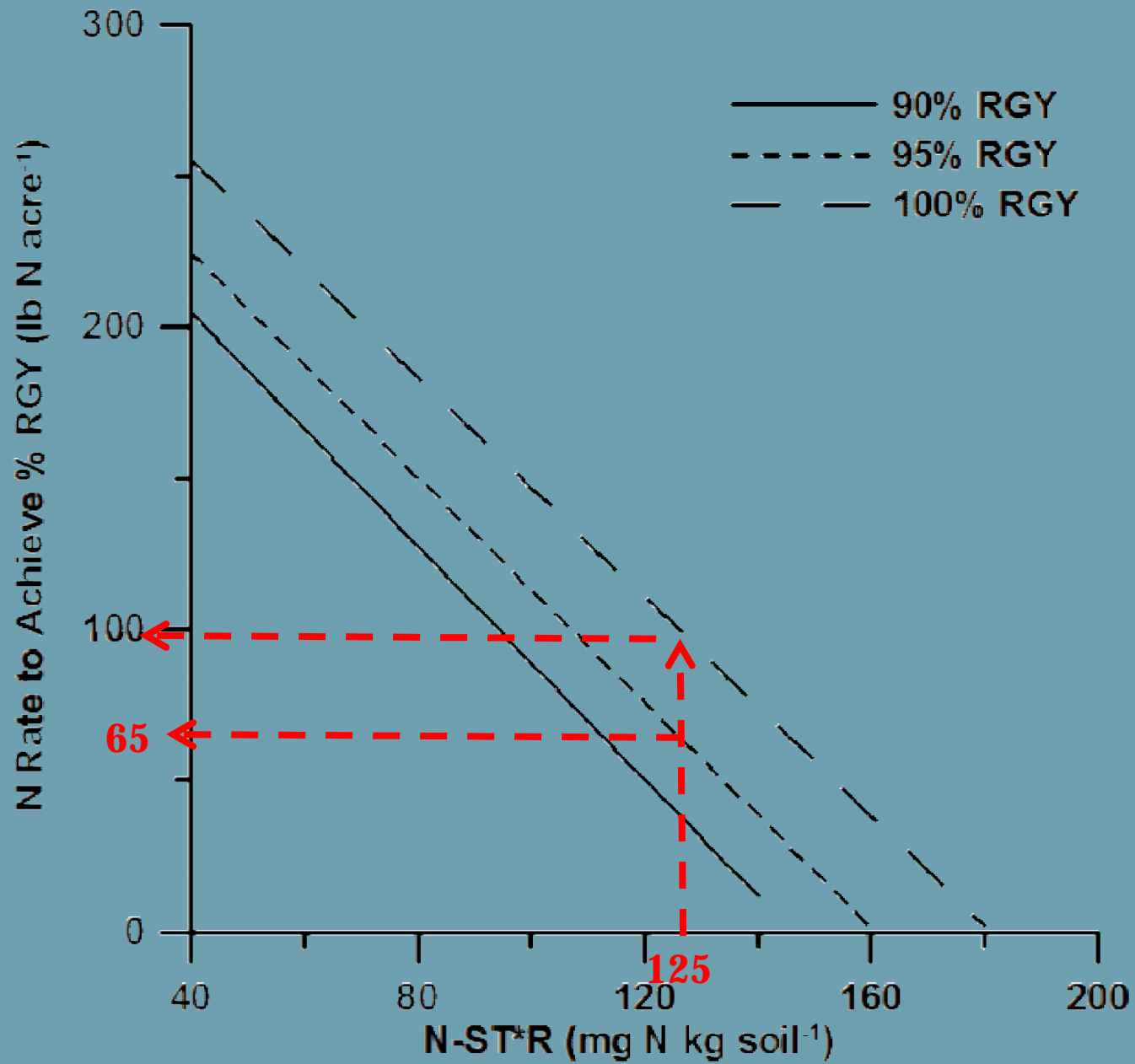
- rice

16 acre field



# LSU Z-Road





# N ST\*R

## Recommendations

- 95% RGY = 65 lbs N
  - 64.4 (140 lbs urea SPF)
- 100% RGY = 100 lbs N
  - 101.2 (220 lbs urea SPF)
- FP = 125 lbs N
  - (92 lbs urea PF + 72 lbs GR)



**Farmer  
Practice**

**N-ST\*R**  
GFP  
Zauberecher

**100%**





100%

N-ST\*R

GFP  
Zaunbrecher

95%



- 95% RGY = 64.4 lbs N

- 100% = 101.2 lbs N

- FP = 125 lbs N

39 bbl



39 bbl



39 bbl

Avg. of four subsamples weighed in weigh wagon

# Summary

- 100% RGY achieved yields comparable to FP using less total N
- 95% RGY achieved yields comparable to FP at 3 of 4 locations using less total N
  - Lone exception was where 0 N was used
- It is unknown if higher N rates at Hardee Farm would have resulted in higher/lower yields b/c FP rate near 100% RGY rate
- 2 additional years on farm NST\*R validation trials (on new fields) are planned for Louisiana
  - 2012 locations needed

# Questions

