

Dark Tobacco Rotation Trial

Year 4 - 2010 - HRREC, Springfield, TN

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Dark Tobacco Rotation Trial

HRREC – Springfield, TN

- Objective: evaluation the effect of crop rotational patterns, variety selection, and Ridomil use on long-term dark tobacco yield.
- 5-yr experiment, first year 2007
- Experiment established in 2007 in area of long-term fescue sod
- Rotational systems:
 - Continuous tobacco, 2-yr rotation w/ grass, 4-yr rotation w/ grass
- Variety systems:
 - Narrowleaf Madole LC or KT D6LC
- Ridomil systems:
 - 1 qt/A Ridomil broadcast pretransplant incorporated or no Ridomil

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| Treatment | Rotation | Variety | Ridomil |
|-----------|-----------------------|--------------|---------|
| 1 | Continuous tobacco | NL Madole LC | 1 qt/A |
| 2 | Continuous tobacco | KT D6LC | 1 qt/A |
| 3 | Continuous tobacco | NL Madole LC | None |
| 4 | Continuous tobacco | KT D6LC | None |
| 5 | 2-yr rotation w/grass | NL Madole LC | 1 qt/A |
| 6 | 2-yr rotation w/grass | KT D6LC | 1 qt/A |
| 7 | 2-yr rotation w/grass | NL Madole LC | None |
| 8 | 2-yr rotation w/grass | KT D6LC | None |
| 9 | 4-yr rotation w/grass | NL Madole LC | 1 qt/A |
| 10 | 4-yr rotation w/grass | KT D6LC | 1 qt/A |
| 11 | 4-yr rotation w/grass | NL Madole LC | None |
| 12 | 4-yr rotation w/grass | KT D6LC | None |

*Trial initiated in 2007, will be completed following 2011 season.

Experimental design: split block with rotation as main plot, variety and Ridomil sub-plots.

Rotation Treatments by Year

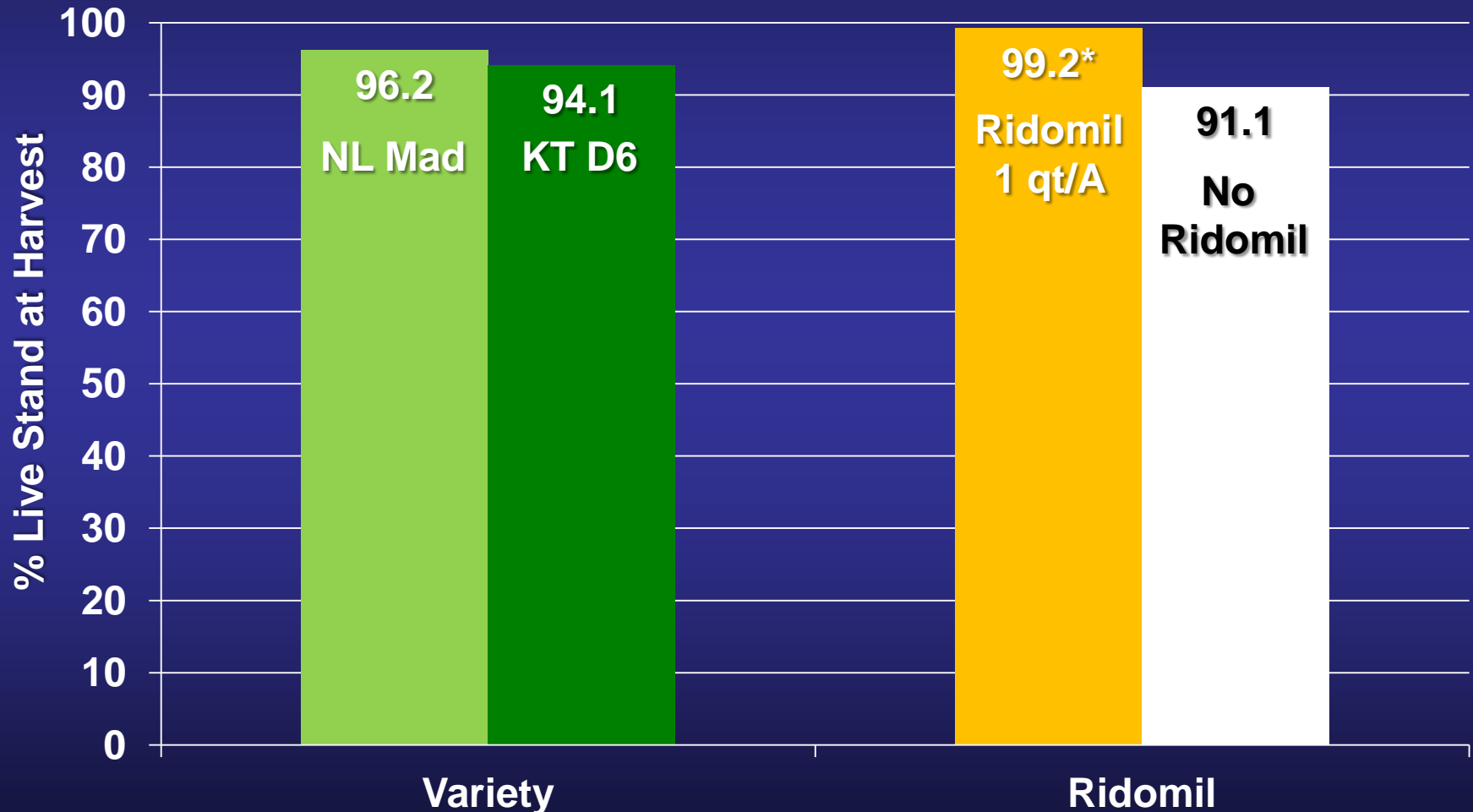
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| 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------|------------|---------------|------------|---------------|
| Continuous | Continuous | Continuous | Continuous | Continuous |
| 2-yr rotation | - | 2-yr rotation | - | 2-yr rotation |
| 4-yr rotation | - | - | - | 4-yr rotation |

