



# 2010 Foliar Fungicides on Corn Product and Application Timing Comparisons

South Central Ag Lab  
Clay Center, NE

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# 2010 Diseases

**Gray leaf spot occurred at very low severity levels (< 1%) and was the predominant foliar disease at the end of the growing season at this location. Gray leaf spot reached the ear leaf by early- to mid-August.**



# 2010 Diseases

**Common rust developed and was the predominant early-season disease, likely due to plentiful early-season moisture. Disease severity (<1.7%) was very low at this location in 2010.**



# 2010 Diseases

**Southern rust was present and was identified in this trial on Aug. 13. This disease was observed at very low severity (<0.4%) levels, likely due to the onset of cooler weather after southern rust arrived.**



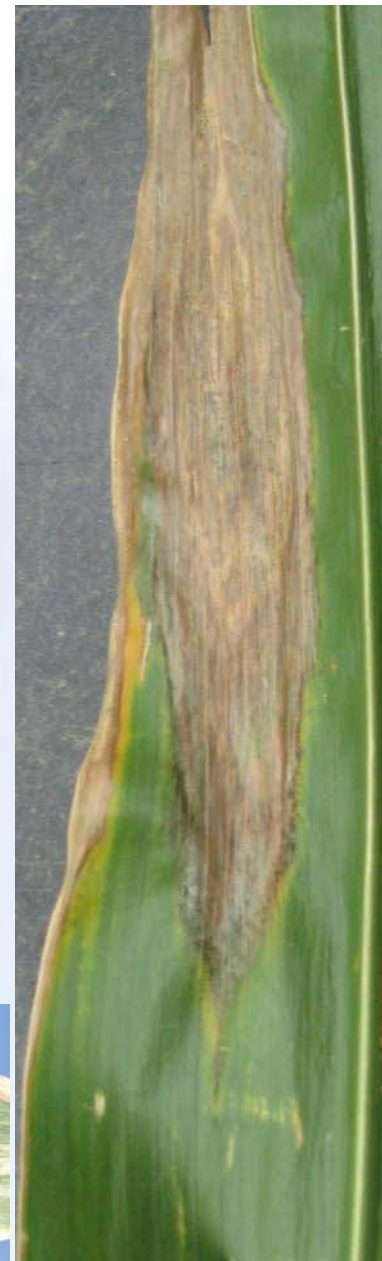
# 2010 Diseases

**Eyespot, common smut and Physoderma brown spot were also present in this trial, but at very low incidence and severity levels, thus not justifying ratings for these diseases at this location in 2010.**



# 2010 Diseases

**Goss's bacterial wilt and leaf blight was confirmed in this trial. This disease was first observed on Aug. 25 and occurred in this trial at very low incidence and severity levels.**



