2010 Corn Foliar Fungicides Application Timing Trial

South Central Ag Lab
Clay Center, NE

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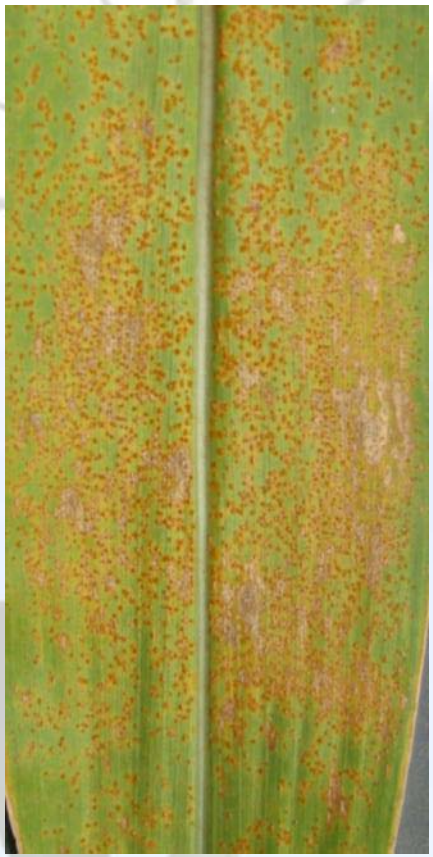
2010 Diseases

Gray leaf spot occurred at very low severity levels (< 2%) 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 (<3%) was low at this location in 2010.



2010 Diseases

Southern rust was present and was identified in this trial on Aug. 12. This disease was observed at very low severity (<0.3%) 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

