Table 1

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

ADVANCED CHIP-PROCESSING TRIAL
MONTCALM RESEARCH CENTER
May 9 to September 27, 2022 (141 days)
DD Base 40°F 3313[9]

			CWT/A		PERCENT OF TOTAL[1]							PERCENT (%) TUBER QUALITY[4]								3-YR AVG US#1
LINE	PVY Resistant	N	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR	CHIP SCORE[2]	HH	VD	IBS	BC	SCAB[5]	MAT[6]	BRUISE[7]	LB[8]	CWT/A
MSDD088-1		2	767	800	96	4	94	2	0	1.071	1.5	5	0	0	0	0.8	3.0	0.4		-
MSAA324-04		2	753	775	97	3	91	7	0	1.074	2.0	5	0	0	0	1.3	3.5	1.2	S	-
MSFF036-1	PVYR	2	733	766	96	4	91	5	0	1.071	1.5	5	5	0	0	2.3	3.0	0.8		-
MSAA254-4		2	668	696	96	4	87	10	0	1.080	1.5	5	10	0	0	1.2	4.5	2.4		-
MSFF037-17	PVYR	2	667	720	93	7	93	0	0	1.082	1.0	0	0	10	0	2.0	3.0	2.4	MR	-
MSBB636-11	PVYR	2	664	689	97	4	96	1	0	1.075	1.5	0	0	0	0	1.2	3.0	0.8		-
MSAA260-03		2	653	683	96	5	96	0	0	1.080	1.5	5	0	0	0	1.5	3.5	1.4	S	393
MSBB635-14	PVYR	2	652	681	96	5	95	1	0	1.074	2.0	0	35	0	0	1.0	3.0	1.9		450
MSDD553-1	PVYR	2	624	657	95	5	94	1	0	1.082	1.5	0	5	0	0	1.8	3.5	2.7	MR	-
MSDD372-07	PVYR	2	623	667	94	7	93	1	0	1.091	1.5	15	0	0	0	1.8	4.0	2.3	R	-
MSEE207-2	PVYR	2	602	630	96	5	94	2	0	1.080	2.0	5	0	0	0	0.7	4.0	1.3		-
MSBB230-2		2	578	627	93	8	91	2	1	1.081	1.5	5	0	0	15	1.3	4.5	1.9		-
MSDD244-15	PVYR	2	568	602	95	5	94	1	1	1.080	1.0	0	0	0	0	1.0	3.5	3.0	R	403*
MSW474-1		2	565	641	89	12	89	0	0	1.082	1.5	0	0	0	0	1.0	3.0	3.1		420*
Mackinaw	PVYR	**2**	**553**	**588**	**94**	**6**	**94**	**0**	**0**	**1.085**	**1.0**	**0**	**0**	**0**	**0**	**1.8**	**3.5**	**2.3**	**MR**	**419**
MSBB630-2	PVYR	2	551	596	93	8	92	1	0	1.078	1.5	10	0	0	20	1.0	4.0	2.5		575*
MSDD249-9	PVYR	2	542	555	98	3	91	7	0	1.084	1.5	15	0	5	0	2.0	3.5	1.7	R	-
MSFF206-2	PVYR	2	541	580	94	6	91	3	1	1.077	1.5	60	0	0	0	1.8	4.0	1.7		-
MSBB058-1		2	530	570	93	8	93	0	0	1.081	1.5	0	5	0	0	1.2	3.0	1.2	S	-
MSCC009-1		2	524	552	95	5	95	0	1	1.073	1.5	5	0	0	0	1.3	2.5	1.8		-
MSFF007-2		2	511	562	91	9	90	2	1	1.083	2.0	5	15	0	0	1.2	3.5	2.3	MR	-
Petoskey		2	510	545	94	7	94	0	0	1.083	1.0	0	0	0	0	1.7	3.0	1.4		354
MSDD376-4	PVYR	2	498	559	89	11	89	0	0	1.082	1.5	15	5	10	5	1.7	2.5	2.5		-
MSBB610-13	PVYR	2	498	513	97	4	93	4	0	1.078	1.0	5	0	0	0	1.8	2.5	0.5		-
Lady Liberty		2	490	530	93	8	93	0	0	1.077	1.5	5	25	0	0	1.7	2.5	1.5	S	-
MSDD244-05	PVYR	2	480	499	97	4	96	1	0	1.084	1.5	0	5	0	0	1.0	3.0	1.5	MS	-
MSBB058-4		2	477	524	91	8	90	0	3	1.077	1.0	0	5	10	0	1.5	4.5	1.6		418*
MSDD247-07	PVYR	2	475	495	96	4	96	0	0	1.092	1.5	0	0	5	0	1.7	3.0	2.5	R	391*
MSAA076-6		2	474	540	88	11	88	0	2	1.084	1.5	0	5	0	0	1.3	2.5	2.1		424
MSEE031-3	PVYR	2	449	488	92	8	92	0	1	1.079	1.5	5	10	0	0	1.3	3.0	1.6	MR	-
MSFF079-16	PVYR	2	435	446	98	3	91	7	0	1.075	1.5	20	0	0	0	0.8	3.5	1.6	R	-
MSCC129-2	PVYR	2	435	444	98	2	98	1	0	1.069	1.5	10	20	5	0	1.5	3.5	-	R	-
MSBB614-15		2	430	448	96	4	95	2	0	1.083	1.5	10	10	0	0	0.7	4.5	1.8	R	397*

												PERCENT (%)								3-YR AVG
	PVY		CWT/A		PERCENT OF TOTAL[1]						CHIP	TUBER QUALITY[4]								US#1
LINE	Resistant	N	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR	SCORE[2]	HH	VD	IBS	BC	SCAB[5]	MAT[6]	BRUISE[7]	LB[8]	CWT/A
NY168		2	429	512	84	16	84	0	0	1.085	1.5	0	0	0	0	2.3	3.0	1.4	MR	-
MSBB058-3	PVYR	2	426	437	98	3	97	2	0	1.082	2.0	0	10	0	0	1.2	5.0	1.9	R	408*
NY163		2	417	473	88	10	88	0	2	1.081	1.0	0	0	0	0	2.0	2.5	0.4	MS	-
MSCC058-1		2	414	438	95	6	93	2	0	1.080	1.0	55	15	0	10	1.8	3.5	4.1		356
MSDD089-2		2	411	432	96	4	93	3	1	1.074	1.0	0	0	0	0	1.0	3.0	0.9		-
Snowden		**2**	**411**	**483**	**85**	**15**	**85**	**0**	**0**	**1.082**	**1.0**	**10**	**5**	**0**	**0**	**3.3**	**3.5**	**1.6**	**MR**	**314**
MSBB079-2		2	410	450	91	7	86	6	2	1.072	1.5	15	0	0	0	0.8	3.0	1.6	S	-
MSBB626-11	PVYR	2	410	450	90	9	89	1	2	1.080	2.0	25	10	0	0	1.0	3.5	1.4	R	402
MSZ242-13		2	407	470	87	12	87	0	1	1.074	1.5	10	0	0	0	0.8	3.0	0.1	MS	347
MSFF097-6	PVYR	2	405	451	90	11	89	1	0	1.086	1.5	0	10	5	0	0.8	3.0	2.2		-
MSDD247-11	PVYR	2	403	440	92	8	91	1	1	1.088	1.0	0	0	0	0	1.2	2.0	1.8	MR	401*
Atlantic		**2**	**378**	**404**	**94**	**7**	**94**	**0**	**0**	**1.082**	**2.0**	**50**	**5**	**10**	**0**	**3.1**	**3.0**	**1.5**	**S**	**285**
MSFF292-1		2	373	393	95	5	95	1	0	1.085	1.5	0	0	0	0	1.2	3.0	1.4		-
MSFF017-1		2	372	397	94	6	92	2	1	1.080	1.5	0	0	0	0	1.3	3.0	1.1		-
Lamoka		**2**	**370**	**403**	**92**	**8**	**92**	**1**	**1**	**1.079**	**1.0**	**0**	**10**	**0**	**0**	**2.0**	**2.5**	**0.9**	**MR**	**304**
MSCC376-1		2	349	368	95	5	93	2	1	1.078	1.0	5	5	0	0	0.8	3.0	1.6		-
MSDD085-13	PVYR	2	348	398	88	13	88	0	0	1.083	1.5	0	0	0	0	1.2	2.5	1.6		277*
MSBB008-3		2	322	334	97	3	97	0	0	1.076	1.5	0	10	0	5	1.2	3.0	1.8		-
MSFF073-3	PVYR	2	261	303	86	14	86	0	0	1.085	1.5	0	0	0	0	1.3	2.5	1.4	MS	-
MEAN			497	532						1.080						1.4	3.2	1.7		368
$HSD_{0.05}$			323	321						0.012										

[1]SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

[2]CHIP SCORE: SNAC Scale (Out of the field); Ratings: 1-5; 1: Excellent, 5: Poor.

[3]SED: Stem End Defect, Based on Paul Bethke's (USDA/UWisconsin - Madison) 0 - 5 scale. 0 = no SED; 3 = significant SED; 5 = severe SED

[4]QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 20 Oversize and/or A-size tubers cut.

[5]SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

[6]MATURITY RATING: August 29, 2022; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

[7]BRUISE: Simulated blackspot bruise test, average number of spots per tuber.

[8]LB Late blight (*P. infestans* US-23) foliar disease reaction. R=Resistant, MR=Moderate Resistance, MS=Moderate Susceptibility, S=Susceptible

Plant Date: 5/9/22

Vine Kill: 9/8/22

Days from planting to vine kill: 122

[9]Enviroweather: Entrican Station. Planting to vine kill

Table 2

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

NORTH CENTRAL REGIONAL TRIAL
MONTCALM RESEARCH CENTER
May 10 to September 13, 2022 (126 days)
DD Base 40°F 3140[9]