# 2010 Foliar Fungicide Trials



2005-2006



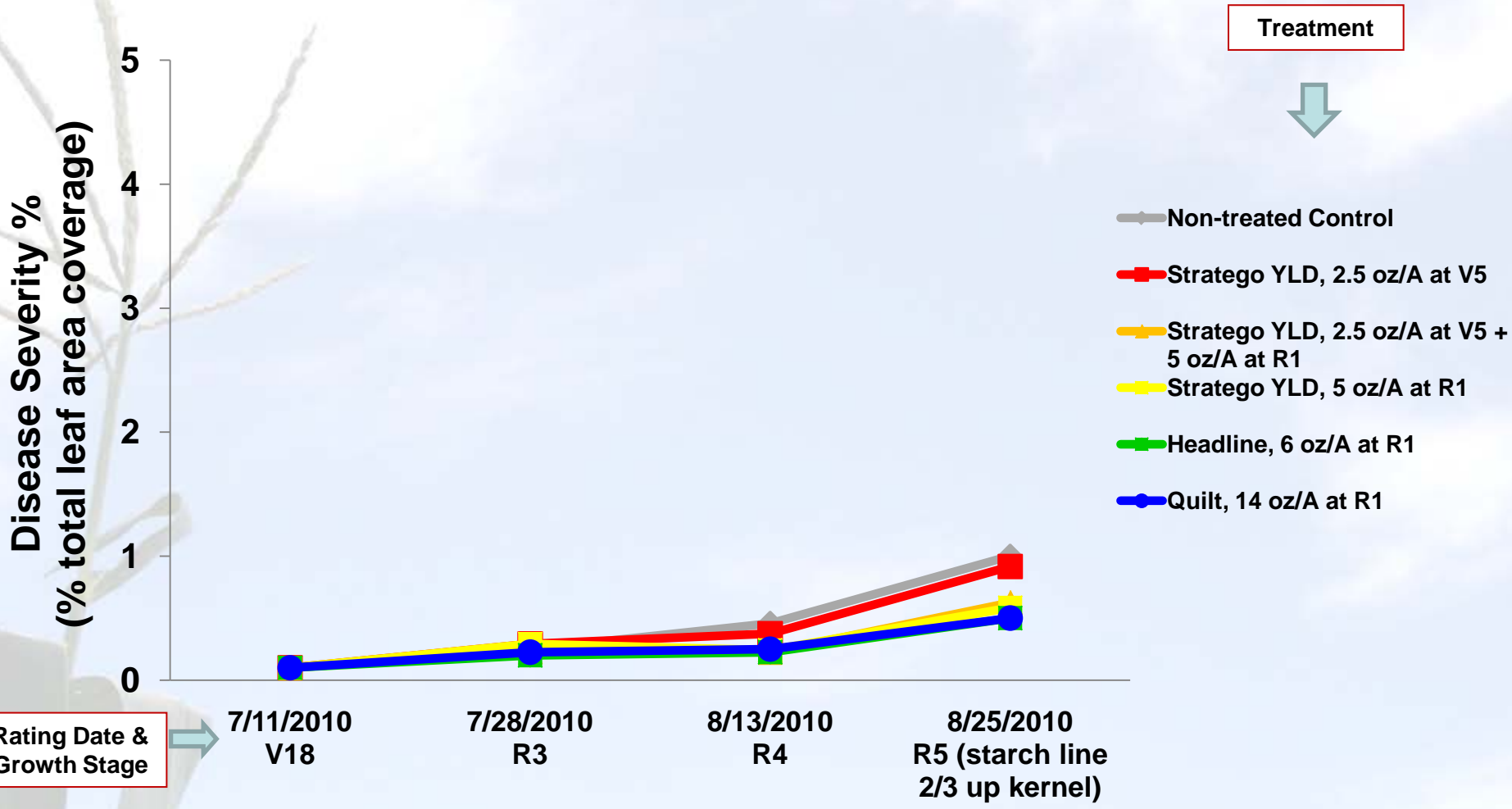
South Central Ag Lab, Clay Center, NE

- High clearance sprayer used
- Elevated disease risk
- Previous years crop: soybean
- Corn hybrid:
  - DKC 61-69 (GLS rating 5/9, "good")
- Planting date: 5/5/10
- Target plant population of 30,000 plants/A
- 6 reps
- 20 gpa at 40 psi
- Overhead sprinkler irrigated
- Alley width & row spacing = 30 inches

# 2010 Fungicide Product Comparison Trial in NE

## Gray Leaf Spot Disease Severity (%)

Application Timings: V5 (6-10-10) & R1 (7-15-10)

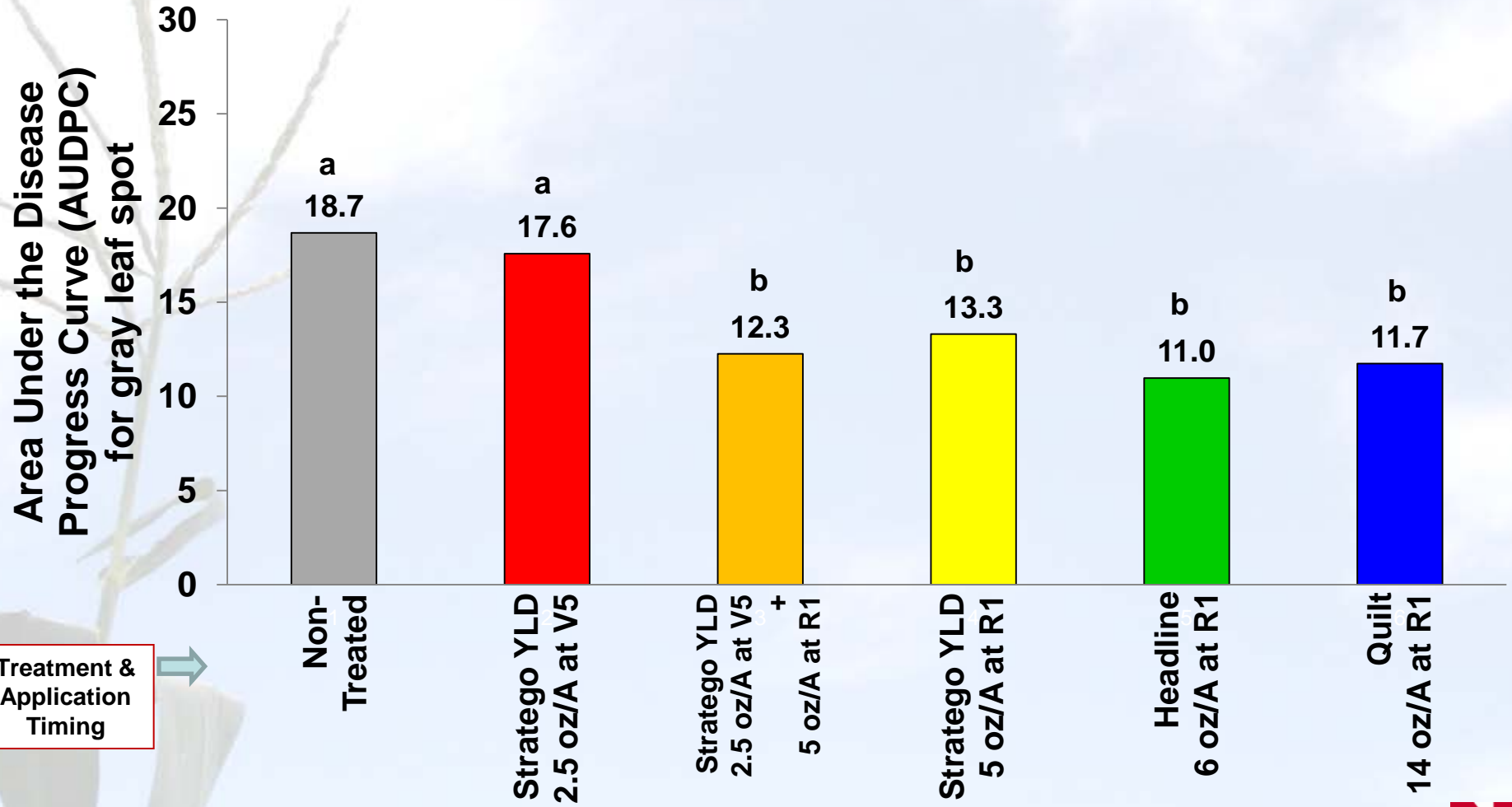




# 2010 Fungicide Product Comparison Trial in NE

## Area Under the Disease Progress Curve (AUDPC) for Gray Leaf Spot

Application Timings: V5 (6-10-10) & R1 (7-15-10)