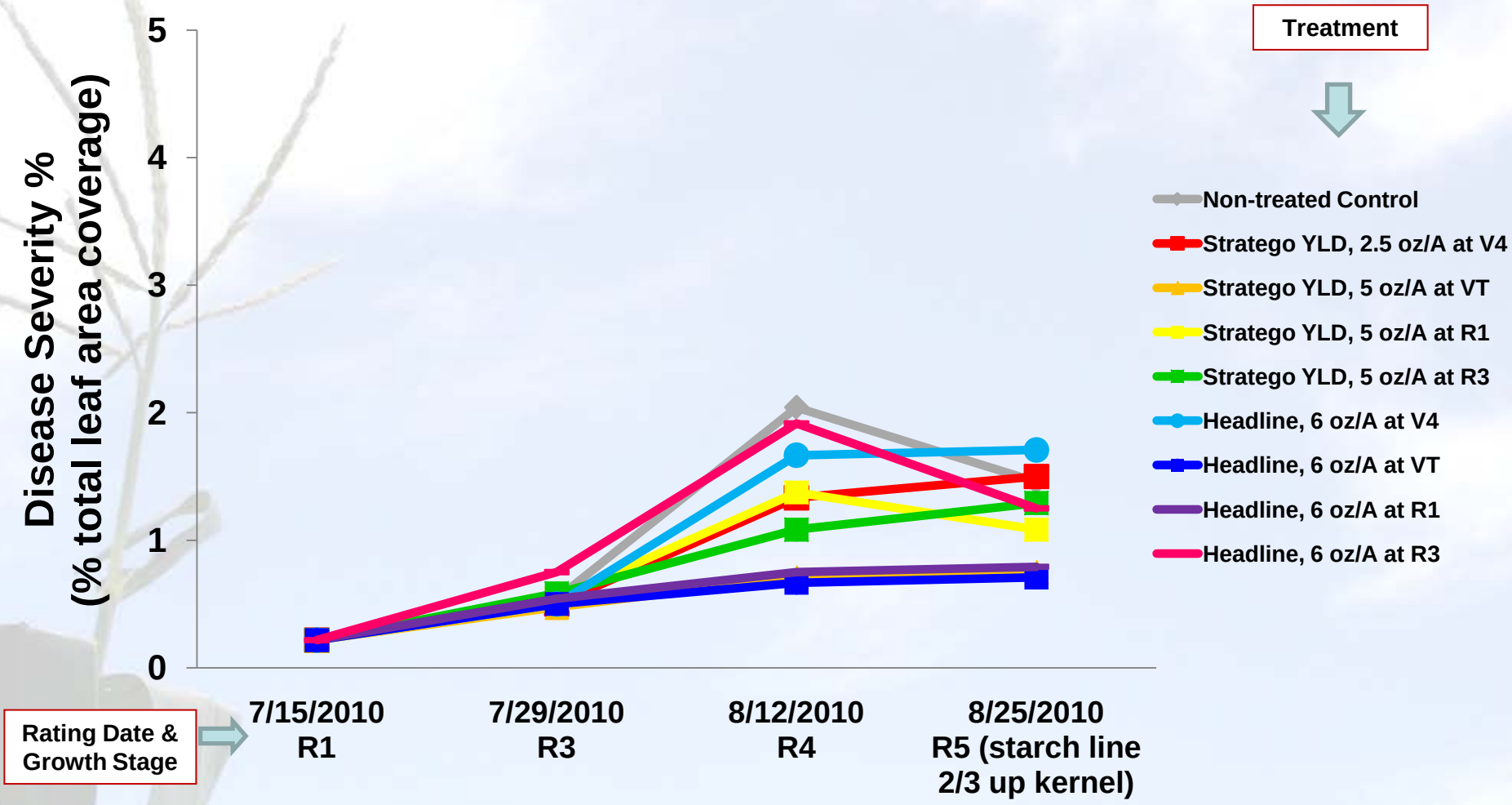
South Central Ag Lab, Clay Center, NE

- **High clearance sprayer used**
- **Elevated disease risk**
- **Continuous corn**
- **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 Application Timing Trial in NE

Gray Leaf Spot Disease Severity (%)

Application Timings: V4 (6-3-10), VT (7-14-10), R1 (7-16-10), R3 (7-30-10)