LINE	PVY RESISTANT	N	CWT/A US#1	CWT/A TOTAL	PERCENT OF TOTAL[1] US#1	Bs	As	OV	PO	SP GR	CHIP SCORE[2]	OTF SED[3]	PERCENT (%) TUBER QUALITY[4] HH	VD	IBS	BC	MAT[5]	SCAB[6]	BRUISE[7]	LB[8]
Chip																				
MSGG194-3	PVYR	1	942	995	95	4	91	4	2	1.067	1.0	2.0	0	0	0	10	3.0	2	1.9	R
MSGG190-4	PVYR	1	753	799	94	5	94	0	1	1.066	1.0	0.5	0	0	0	0	2.0	3	0.6	R
MSGG409-3	PVYR	1	745	790	94	4	94	0	1	1.079	1.0	0.0	0	10	20	0	3.0	1.5	0.5	R
MN19TX18093-1		1	714	784	91	9	91	0	0	1.068	1.5	4.0	0	10	0	0	3.0			
MSGG276-4	PVYR	1	650	671	97	3	97	0	0	1.076	1.0	2.0	0	0	0	0	3.0	2	1.5	R
W19007-4		1	630	664	95	5	95	0	0	1.075	1.0	0.5	20	0	0	0	4.0			
W19007-18		1	624	647	96	4	96	0	0	1.086	1.5	3.0	10	0	0	10	3.0			
MSGG195-1	PVYR	1	619	655	95	5	95	0	0	1.079	1.0	2.5	20	0	0	10	2.0	2	1.6	S
W19023-13		1	597	656	91	8	91	0	1	1.079	1.5	3.5	0	0	0	0	4.0			
MSGG302-3	PVYR	1	580	616	94	5	94	0	0	1.081	1.0	1.0	20	30	20	0	3.0	1.5	0.2	R
MSGG263-1	PVYR	1	580	631	92	7	85	7	1	1.077	1.0	2.5	0	10	0	0	3.0	1	0.6	S
MSGG221-3	PVYR	1	571	615	93	6	91	2	1	1.060	1.5	4.0	0	0	0	0	3.0	2.5	0.7	R
MSGG207-1	PVYR	1	570	658	87	13	87	0	0	1.066	1.5	3.0	10	0	0	0	3.0	2.5	0.1	R
MN19TX18304-1		1	565	656	86	13	86	0	1	1.078	1.5	2.0	10	0	0	0	2.0			
MSGG863-A2		1	559	581	96	3	96	0	1	1.081	nd	nd	10	0	0	0	4.0	-	1.0	
Snowden		**2**	**544**	**601**	**90**	**10**	**90**	**0**	**0**	**1.082**	**1.0**	**1.0**	**5**	**25**	**0**	**0**	**3.0**			
MSGG302-1	PVYR	1	541	570	95	3	81	14	2	1.083	1.0	0.0	30	20	0	0	2.0	1	0.0	R
MSGG212-4	PVYR	1	541	646	84	15	84	0	2	1.085	2.5	3.5	0	10	20	0	2.0	3.5	0.6	R
ND1741C-5		1	520	558	93	6	93	0	1	1.080	1.0	0.5	60	0	0	0	3.0			
MSGG365-1	PVYR	1	516	543	95	5	95	0	0	1.078	1.0	1.0	20	10	0	0	2.0	2	0.7	R
W19022-9		1	509	554	92	6	92	0	2	1.073	1.0	4.5	0	10	0	0	4.0			
MSGG426-2	PVYR	1	498	533	93	7	93	0	0	1.074	1.5	3.5	0	20	0	0	2.0	1.0	1.0	R
MSGG409-2	PVYR	1	498	693	72	5	72	0	23	1.074	1.5	2.0	30	0	50	10	3.0	1.5	0.1	R
MSGG282-20	PVYR	1	497	530	94	6	94	0	0	1.073	1.0	0.5	0	0	0	0	2.0	1.5	1.6	R
W19020-20		1	487	513	95	5	95	0	0	1.076	1.5	0.5	0	0	0	0	3.0			
W19023-21		1	478	532	90	6	86	4	4	1.068	1.0	1.5	0	0	0	0	4.0			
Atlantic		**2**	**462**	**490**	**94**	**6**	**94**	**0**	**0**	**1.075**	**1.0**	**0.5**	**10**	**5**	**10**	**0**	**2.0**			
W19009-23		1	454	472	96	4	96	0	0	1.079	nd	nd	10	0	0	10	3.0			
MSHH664-1		1	448	557	80	18	80	0	2	1.065	nd	nd	30	20	10	0	3.0	-	3.7	
MSGG384-2		1	424	436	97	3	97	0	0	1.075	1.0	2.0	10	0	0	0	3.0	0.5	0.9	R
W19023-24		1	423	484	87	12	85	3	1	1.080	1.0	3.0	0	0	0	0	4.0			
MN19AOR16065-9		1	421	444	95	5	95	0	0	1.076	1.5	3.5	0	0	0	0	3.0			
MSGG268-4	PVYR	1	419	460	91	8	91	0	1	1.064	1.5	3.0	0	0	0	0	3.0	0.5	0.6	MR
ND176Y-1		1	417	474	88	10	88	0	1	1.070	1.5	2.5	0	30	0	0	2.0			
MSGG190-1	PVYR	1	414	496	84	12	84	0	5	1.069	1.0	0.0	0	0	0	0	3.0	1.5	0.2	R
MSGG328-5	PVYR	1	413	515	80	20	80	0	0	1.061	1.5	2.5	0	0	0	0	3.0	2.0	0.4	R
MSGG349-3	PVYR	1	407	514	79	18	79	0	3	1.070	1.0	2.0	0	0	0	0	3.0	1.5	1.4	R
W19009-20		1	404	506	80	13	80	0	7	1.070	1.0	2.0	0	0	10	40	3.0			
MSGG169-2	PVYR	1	401	407	98	2	87	12	0	1.072	1.5	1.0	0	50	0	0	3.0	1.5	1.0	S
MSGG294-1	PVYR	1	399	425	94	5	94	0	1	1.061	1.0	1.0	0	10	0	0	3.0	3.0	1.0	R
W19007-11		1	393	424	93	7	93	0	0	1.073	1.0	2.0	0	10	50	0	3.0			
W19012-3		1	383	418	92	8	92	0	0	1.081	1.0	0.0	0	0	50	0	3.0			
W19002-14		1	378	426	89	10	89	0	1	1.074	1.0	1.0	30	0	10	0	3.0			
W19008-2		1	370	391	95	5	95	0	0	1.066	1.5	3.5	30	0	0	0	3.0			

LINE	PVY RESISTANT	N	CWT/A US#1	CWT/A TOTAL	PERCENT OF TOTAL[1] US#1	Bs	As	OV	PO	SP GR	CHIP SCORE[2]	OTF SED[3]	PERCENT (%) TUBER QUALITY[4] HH	VD	IBS	BC	MAT[5]	SCAB[6]	BRUISE[7]	LB[8]
Lamoka		**2**	**370**	**395**	**94**	**6**	**94**	**0**	**0**	**1.074**	**1.0**	**3.0**	**0**	**15**	**0**	**0**	**3.0**			
W19019-2		1	367	383	96	3	93	3	1	1.074	1.0	0.5	20	0	0	0	3.0			
W19012-9		1	366	418	88	12	88	0	0	1.071	1.5	0.5	0	0	0	0	3.0			
W19005-7		1	363	434	84	16	84	0	0	1.079	1.0	0.5	20	0	0	0	1.0			
W19008-3		1	354	436	81	19	81	0	0	1.081	1.0	1.0	0	0	40	30	2.0			
W19009-15		1	353	403	87	11	87	0	2	1.078	1.0	0.0	0	10	0	0	4.0			
ND1789-1		1	338	372	91	9	91	0	0	1.075	1.0	1.0	0	0	0	0	2.0			
MSGG242-1	PVYR	1	337	397	85	15	85	0	0	1.076	1.0	2.5	0	0	20	0	3.0	1.0	0.3	R
ND1776-8		1	331	359	92	8	92	0	0	1.065	1.5	3.5	0	0	0	0	3.0			
MSGG343-1	PVYR	1	329	468	70	11	70	0	19	1.088	1.5	1.0	70	10	0	0	3.0	2.5	2.0	R
W19024-18		1	329	387	85	11	85	0	4	1.083	1.0	1.5	0	30	0	0	3.0			
W19009-26		1	328	363	90	8	90	0	2	1.075	1.5	3.0	0	20	20	20	2.0			
ND1734-7		1	310	376	83	17	83	0	0	1.059	1.0	4.5	0	20	30	0	2.0			
W19013-8		1	299	346	86	11	83	3	3	1.075	1.0	0.5	20	20	0	0	2.0			
ND1734-4		1	289	363	80	18	80	0	2	1.065	1.0	2.0	0	0	0	0	2.0			
W19012-30		1	283	371	76	16	76	0	8	1.085	1.0	2.5	0	10	10	0	3.0			
W19028-19		1	282	468	60	16	60	0	23	1.075	1.0	1.5	0	0	0	0	4.0			
W19012-14		1	281	359	78	22	78	0	0	1.083	1.0	0.0	0	10	0	0	3.0			
W19022-18		1	266	351	76	24	76	0	0	1.063	1.5	2.0	10	0	0	0	2.0			
W19020-16		1	252	274	92	4	92	0	4	1.079	1.5	1.0	50	0	0	0	3.0			
ND1780-2		1	250	283	88	10	88	0	2	1.066	1.0	0.5	0	10	0	0	3.0			
W19013-1		1	249	320	78	22	78	0	0	1.075	1.0	1.0	0	0	0	0	3.0			
MN19TX18120-1		1	247	305	81	18	81	0	1	1.069	nd	nd	0	0	0	0	5.0			
W19012-24		1	241	360	67	33	67	0	0	1.094	1.0	0.5	0	0	0	0	3.0			
MSGG181-5	PVYR	1	238	284	84	13	84	0	3	1.064	1.0	1.5	0	0	0	0	2.0	3.0	0.4	R
W19016-5		1	227	370	61	35	61	0	4	1.072	1.0	1.0	0	10	0	10	2.0			
MSGG690-1		1	226	302	75	10	75	0	15	1.067	4.0	3.0	10	0	0	0	3.0	-	0.5	
W19003-3		1	214	366	59	41	59	0	0	1.090	1.0	0.0	0	0	0	0	2.0			
W19012-13		1	206	246	84	16	84	0	0	1.064	1.0	2.0	0	10	0	10	1.0			
W19012-12		1	202	283	71	29	71	0	0	1.079	1.0	0.0	0	0	0	0	3.0			
W19022-25		1	198	262	76	19	76	0	5	1.076	1.0	0.5	0	0	0	0	4.0			
ND1776-11		1	184	218	85	15	85	0	0	1.065	1.0	0.0	0	10	0	0	1.0			
ND14359ABC-3		1	176	222	79	19	79	0	2	1.062	1.0	1.0	0	10	0	10	4.0			
MN19AF6866-12		1	171	240	71	29	71	0	0	1.073	nd	nd	0	10	0	0	2.0			
ND14348ABC-1		1	161	208	78	22	78	0	1	1.065	nd	nd	0	0	0	0	2.0			
W19007-7		1	159	239	67	33	67	0	0	1.076	1.0	0.5	0	0	0	0	2.0			
W19017-3		1	154	299	51	49	51	0	0	1.068	1.0	0.5	0	0	0	0	3.0			
MEAN			404	464						1.074							2.8	1.8	0.9	

