

Cotton Fertility – Spend Wisely

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Acreage

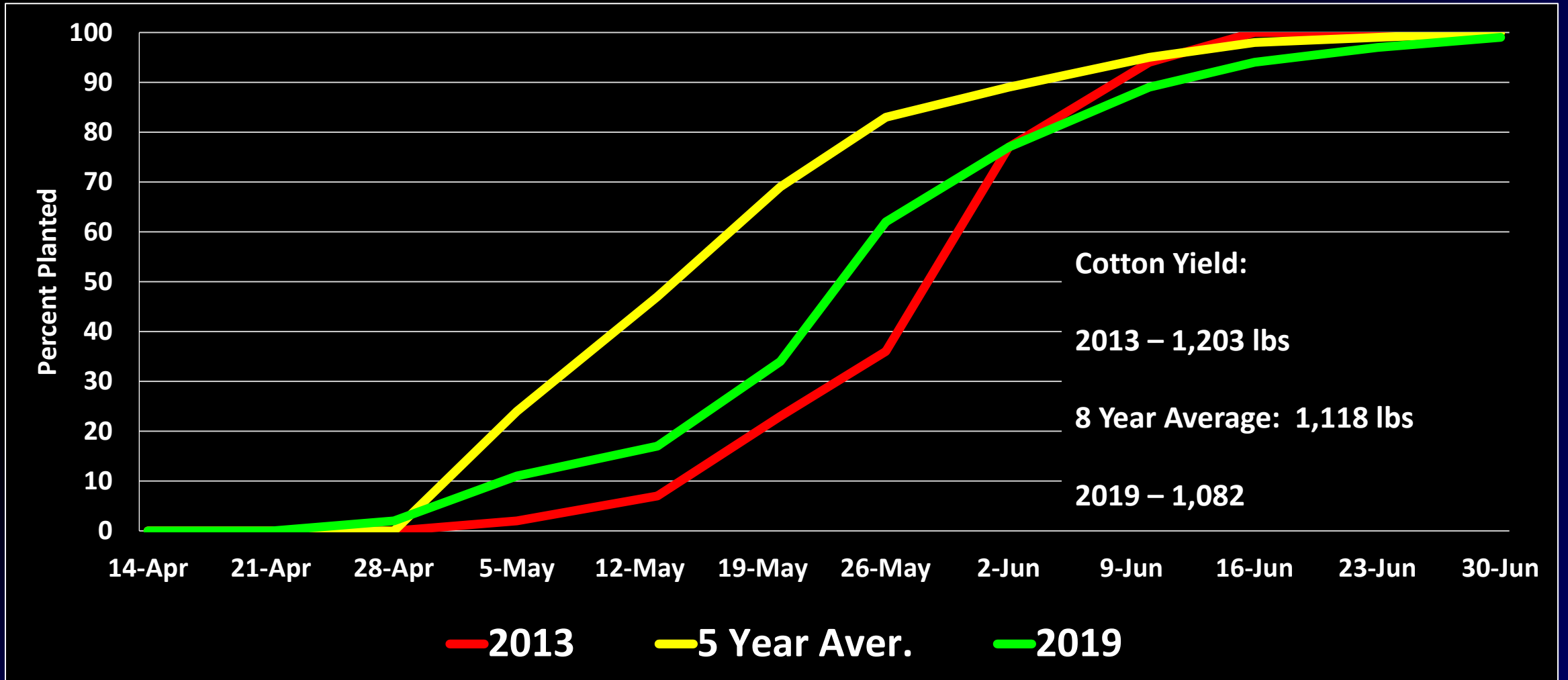
Crop	Alabama	Arkansas	Georgia	Louisiana	Mississippi	Tennessee
Soybeans	280,000	3,100,000	130,000	1,130,000	1,950,000	1,500,000
Corn	280,000	830,000	380,000	550,000	590,000	850,000
Cotton	510,000	580,000	1,350,000	260,000	700,000	360,000
Peanuts	170,000	25,000	670,000	--	25,000	--
Rice	--	1,400,000	--	400,000	150,000	--
Wheat	170,000	90,000	210,000	--	40,000	300,000
Total	1,410,000	6,026,000	2,740,000	2,340,000	3,45,000	3,010,000

Total Row Crop Acres: 19,080,000

2019 Issues

- **Delayed planting**
- **Delayed harvest**
 - **Yield loss**
- **Wilted cotton**
- **CLRDV**
- **Fertility**

Planting Progress



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The Biggest Trend?

