



UNIVERSITY OF
SASKATCHEWAN

VEGETABLE CULTIVAR AND CULTURAL TRIALS 2007

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Saskatchewan
Agriculture
and Food

Potato variety trials

This trial evaluates the yield and quality of standard potato varieties relative to some recently introduced types under Saskatchewan growing conditions. Trials are conducted on irrigated land in Saskatoon. Varieties are planted side-by-side in 20 m long rows with an in-row spacing of 25 cm and 1 m between rows. Nitrogen is applied preplant and just prior to row closure (150 #/acre total). Phosphorus is band- applied at seeding (120 #/acre total). Standard pest control measures are employed. The trial is planted in mid-May and harvested 90 (early) and 120 (final) days later. Crop vigour and disease reactions are monitored throughout the season. The crop is graded and rated for yields, appearance, disease reactions and specific gravities.

Long term average data is based on at least 6 site years of tests conducted from 1991 onwards.

The growing conditions during May and June of 2007 were excellent, however, July was exceptionally hot, which reduced yields and negatively affected tuber appearance. Yields at the 90 day harvest were above normal in 2007, while yields at 120 days were below normal.

Performance of SSPGA varieties

Pacific Russet - this new release from the Prairie Potato Breeding Consortium is targeted at the fresh market. Pacific Russet out-yielded Norkotah at both the 90 and 120 day harvests.

Peregrine Red - this SSPGA exclusive line continues to show exceptional yield potential, red skin color and small uniform tubers. Sloughing and scab caused problems in 2007, perhaps reflecting the exceptionally warm conditions in July.

This trial is supported by the University of Saskatchewan

U of S Potato Cultivar Trials

	Long-term Average		2007 Results				Long-term Average				
	Marketable Yield (t/a)	Spec. Gravity	Marketable Yield (t/a)		Specific Gravity		Uniformity	Eye Depth	Skin Color	Flesh Color	Scab %
			Early	Final	Early	Final					
RUSSETS											
Pacific Russet	19.5	1.082	13.7	20.8	1.086	1.086	Good	S	R	W	trace
Amisk/ Ranger	177	1.091	12.0	15.0	1.092	1.100	Good	S	R	W/Y	10
Russet Burbank	16.9	1.086	13.6	16.9	1.081	1.088	Medium	M	R	W/Y	5
Gemstar	20.0	1.091	10.7	17.8	1.086	1.089	Good	S	R	W	trace
Goldrush	18.9	1.083	16.3	17.3	1.080	1.092	Good	S	R	W	trace
Norkotah	18.5	1.081	13.2	17.6	1.078	1.080	Very Good	M	R	W/Y	8
Shepody	17.3	1.081	11.4	16.1	1.087	1.086	Good	S	LR	W/Y	21
Umatilla	20.4	1.090	10.2	13.4	1.080	1.084	Good	S	R	W/Y	trace
REDS											
Peregrine Red	22.9	1.083	18.5	19.7	1.078	1.084	Good	S	DRed	W	25
Cherry Red	20.0	1.088	12.6	19.9	1.090	1.095	Medium	S	DRed	W	18
Chieftain	22.2	1.079	14.5	23.1	1.076	1.081	Good	M	Red	W	14
Norland	20.6	1.071	18.2	19.5	1.075	1.081	Medium	M	Red	W	12
DR Norland	20.7	1.073	16.6	17.1	1.075	1.081	Medium	M	DRed	W/Y	8
Pontiac	24.1	1.075	22.2	30.5	1.078	1.078	Medium	D	Red	W/Y	32
Sangre	21.8	1.075	17.6	23.4	1.073	1.080	Good	M	DRed	W	15
Viking	21.1	1.074	10.9	15.5	-	1.080	Medium	S	Red	W	14
CHIPPERS											
Atlantic	21.0	1.095	14.4	18.9	1.095	1.097	Good	S	LR	W/Y	20
Snowden	19.3	1.095	11.5	14.2	1.087	1.096	Medium	M	LR	W/Y	14
OTHER											
AC Ptarmigan	22.4	1.073	15.7	19.8	1.074	1.076	Good	S	LR	W/Y	15
Alpha	17.6	1.097	8.6	17.9	1.081	1.094	Medium	S	LR	Y	14
Bintje	20.3	1.088	-	-	-	-	Good	M	W	Y	12
Yukon Gold	20.5	1.093	14.2	15.2	1.088	1.091	Good	M	W	Y	12

Early and Late = 90 and 120 days respectively.

Eye Depth : S=Shallow, M=Medium, D=Deep

Colour: D Red=Dark red, R=Russet, W=White, Y=Yellow, L=Light

Marketable Yield/Specific Gravity: Early=90 days after planting, Late=120 days after planting

Scab % = % of surface area of tuber affected on average