LINE	PVY RESISTANT	N	CWT/A US#1	CWT/A TOTAL	PERCENT OF TOTAL[1] US#1	Bs	As	OV	PO	SP GR	CHIP SCORE[2]	OTF SED[3]	PERCENT (%) TUBER QUALITY[4] HH	VD	IBS	BC	MAT[5]	SCAB[6]	BRUISE[7]	LB[8]
Russet																				
AND08368-1Russ		1	536	684	78	11	77	2	10	1.070			20.0	20.0	20	0	3.0			
AND15396-2Russ		1	512	587	87	4	87	0	9	1.079			20.0	40.0	0	0	2.0			
ND1791-3Russ		1	475	611	78	8	78	0	14	1.078			0.0	10.0	30	0	3.0			
ND1762-19Russ		1	420	473	89	8	89	0	3	1.079			0.0	0.0	0	0	2.0			
AND15394-2Russ		1	328	416	79	20	79	0	1	1.075			0.0	0.0	0	0	1.0			
MN19AOR16123-7		1	325	353	92	8	92	0	0	1.058			10.0	10.0	0	0	3.0			
MN19AOR16061-2		1	309	369	84	9	84	0	7	1.072			20.0	10.0	0	10	2.0			
ND1760-23Russ		1	274	342	80	11	80	0	9	1.071			0.0	0.0	0	0	2.0			
MN19AOR16061-7		1	270	330	82	17	82	0	1	1.066			0.0	0.0	0	0	3.0			
ND1714Y-1Russ		1	261	368	71	27	71	0	2	1.075			0.0	10.0	0	0	2.0			
AND08380-1Russ		1	195	309	63	35	63	0	2	1.066			0.0	0.0	0	0	1.0			
Russet Burbank		**2**	**194**	**391**	**50**	**23**	**50**	**0**	**28**	**1.064**			**20.0**	**5.0**	**10**	**0**	**2.5**			
ND1795-4Russ		1	193	262	74	22	74	0	4	1.061			0.0	0.0	10	0	2.0			
Russet Norkotah		**2**	**189**	**262**	**72**	**25**	**72**	**0**	**3**	**1.061**			**20.0**	**10.0**	**0**	**0**	**2.0**			
MEAN			320	411						1.070							2.2			
Red																				
MSGG127-3R	PVYR	1	678	748	91	9	89	2	0	1.076			0	10	0	0	3.0	1.5	0.9	R
MSGG137-1R	PVYR	1	517	578	90	6	87	3	5	1.062			0	0	0	0	-	2.0	0.4	R
ND1757-2R		1	489	509	96	4	94	2	0	1.055			0	10	90	0	3.0			
ND1757-3R		1	429	483	89	5	89	0	6	1.063			10	10	0	0	3.0			
Red Lasoda		**2**	**417**	**470**	**89**	**3**	**84**	**5**	**9**	**1.054**			**0**	**30**	**0**	**0**	**2.0**			
MN19AF6933-4		1	416	465	89	7	87	3	4	1.061			0	0	0	0	2.0			
MN19AF6933-9		1	386	426	90	7	88	2	3	1.058			30	20	20	0	2.0			
ND14341B-1R		1	383	468	82	12	82	0	6	1.068			0	0	0	0	3.0			
ND1753Y-3R		1	377	437	86	13	86	0	1	1.064			30	10	0	20	3.0			
ND1727Y-1R		1	376	405	93	7	93	0	0	1.064			30	0	0	0	4.0			
MN19TX17722-3		1	368	385	95	4	95	0	0	1.058			0	20	0	0	2.0			
ND14339C-5R		1	350	380	92	6	92	0	2	1.051			0	0	0	0	1.0			
MN19ND14342-3		1	343	381	90	4	83	7	6	1.052			0	20	30	0	3.0			
ND1757-7R		1	340	382	89	10	89	0	1	1.051			0	10	0	0	3.0			
ND1757-10R		1	338	381	89	10	89	0	1	1.057			0	0	0	0	2.0			
Red Norland		**1**	**319**	**344**	**93**	**6**	**89**	**3**	**1**	**1.055**			**0**	**0**	**0**	**0**	**2.0**			
Dark Red Norland		**2**	**307**	**334**	**92**	**6**	**92**	**0**	**2**	**1.052**			**0**	**5**	**0**	**0**	**1.5**			
MN19AF6933-6		1	296	321	92	6	92	0	1	1.052			0	0	40	0	3.0			
ND14339C-4R		1	254	293	87	13	87	0	0	1.055			0	0	0	0	2.0			
ND1727Y-3R		1	202	233	87	13	79	8	0	1.062			0	10	0	0	3.0			
MSGG135-1R	PVYR	1	181	463	39	61	39	0	0	1.069			0	0	0	0	3.0	1.0	0.2	R
ND1753Y-5R		1	115	248	46	54	46	0	0	1.058			0	0	0	0	3.0			
ND1753Y-8R		1	52	197	27	73	27	0	0	1.050			0	0	0	0	3.0			
MEAN			345	406						1.059							2.6	1.5	0.5	

LINE	PVY RESISTANT	N	CWT/A US#1	CWT/A TOTAL	PERCENT OF TOTAL[1] US#1	Bs	As	OV	PO	SP GR	CHIP SCORE[2]	OTF SED[3]	PERCENT (%) TUBER QUALITY[4] HH	VD	IBS	BC	MAT[5]	SCAB[6]	BRUISE[7]	LB[8]
Table/Speciality																				
ND14384-1RRY		1	695	839	83	12	83	0	5	1.057			0	0	0	0	3.0			
MSGG084-1	PVYR	1	569	609	93	6	93	0	1	1.059			0	0	10	0	2.0			MR
MSGG039-11	PVYR	1	471	533	88	6	88	0	5	1.059			0	0	0	0	2.0	2.5	0.0	MR
MSGG039-08	PVYR	1	446	615	73	26	73	0	2	1.066			0	0	0	0	2.0	2.5	0.5	R
MN19TX18206-7		1	442	599	74	19	71	3	7	1.058			10	0	0	0	3.0			
ND14384-6RRY		1	413	467	89	5	89	0	6	1.064			0	0	0	0	3.0			
ND14384-4RRY		1	395	489	81	15	81	0	4	1.050			0	0	0	0	3.0			
MN19AF6945-3		1	391	445	88	9	88	0	3	1.066			0	10	0	0	2.0			
MSGG158-11PP	PVYR	1	381	458	83	17	83	0	0	1.057			0	0	0	0	3.0	4.0	0.1	MR
ND14337-2RY	PVYR	1	349	550	63	23	63	0	13	1.049			0	30	0	0	2.0			
MSGG078-7	PVYR	1	342	466	73	24	73	0	2	1.054			0	10	0	0	2.0	2.5	0.2	R
MN19TX18240-1		1	271	337	80	18	80	0	1	1.061			0	0	0	0	2.0			
MSGG068-1		1	244	296	82	15	82	0	2	1.061			10	20	0	0	2.0	3.0	0.6	MS
ND1731-1RR		1	210	501	42	57	42	0	1	1.075			0	0	0	0	3.0			
MEAN			401	515						1.060							2.4	2.9	0.3	
$HSD_{0.05}$			393	427						0.009										

[1]SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

[2]CHIP SCORE: SNAC Scale (Out of the field); Ratings: 1-5; 1: Excellent, 5: Poor.

[3]SED: Stem End Defect, Based on Paul Bethke's (USDA/UWisconsin - Madison) 0 - 5 scale. 0 = no SED; 3 = significant SED; 5 = severe SED

[4]QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 10 Oversize and/or A-size tubers cut.

[5]MATURITY RATING: August 29, 2022; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

[6]SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

[7]BRUISE: Simulated blackspot bruise test, average number of spots per tuber.

[8]LB Late blight (*P. infestans* US-23) foliar disease reaction. R=Resistant, MR=Moderate Resistance, MS=Moderate Susceptibility, S=Susceptible

Plant Date: 5/10/22

Vine Kill: 9/2/22

Days from planting to vine kill: 115

[9]Enviroweather: Entrican Station. Planting to vine kill

Table 3

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

ADAPTATION TRIAL, TABLESTOCK LINES
MONTCALM RESEARCH CENTER
May 9 to September 16, 2022 (130 days)
DD Base 40°F 3313[7]

												PERCENT (%)							
	PVY		CWT/A		PERCENT OF TOTAL[1]							TUBER QUALITY[2]							
LINE	RESISTANT	N	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR	HH	VD	IBS	BC	SCAB[3]	MAT[4]	BRUISE[5]	LB[6]
MSFF353-1R		2	653	682	96	4	94	1	0	1.077	0	0	15	0	2.0	3.0	0.6	
MSZ109-8PP		2	638	702	91	7	91	0	2	1.057	0	5	0	0	0.8	2.5	0.3	
MSBB190-1		2	627	651	96	3	93	3	1	1.077	0	5	5	0	1.8	4.0	1.5	R
MSFF211-2	PVYR	2	551	582	95	3	91	3	2	1.060	5	0	0	0	1.2	4.0	0.0	
MSAA174-1	PVYR	2	520	542	96	3	95	1	1	1.058	0	10	20	0	1.7	3.0	0.9	MR
MSCC447-01WR		2	511	564	91	6	87	3	3	1.070	0	15	25	0	2.2	3.5	2.8	MS
MSCC553-1R	PVYR	2	490	519	94	4	93	1	1	1.067	0	0	0	0	1.2	3.0	0.2	
Blackberry		2	483	628	74	24	74	0	1	1.057	0	0	0	0	1.7	3.5	0.5	MS
MSBB343-2Y		2	478	514	93	5	86	7	2	1.064	10	25	5	0	2.3	3.0	0.3	
MSFF142-1P		2	466	575	81	18	81	0	1	1.067	0	0	0	0	0.8	4.5	0.0	
MSFF120-2Y		2	466	526	88	11	88	0	1	1.065	5	0	15	0	1.0	2.0	0.1	
Jacqueline Lee		2	455	658	69	27	69	0	4	1.078	0	10	0	0	2.8	2.5	0.8	MS
MSEE048-2Y	PVYR	2	445	477	92	5	92	1	2	1.067	0	0	20	0	1.2	3.5	0.4	R
MSFF305-1RY	PVYR	2	412	461	89	10	89	0	0	1.066	0	0	0	0	1.3	3.0	0.1	
Dark Red Norland		**2**	**412**	**455**	**90**	**8**	**90**	**0**	**1**	**1.056**	**0**	**0**	**0**	**0**	**1.3**	**1.0**	**0.1**	**S**
MSZ590-1SPL		2	395	440	90	8	89	1	3	1.061	30	10	0	0	1.0	3.0	0.3	
MSCC724-1Y		2	391	431	91	7	90	1	2	1.072	10	10	0	0	2.0	3.5	0.2	
MSFF182-1R	PVYR	2	382	512	73	24	73	0	3	1.078	10	15	5	0	1.7	3.5	0.8	
MSFF335-2RR		2	375	506	74	25	74	0	0	1.055	0	25	0	0	1.2	3.5	1.1	
MSFF200-4PYSPL	PVYR	2	373	431	77	22	77	0	2	1.067	0	0	0	0	1.7	2.5	1.8	
MSFF142-2SPL		2	362	412	88	12	88	0	0	1.062	0	0	35	0	1.0	2.5	0.2	
MSBB075-1Y		2	361	418	87	5	83	3	8	1.071	0	0	0	0	1.5	3.0	0.4	
MSBB371-1YSPL		2	356	441	81	18	81	0	1	1.069	0	10	5	0	1.2	1.5	0.2	S
MSFF247-2Y	PVYR	2	344	409	83	15	83	0	2	1.062	0	5	0	0	1.8	3.0	0.2	R
MSZ615-2		2	328	352	93	6	93	0	1	1.062	0	0	0	0	1.5	2.5	0.4	S
Yukon Gold		**2**	**324**	**348**	**93**	**7**	**92**	**1**	**0**	**1.070**	**0**	**0**	**15**	**0**	**2.7**	**1.5**	**0.4**	**S**
MSBB305-2SPL		2	319	359	89	11	89	0	1	1.053	0	10	0	0	1.3	2.0	0.2	
MSAA182-3R		2	317	427	73	26	73	0	1	1.075	0	0	0	0	1.0	3.5	0.2	
MSFF134-1PP		2	307	357	86	12	86	0	2	1.067	0	0	0	0	1.3	1.5	0.3	
MSBB351-1		2	305	321	95	4	95	0	1	1.051	0	0	0	0	1.2	1.5	0.1	S
MSFF351-1RR		2	304	372	82	12	82	0	6	1.063	0	0	5	0	1.2	4.0	0.7	
MSCC720-1WP		2	269	400	67	33	67	0	0	1.071	0	30	0	0	3.0	3.0	1.2	
MSFF223-1RY		2	254	328	79	17	78	1	4	1.071	40	20	0	0	1.0	3.0	0.3	R
MSAA101-1RR		2	244	363	66	32	66	0	1	1.074	0	15	0	0	1.0	2.5	0.8	
MSFF130-1R		2	243	425	57	42	57	0	1	1.066	0	5	0	0	1.5	2.0	0.0	

LINE	PVY RESISTANT	N	CWT/A US#1	CWT/A TOTAL	PERCENT OF TOTAL[1] US#1	Bs	As	OV	PO	SP GR	PERCENT (%) TUBER QUALITY[2] HH	VD	IBS	BC	SCAB[3]	MAT[4]	BRUISE[5]	LB[6]
MSAA706-7PP		2	229	252	88	12	86	2	0	1.055	10	0	20	0	1.2	3.5	1.0	
MSFF198-13PY	PVYR	2	215	364	59	40	59	0	1	1.054	5	0	0	0	2.5	1.0	0.3	
MSFF134-2RR		2	169	240	70	29	70	0	1	1.061	0	35	20	0	0.5	3.0	0.8	
MEAN			389	459						1.065					1.5	2.8	0.5	
$HSD_{0.05}$			510	NS						0.014								

[1]SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

[2]QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 20 Oversize and/or A-size tubers cut.