2010 Fungicide Application Timing Trial in NE

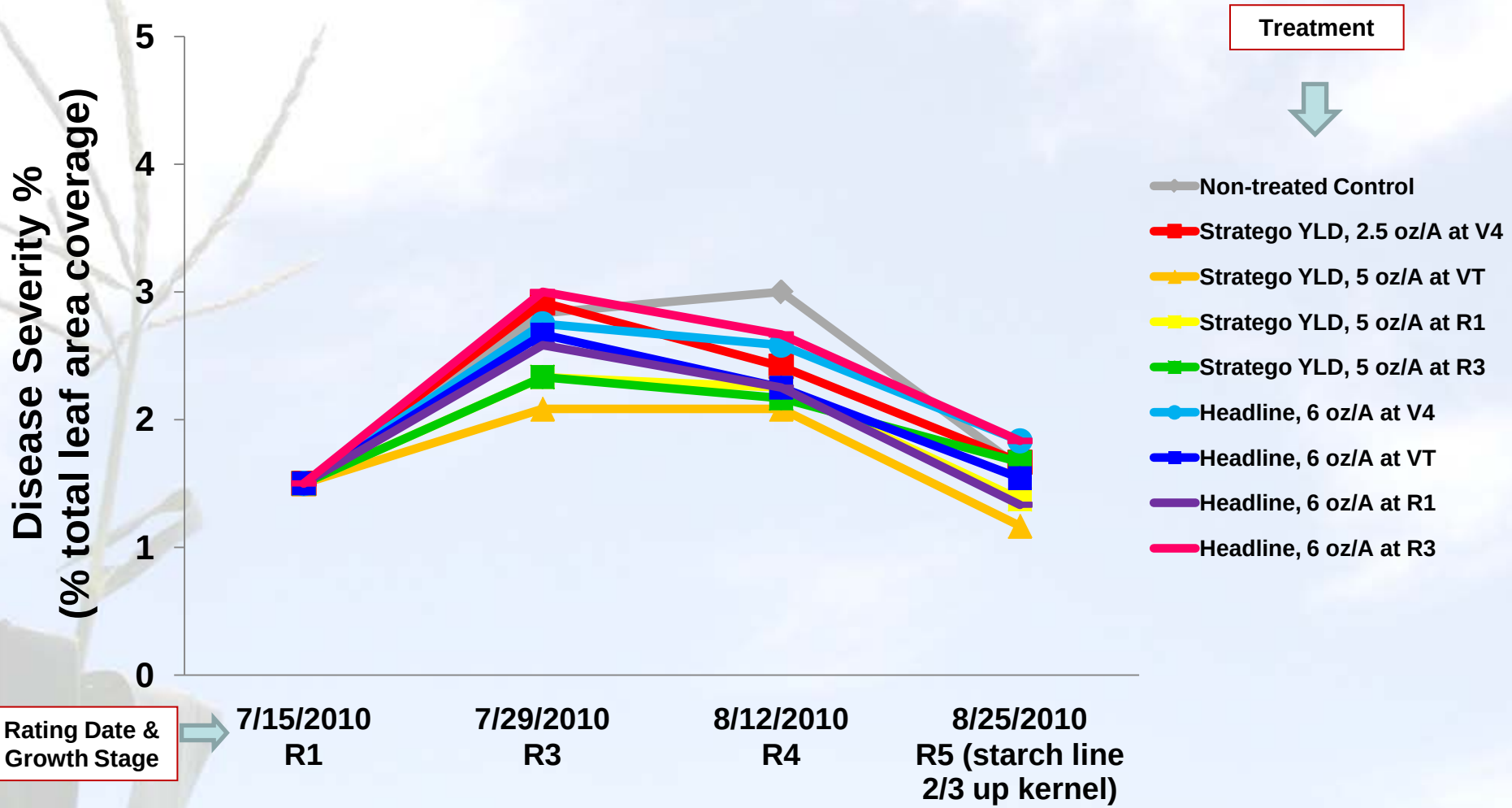
Area Under the Disease Progress Curve (AUDPC) for Gray Leaf Spot

*Treatments with different letters are statistically different. Coefficient of variation is 28.8%

2010 Fungicide Application Timing Trial in NE

Common rust Disease Severity (%)

Application Timings: V4 (6-3-10), VT (7-14-10), R1 (7-16-10), R3 (7-30-10)



2010 Fungicide Application Timing Trial in NE

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

*Treatments with different letters are statistically different. Coefficient of variation is 14.4%