Treatment & Application Timing

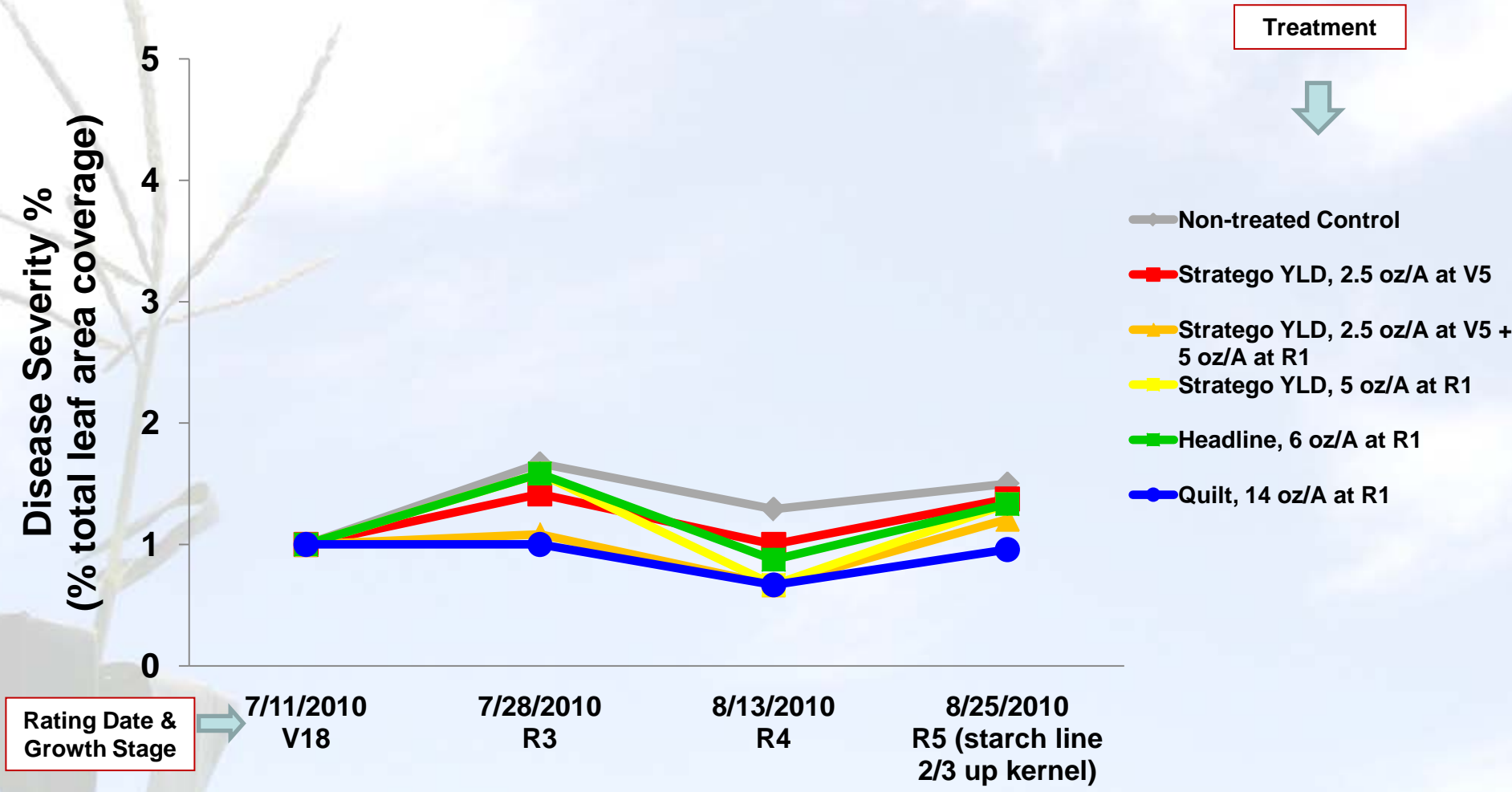
\*Treatments with different letters are statistically different. Coefficient of variation is 24.9%