[3]SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

[4]MATURITY RATING: August 29, 2022; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

[5]BRUISE: Simulated blackspot bruise test average number of spots per tuber.

[6]LB: Late blight (*P. infestans* US-23) foliar disease reaction. R=Resistant, MR=Moderate Resistance, MS=Moderate Susceptibility, S=Susceptible

Plant Date: 5/9/22

Vine Kill: 9/8/22

[7]Enviroweather: Entrican Station. Planting to vine kill 122

Table 4

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

PRELIMINARY TRIAL, CHIP-PROCESSING LINES
MONTCALM RESEARCH CENTER
May 9 to September 26, 2022 (140 days)
DD Base 40°F 3313[7]

			CWT/A		PERCENT OF TOTAL[1]						PERCENT (%) TUBER QUALITY[2]							
LINE	PVY RESISTANT	N	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR	HH	VD	IBS	BC	SCAB[3]	MAT[4]	BRUISE[5]	LB[6]
MSDD084-19	PVYR	1	-	750	-	-	-	-	-	1.079	0.0	0.0	0	0	1.3	3.0	0.5	
MSEE035-4	PVYR	1	659	739	89	11	85	5	0	1.093	10.0	0.0	0	0	0.8	3.0	2.6	R
MSX156-1Y		1	593	607	98	1	89	9	1	1.065	0.0	0.0	0	0	2.2	3.0	1.1	
Mackinaw	PVYR	1	549	574	96	4	96	0	0	1.082	0.0	0.0	0	0	1.8	3.0	1.8	MR
MSEE016-10	PVYR	1	504	543	93	7	93	0	0	1.089	0.0	0.0	10	0	1.3	3.0	2.2	
NY174		1	487	526	93	7	93	0	0	1.080	0.0	0.0	0	0	2.5	2.0	1.0	MR
MSFF303-3	PVYR	1	473	657	72	26	72	0	2	1.070	0.0	0.0	0	0	1.5	3.0	1.2	
MSFF038-3	PVYR	1	451	483	93	5	93	0	2	1.079	10.0	0.0	0	0	1.8	3.0	1.7	MR
MSDD039-01		1	437	478	91	8	91	0	0	1.081	0.0	10.0	0	0	1.7	3.0	-	
MSEE115-1		1	404	428	94	4	93	2	2	1.078	0.0	0.0	0	0	1.2	3.0	1.5	
MSEE016-07		1	390	411	95	5	92	3	0	1.085	0.0	0.0	0	0	1.5	5.0	1.6	
MSFF061-1		1	372	423	88	12	88	0	0	1.084	0.0	0.0	0	0	1.0	3.0	0.4	
MSX194-3		1	368	417	88	12	88	0	0	1.069	0.0	10.0	0	0	1.2	3.0	0.9	MR
MSFF035-2	PVYR	1	364	388	94	4	94	0	2	1.074	0.0	10.0	10	0	1.2	1.0	2.3	
Snowden		1	349	418	84	16	84	0	0	1.083	10.0	50.0	0	0	3.3	2.0	1.6	MR
MSZ242-13		1	339	392	86	13	86	0	0	1.089	0.0	20.0	0	0	0.8	3.0	0.8	MS
NY175		1	331	430	77	22	77	0	1	1.077	0.0	0.0	0	0	2.2	1.0	2.3	MS
Manistee		**1**	**323**	**388**	**83**	**17**	**83**	**0**	**0**	**1.078**	**0.0**	**0.0**	**0**	**0**	**2.8**	**1.0**	**1.3**	**S**
MSFF217-1	PVYR	1	306	361	85	15	85	0	0	1.073	0.0	0.0	0	0	2.0	3.0	0.8	MR
Atlantic		**1**	**293**	**312**	**94**	**6**	**94**	**0**	**0**	**1.087**	**10.0**	**10.0**	**0**	**0**	**3.1**	**2.0**	**1.4**	**S**
MSEE182-3	PVYR	1	262	380	69	31	69	0	0	1.078	0.0	0.0	0	0	1.2	3.0	1.2	R
MSDD497-B		1	262	291	90	10	90	0	0	1.052	0.0	0.0	0	0	1.0	2.0	0.1	
NYR1-7		1	258	307	84	15	84	0	1	1.075	10.0	0.0	0	0	0.0	3.0	1.2	
MSBB038-1		1	207	230	90	8	90	0	2	1.065	0.0	30.0	0	0	1.2	2.0	0.6	
MSFF058-1		1	182	205	89	11	89	0	0	1.072	0.0	10.0	0	0	1.5	3.0	1.2	S
MSFF335-1RR		1	98	360	27	73	27	0	0	1.067	0.0	0.0	0	0	1.7	1.0	-	
MEAN			370	442						1.077					1.6	2.6	1.3	

[1]SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

[2]QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 10 Oversize and/or A-size tubers cut.

[3]SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

[4]MATURITY RATING: August 29, 2022; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

[5]BRUISE: Simulated blackspot bruise test average number of spots per tuber.

[6]LB: Late blight (*P. infestans* US-23) foliar disease reaction. R=Resistant, MR=Moderate Resistance, MS=Moderate Susceptibility, S=Susceptible

Plant Date: 5/9/22
Vine Kill: 9/8/22
Days from planting to vine kill: 122

[7]Enviroweather: Entrican Station. Planting to vine kill

Table 5

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

PRELIMINARY TRIAL, TABLESTOCK LINES
MONTCALM RESEARCH CENTER
May 9 to September 16, 2022 (130 days)
DD Base 40°F 3313[7]

					PERCENT OF TOTAL[1]						PERCENT (%) TUBER QUALITY[2]							
	PVY		CWT/A															
LINE	RESISTANT	N	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR	HH	VD	IBS	BC	SCAB[3]	MAT[4]	BRUISE[5]	LB[6]
Danina		1	567	680	83	12	83	0	4	1.071	0	0	0	0	2.3	2.0	0.1	MR
Reba		**1**	**540**	**561**	**96**	**4**	**95**	**1**	**0**	**1.070**	**0**	**0**	**0**	**0**	**2.5**	**2.0**	**1.0**	**S**
Bonafide		1	345	428	81	17	81	0	2	1.060	0	0	0	0	1.5	4.0	0.1	
Paroli		1	334	392	85	13	85	0	2	1.052	0	0	0	0	2.0	1.0	0.0	S
MSZ436-2SPL		1	329	381	86	13	85	1	1	1.050	0	0	10	0	2.0	1.0	0.1	
Dark Red Norland		**1**	**325**	**394**	**83**	**16**	**83**	**0**	**1**	**1.056**	**0**	**0**	**0**	**0**	**1.3**	**1.0**	**0.1**	
Spartan Splash		1	287	359	80	20	80	0	0	1.068	0	0	0	0	2.3	3.0	0.2	
MSFF228-2RY		1	213	403	53	43	53	0	4	1.064	0	0	0	0	1.2	2.0	0.2	
W15248-17Y		1	212	276	77	23	77	0	0	1.050	0	0	0	0	1.5	1.0	0.0	MS
MSGGUNK-4Spl	PVYR	1	203	390	52	48	52	0	0	1.058	0	0	0	0	1.2	1.0	0.2	
CO09128-5W/Y		1	138	287	48	52	48	0	0	1.067	0	0	0	0	3.0	1.0	0.1	S
CO09128-3W/Y		1	34	206	16	84	16	0	0	1.056	0	0	0	0	2.5	1.0	0.1	S
MEAN			294	396						1.060					1.9	1.7	0.2	

[1]SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

[2]QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 10 Oversize and/or A-size tubers cut.

[3]SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

[4]MATURITY RATING: August 29, 2022; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

[5]BRUISE: Simulated blackspot bruise test average number of spots per tuber.

[6]LB: Late blight (*P. infestans* US-23) foliar disease reaction. R=Resistant, MR=Moderate Resistance, MS=Moderate Susceptibility, S=Susceptible

Plant Date: 5/9/22
Vine Kill: 9/8/22
Days from planting to vine kill: 122

[7]Enviroweather: Entrican Station. Planting to vine kill

Table 6

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

PRELIMINARY TRIAL, PIGMENTED LINES
MONTCALM RESEARCH CENTER
May 9 to September 16, 2022 (130 days)
DD Base 40°F 3313[7]

			CWT/A		PERCENT OF TOTAL[1]						PERCENT (%) TUBER QUALITY[2]							
LINE	PVY RESISTANT	N	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR	HH	VD	IBS	BC	SCAB[3]	MAT[4]	Bruise[5]	LB[6]
MSCC282-2PP	PVYR	1	782	838	93	6	89	5	1	1.069	0	0	0	0	2.2	3.0	1.0	
NDA050237B-1R		1	702	769	91	7	90	2	2	1.061	0	0	0	0	1.3	2.0	0.2	MR
Blackberry		1	437	531	82	17	82	0	0	1.063	0	0	0	0	1.7	3.0	-	MS
MSFF338-1PP		1	361	484	75	25	75	0	0	1.057	0	0	0	0	2.3	3.0	0.2	
MSFF335-3Pinto		1	251	580	43	52	43	0	5	1.060	0	0	0	0	2.8	2.0	0.6	
MSFF334-1Pinto		1	245	465	53	44	53	0	4	1.062	0	0	0	0	1.2	5.0	0.2	
Dark Red Norland		**1**	**240**	**293**	**82**	**16**	**82**	**0**	**2**	**1.055**	**10**	**20**	**0**	**0**	**1.3**	**1.0**	**0.0**	**S**
MSCC282-3RR		1	228	431	53	46	53	0	1	1.071	0	0	40	0	0.7	3.0	1.6	
MSBB272-01P		1	215	366	59	38	59	0	3	1.065	0	20	0	0	2.5	2.0	0.0	
Purple Majesty		1	118	252	47	45	47	0	8	1.065	0	0	0	0	-	1.0	-	
MEAN			358	501						1.063					1.8	2.5	0.5	

[1]SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

[2]QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 10 Oversize and/or A-size tubers cut.