2010 Fungicide Application Timing Trial in NE

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

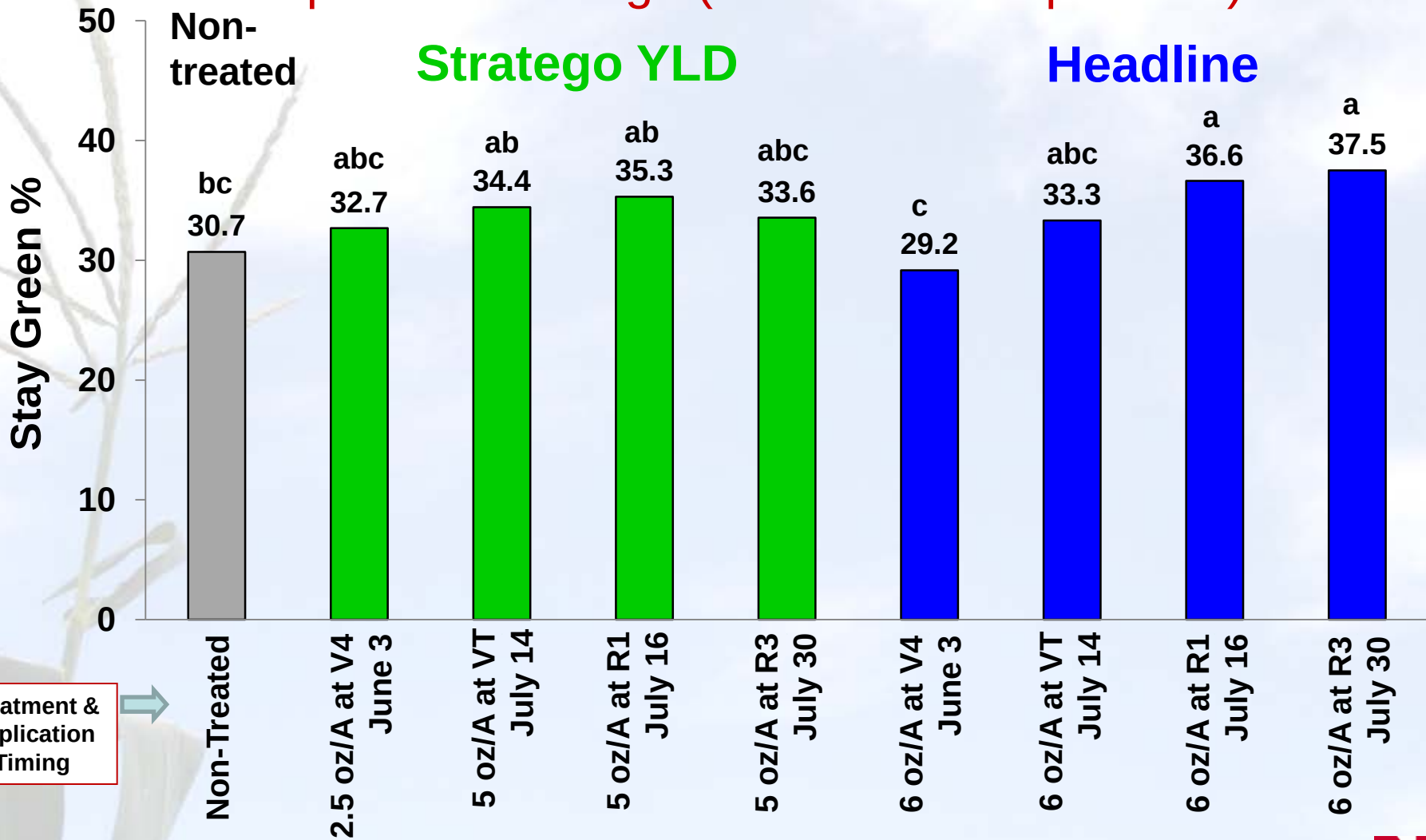
August 25, 2010 rating date (R5, starch line 2/3 up kernel)

*Treatments with different letters are statistically different. Coefficient of variation is 6.4%