# 2010 Fungicide Product Comparison Trial in NE

## Common rust Disease Severity (%)

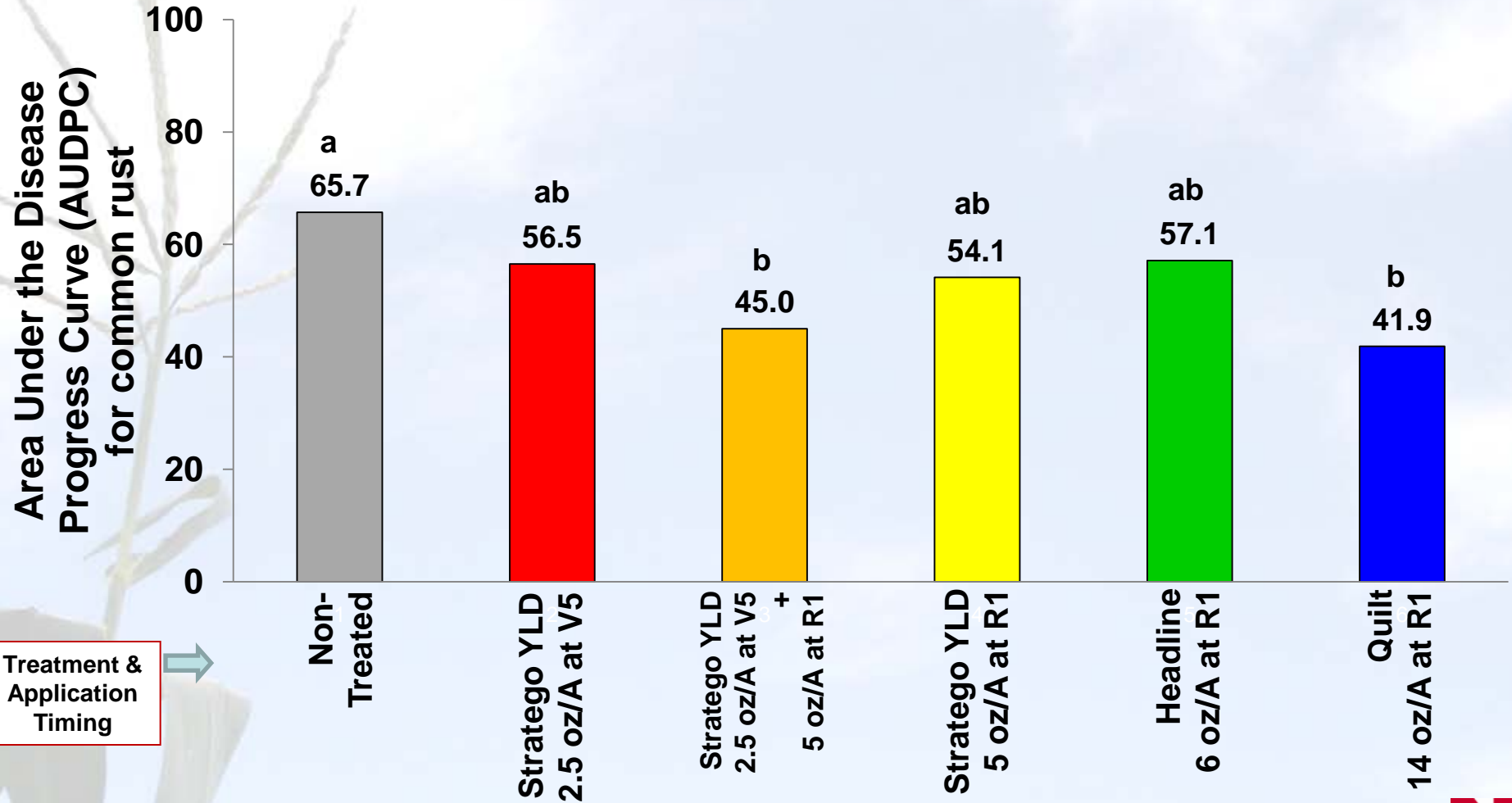
Application Timings: V5 (6-10-10) & R1 (7-15-10)



# 2010 Fungicide Product Comparison Trial in NE

Area Under the Disease Progress Curve (AUDPC) for Common Rust

Application Timings: V5 (6-10-10) & R1 (7-15-10)



Treatment & Application Timing

\*Treatments with different letters are statistically different. Coefficient of variation is 23.5%