Year	Arkansas	Louisiana	Mississippi	Missouri	Tennessee
2019	1,102 (6 th)	1,031 (4 th)	1,082 (5 th)	1,265 (2 nd)	1,116 (1 st)
2018	1,133 (3 rd)	1,067 (3 rd)	1,141 (4 th)	1,373 (1 st)	1,041 (4 th)
2017	1,177 (1 st)	894 (10 th)	1,038 (6 th)	1,212 (3 rd)	1,033 (5 th)
2016	1,075 (8 th)	939 (9 th)	1,207 (2 nd)	1,021 (10 th)	1,104 (2 nd)
2015	1,092 (8 th)	810	1,024 (7 th)	1,097 (6 th)	1,046 (3 rd)
2014	1,145 (2 nd)	1,154 (2 nd)	1,232 (1 st)	1,117 (4 th)	878 (10 th)
2013	1,133 (3 rd)	1,223 (1 st)	1,203 (3 rd)	968 (12 th)	853 (11 th)
2012	1,064 (10 th)	1,020 (5 th)	1,014 (9 th)	1,063 (8 th)	946 (6 th)
8-Year Average	1,115	1,017	1,118	1,140	1,002
6 Prior Years	987	829	887	999	817
Difference	128	188	231	141	185

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What is Going On?

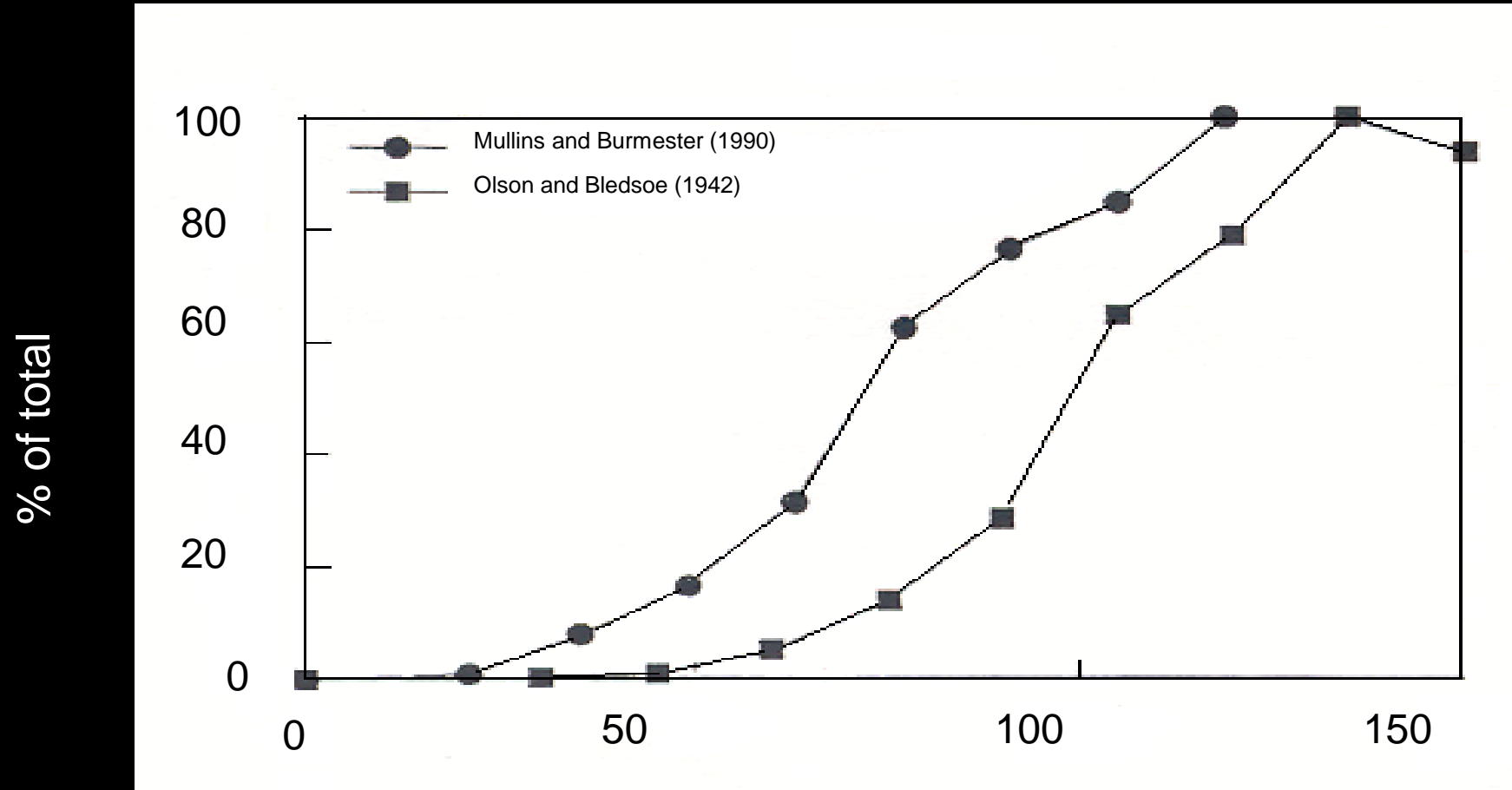
- Nutrient deficiency
- Nitrogen?
- Sulfur?
- How do you fix?



