

# Evaluation of Sulfentrazone and Clomazone Combinations and Ratios to Develop a PreMix in Tobacco

2009 – MSU West Farm – Murray, KY

- Objective: Evaluate various ratios of sulfentrazone and clomazone for weed control and tobacco response.
- Treatment applications made broadcast with 8002VS flat fan nozzles at 15 gal/A, 6 hrs prior to transplanting
- Trial was randomized complete block w/ 4 reps
- Plots 4-rows, 40 ft. long
- Tobacco cultivated once
- Tobacco Variety: PD7318LC
  - 40" rows x 32" plant spacing
  - 4900 plants/acre
  - Dark fire-cured tobacco

Trt #	Treatment	Rate	Timing
1	Command 3ME + Spartan 4F	32 oz/A + 8 oz/A	PreTrans
2	Command 3ME + Spartan 4F	24 oz/A + 6 oz/A	PreTrans
3	Command 3ME + Spartan 4F	32 oz/A + 10 oz/A	PreTrans
4	Command 3ME + Spartan 4F	24 oz/A + 7.5 oz/A	PreTrans
5	Command 3ME	32 oz/A	PreTrans
6	Spartan 4F	8 oz/A	PreTrans
7	Untreated Check	0	-

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First Rating – July 1 – 21 days after transplanting

Trt #	Treatment (oz/A)	Common Ragweed	Carpetweed	Annual Grass (broadleaf signal + large crabgrass)	Yellow nutsedge
		----- % -----			
1	Command (32) + Spartan (8)	90 ab	98 a	100 a	81 a
2	Command (24) + Spartan (6)	95 a	98 a	99 a	92 a
3	Command (32) + Spartan (10)	97 a	99 a	100 a	98 a
4	Command (24) + Spartan (7.5)	94 ab	99 a	100 a	93 a
5	Command (32)	89 ab	77 b	100 a	55 b
6	Spartan (8)	83 b	99 a	78 b	85 a
7	Untreated	0 c	0 c	0 c	0 c
	LSD <sub>0.05</sub>	11	10	7	19

\*No tobacco injury observed from any treatment.

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Second Rating – July 22 – 42 days after transplanting

Trt #	Treatment (oz/A)	Tobacco Injury	Common Ragweed	Carpetweed	Annual Grass (broadleaf signal + large crabgrass)	Yellow nutsedge
		----- % -----				
1	Command (32) + Spartan (8)	0 a	71 a	99 a	100 a	86 a
2	Command (24) + Spartan (6)	0 a	81 a	94 a	98 a	91 a
3	Command (32) + Spartan (10)	2.5 a	95 a	96 a	100 a	98 a
4	Command (24) + Spartan (7.5)	0 a	93 a	94 a	99 a	96 a
5	Command (32)	0 a	89 a	54 b	99 a	71 ab
6	Spartan (8)	0 a	75 a	99 a	63 b	99 a
7	Untreated	0 a	13 b	13 c	25 c	44 b
	LSD <sub>0.05</sub>	2.8	31	23	29	33

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Final Late-Season Rating – September 29 – Preharvest

