

2010

Evaluation of Sidedress Nitrogen Sources for Dark Fire-Cured Tobacco

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Research conducted at MSU West Farm, Murray, KY

Evaluation of Sidedress N Sources for Dark Tobacco

2010 - MSU West Farm – Murray, KY

- Field site: Grenada silt loam, tobacco/soybean/grass rotation
- Soil test results: P index 56 (med); K index 175 (low); pH = 6.1
- 1 ton/A lime applied and incorporated with disk early spring
- 150 lbs N/A; 100 lbs P₂O₅/A; 220 lbs K₂O/A applied June 7 as broadcast incorporated application.
- PD7318LC dark tobacco transplanted June 15, conventional tillage
 - 4900 plants/A (40" row spacing; 32" plant spacing)
- RCBD with 4 replications, plots 40 ft. long, 4-rows.
- All sidedress N treatments applied July 9, incorporated with cultivator
- Tobacco crop vigor evaluated late July
- Seasonal weather conditions: wet early season, hot/dry after June 15.
- Tobacco harvested early October, fire-cured

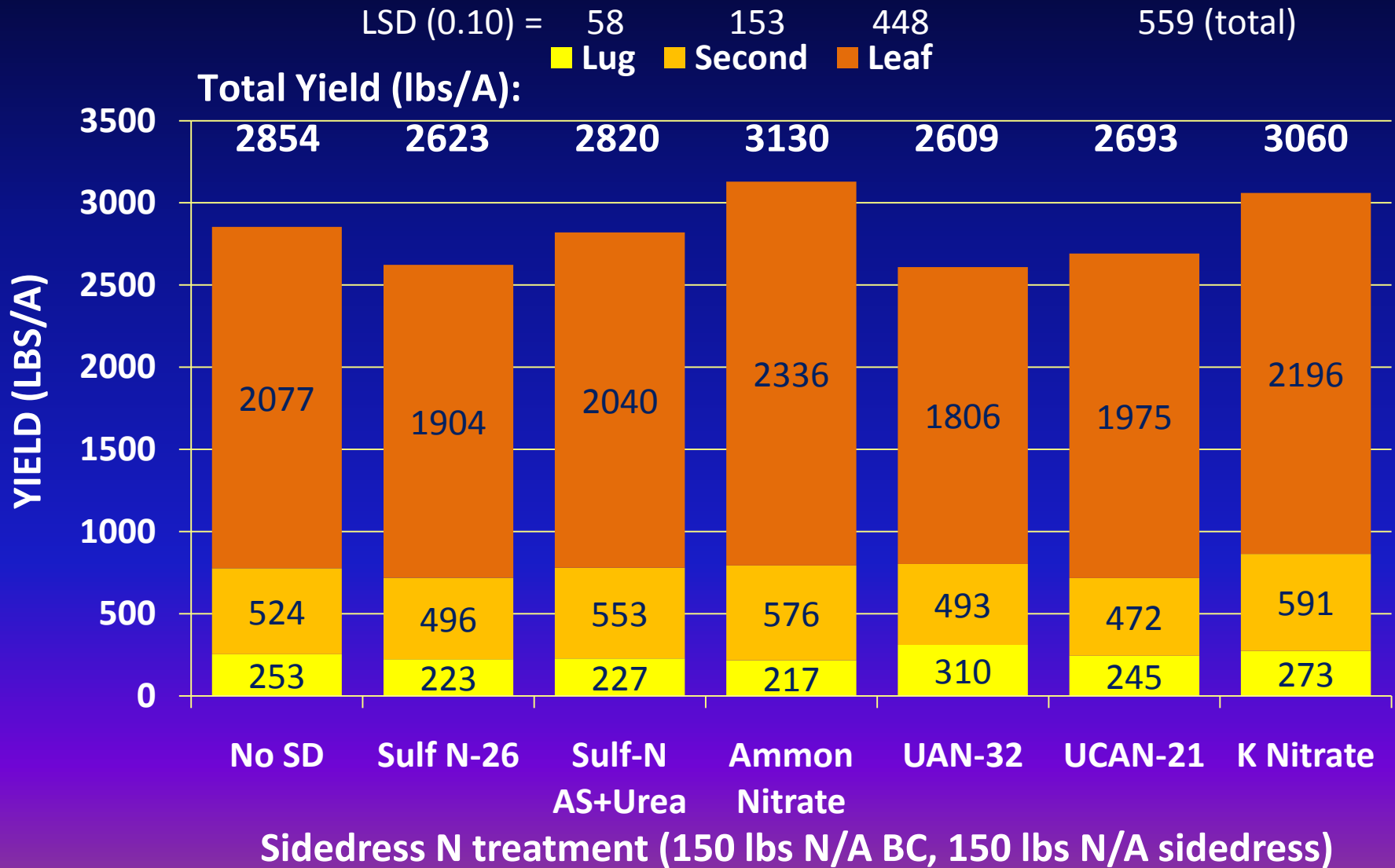
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2010 - MSU West Farm – Murray, KY - Treatments