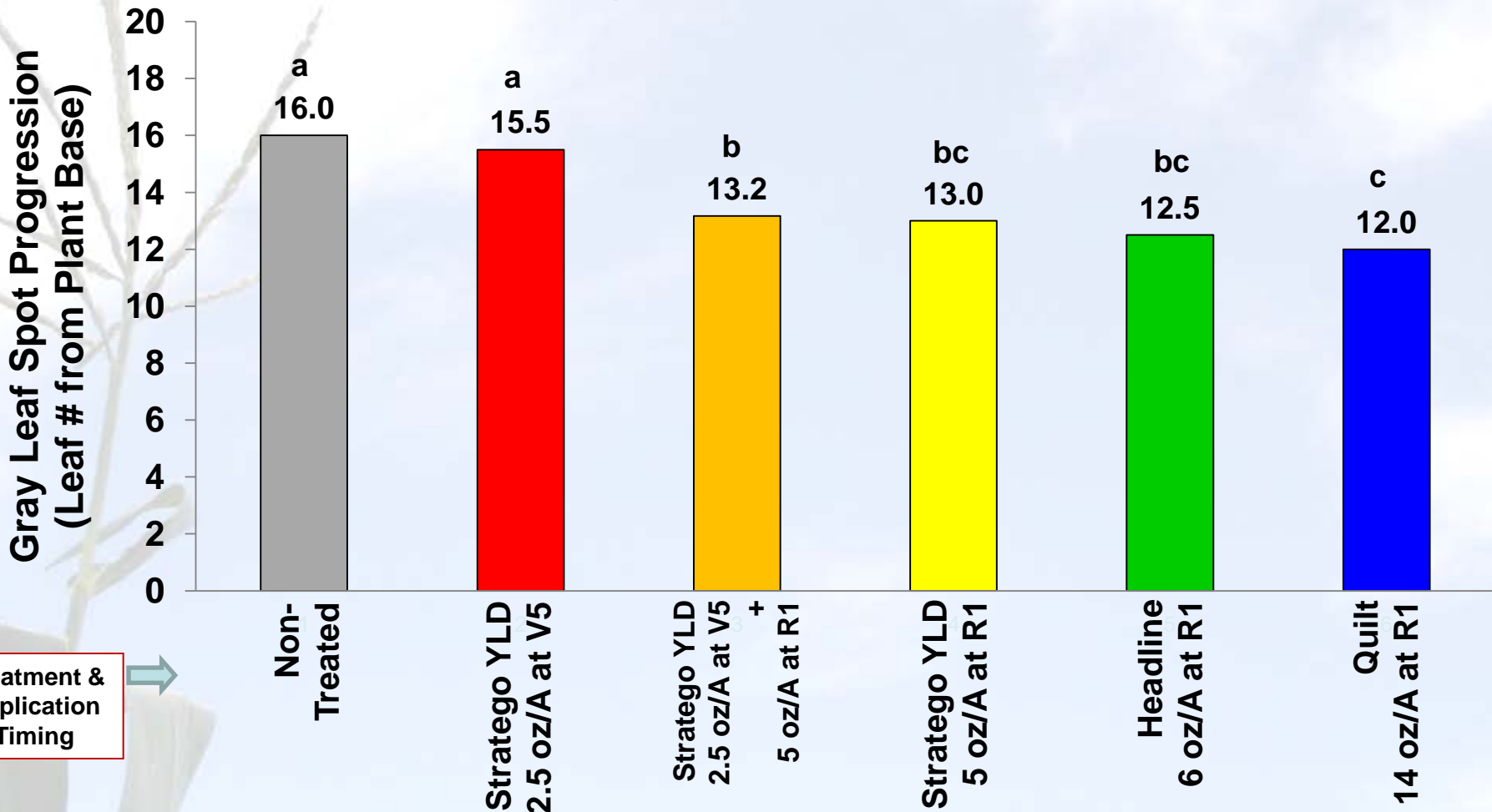


# 2010 Fungicide Product Comparison Trial in NE

Gray Leaf Spot Progression up the plant (Leaf number on 1-19 scale)

August 13, 2010 rating date (R4)

Application Timings: V5 (6-10-10) & R1 (7-15-10)



Treatment & Application Timing

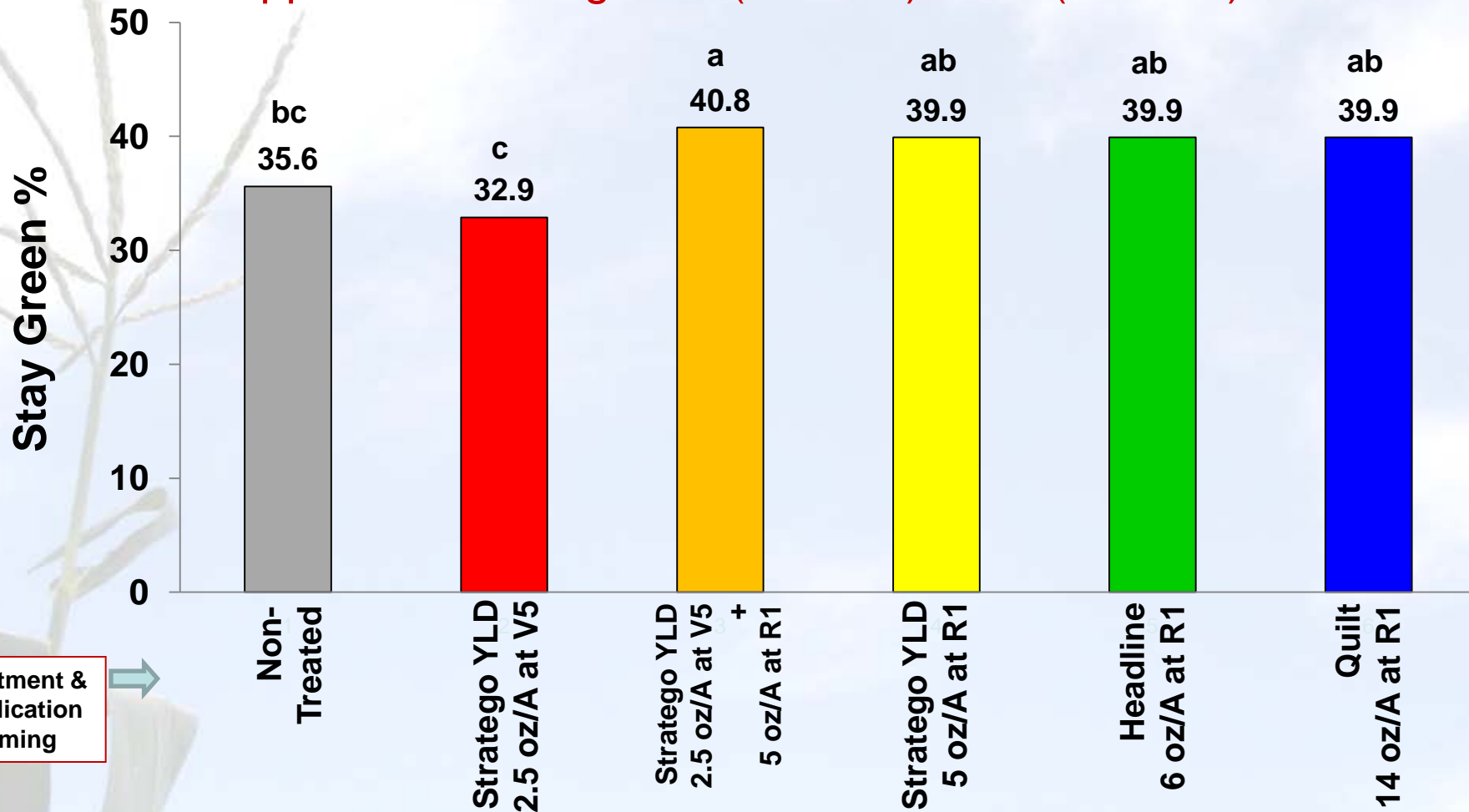
\*Treatments with different letters are statistically different. Coefficient of variation is 7.5%