Mid-Season Potassium Applications

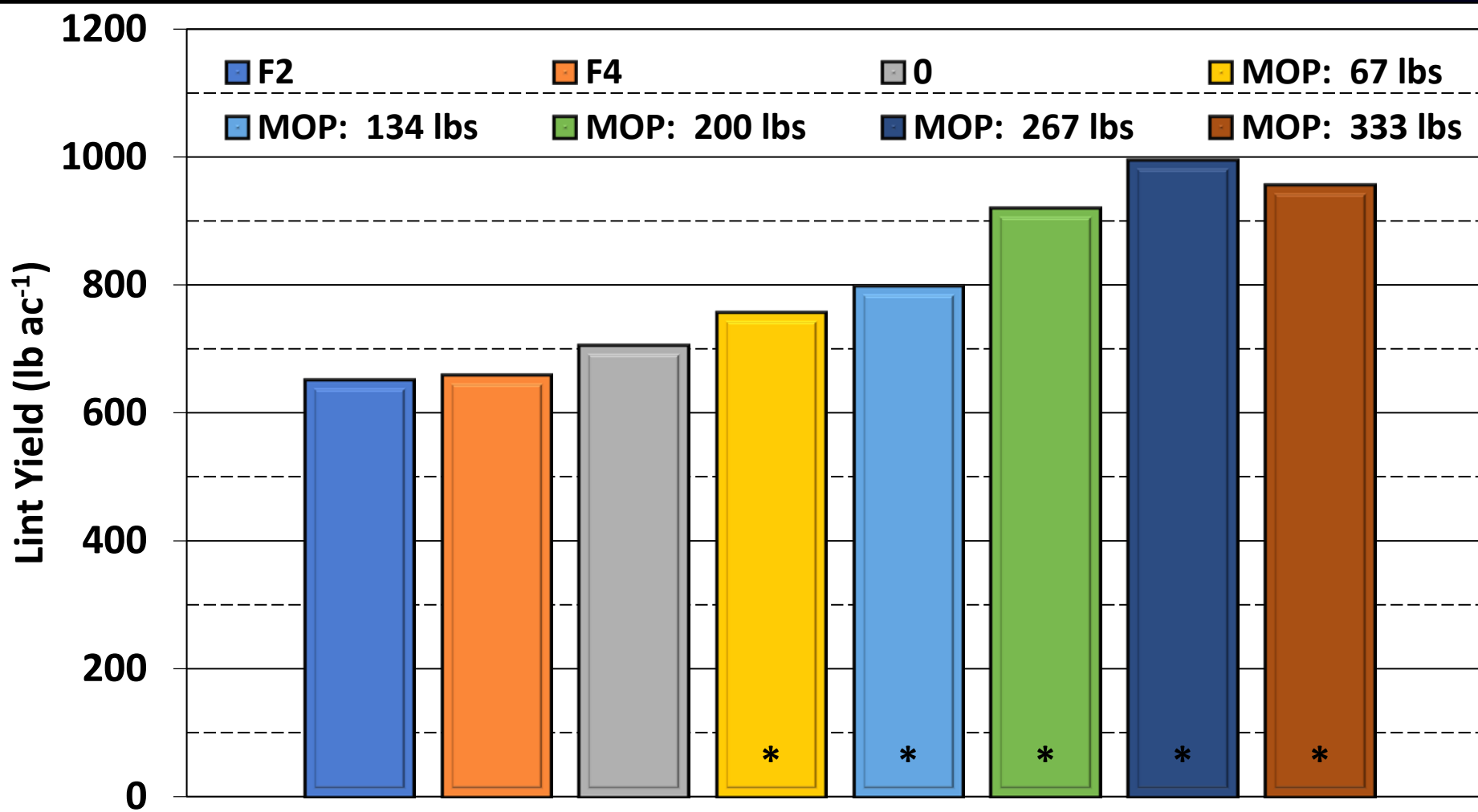
- Numerous calls over past couple of years
- Return on investment
- Foliar applications?
- 50 lbs? MOP