2010 Fungicide Application Timing Trial in NE

Stay Green % assessed on September 12, 2010

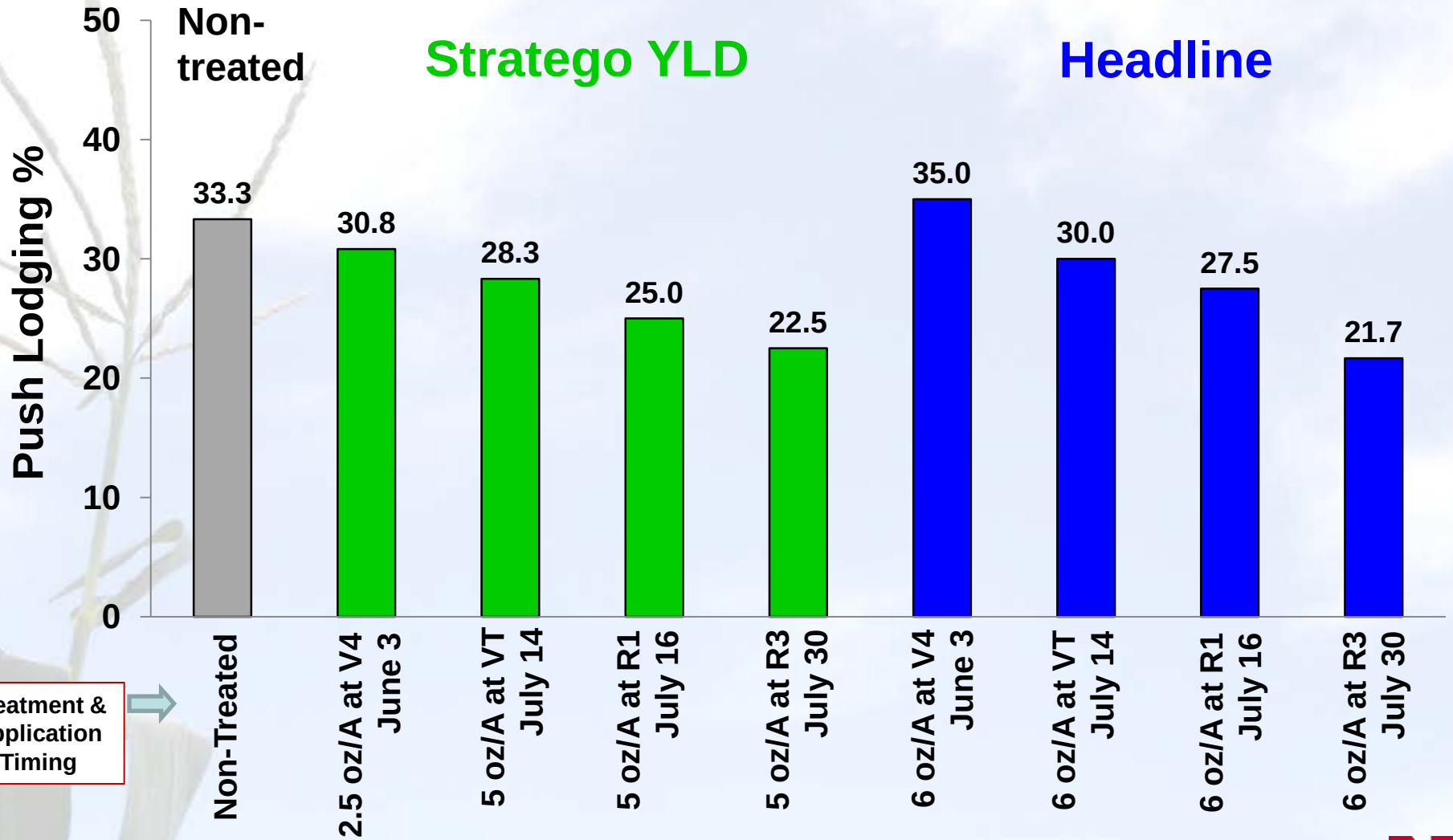
R5 reproductive stage (starch line ½ up kernel)



*Treatments with different letters are statistically different. Coefficient of variation is 11.2%