# 2010 Fungicide Product Comparison Trial in NE

Stay Green % assessed on September 2, 2010 (R5, starch line ½ up kernel)

Application Timings: V5 (6-10-10) & R1 (7-15-10)

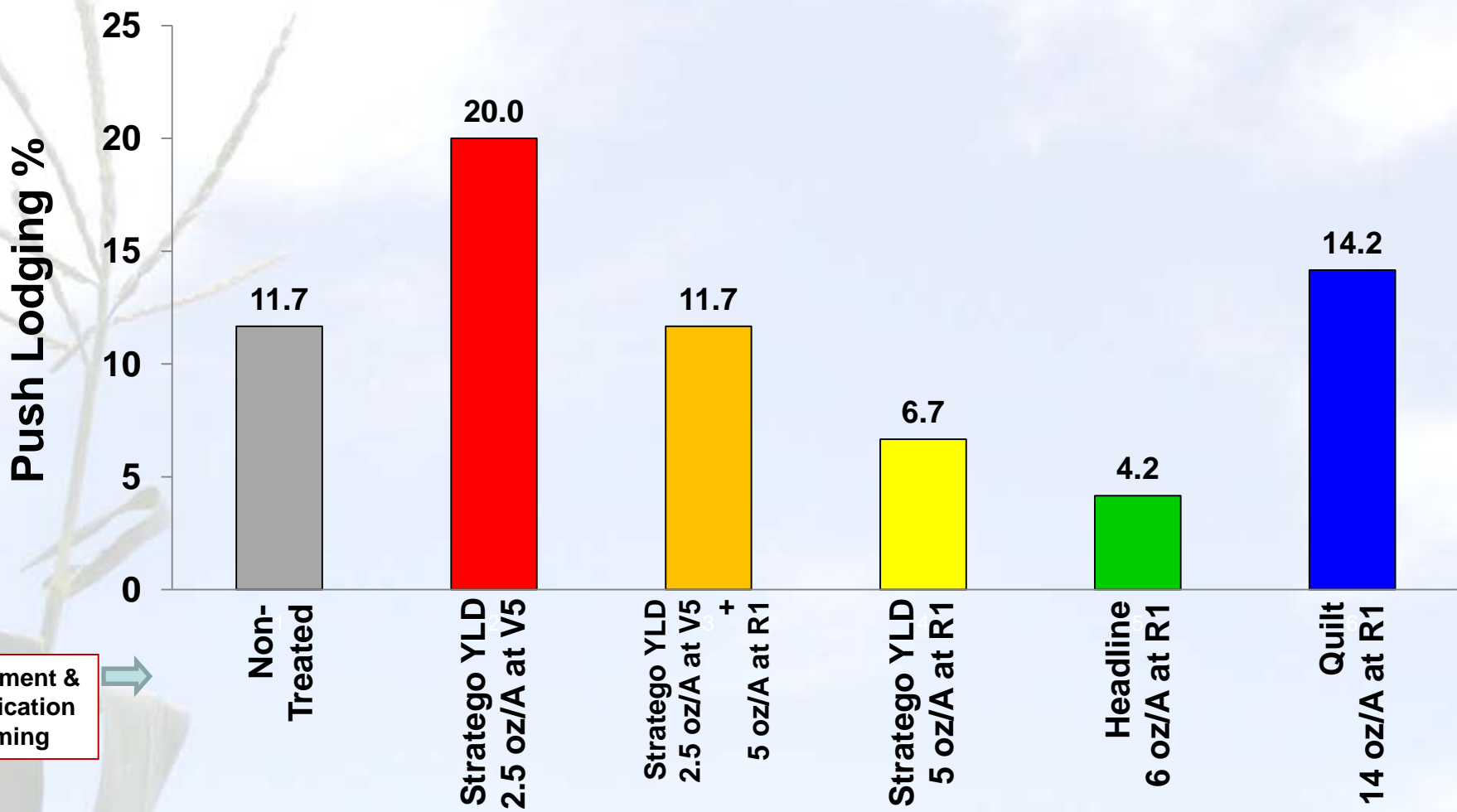


\*Treatments with different letters are statistically different. Coefficient of variation is 10.5%

# 2010 Fungicide Product Comparison Trial in NE

## Push Lodging % assessed on October 7, 2010

Application Timings: V5 (6-10-10) & R1 (7-15-10)

