

Testing elite fresh market varieties in a low nitrogen environment

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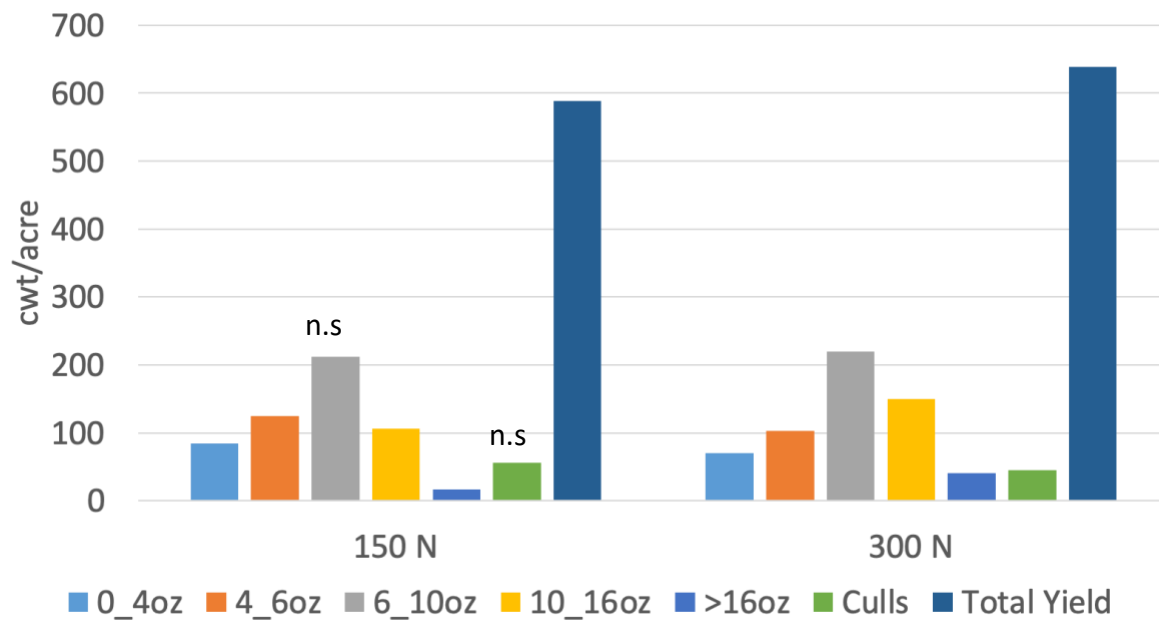
- In the C field (nitrate-N 19 ppm), total N credits = 98 lb N/acre
- All grown as full-season, emergence on May 15, vine kill on Sep 5