2010 Fungicide Application Timing Trial in NE

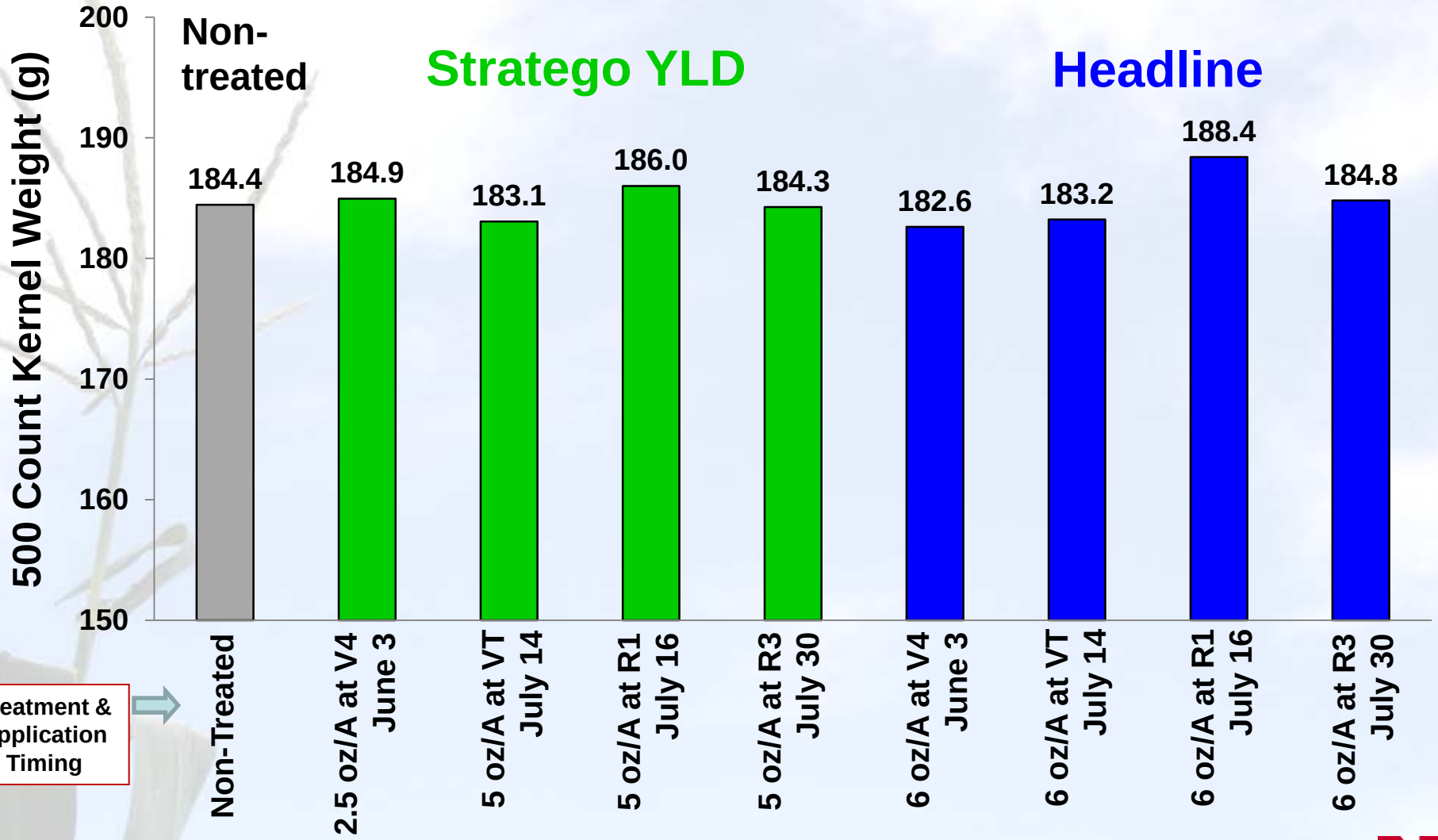
Push Lodging % assessed on October 5, 2010



*No statistical differences between treatments. Coefficient of variation is 50.7%.

