VEGETABLE CULTIVAR AND CULTURAL TRIALS 2005

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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 5-10 site years of tests conducted from 1991 through 2004.

The growing conditions in 2005 were generally favorable for potatoes. Yields were well above average except where damage occurred due to late season flooding. Specific gravities were about average. Scab ratings are trending down - reflecting the change over a less scab infested test site in 2003.

Noteworthy new varieties

Gemstar	- this new release out of the Pacific Northwest appears to have excellent yield potential at 120 days. A large average tuber size and high specific gravity at maturity makes Gemstar well-suited for processing.
AC Pacific Russet	- this new release from the Prairie Potato Breeding Consortium again produced exceptionally good yields at the 90 day harvest. This variety is targeted at the fresh market.
AC Peregrine Red	- another release from the Prairie Potato Breeding Consortium, AC Peregrine continues to show exceptional yield potential, red skin color and quality if grown to maturity (120 days).

This trial is supported by the University of Saskatchewan

U OF S POTATO CULTIVAR TRIALS

	LONG-TERM AVERAGE		2005 RESULTS				LONG-TERM AVERAGE				
			Marketable Yield (t/a)		Specific Gravity						
	Marketable Yield (t/a)	Specific Gravity	Early	Final	Early	Final	Uniformity	Eye Depth	Skin Colour	Flesh Colour	Scab %
RUSSETS											
AC Pacific Russet	-	-	16.1	-	1.076	1.083	Good	S	R	W	trace
Amisk	17.8	1.091	11.3	19.1	1.080	1.089	Good	S	R	W/Y	16
Burbank	16.7	1.085	8.5	-	1.072	1.081	Medium	M	R	W/Y	5
Gemstar	20.8	1.090	14.0	28.1	1.082	1.085					trace
Goldrush	18.8	1.081	14.0	23.2	1.079	1.080	Good	S	R	W	trace
Norkotah	18.5	1.080	13.4	-	1.073	1.083	Very Good	M	R	W/Y	11
Shepody	18.5	1.081	12.8	-	1.071	1.074	Good	S	L R	W/Y	28
Umatilla	21.6	1.092	17.9	27.4	1.080	1.093	Good	S	R	W/Y	trace
REDS											
AC Peregrine	23.0	1.082	17.1	27.3	1.078	1.083	Good	S	D Red	W	21
Cherry Red	20.1	1.087	12.9	27.0	1.081	1.083	Medium	S	D Red	W	16
Chieftain	22.0	1.078	14.4	24.2	1.081	1.083	Good	M	Red	W	18
Norland	20.7	1.070	19.3	27.2	1.079	1.079	Medium	M	Red	W	10
DR Norland	21.0	1.073	13.1	-	1.079	1.081	Medium	M	D Red	W/Y	8
Pontiac	23.5	1.073	11.2	30.7	1.068	1.075	Medium	D	Red	W/Y	37
Sangre	21.8	1.075	15.1	27.4	1.067	1.076	Good	M	D Red	W	19
Viking	21.2	1.072	13.0	28.3	1.072	1.078	Medium	S	Red	W	14
CHIPPERS											
Atlantic	21.0	1.094	11.7	22.9	1.095	1.105	Good	S	L R	W/Y	20
Snowden	19.4	1.094	16.7	-	1.089	1.090	Medium	M	L R	W/Y	14
OTHER											
AC Ptarmigan	23.0	1.072	14.6	26.3	1.072	1.077	Good	S	L R	W/Y	19
Alpha	17.0	1.097	12.4	24.1	1.083	1.096	Medium	S	L R	Y	14
Bintje	19.6	1.088	15.4	20.8	1.076	1.090	Good	M	W	Y	12
Yukon Gold	21.1	1.093	15.8	25.9	1.086	1.094	Good	M	W	Y	19

Early and Late = 90 and 120 days respectively**. Final yields in 2005 lost to flooding.**
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