*Fescue sown in rotational years when not in tobacco.

Effect of Variety and Ridomil on Dark Tobacco Stand

Black Shank Occuring for First Time in Yr 4 of Continuous Tobacco
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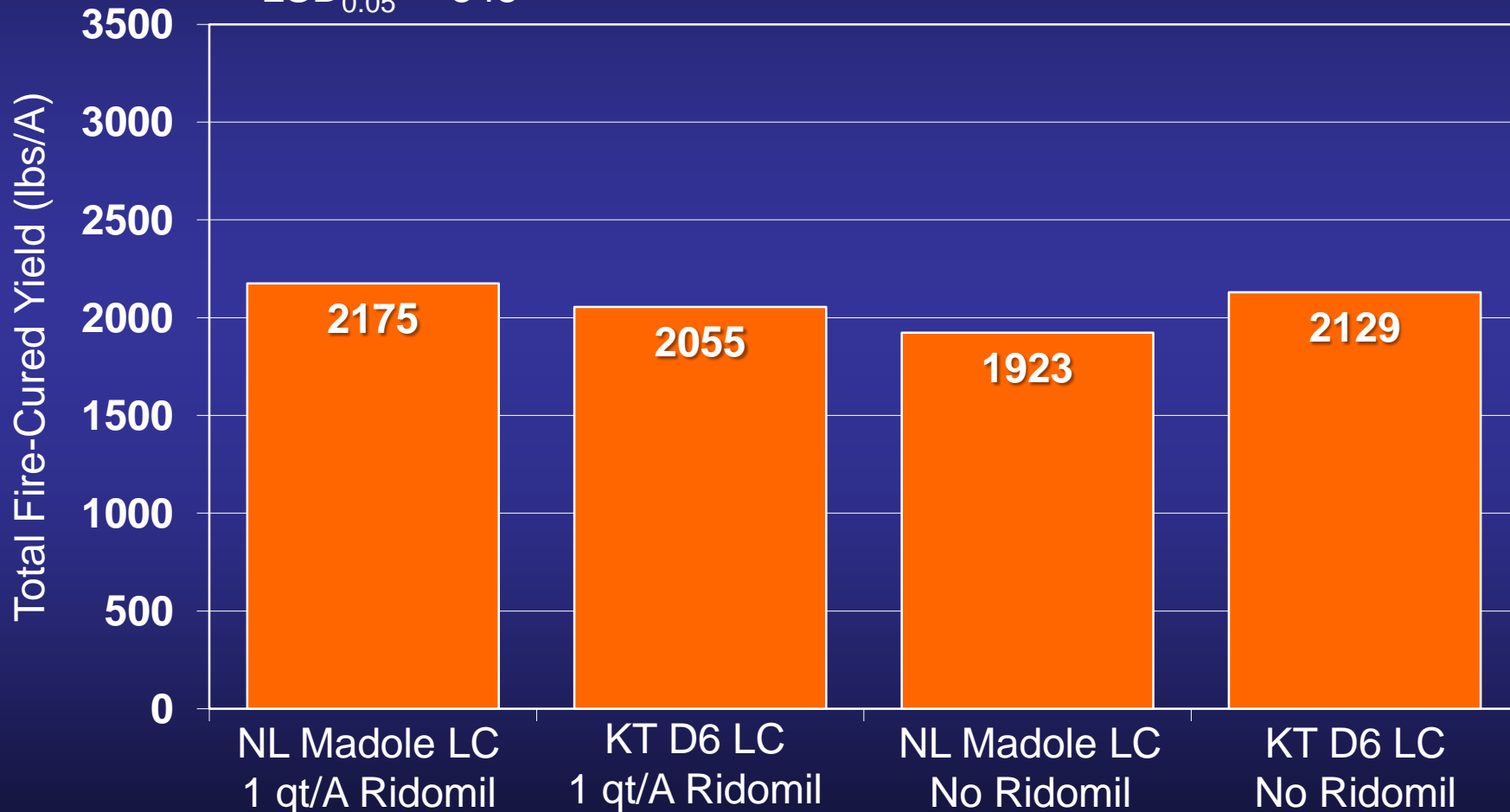
**Statistically significant difference (main effect of Ridomil vs. No Ridomil).*

Effect of Variety and Ridomil on Dark Tobacco Yield

Continuous only with Black Shank

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LSD_{0.05} = 345



4th year continuous tobacco following long-term sod.