

**SRC x N rate x Leaf Number x Harvest Interval**

Year 2 of Research Trial Conducted at MSU West Farm, Murray KY

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# Trial Factors:

- Variety (SRC), Trt 9 was LC for comparison
- Nitrogen rate: 180 or 250 lbs N/A
  - 180 lbs N/A applied to all plots before transplanting (urea)
  - 70 lbs N/A sidedressed to treatments 5-9 at 4 weeks (UAN)
- Topping Height (leaf number): 14 or 18 leaves
- Harvest Interval: 5 or 7 weeks after topping
  - Pretransplant N applied June 15, 2020
  - Plots transplanted June 18
  - Sidedress UAN to treatments 5-9 on July 15
  - Topped August 17
  - 5 wk harvested September 14
  - 7 wk harvested October 2
  - All plots were air-cured

# Treatments

Treatment	Variety	N rate (lbs N/A)	Leaf Number	Harvest Interval (wks after topping)
1	SRC	180	14	5
2	SRC	180	18	5
3	SRC	180	14	7
4	SRC	180	18	7
5	SRC	250	14	5
6	SRC	250	18	5
7	SRC	250	14	7
8	SRC	250	18	7
9	LC	250	14	7

# 2020 Overall Yield Analysis

Trt	Variety	Nitrogen Rate (lbs N/A)	Topping Height (Leaf Number at Topping)	Harvest Interval (weeks between topping and harvest)	Lug Yield (lbs/A)	Leaf Yield (lbs/A)	Total Yield (lbs/A)
1	PD 7309 SRC	180	14	5	327 a	2237 bc	2564 bc
2	PD 7309 SRC	180	18	5	254 c	2298 bc	2552 bc
3	PD 7309 SRC	180	14	7	311 ab	2529 ab	2840 ab
4	PD 7309 SRC	180	18	7	254 c	2275 bc	2529 bc
5	PD 7309 SRC	250	14	5	355 a	2294 bc	2650 bc
6	PD 7309 SRC	250	18	5	315 ab	2464 ab	2779 ab
7	PD 7309 SRC	250	14	7	269 bc	2102 c	2372 c
8	PD 7309 SRC	250	18	7	312 ab	2685 a	2998 a
9	PD 7309 LC	250	14	7	315 ab	2306 bc	2621 bc
				LSD <sub>0.10</sub> =	47	318	335

# No Significant Main Effects of Nitrogen, Topping Height, or Harvest Timing on Total Yield

\*LC treatment (9) not included in factorial analysis

Nitrogen Rate (lbs N/A)	Total Yield
180	2621 a
250	2701 a

Leaf Number	Total Yield
14 leaves	2606 a
18 leaves	2716 a

Harvest Time after Topping	Total Yield
5 weeks	2636 a
7 weeks	2686 a

# 2020 Overall Quality Grade Index Analysis

Trt	Variety	Nitrogen Rate (lbs N/A)	Topping Height (Leaf Number at Topping)	Harvest Interval (weeks between topping and harvest)	Quality Grade Index (0-100)
1	PD 7309 SRC	180	14	5	60.9 a
2	PD 7309 SRC	180	18	5	53.5 a
3	PD 7309 SRC	180	14	7	33.4 b
4	PD 7309 SRC	180	18	7	27.4 b
5	PD 7309 SRC	250	14	5	61.0 a
6	PD 7309 SRC	250	18	5	57.6 a
7	PD 7309 SRC	250	14	7	29.2 b
8	PD 7309 SRC	250	18	7	23.6 b
9	PD 7309 LC	250	14	7	29.3 b
				LSD <sub>0.10</sub> =	14.0

# Main Effects of Nitrogen Rate, Leaf Number, and Harvest Interval on Grade Index

\*LC treatment (9) not included in factorial analysis

Nitrogen Rate (lbs N/A)	Grade Index
180	43.8 a
250	43.1 a

Leaf Number	Grade Index
14 leaves	46.1 a
18 leaves	40.7 a

Harvest Interval	Grade Index
5 weeks	58.2 a
7 weeks	28.6 b

*Main Effect of Harvest Timing on Quality Grade Index was huge in 2020.*