[3]SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

[4]MATURITY RATING: August 29, 2022; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

[5]BRUISE: Simulated blackspot bruise test, average number of spots per tuber.

[6]LB: Late blight (*P. infestans* US-23) foliar disease reaction. R=Resistant, MR=Moderate Resistance, MS=Moderate Susceptibility, S=Susceptible

Plant Date: 5/9/22
Vine Kill: 9/8/22
Days from planting to vine kill: 122

[7]Enviroweather: Entrican Station. Planting to vine kill

Table 7

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

DIPLOID REPLICATED TRIAL
MONTCALM RESEARCH CENTER
May 9 to September 21, 2022 (135 days)
DD Base 40°F 3313[4]

		CWT/A		PERCENT OF TOTAL[1]						PERCENT (%) TUBER QUALITY[2]				
LINE	N	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR	HH	VD	IBS	BC	MAT[3]
MSGG863-A2	3	551	624	88	9	88	0	3	1.080	0	0	3	0	3.0
MSHH699-02	3	432	581	75	18	75	0	8	1.074	17	13	7	3	3.0
MSHH664-01	3	423	594	70	28	70	0	2	1.068	47	3	13	0	4.0
Atlantic	**3**	**410**	**447**	**92**	**7**	**90**	**2**	**2**	**1.077**	**43**	**7**	**7**	**3**	**3.0**
MSGG671-01	3	357	486	72	20	72	0	9	1.075	37	10	10	7	4.0
MSEE853-27	3	327	421	78	16	78	0	6	1.076	77	3	3	10	4.7
MSGG690-01	3	323	421	77	12	77	0	11	1.071	13	3	3	0	3.0
MSGG691-06	3	307	435	68	31	68	0	1	1.072	3	0	0	0	3.3
MSFF690-01	3	296	391	74	23	74	0	2	1.073	20	43	13	3	3.0
MSGG826-A1	3	284	333	85	15	85	0	0	1.082	43	10	10	3	3.3
Lamoka	**3**	**259**	**345**	**74**	**24**	**74**	**0**	**2**	**1.076**	**0**	**7**	**0**	**0**	**2.7**
MSGG816-A1	3	218	276	78	21	78	0	1	1.078	10	0	3	7	4.3
MSGG655-05	3	192	284	67	33	67	0	0	1.062	0	0	7	0	3.0
MSGG647-01	3	92	274	34	63	34	0	4	1.073	0	0	0	0	2.3
MSFF696-01	3	70	292	23	76	23	0	1	1.074	7	0	7	7	3.0
MEAN		303	414						1.074					3.3
$HSD_{0.05}$		245	248						0.014					

[1]SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

[2]QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 20 Oversize and/or A-size tubers cut.

[3]MATURITY RATING: August 29, 2022; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

[4]Enviroweather: Entrican Station. Planting to vine kill

Plant Date: 5/9/22
Vine Kill: 9/8/22
Days from planting to vine kill: 122

Table 8

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

2020-22 SCAB DISEASE TRIAL SUMMARY
SCAB NURSERY, MONTCALM RESEARCH CENTER , MI

LINE	3-YR* AVG.	2022 RATING	2022 WORST	2022 N	2021 RATING	2021 WORST	2021 N	2020 RATING	2020 WORST	2020 N
Sorted by ascending 2022 Average Rating;										
MSFF134-2RR	-	0.5	0.5	3						
MSBB614-15	0.5*	0.7	1.0	3	0.3	0.5	3			
MSCC282-3RR	0.6	0.7	1.0	3	0.5	0.5	3	0.5	0.5	3
MSEE207-2	0.6	0.7	1.0	3	0.5	0.5	3	0.7	1.0	3
MSBB079-2	1.1*	0.8	1.0	3				1.3	2.0	3
MSBB614-11	-	0.8	1.0	3						
MSCC266-1	1*	0.8	1.0	3				1.2	1.5	3
MSCC376-1	0.8*	0.8	1.0	3	0.8	1.5	3			
MSDD088-1	1.3*	0.8	1.0	3	1.7	2.0	3			
MSEE035-4	1*	0.8	1.0	3	1.2	1.5	3			
MSFF079-16	-	0.8	1.0	3						
MSFF097-6	-	0.8	1.5	3						
MSFF142-1P	1.2*	0.8	1.0	3	1.5	2.0	3			
MSZ109-8PP	1.1	0.8	1.0	3	1.3	1.5	3	1.2	1.5	3
MSZ242-13	1.3	0.8	1.0	3	2.0	2.0	3	1.2	1.5	3
MSAA101-1RR	1.0	1.0	1.0	3	1.2	1.5	3	0.8	1.0	3
MSAA182-3R	1.2*	1.0	1.5	3				1.3	1.5	3
MSBB626-11	1.0	1.0	1.0	3	1.2	1.5	3	0.8	1.5	3
MSBB630-2	1.3*	1.0	1.5	3	1.7	2.0	3			
MSBB635-14	1.3	1.0	1.5	3	1.2	1.5	3	1.7	2.0	3
MSDD089-2	-	1.0	1.5	3						
MSDD244-05	1.2*	1.0	1.0	3	1.3	2.0	3			
MSDD244-15	0.9*	1.0	1.5	3	0.8	1.0	3			
MSDD497-B	1.1*	1.0	1.0	3				1.2	1.5	3
MSFF061-1	-	1.0	1.0	3						
MSFF120-2Y	1*	1.0	1.0	3	1.0	1.5	3			
MSFF142-2Spl	1*	1.0	1.0	3	1.0	1.5	3			
MSFF223-1RY	-	1.0	1.5	3						
MSW474-1	0.8*	1.0	1.5	3	0.5	0.5	3			
MSZ590-1	1.0	1.0	1.5	3	1.3	1.5	3	0.7	1.0	3
MSAA036-9	-	1.2	1.5	3						
MSAA254-4	-	1.2	1.5	3						
MSAA706-7PP	1.4*	1.2	1.5	3				1.7	2.5	3
MSBB008-3	1.1*	1.2	1.5	3	1.0	1.5	3			
MSBB038-1	-	1.2	1.5	3						
MSBB038-3	-	1.2	1.5	3						
MSBB058-1	1.3*	1.2	1.5	3				1.3	1.5	3
MSBB058-3	1.4*	1.2	1.5	3	1.7	2.0	3			
MSBB351-1	1.1	1.2	1.5	3	1.2	1.5	3	0.8	1.5	3
MSBB371-1YSpl	1.2	1.2	2.0	3	1.3	2.0	3	1.2	2.0	3
MSBB636-11	-	1.2	1.5	3						
MSCC553-1R	1.8*	1.2	1.5	3	2.5	3.0	3			
MSDD085-13	0.8*	1.2	1.5	3	0.5	0.5	3			
MSDD114-10	-	1.2	1.5	3						
MSDD247-11	0.8*	1.2	2.0	3	0.5	0.5	3			
MSEE048-2Y	0.9*	1.2	1.5	3	0.7	1.0	3			
MSEE115-1	1.1*	1.2	1.5	3				1.0	1.5	3
MSEE182-3	1.1	1.2	2.0	3	1.7	3.0	3	0.5	1.0	3
MSFF007-2	-	1.2	1.5	3						
MSFF035-2	1.3*	1.2	1.5	3	1.5	2.0	3			

Table 8

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

2020-22 SCAB DISEASE TRIAL SUMMARY
SCAB NURSERY, MONTCALM RESEARCH CENTER , MI

LINE	3-YR* AVG.	2022 RATING	2022 WORST	2022 N	2021 RATING	2021 WORST	2021 N	2020 RATING	2020 WORST	2020 N
MSFF211-2	1.3*	1.2	1.5	3	1.3	1.5	3			
MSFF228-2RY	-	1.2	1.5	3						
MSFF292-1	-	1.2	2.0	3						
MSFF334-1Pinto	0.9*	1.2	1.5	3	0.7	1.0	3			
MSFF335-2RR	-	1.2	2.0	3						
MSFF351-1RR	-	1.2	1.5	3						
MSGGUNK-4Spl	-	1.2	1.5	3						
MSX194-3	-	1.2	1.5	3						
Dark Red Norland	1.3*	1.3	2.0	6	1.2	2.0	3			
MSAA076-6	1.2	1.3	2.0	3	0.8	1.0	3	1.3	1.5	3
MSAA324-04	-	1.3	2.0	3						
MSAA328-4	1.4	1.3	1.5	3	1.5	1.5	3	1.3	1.5	3
MSBB230-2	-	1.3	1.5	3						
MSBB305-2SPL	1.5*	1.3	1.5	3				1.7	3.0	3
MSCC009-1	-	1.3	1.5	3						
MSDD084-19	-	1.3	1.5	3						
MSEE016-10	1.7*	1.3	2.0	3	2.0	2.0	3			
MSEE031-3	1.2	1.3	1.5	3	1.3	2.0	3	1.0	1.0	3
MSFF017-1	-	1.3	1.5	3						
MSFF022-2	-	1.3	1.5	3						
MSFF031-6	1.2*	1.3	1.5	3	1.0	1.5	3			
MSFF073-3	1.1*	1.3	1.5	3	0.8	1.0	3			
MSFF134-1PP	1.6*	1.3	1.5	3	1.8	2.0	3			
MSFF305-1RY	1.5*	1.3	1.5	3	1.7	2.0	3			
NDA050237B-1R	-	1.3	1.5	3						
Bonafide	1.6	1.5	1.5	3	1.7	2.0	3	1.7	2.0	3
MSAA260-3	1.4	1.5	1.5	3	1.7	2.0	3	1.2	1.5	3
MSBB058-4	1.3*	1.5	2.0	3	1.2	1.5	3			
MSBB075-1Y	1.9*	1.5	2.0	3	2.3	3.0	3			
MSCC129-2	-	1.5	2.0	3						
MSEE016-07	1.7*	1.5	2.5	3	1.8	2.5	3			
MSFF058-1	-	1.5	2.5	3						
MSFF130-1R	-	1.5	2.5	3						
MSFF303-3	-	1.5	2.5	3						
MSZ615-2	1.5	1.5	2.0	3	1.5	2.0	3	1.5	1.5	3
W15248-17Y	-	1.5	2.5	3						
Blackberry	1.7	1.7	2.5	3	2.2	3.0	3	1.3	1.5	3
Lady Liberty	-	1.7	2.0	3						
MSAA174-1	1.7	1.7	2.0	3	1.8	2.5	3	1.7	2.0	3
MSDD039-01	-	1.7	2.0	3						
MSDD247-07	1.4*	1.7	2.0	3	1.2	1.5	3			
MSDD376-4	1.6*	1.7	2.0	3	1.5	2.5	3			
MSFF031-3SPL	1.4*	1.7	2.0	3	1.2	1.5	3			
MSFF050-1	-	1.7	3.0	3						
MSFF182-1R	-	1.7	2.0	3						
MSFF200-4PYSPL	2*	1.7	2.5	3	2.3	3.0	3			
MSFF206-1	-	1.7	2.0	3						
MSFF335-1RR	-	1.7	2.5	3						
Petoskey	1.4	1.7	2.0	3	1.3	2.0	6	1.3	1.5	3
Mackinaw[PVYR, LBR]	**1.8**	**1.8**	**2.5**	**6**	**1.8**	**2.5**	**3**	**1.7**	**2.0**	**3**
MSBB190-1	1.8*	1.8	2.5	3				1.7	2.0	3