2010 Fungicide Application Timing Trial in NE

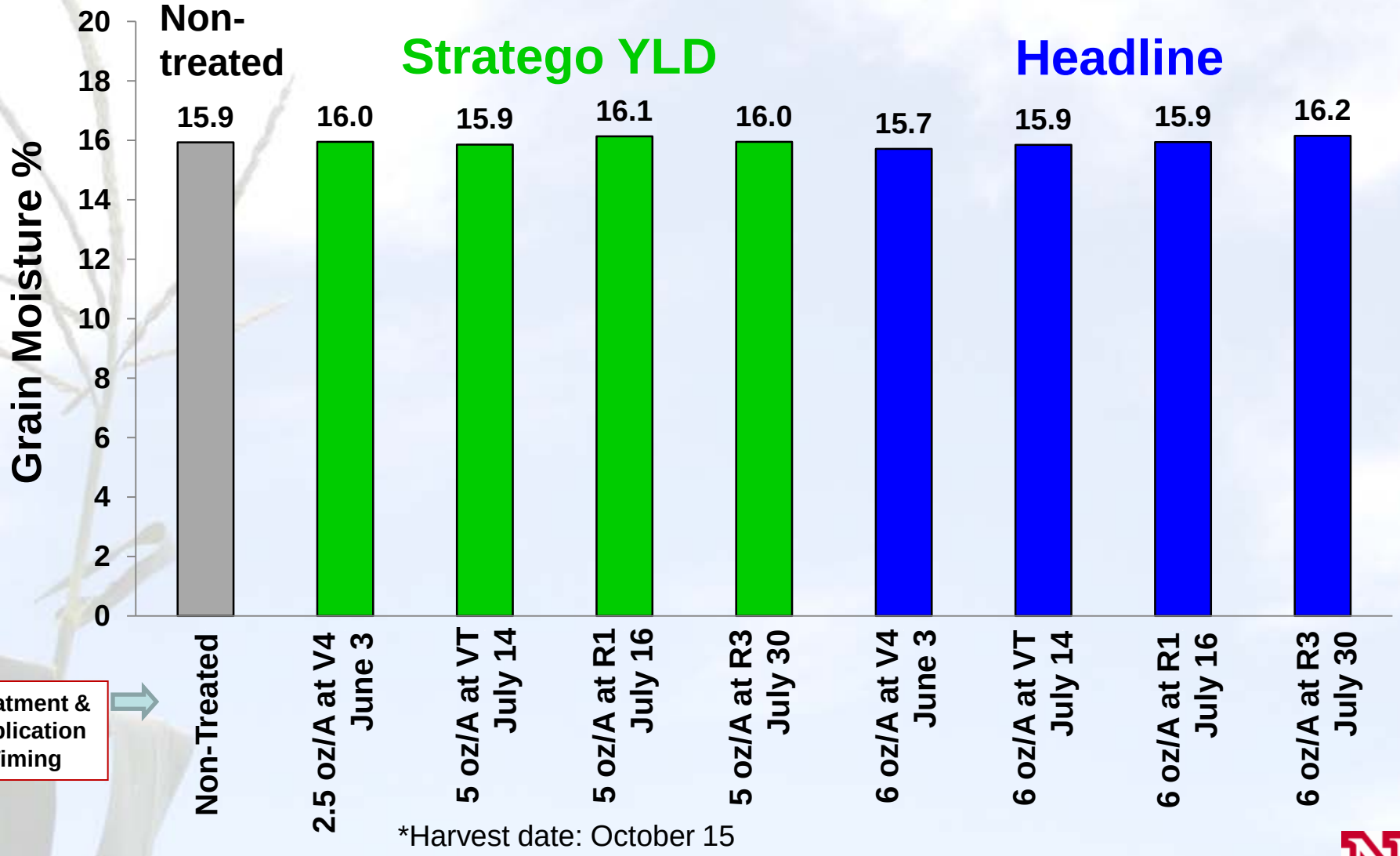
500 Count Kernel Weight (g)



*No statistical differences between treatments. Coefficient of variation is 2.6%

2010 Fungicide Application Timing Trial in NE

Grain Moisture %



*Harvest date: October 15

*No statistical differences between treatments. Coefficient of variation is 2.2%

2010 Fungicide Application Timing Trial in NE

Yield (bu/A)

*No statistical differences between treatments. Coefficient of variation is 6.0%

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