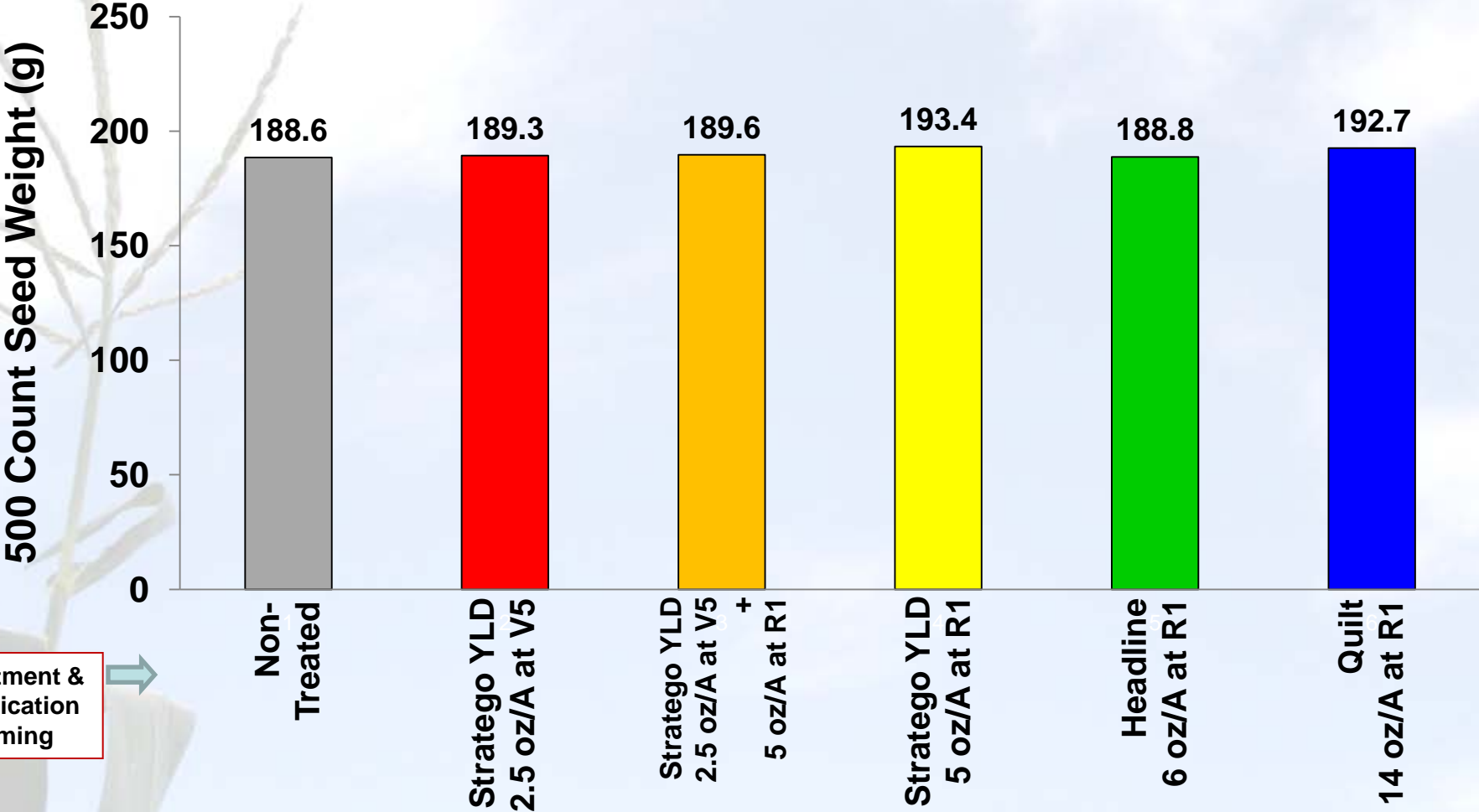


Treatment & Application Timing



# 2010 Fungicide Product Comparison Trial in NE 500 Count Kernel Weight (g)

Application Timings: V5 (6-10-10) & R1 (7-15-10)