Table 8

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

2020-22 SCAB DISEASE TRIAL SUMMARY
SCAB NURSERY, MONTCALM RESEARCH CENTER , MI

LINE	3-YR* AVG.	2022 RATING	2022 WORST	2022 N	2021 RATING	2021 WORST	2021 N	2020 RATING	2020 WORST	2020 N
MSBB610-13	1.3*	1.8	2.5	3				0.8	1.0	3
MSCC058-1	1.7	1.8	2.5	3	1.5	2.0	3	1.7	2.0	3
MSDD372-07	1.8*	1.8	2.0	3	1.7	2.0	3			
MSDD553-1	2*	1.8	2.0	3	2.2	2.5	3			
MSFF038-3	-	1.8	2.0	3						
MSFF206-2	-	1.8	2.0	3						
MSFF247-2Y	1.9*	1.8	2.5	3	2.0	2.5	3			
Lamoka	**1.4**	**2.0**	**2.5**	**3**	**1.5**	**2.0**	**3**	**0.8**	**1.0**	**3**
MSCC724-1Y	-	2.0	2.0	3						
MSDD249-9	1.9*	2.0	2.0	3	1.8	2.0	3			
MSFF037-17	-	2.0	2.0	3						
MSFF217-1	-	2.0	2.5	3						
MSFF353-1R	-	2.0	2.5	3						
MSZ436-2SPL	2.0	2.0	2.5	3	2.2	3.0	3	1.8	2.0	3
MSZ513-2	1.7	2.0	2.5	3	1.7	2.0	3	1.5	2.0	3
NY163	-	2.0	2.5	3						
Paroli	2*	2.0	2.5	3				2.0	2.5	3
MSCC282-2PP	1.9*	2.2	2.5	3				1.7	2.0	3
MSCC300-1	2.3	2.2	2.5	3	2.8	3.5	3	2.0	2.0	3
MSCC447-1WR	2.1	2.2	2.5	3	2.2	3.0	3	1.8	2.0	3
MSX156-1Y	2.2	2.2	2.5	3	2.2	2.5	3	2.2	2.5	3
NY175	-	2.2	3.0	3						
Danina	-	2.3	2.5	3						
MSBB343-2Y	2.1*	2.3	2.5	3	1.8	2.0	3			
MSFF002-1	1.9*	2.3	2.5	3	1.5	2.5	3			
MSFF036-1	-	2.3	3.0	3						
MSFF338-1PP	-	2.3	3.0	3						
NY168	-	2.3	2.5	3						
Spartan Splash	-	2.3	2.5	3						
CO09128-3W/Y	-	2.5	3.0	3						
MSBB272-1P	2.3*	2.5	3.5	3				2.0	2.0	3
MSFF198-13PY	1.8*	2.5	2.5	3	1.0	1.5	3			
NY174	-	2.5	2.5	3						
Reba	**2.4**	**2.5**	**3.0**	**3**	**2.2**	**2.5**	**3**	**2.7**	**3.0**	**3**
MSFF029-10	2.3*	2.7	3.0	3	1.8	2.0	3			
Yukon Gold	**2.3**	**2.7**	**3.0**	**3**	**1.8**	**2.5**	**3**	**2.5**	**2.5**	**1**
Jacqueline Lee	2.9*	2.8	3.5	3				3.0	3.0	2
Manistee	2.7	2.8	3.5	3	2.8	3.0	3	2.5	3.0	3
MSFF335-3Pinto	-	2.8	3.5	3						
CO09128-5W/Y	-	3.0	3.5	3						
MSCC720-1WP	3.2*	3.0	3.0	3	3.3	4.0	3			
Atlantic	**2.6**	**3.1**	**3.5**	**6**	**2.8**	**3.5**	**3**	**1.9**	**3.0**	**6**
Snowden	**2.9**	**3.3**	**3.5**	**6**	**3.0**	**3.5**	**3**	**2.4**	**3.5**	**6**
Mean		**1.5**			**1.5**			**1.5**		
$HSD_{0.05}$ =		**1.3**								

SCAB DISEASE RATING: MSU Scab Nursery plot rating of 0-5; 0: No Infection; 1: Low Infection <5%, no pitted leisions; 3: Intermediate >20%, some pitted leisions (Susceptible, as commonly seen on Atlantic); 5: Highly Susceptible, >75% coverage and severe pitted leisions.

N = Number of replications.

*2-Year Average.

Table 9

MICHIGAN STATE UNIVERSITY

POTATO BREEDING and GENETICS

2022 SCAB DISEASE EARLY GENERATION TRIAL SUMMARY
SCAB NURSERY, MONTCALM RESEARCH CENTER, MI

LINE	2022 RATING	2022 N	LINE	2022 RATING	2022 N
Sorted by ascending 2022 Rating:					
MSGG268-4	0.5	1	MSHH015-05	1.5	1
MSGG384-2	0.5	1	MSHH018-3	1.5	1
MSHH056-19	0.5	1	MSHH018-4	1.5	1
MSHH119-1	0.5	1	MSHH037-8	1.5	1
MSHH137-1	0.5	1	MSHH043-03	1.5	1
MSHH161-06	0.5	1	MSHH043-10	1.5	1
MSHH176-3	0.5	1	MSHH053-19	1.5	1
MSGG084-1	1.0	1	MSHH064-2	1.5	1
MSGG135-1R	1.0	1	MSHH069-3	1.5	1
MSGG242-1	1.0	1	MSHH113-10	1.5	1
MSGG263-1	1.0	1	MSHH113-22	1.5	1
MSGG302-1	1.0	1	MSHH134-20	1.5	1
MSGG426-2	1.0	1	MSHH157-4RR	1.5	1
MSGGUNK-4Spl	1.0	1	MSHH184-02	1.5	1
MSHH004-2	1.0	1	MSHH185-04	1.5	1
MSHH040-4	1.0	1	MSHH191-1	1.5	1
MSHH045-4	1.0	1	MSHH201-05	1.5	1
MSHH046-1	1.0	1	MSHH228-5RR	1.5	1
MSHH053-04	1.0	1	MSGG137-1R	2.0	1
MSHH053-13	1.0	1	MSGG194-3	2.0	1
MSHH053-23	1.0	1	MSGG195-1	2.0	1
MSHH056-03	1.0	1	MSGG276-4	2.0	1
MSHH066-6	1.0	1	MSGG328-5	2.0	1
MSHH091-03	1.0	1	MSGG365-1	2.0	1
MSHH113-06	1.0	1	MSHH010-10	2.0	1
MSHH115-1	1.0	1	MSHH015-10	2.0	1
MSHH149-08	1.0	1	MSHH018-1	2.0	1
MSHH161-16	1.0	1	MSHH025-2	2.0	1
MSHH164-03	1.0	1	MSHH034-12	2.0	1
MSHH164-09	1.0	1	MSHH043-07	2.0	1
MSHH170-5R	1.0	1	MSHH048-4	2.0	1
MSHH176-2	1.0	1	MSHH053-03	2.0	1
MSHH184-06	1.0	1	MSHH063-2	2.0	1
MSGG127-3R	1.5	1	MSHH068-10	2.0	1
MSGG169-2	1.5	1	MSHH087-3	2.0	1
MSGG190-1	1.5	1	MSHH087-7	2.0	1
MSGG282-20	1.5	1	MSHH089-11	2.0	1
MSGG302-3	1.5	1	MSHH090-5	2.0	1
MSGG394-3	1.5	1	MSHH117-1	2.0	1
MSGG409-2	1.5	1	MSHH128-1	2.0	1
MSGG409-3	1.5	1	MSHH130-1	2.0	1

Table 9

MICHIGAN STATE UNIVERSITY

POTATO BREEDING and GENETICS

2022 SCAB DISEASE EARLY GENERATION TRIAL SUMMARY
SCAB NURSERY, MONTCALM RESEARCH CENTER, MI

LINE	2022 RATING	2022 N	LINE	2022 RATING	2022 N
Sorted by ascending 2022 Rating:					
MSHH131-5	2.0	1	MSHH216-06	2.5	1
MSHH134-23	2.0	1	MSHH223-4	2.5	1
MSHH150-13	2.0	1	MSGG068-1	3.0	1
MSHH161-04	2.0	1	MSGG181-5	3.0	1
MSHH161-05	2.0	1	MSGG190-4	3.0	1
MSHH164-08	2.0	1	MSGG294-1	3.0	1
MSHH169-16	2.0	1	MSHH015-12	3.0	1
MSHH172-3	2.0	1	MSHH095-2	3.0	1
MSHH177-5	2.0	1	MSHH151-02mini	3.0	1
MSHH179-20	2.0	1	MSHH155-7	3.0	1
MSHH201-17	2.0	1	MSHH163-3RR	3.0	1
MSHH206-11	2.0	1	MSHH169-26	3.0	1
MSHH206-29	2.0	1	MSHH171-2PP	3.0	1
MSHH208-10	2.0	1	MSHH180-04	3.0	1
MSHH228-3PP	2.0	1	MSHH206-04	3.0	1
MSHH228-6PP	2.0	1	MSHH206-25	3.0	1
MSHH137-2	2.2	1	MSHH215-1P	3.0	1
MSGG039-08	2.5	1	MSHH223-1	3.0	1
MSGG039-11	2.5	1	MSHH227-4	3.0	1
MSGG078-7	2.5	1	MSGG212-4	3.5	1
MSGG207-1	2.5	1	MSHH170-3R	3.5	1
MSGG221-3	2.5	1	MSHH179-04	3.5	1
MSGG343-1	2.5	1	MSHH199-5	3.5	1
MSHH001-1	2.5	1	MSHH216-04	3.5	1
MSHH015-08	2.5	1	MSGG158-11PP	4.0	1
MSHH063-5	2.5	1	MSHH038-1	4.0	1
MSHH086-06	2.5	1	MSHH172-7	4.0	1
MSHH089-06	2.5	1	MSHH226-1	4.0	1
MSHH097-12	2.5	1			
MSHH105-4	2.5	1			
MSHH116-5	2.5	1			
MSHH127-04	2.5	1			
MSHH149-13	2.5	1			
MSHH149-17	2.5	1			
MSHH155-6	2.5	1			
MSHH160-05	2.5	1			
MSHH169-13	2.5	1			
MSHH170-4P	2.5	1			
MSHH179-19	2.5	1			
MSHH183-04	2.5	1			
MSHH214-3	2.5	1			

Table 10

2022 MSU LATE BLIGHT VARIETY TRIAL
PLANT PATHOLOGY FARM, LANSING, MI

Line Sort:

LINE	N	RAUDPC[1] MEAN	
Atlantic	**5**	**68.0**	**S**
Blackberry	3	45.0	MS
CO09128-3W/Y	3	98.0	S
CO09128-5W/Y	3	66.7	S
Danina	3	30.0	MR
Dark Red Norland	**3**	**100.0**	**S**
Jacqueline Lee	3	46.7	MS
Lady Liberty	3	21.7	MR
Lamoka	**3**	**75.0**	**S**
Mackinaw	**6**	**20.7**	**MR**
Manistee	**3**	**90.0**	**S**
MSAA174-1	3	20.3	MR
MSAA260-03	3	56.7	MS
MSAA324-04	3	60.0	MS
MSBB058-1	3	73.3	S
MSBB058-3	3	1.0	R
MSBB079-2	3	73.3	S
MSBB190-1	3	8.7	R
MSBB323-01	3	4.0	R
MSBB343-2Y	2	3.0	R
MSBB351-1	3	80.0	S
MSBB371-1YSPL	3	71.7	S
MSBB614-11	3	13.7	R
MSBB614-15	3	0.7	R
MSBB626-11	3	15.0	R
MSCC129-2	3	16.7	R
MSCC300-1	3	15.0	R
MSCC447-01WR	3	38.3	MS
MSDD114-10	3	3.3	R
MSDD244-05	3	41.3	MS
MSDD244-15	3	6.0	R
MSDD247-07	3	11.7	R
MSDD247-11	3	23.3	MR
MSDD249-9	3	5.0	R
MSDD372-07	3	2.0	R
MSDD553-1	3	33.3	MR
MSEE031-3	3	31.7	MR
MSEE035-4	3	1.3	R
MSEE048-2Y	3	4.0	R
MSEE182-3	3	13.3	R
MSEE207-2	3	8.3	R
MSEE853-27	3	25.0	MR
MSFF007-2	3	25.0	MR
MSFF031-6	3	15.7	R
MSFF037-17	3	25.0	MR
MSFF038-3	3	25.0	MR
MSFF058-1	2	87.5	S
MSFF072-1Y	3	11.7	R
MSFF073-3	3	51.7	MS
MSFF079-16	3	11.7	R

RAUDPC Sort:

LINE	N	RAUDPC[1] MEAN	
MSBB614-15	3	0.7	R
MSBB058-3	3	1.0	R
MSEE035-4	3	1.3	R
MSDD372-07	3	2.0	R
MSBB343-2Y	2	3.0	R
MSDD114-10	3	3.3	R
MSFF230-2PY	3	3.3	R
MSBB323-01	3	4.0	R
MSEE048-2Y	3	4.0	R
MSDD249-9	3	5.0	R
MSDD244-15	3	6.0	R
MSFF247-2Y	3	6.7	R
MSFF230-1	3	7.3	R
MSEE207-2	3	8.3	R
MSBB190-1	3	8.7	R
MSFF223-1RY	3	9.3	R
MSDD247-07	3	11.7	R
MSFF072-1Y	3	11.7	R
MSFF079-16	3	11.7	R
MSGG863-A2	3	12.0	R
MSEE182-3	3	13.3	R
MSBB614-11	3	13.7	R
MSBB626-11	3	15.0	R
MSCC300-1	3	15.0	R
MSFF031-6	3	15.7	R
MSCC129-2	3	16.7	R
MSFF182-1R	3	17.3	R
MSFF217-1	3	18.7	MR
MSHH664-01	3	20.0	MR
MSAA174-1	3	20.3	MR
Mackinaw	**6**	**20.7**	**MR**
Lady Liberty	3	21.7	MR
MSDD247-11	3	23.3	MR
NY168	3	24.0	MR
MSEE853-27	3	25.0	MR
MSFF007-2	3	25.0	MR
MSFF037-17	3	25.0	MR
MSFF038-3	3	25.0	MR
MSGG691-06	3	26.7	MR
NY174	3	26.7	MR
Snowden	**3**	**28.3**	**MR**
Danina	3	30.0	MR
MSFF130-1R	3	30.0	MR
MSX194-3	3	30.0	MR
MSEE031-3	3	31.7	MR
MSDD553-1	3	33.3	MR
MSHH699-02	3	33.3	MR
NDA050237B-1R	3	33.7	MR
MSFF696-01	3	36.7	MS
MSCC447-01WR	3	38.3	MS

2022 MSU LATE BLIGHT VARIETY TRIAL
PLANT PATHOLOGY FARM, LANSING, MI

Line Sort: ***RAUDPC Sort:***

LINE	N	RAUDPC[1] MEAN		LINE	N	RAUDPC[1] MEAN	
MSFF130-1R	3	30.0	MR	NY175	3	38.3	MS
MSFF182-1R	3	17.3	R	MSDD244-05	3	41.3	MS
MSFF217-1	3	18.7	MR	MSGG690-01	3	41.7	MS
MSFF223-1RY	3	9.3	R	MSGG826-A1	3	43.3	MS
MSFF230-1	3	7.3	R	Blackberry	3	45.0	MS
MSFF230-2PY	3	3.3	R	Jacqueline Lee	3	46.7	MS
MSFF247-2Y	3	6.7	R	MSFF073-3	3	51.7	MS
MSFF690-01	3	71.7	S	MSZ242-13	3	51.7	MS
MSFF696-01	3	36.7	MS	NY163	3	53.3	MS
MSGG647-01	1	80.0	S	MSAA260-03	3	56.7	MS
MSGG655-05	3	78.3	S	W15248-17Y	2	57.5	MS
MSGG671-01	3	65.0	S	MSAA324-04	3	60.0	MS
MSGG690-01	3	41.7	MS	MSGG671-01	3	65.0	S
MSGG691-06	3	26.7	MR	CO09128-5W/Y	3	66.7	S
MSGG826-A1	3	43.3	MS	**Atlantic**	**5**	**68.0**	**S**
MSGG863-A2	3	12.0	R	MSBB371-1YSPL	3	71.7	S
MSHH664-01	3	20.0	MR	MSFF690-01	3	71.7	S
MSHH699-02	3	33.3	MR	MSBB058-1	3	73.3	S
MSX194-3	3	30.0	MR	MSBB079-2	3	73.3	S
MSZ242-13	3	51.7	MS	**Lamoka**	**3**	**75.0**	**S**
MSZ513-2	2	87.5	S	MSGG655-05	3	78.3	S
MSZ615-2	3	81.7	S	Paroli	3	78.3	S
NDA050237B-1R	3	33.7	MR	MSBB351-1	3	80.0	S
NY163	3	53.3	MS	MSGG647-01	1	80.0	S
NY168	3	24.0	MR	MSZ615-2	3	81.7	S
NY174	3	26.7	MR	MSFF058-1	2	87.5	S
NY175	3	38.3	MS	MSZ513-2	2	87.5	S
Paroli	3	78.3	S	**Yukon Gold**	**3**	**89.3**	**S**
Reba	**3**	**99.7**	**S**	**Manistee**	**3**	**90.0**	**S**
Snowden	**3**	**28.3**	**MR**	CO09128-3W/Y	3	98.0	S
W15248-17Y	2	57.5	MS	**Reba**	**3**	**99.7**	**S**
Yukon Gold	**3**	**89.3**	**S**	**Dark Red Norland**	**3**	**100.0**	**S**

[1]Ratings indicate the average plot RAUDPC (Relative Area Under the Disease Progress Curve).

LB Isolate used: US-23

Table 11

MICHIGAN STATE UNIVERSITY

POTATO BREEDING and GENETICS

2022 MSU LATE BLIGHT EARLY GENERATION TRIAL
PATHOLOGY FARM EAST, LANSING, MI

LINE	RAUDPC[1] MEAN	LB RESISTANCE	N	LINE	RAUDPC[1] MEAN	LB RESISTANCE	N
Sorted by ascending 2022 RAUDPC							
MSGG135-1R	0.0	R	1	MSHH018-4	5.0	R	1
MSGG302-3	0.0	R	1	MSHH034-12	5.0	R	1
MSGG328-5	0.0	R	1	MSHH038-1	5.0	R	1
MSHH053-03	0.0	R	1	MSHH043-03	5.0	R	1
MSHH053-04	0.0	R	1	MSHH043-07	5.0	R	1
MSHH053-13	0.0	R	1	MSHH043-10	5.0	R	1
MSHH056-19	0.0	R	1	MSHH046-1	5.0	R	1
MSHH087-3	0.0	R	1	MSHH053-19	5.0	R	1
MSHH113-10	0.0	R	1	MSHH063-5	5.0	R	1
MSHH113-22	0.0	R	1	MSHH069-3	5.0	R	1
MSHH134-20	0.0	R	1	MSHH089-11	5.0	R	1
MSHH134-23	0.0	R	1	MSHH090-5	5.0	R	1
MSGG078-7	1.0	R	1	MSHH095-2	5.0	R	1
MSGG127-3R	1.0	R	1	MSHH105-4	5.0	R	1
MSGG137-1R	1.0	R	1	MSHH113-06	5.0	R	1
MSGG276-4	1.0	R	1	MSHH115-1	5.0	R	1
MSGG282-20	1.0	R	1	MSHH127-04	5.0	R	1
MSGG294-1	1.0	R	1	MSHH137-2	5.0	R	1
MSGG365-1	1.0	R	1	MSHH191-1	5.0	R	1
MSGG394-3	1.0	R	1	MSHH208-10	5.0	R	1
MSHH001-1	1.0	R	1	MSGG181-5	10.0	R	1
MSHH004-2	1.0	R	1	MSGG207-1	10.0	R	1
MSHH010-10	1.0	R	1	MSGG302-1	10.0	R	1
MSHH015-05	1.0	R	1	MSGG343-1	10.0	R	1
MSHH025-2	1.0	R	1	MSHH068-10	10.0	R	1
MSHH045-4	1.0	R	1	MSHH117-1	10.0	R	1
MSHH053-23	1.0	R	1	MSHH157-4RR	10.0	R	1
MSHH056-03	1.0	R	1	MSHH170-4P	10.0	R	1
MSHH086-06	1.0	R	1	MSHH171-2PP	10.0	R	1
MSHH087-7	1.0	R	1	MSHH201-05	10.0	R	1
MSHH091-03	1.0	R	1	MSHH216-06	10.0	R	1
MSHH131-5	1.0	R	1	MSGG039-08	15.0	R	1
MSHH170-5R	1.0	R	1	MSGG194-3	15.0	R	1
MSHH172-3	1.0	R	1	MSGG409-3	15.0	R	1
MSHH172-7	1.0	R	1	MSHH015-08	15.0	R	1
MSHH185-04	1.0	R	1	MSHH015-12	15.0	R	1
MSHH215-1P	1.0	R	1	MSHH048-4	15.0	R	1
MSHH228-3PP	1.0	R	1	MSHH063-2	15.0	R	1
MSHH228-5RR	1.0	R	1	MSHH066-6	15.0	R	1
MSGG409-2	2.0	R	1	MSHH170-3R	15.0	R	1
MSHH018-1	2.0	R	1	MSHH206-25	15.0	R	1
MSHH128-1	2.0	R	1	MSHH228-6PP	15.0	R	1
MSGG384-2	3.0	R	1	MSGG039-11	20.0	MR	1
MSHH116-5	3.0	R	1	MSGG158-11PP	20.0	MR	1
MSHH137-1	3.0	R	1	MSHH037-8	20.0	MR	1
MSGG190-1	5.0	R	1	MSHH097-12	20.0	MR	1
MSGG190-4	5.0	R	1	MSHH206-11	20.0	MR	1
MSGG212-4	5.0	R	1	MSHH216-04	20.0	MR	1
MSGG221-3	5.0	R	1	MSHH064-2	25.0	MR	1
MSGG242-1	5.0	R	1	MSHH223-4	25.0	MR	1
MSGG426-2	5.0	R	1	MSGG084-1	30.0	MR	1
MSHH015-10	5.0	R	1	MSGG268-4	35.0	MR	1

Table 11

MICHIGAN STATE UNIVERSITY

POTATO BREEDING and GENETICS

2022 MSU LATE BLIGHT EARLY GENERATION TRIAL
PATHOLOGY FARM EAST, LANSING, MI

LINE	RAUDPC[1] MEAN	LB RESISTANCE	N	LINE	RAUDPC[1] MEAN	LB RESISTANCE	N
Sorted by ascending 2022 RAUDPC							
MSHH018-3	5.0	R	1	MSHH130-1	40.0	MS	1
MSHH223-1	40.0	MS	1				
MSGG068-1	50.0	MS	1				
MSHH199-5	50.0	MS	1				
MSHH214-3	50.0	MS	1				
MSHH226-1	50.0	MS	1				
MSHH201-17	60.0	MS	1				
MSHH227-4	60.0	MS	1				
MSHH119-1	70.0	S	1				
MSHH163-3RR	70.0	S	1				
MSGG195-1	75.0	S	1				
MSGG263-1	75.0	S	1				
MSHH206-04	75.0	S	1				
MSGG169-2	80.0	S	1				
MSGGUNK-4Spl	85.0	S	1				
MSHH040-4	90.0	S	1				
MSHH206-29	90.0	S	1				

[1]Ratings indicate the average plot RAUDPC (Relative Area Under the Disease Progress Curve).