Potassium Accumulation in Cotton



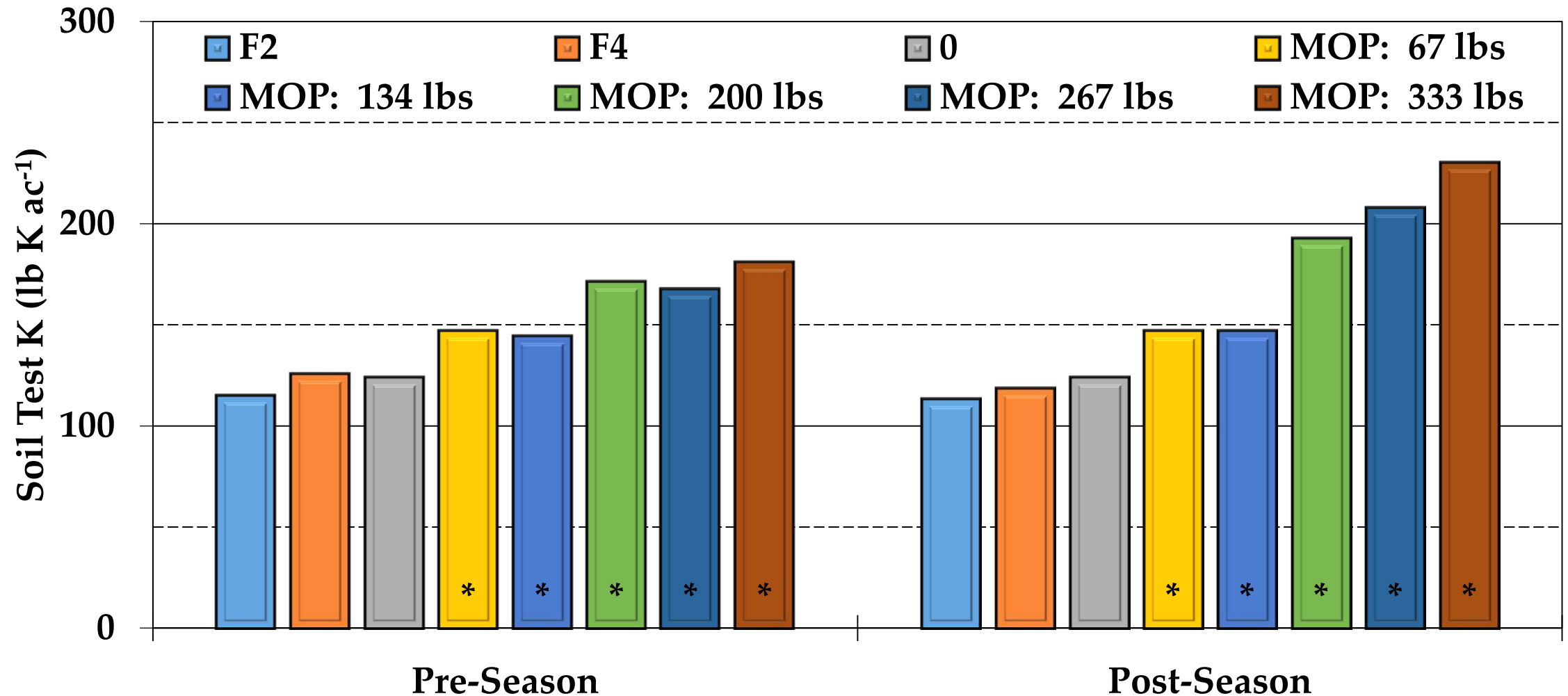
Source: Oosterhuis and Berkowitz/IPNI

Potassium Return on Investment

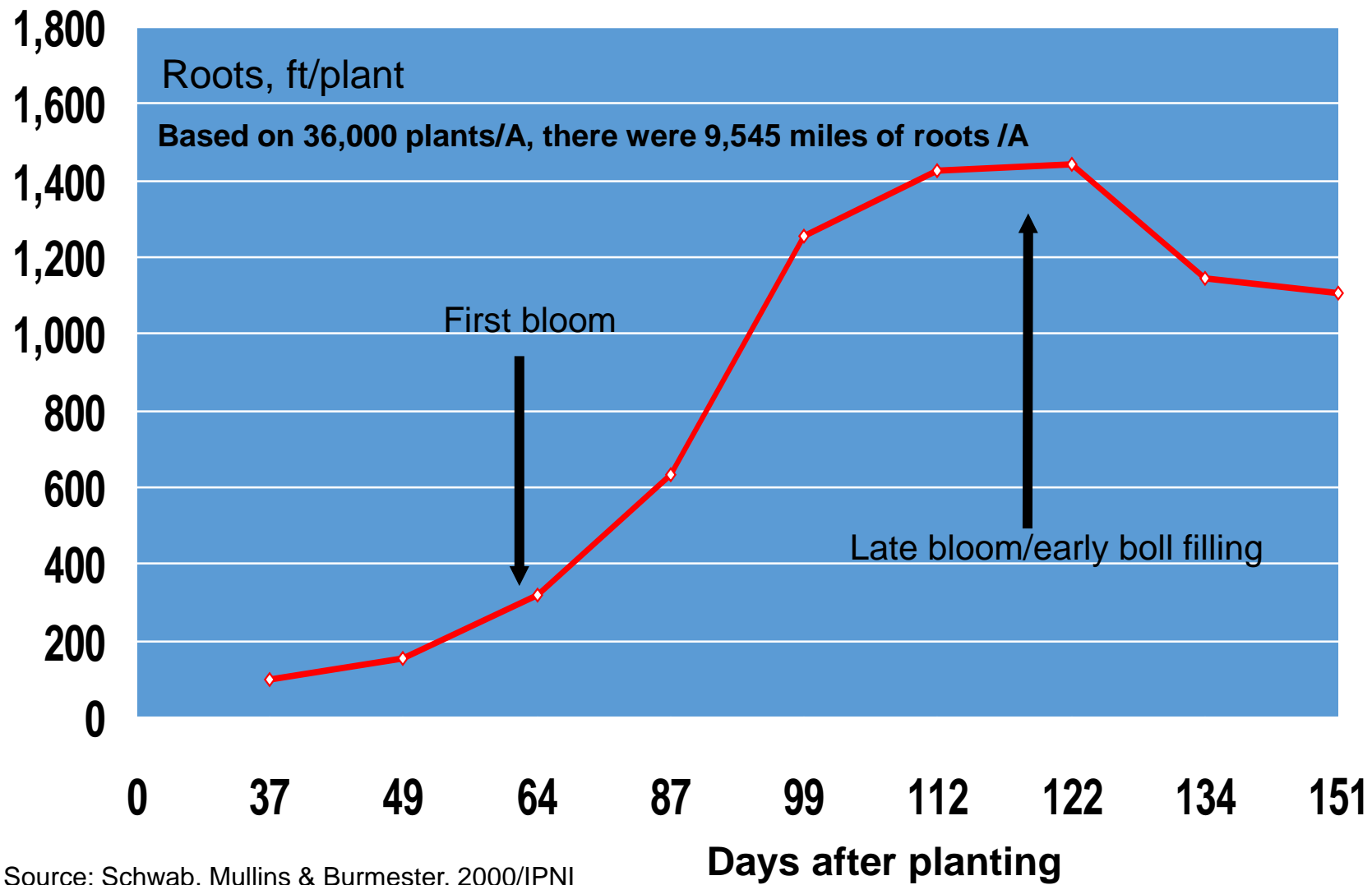


- 2 Foliar + Application: \$28
- 4 Foliar + Application: \$56
- Potash + Application:
 - 67 lb - \$20
 - 134 lb - \$31
 - 200 lb - \$43
 - 267 lb - \$55
 - 333 lb - \$66

Soil Test Potassium Levels







Source: Schwab, Mullins & Burmester, 2000/IPNI

Limestone Increases Fertilizer Efficiency and Decreases Soil Acids

SOIL ACIDITY	NITROGEN	PHOSPHATE	POTASH	FERTILIZER WASTED
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Extremely Acid — 4.5 pH	30%	23%	33%	71.34%
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Very Strong Acid — 5.0 pH	53%	34%	52%	53.67%
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Strongly Acid — 5.5 pH	77%	48%	77%	32.69%
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Medium Acid — 6.0 pH	89%	52%	100%	19.67%
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Neutral — 7.0 pH	100%	100%	100%	00.0%
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How much cotton does it take to pay for a ton of lime?