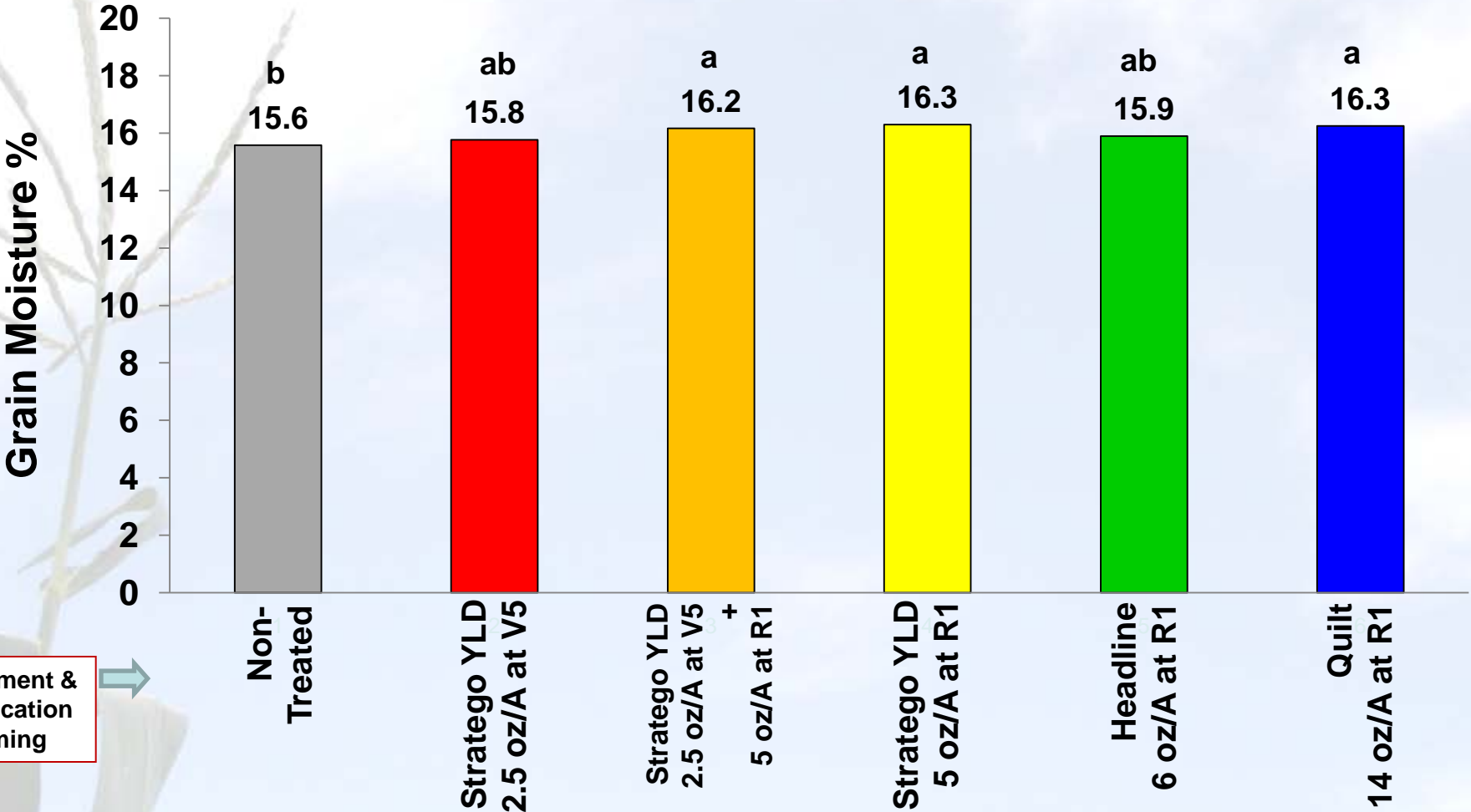


Treatment & Application Timing

\*No statistical differences between treatments. Coefficient of variation is 4.4%

# 2010 Fungicide Product Comparison Trial in NE Grain Moisture %

Application Timings: V5 (6-10-10) & R1 (7-15-10)



\*Harvest date: October 14

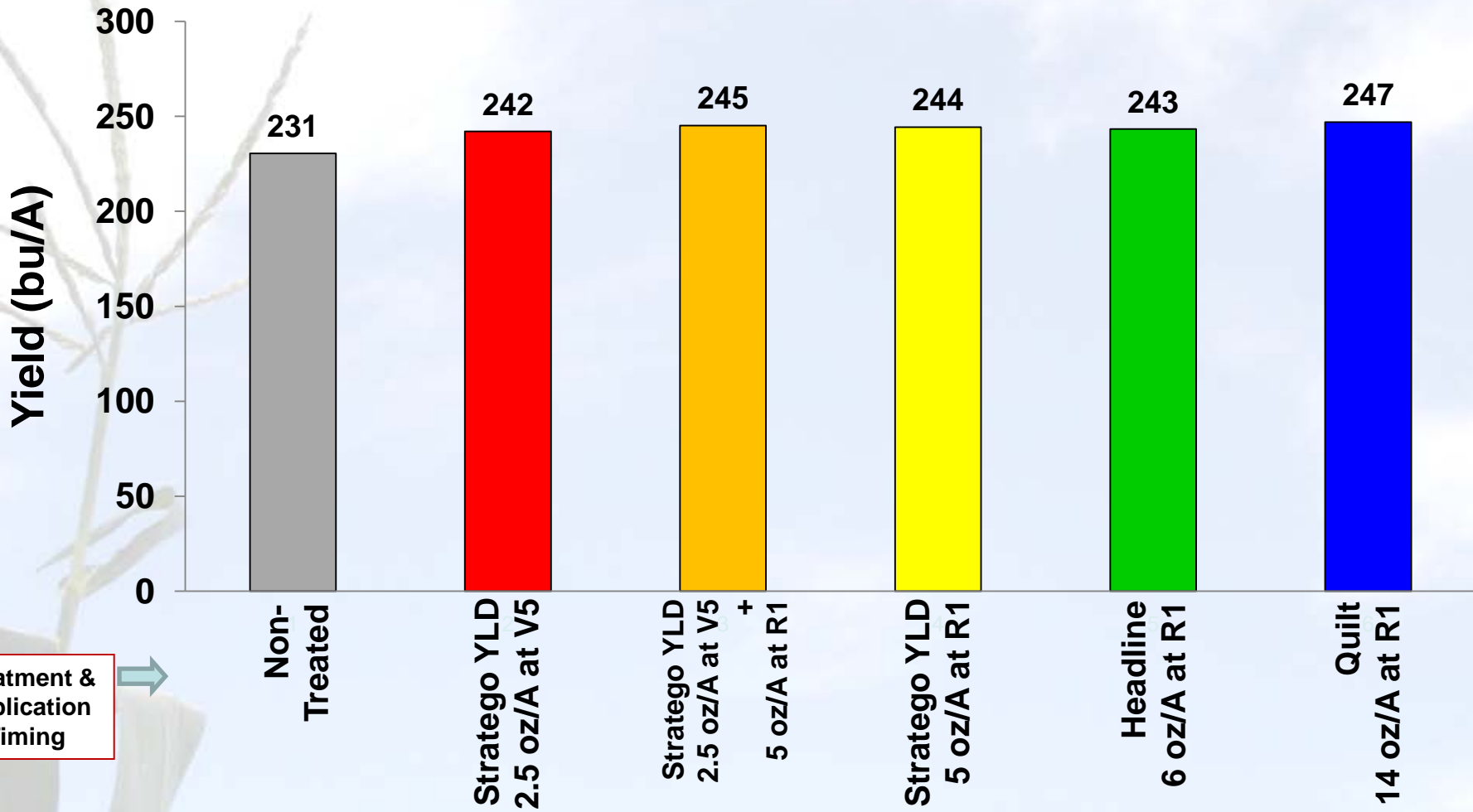
\*Treatments with different letters are statistically different. Coefficient of variation is 2.6%



# 2010 Fungicide Product Comparison Trial in NE

## Yield (bu/A)

Application Timings: V5 (6-10-10) & R1 (7-15-10)



Treatment & Application Timing

\*No statistical differences between treatments. Coefficient of variation is 4.6%

# Acknowledgments

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