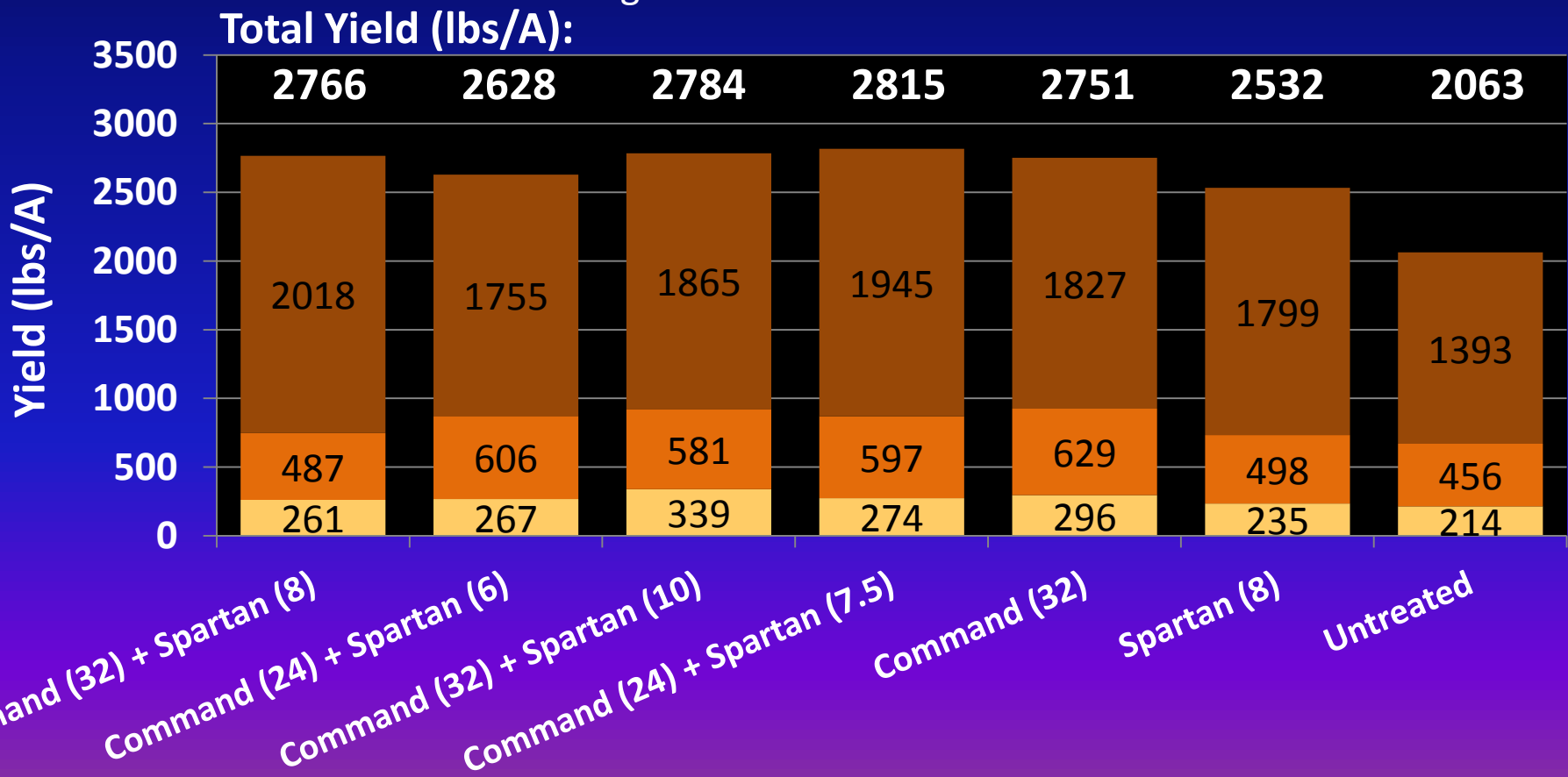
Trt #	Treatment (oz/A)	Common Ragweed	Broadleaf Signalgrass	Large Crabgrass	Smooth Pigweed
		----- % -----			
1	Command (32) + Spartan (8)	73 d	93 a	99 a	98 a
2	Command (24) + Spartan (6)	78 bcd	94 a	97 a	99 a
3	Command (32) + Spartan (10)	87 abc	99 a	99 a	99 a
4	Command (24) + Spartan (7.5)	93 a	98 a	97 a	99 a
5	Command (32)	91 ab	99 a	99 a	99 a
6	Spartan (8)	75 cd	33 b	37 b	70 b
7	Untreated	0 e	0 c	0 c	0 c
	LSD <sub>0.05</sub>	12	11	11	2

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## Dark Fire-Cured Yield

LSD<sub>0.05</sub> =      89                  163                  468                  567 (total)  
 Lug     Second     Leaf