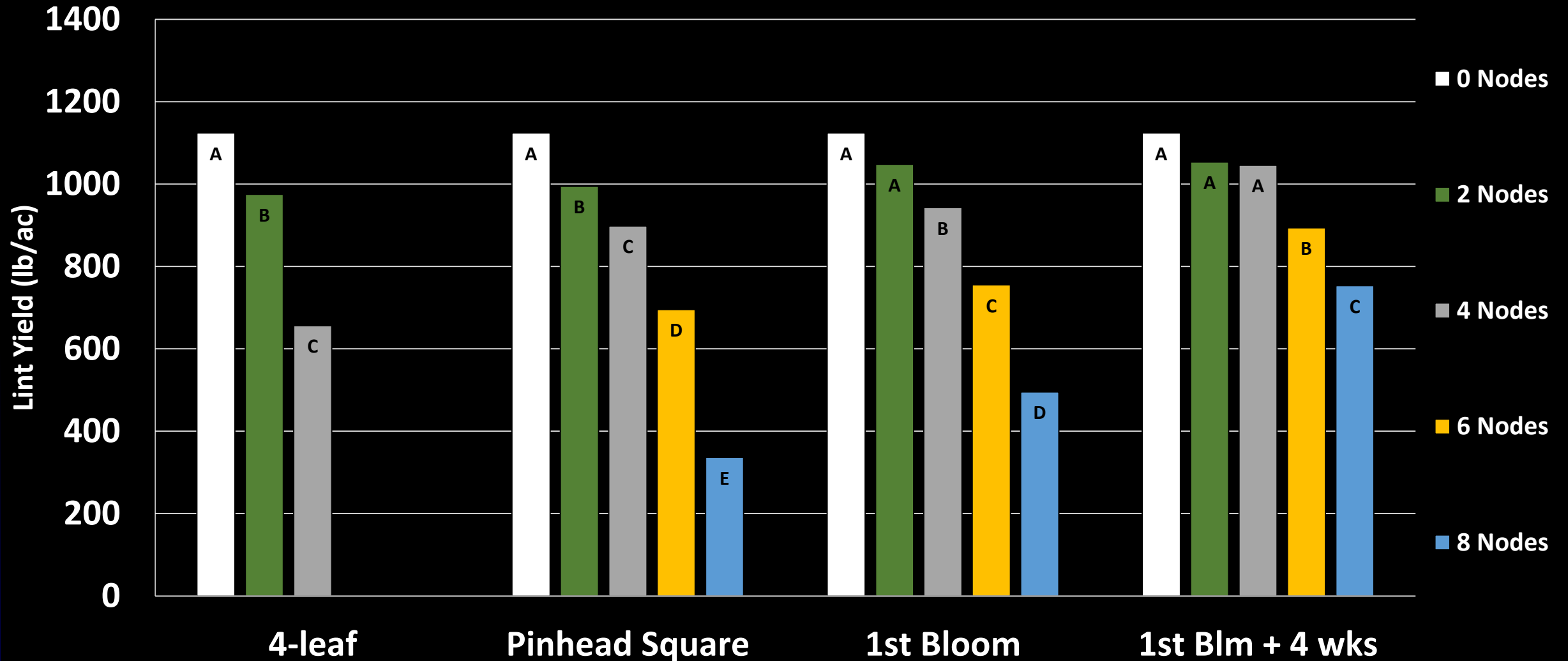


~ 60 pounds of lint

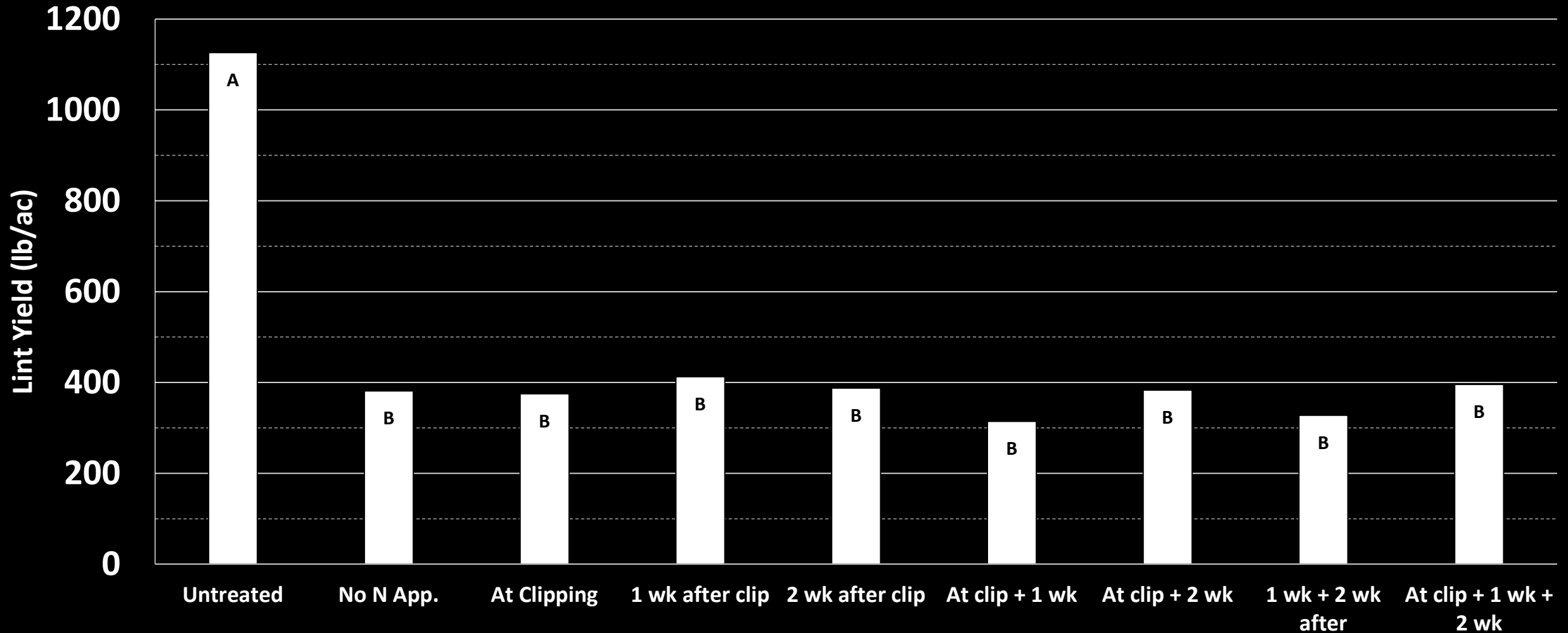
Aborted Terminals



Effect of Terminal Removal



Foliar Nitrogen After Terminal Loss



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