

# Comparison of Variety, N fertility, and Housing Density for Dark-Fired Tobacco

2007 – UKREC, Princeton, KY

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# Comparison of Dark-Fired Tobacco Variety, Nitrogen Rate, and Housing Density

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- Varieties: Narrowleaf Madole LC or KT D4LC
- N fertility: 200, 300, or 400 total lbs N/A
- Housing density: 6” or 12” stick spacing
- Experimental design: RCBD with 4 replications
  - Treatments design: split split-plot with variety (main plot), N fertility (sub plot), housing density (sub-sub plot)

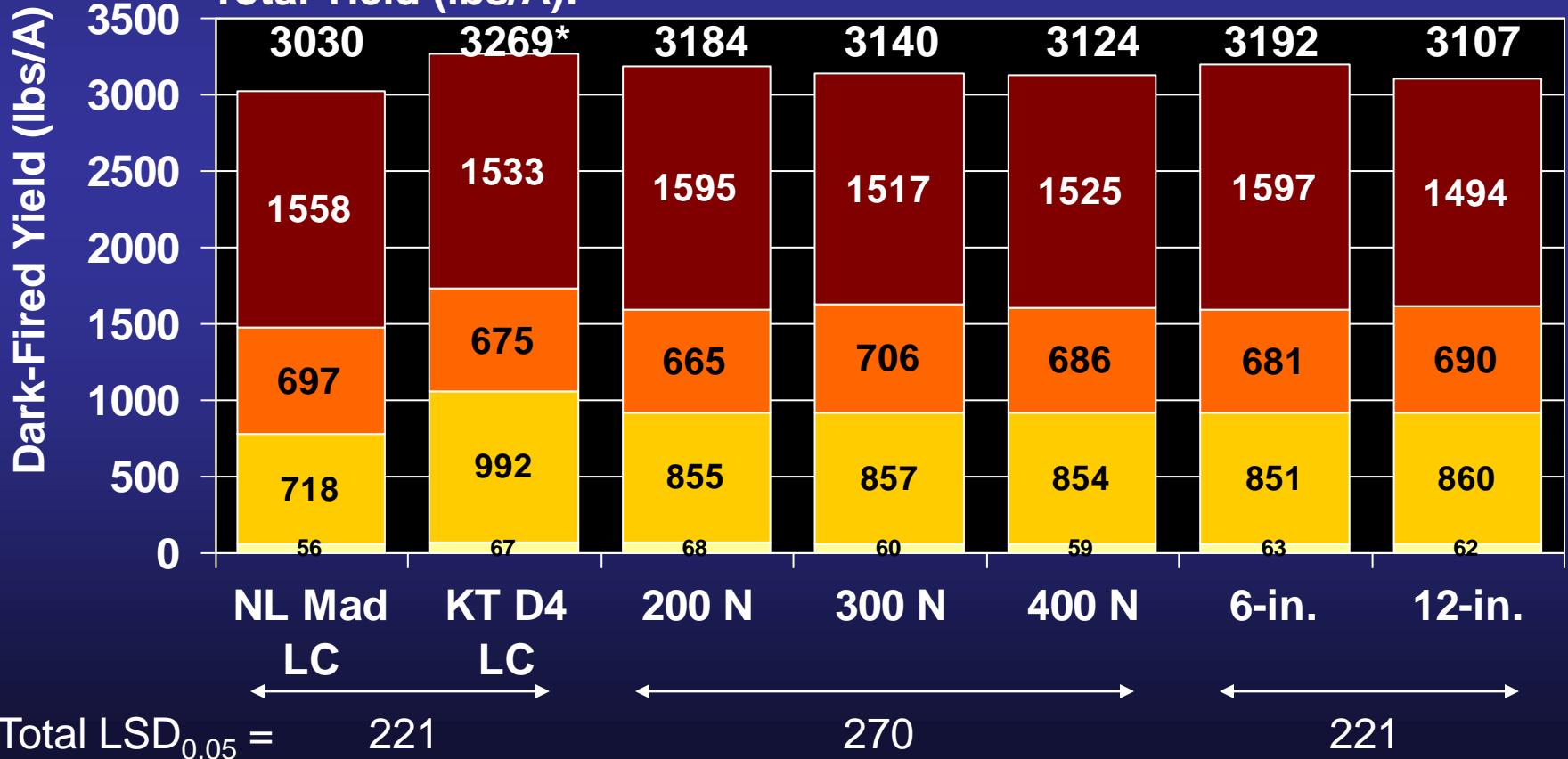
# Main Effects of Variety, N Rate, and Housing Density on Dark-Fired Yield

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\*Main effects of variety, N rate, and stick spacing (variety data averaged over N rate and stick spacing, N rate data average over variety and stick spacing, stick spacing data averaged over variety and N rate).