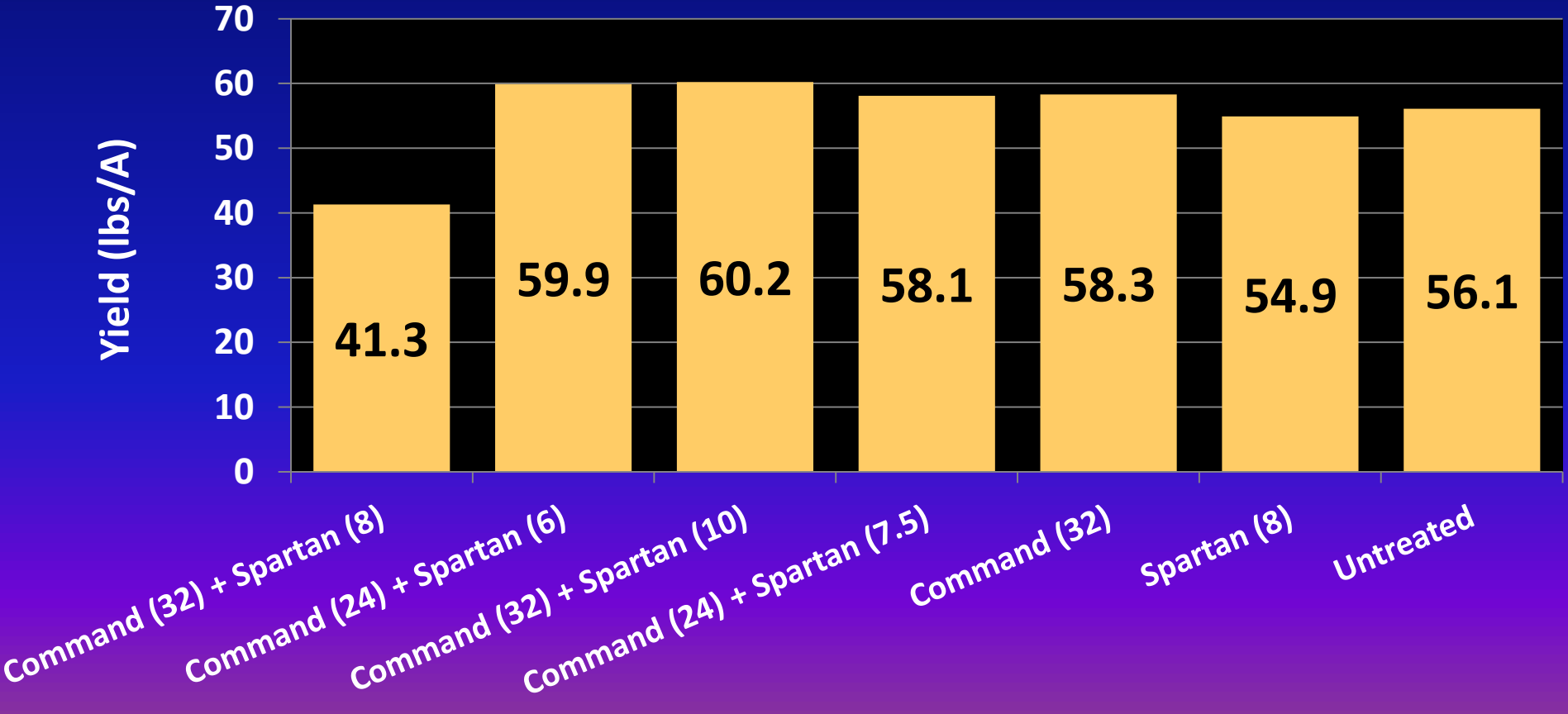


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## Dark Fire-Cured Quality Grade Index

LSD<sub>0.05</sub> = 17.9  
■ Grade Index



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## Trial Summary

- Best weed control across weed species obtained with Command/Spartan combinations compared to Command or Spartan alone.
- No major influence of rate of either herbicide on weed control
  - Common rate in dark tobacco region is 24-32 oz/A Command 3ME + 8-10 oz/A Spartan 4F
- No significant differences in total dark-fired yield from treated tobacco (untreated tobacco yielded approx. 500 lbs less than treated tobacco)
- No clear differences in dark-fired tobacco quality between treatments.