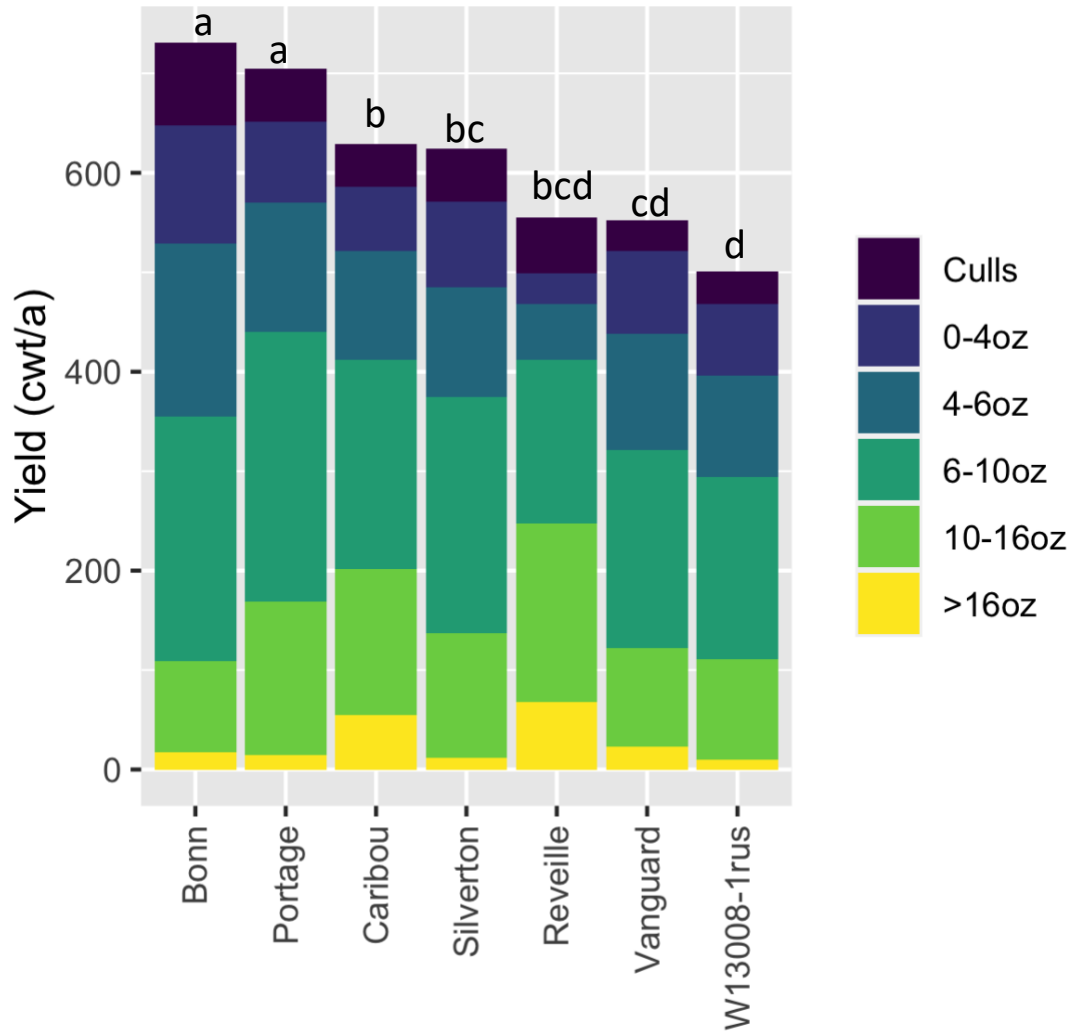
Nitrogen applications

Treatment ID	Planting	Emergence (hilling)	Tuber Initiation	Side-dressing		Seasonal total N (lb/a)
	April 25	May 15	May 30	June 30	July 17	
1	40 lb N/a	70	40	0	0	150
2	40 lb N/a	70	70	60	60	300

RUSSETS

N rate increased tuber size profile





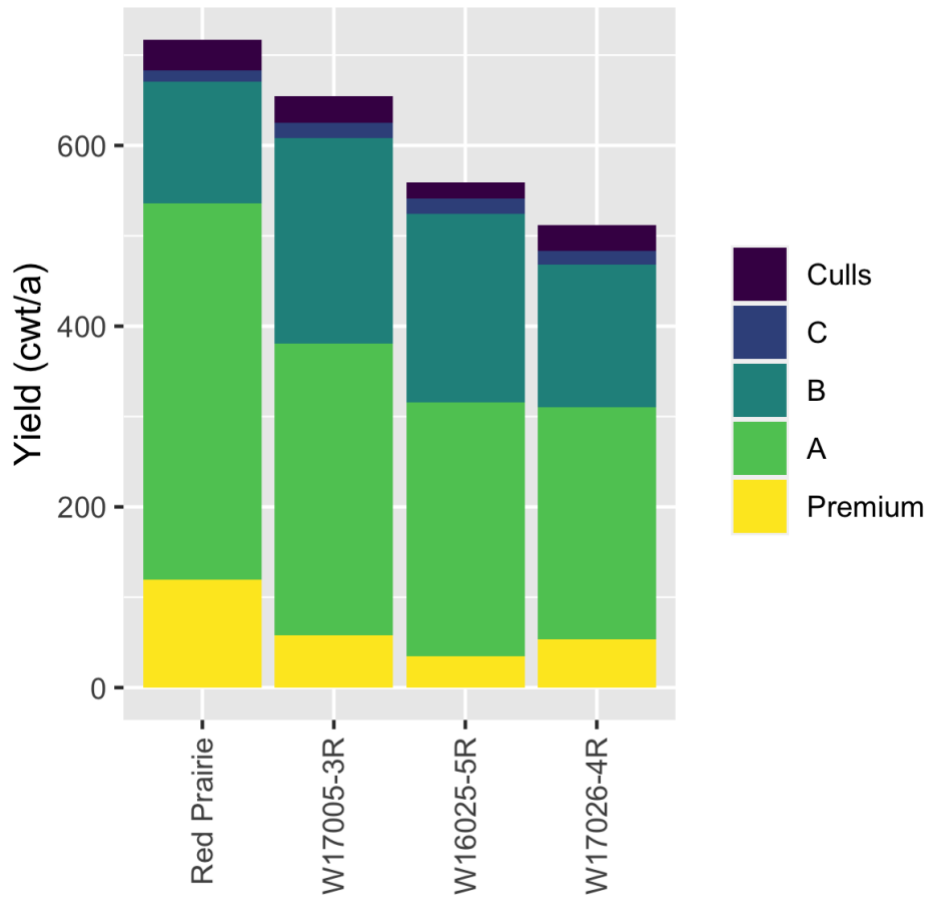
- For individual varieties, only the yield of >16oz tubers from Caribou and Reveille Russet significantly responded to N.
- 40% hollow heart observed in Portage Russet →

Variety	150 N	300 N
Caribou	27b	83a
Reveille	41b	95a

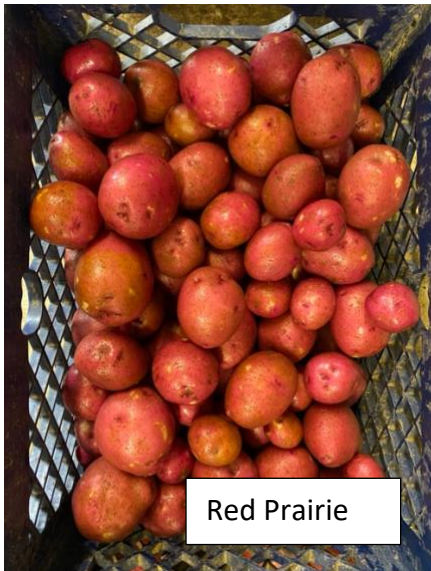


REDS

N rate increased tuber size profile (data not shown).



Newer red varieties had darker color but smaller size profile than Red Prairie.



YELLOW S

N rate did not have significant impact on size profile.

Variety	A	B	Cull	Total	Tubers/a
W15240-2Y	270ab	331a	40b	683a	277,332a
W13103-2Y	242b	240b	62a	605ab	201,538b
Agata	301a	209b	37b	604b	197,693b