■ Trash ■ Lug ■ Second ■ Leaf

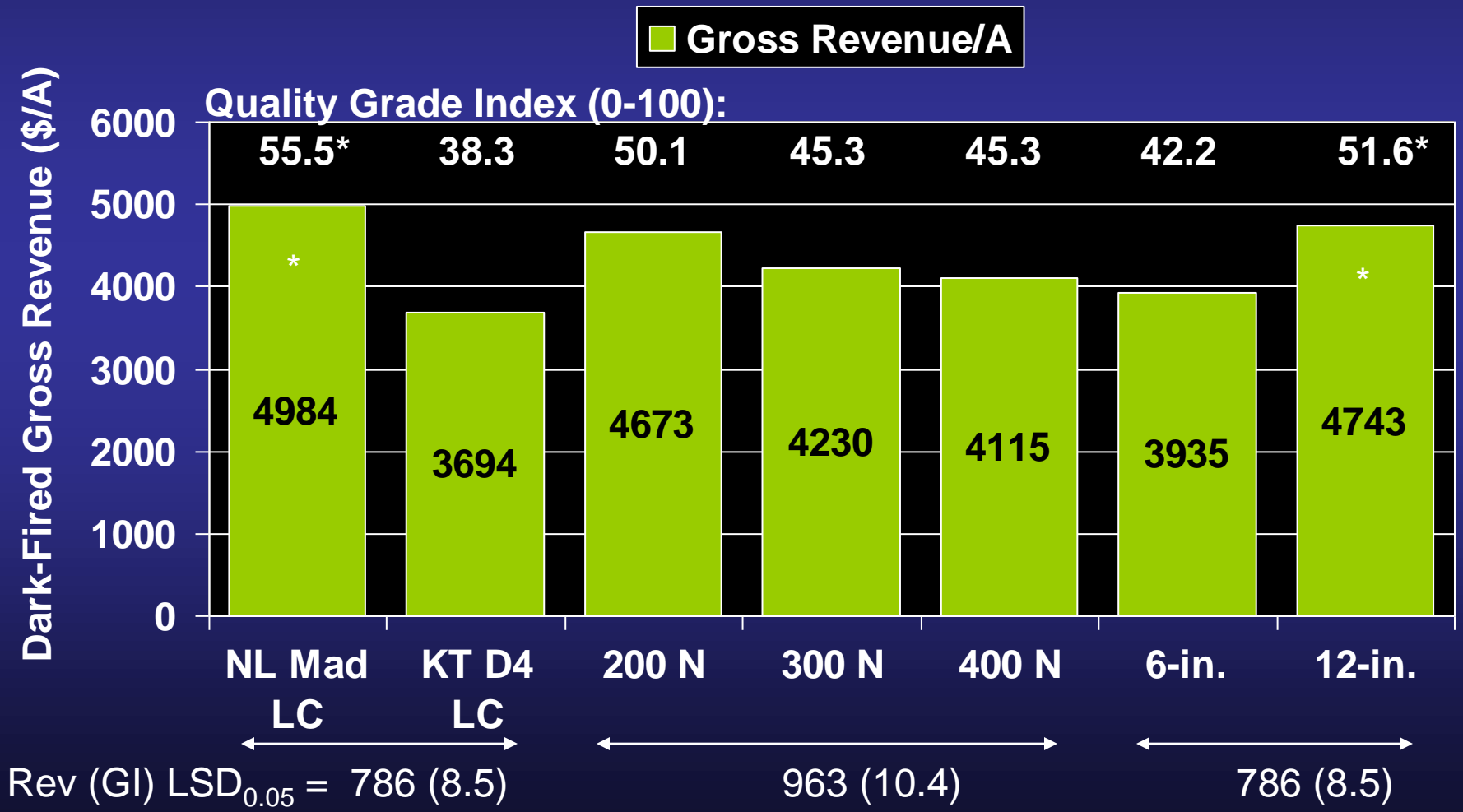
Total Yield (lbs/A):