Trt #	Sidedress N Treatment	Sidedress N/A (lb/A)	Total N/A (lb/A)
1	No sidedress N	0	150
2	Sulf-N 26 ammonium sulfate nitrate	150	300
3	50/50 blend of Sulf-N ammon sulfate/urea	150	300
4	Ammonium nitrate (33.5-0-0)	150	300
5	UAN-32 liquid (32-0-0)	150	300
6	UCAN-21 (CN-9 + UAN-28, 21-0-0)	150	300
7	Potassium nitrate (13.5-0-45)	150	300

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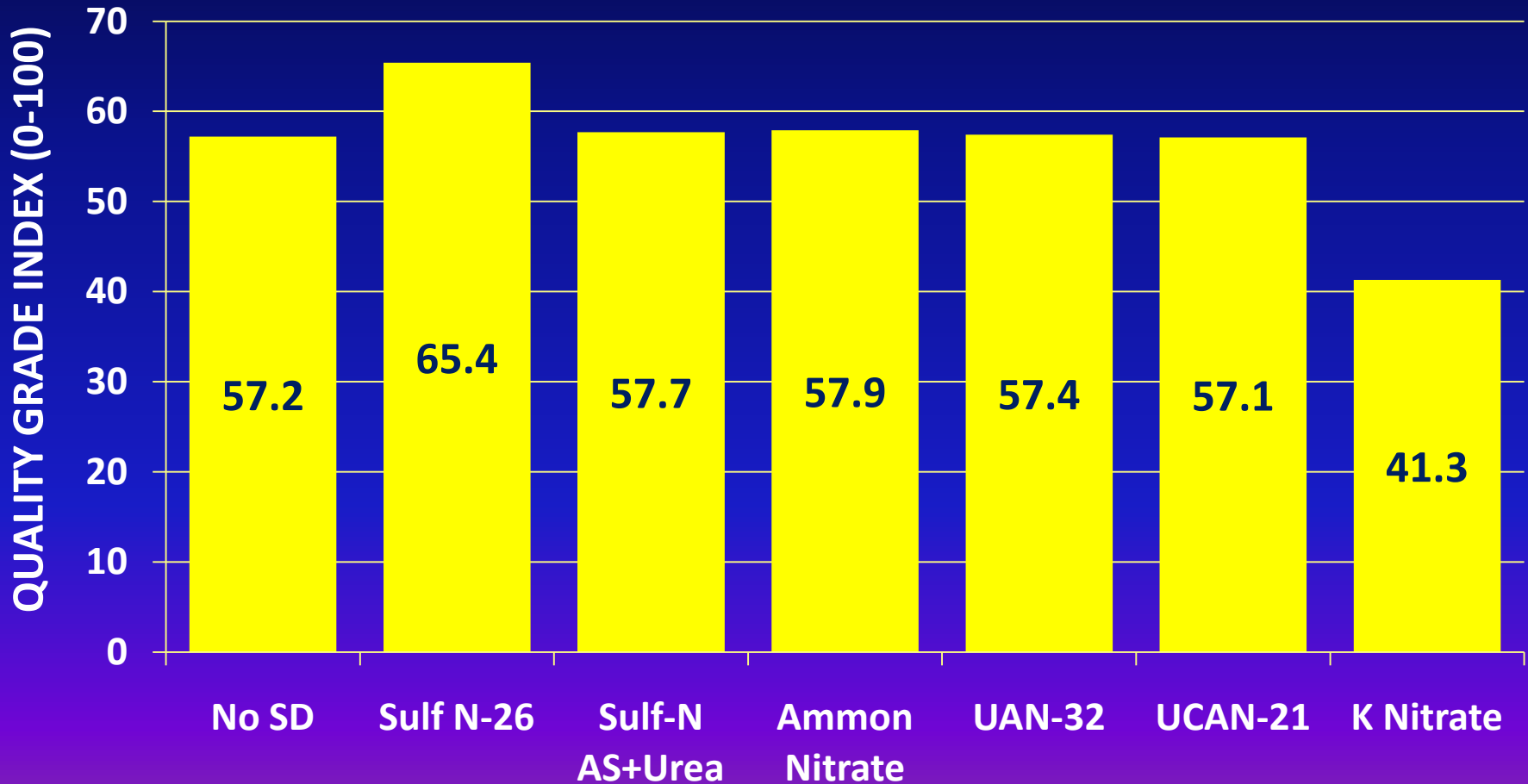
2010 - MSU West Farm – Murray, KY – Dark-Fired Yield Data



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2010 - MSU West Farm – Murray, KY – Dark-Fired Quality Grade Index*

LSD (0.10) = 19.7
■ Quality Grade Index



*Quality Grade Index is a numerical representation of Federal Grade received for tobacco and is a weighted average of all stalk positions (lug, second, leaf).

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2010 - MSU West Farm – Murray, KY – Trial Summary

- No significant differences seen in late July crop vigor rating (data not shown).
- Differences seen in leaf grade
 - Highest leaf yield from ammonium nitrate, lowest leaf yield from UAN-32
- No significant differences seen in total yield
 - Highest numerical total yield from ammonium and potassium nitrate
- Differences seen in quality grade index
 - Highest grade index from Sulf N-26 ammonium sulfate nitrate