# Main Effects of Variety, N Rate, and Housing Density on Dark-Fired Grade Index and Gross Revenue

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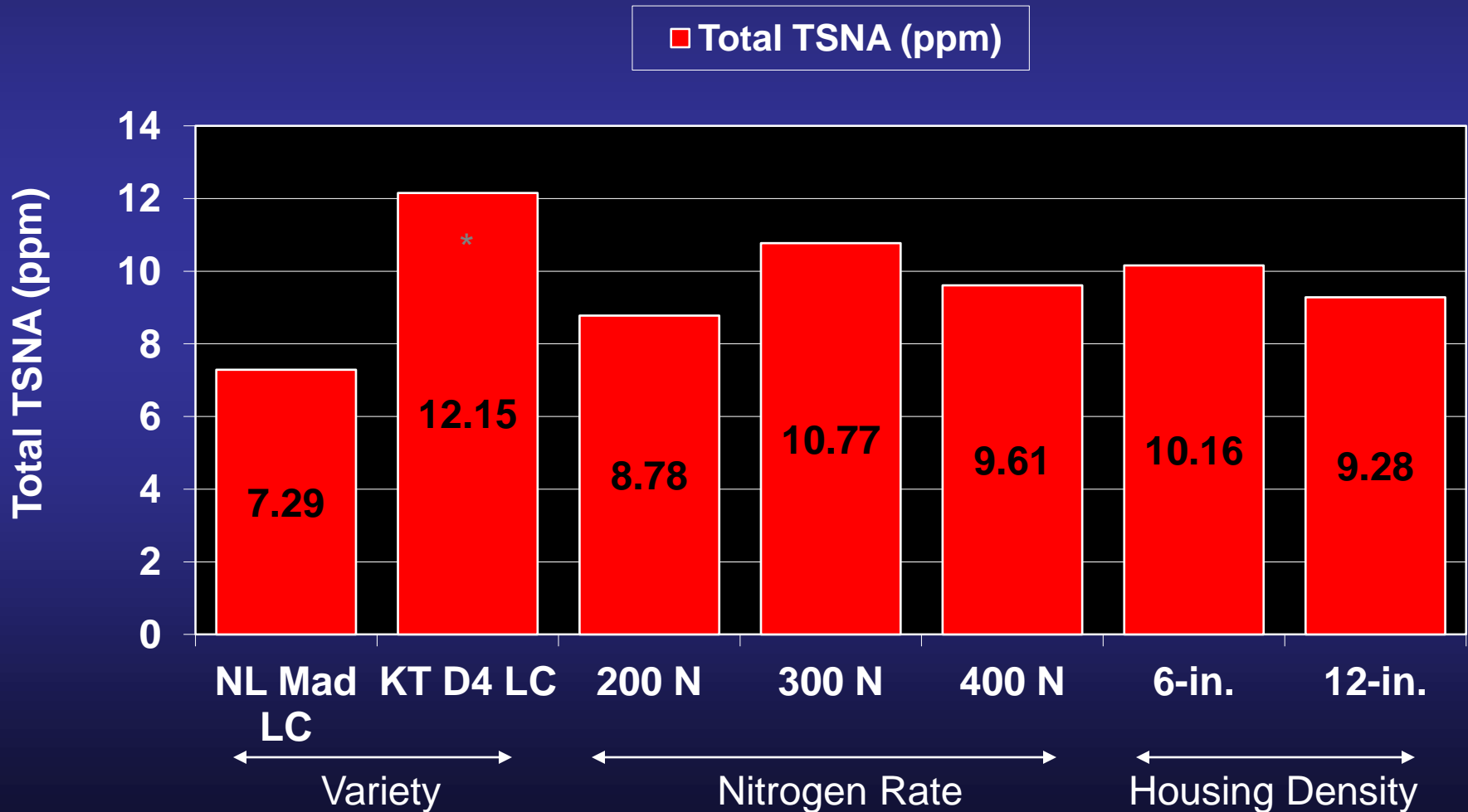
\*Main effects of variety, N rate, and stick spacing (variety data averaged over N rate and stick spacing, N rate data average over variety and stick spacing, stick spacing data averaged over variety and N rate).



# Main Effects of Variety, N Rate, and Housing Density on Total TSNA

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\*Main effects of variety, N rate, and stick spacing (variety data averaged over N rate and stick spacing, N rate data average over variety and stick spacing, stick spacing data averaged over variety and N rate)



# Effect of Variety, N Rate, and Housing Density on Dark-Fired Yield and Quality

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## Trial Summary:

- KT D4 will yield at least 300 lbs/A more than NL Mad.
  - KT D4 yielded 239 lbs/A more than NL Madole in this trial
- KT D4 has lower quality and TSNA than NL Madole
  - Significantly lower grade index and higher TSNA for KT D4 in this trial when average over N rate and housing density
- KT D4 is more prone to sweat and quality will further decrease when housed too tightly in barn.
  - Significant decrease in grade index and revenue from KT D4
- Quality may also decrease at excessive N rates.