Table 12

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

2022 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES*

ENTRY	SP GR	NUMBER OF SPOTS PER TUBER 0	1	2	3	4	5+	PERCENT (%) BRUISE FREE	AVERAGE SPOTS/TUBER
ADVANCED TRIAL, CHIP-PROCESSING LINES									
MSZ242-13	1.074	12	1	0	0	0	0	92	0.1
MSDD088-1	1.071	14	10	0	0	0	0	58	0.4
NY163	1.081	16	8	0	1	0	0	64	0.4
MSBB610-13	1.078	13	10	1	0	0	0	54	0.5
FL2137	**1.081**	**13**	**9**	**2**	**0**	**0**	**0**	**54**	**0.5**
MSBB636-11	1.075	12	8	4	1	0	0	48	0.8
MSFF036-1	1.071	9	11	5	0	0	0	36	0.8
Lamoka	**1.079**	**10**	**8**	**7**	**0**	**0**	**0**	**40**	**0.9**
MSDD089-2	1.074	10	10	5	1	0	0	38	0.9
MSFF017-1	1.080	8	10	4	2	1	0	32	1.1
MSAA324-04	1.074	11	5	4	4	0	1	44	1.2
MSBB058-1	1.081	8	6	9	2	0	0	32	1.2
MSEE207-2	1.080	6	9	8	1	0	1	24	1.3
MSBB626-11	1.080	5	12	3	4	1	0	20	1.4
NY168	1.085	6	9	7	2	0	1	24	1.4
Petoskey	1.083	4	11	7	3	0	0	16	1.4
MSFF292-1	1.085	6	8	6	5	0	0	24	1.4
MSAA260-03	1.080	6	9	2	4	2	0	26	1.4
MSFF073-3	1.085	7	7	4	7	0	0	28	1.4
Lady Liberty	1.077	5	8	8	2	0	1	21	1.5
MSDD244-05	1.084	7	6	8	2	1	1	28	1.5
Atlantic	**1.082**	**9**	**7**	**2**	**3**	**2**	**2**	36	1.5
MSDD085-13	1.083	2	11	8	4	0	0	8	1.6
MSBB058-4	1.077	4	6	10	2	1	0	17	1.6
MSEE031-3	1.079	3	8	10	4	0	0	12	1.6
MSFF079-16	1.075	4	12	4	1	3	1	16	1.6
MSBB079-2	1.072	4	9	3	6	1	0	17	1.6
MSCC376-1	1.078	5	8	7	5	0	1	19	1.6
Snowden	**1.082**	**5**	**8**	**4**	**5**	**2**	**0**	**21**	**1.6**
MSDD249-9	1.084	6	7	5	4	2	1	24	1.7
MSFF206-2	1.077	5	7	5	7	1	0	20	1.7
MSBB614-15	1.083	2	11	8	2	2	1	8	1.8
MSCC009-1	1.073	4	3	11	6	0	0	17	1.8
MSBB008-3	1.076	4	9	7	4	1	2	15	1.8
MSDD247-11	1.088	6	5	6	4	3	1	24	1.8
MSBB230-2	1.081	4	6	6	8	0	1	16	1.9
MSBB635-14	1.074	2	7	10	4	2	0	8	1.9
MSBB058-3	1.082	5	4	6	6	3	0	21	1.9
MSAA076-6	1.084	5	4	5	4	3	2	22	2.1
MSFF097-6	1.086	1	6	6	10	2	0	4	2.2
Mackinaw	**1.085**	**2**	**6**	**6**	**7**	**2**	**2**	**8**	**2.3**
MSDD372-07	1.091	2	5	8	4	6	0	8	2.3
MSFF007-2	1.083	3	6	7	2	4	3	12	2.3
MSAA254-4	1.080	5	6	5	4	2	6	18	2.4
MSFF037-17	1.082	4	4	6	5	2	4	16	2.4
MSDD376-4	1.082	3	3	6	7	2	3	13	2.5
MSBB630-2	1.078	0	2	5	4	2	0	0	2.5
MSDD247-07	1.092	4	2	8	4	3	4	16	2.5
MSDD553-1	1.082	1	3	9	7	4	3	4	2.7
MSDD244-15	1.080	0	3	7	7	2	5	0	3.0
MSW474-1	1.082	3	4	2	4	2	10	12	3.1
MSCC058-1	1.080	0	0	3	4	6	12	0	4.1
ADAPTATION TRIAL, TABLESTOCK LINES									
MSFF142-1P	1.067	25	0	0	0	0	0	100	0.0
MSFF130-1R	1.066	24	1	0	0	0	0	96	0.0
MSFF211-2	1.060	24	1	0	0	0	0	96	0.0

ENTRY	SP GR	NUMBER OF SPOTS PER TUBER 0	1	2	3	4	5+	PERCENT (%) BRUISE FREE	AVERAGE SPOTS/TUBER
MSBB351-1	1.051	23	2	0	0	0	0	92	0.1
MSFF305-1RY	1.066	22	2	0	0	0	0	92	0.1
MSFF120-2Y	1.065	22	3	0	0	0	0	88	0.1
Dark Red Norland	**1.056**	**20**	**3**	**0**	**0**	**0**	**0**	**87**	**0.1**
MSAA182-3R	1.075	21	4	0	0	0	0	84	0.2
MSCC553-1R	1.067	22	2	1	0	0	0	88	0.2
MSFF247-2Y	1.062	20	3	1	0	0	0	83	0.2
MSCC724-1Y	1.072	18	3	1	0	0	0	82	0.2
MSBB305-2SPL	1.053	19	6	0	0	0	0	76	0.2
MSBB371-1YSPL	1.069	20	4	1	0	0	0	80	0.2
MSFF142-2SPL	1.062	19	6	0	0	0	0	76	0.2
MSBB343-2Y	1.064	20	4	0	1	0	0	80	0.3
MSFF134-1PP	1.067	18	7	0	0	0	0	72	0.3
MSFF198-13PY	1.054	19	5	1	0	0	0	76	0.3
MSZ109-8PP	1.057	19	5	1	0	0	0	76	0.3
MSZ590-1SPL	1.061	19	5	1	0	0	0	76	0.3
MSFF223-1RY	1.071	17	7	0	0	0	0	71	0.3
MSEE048-2Y	1.067	19	3	3	0	0	0	76	0.4
MSZ615-2	1.062	17	7	1	0	0	0	68	0.4
Yukon Gold	**1.070**	**17**	**6**	**2**	**0**	**0**	**0**	**68**	**0.4**
MSBB075-1Y	1.071	18	4	2	1	0	0	72	0.4
Blackberry	1.057	16	6	3	0	0	0	64	0.5
MSFF353-1R	1.077	12	11	2	0	0	0	48	0.6
MSFF351-1RR	1.063	11	9	3	0	0	0	48	0.7
MSFF182-1R	1.078	11	11	1	2	0	0	44	0.8
Jacqueline Lee	1.078	12	7	5	1	0	0	48	0.8
MSAA101-1RR	1.074	10	10	5	0	0	0	40	0.8
MSFF134-2RR	1.061	9	12	3	1	0	0	36	0.8
MSAA174-1	1.058	11	8	4	2	0	0	44	0.9
MSAA706-7PP	1.055	4	16	5	0	0	0	16	1.0
MSFF335-2RR	1.055	7	10	6	2	0	0	28	1.1
MSCC720-1WP	1.071	8	8	6	2	1	0	32	1.2
MSBB190-1	1.077	5	7	9	4	0	0	20	1.5
MSFF200-4PYSPL	1.067	1	5	3	4	0	0	8	1.8
MSCC447-01WR	1.070	1	3	6	7	6	2	4	2.8
PREC									
MSDD497-B	1.052	19	1	0	0	0	0	95	0.1
MSFF061-1	1.084	10	7	0	0	0	0	59	0.4
MSDD084-19	1.079	8	8	0	0	0	0	50	0.5
MSBB038-1	1.065	13	10	2	0	0	0	52	0.6
MSZ242-13	1.089	9	13	2	1	0	0	36	0.8
MSFF217-1	1.073	11	8	5	1	0	0	44	0.8
MSX194-3	1.069	10	8	4	0	1	0	43	0.9
NY174	1.080	8	9	8	0	0	0	32	1.0
MSX156-1Y	1.065	8	9	6	2	0	0	32	1.1
MSEE182-3	1.078	7	10	4	4	0	0	28	1.2
MSFF303-3	1.070	7	10	4	4	0	0	28	1.2
NYR1-7	1.075	7	13	2	1	3	0	27	1.2
MSFF058-1	1.072	8	7	6	4	0	0	32	1.2
Manistee	1.078	5	7	6	1	1	0	25	1.3
Atlantic	**1.087**	**5**	**10**	**6**	**3**	**1**	**0**	**20**	**1.4**
MSEE115-1	1.078	3	8	5	4	0	0	15	1.5
MSEE016-07	1.085	4	10	5	5	1	0	16	1.6
Snowden	**1.083**	**6**	**5**	**8**	**5**	**0**	**1**	**24**	**1.6**
MSFF038-3	1.079	7	4	7	5	0	2	28	1.7
Mackinaw	**1.082**	**1**	**6**	**9**	**4**	**0**	**0**	**5**	**1.8**
MSEE016-10	1.089	3	7	6	3	4	2	12	2.2
NY175	1.077	3	6	3	9	2	2	12	2.3
MSFF035-2	1.074	4	3	4	9	5	0	16	2.3
MSEE035-4	1.093	3	2	8	5	3	4	12	2.6
PREPIG									
Dark Red Norland	**1.055**	**24**	**1**	**0**	**0**	**0**	**0**	**96**	**0.0**

ENTRY	SP GR	NUMBER OF SPOTS PER TUBER 0	1	2	3	4	5+	PERCENT (%) BRUISE FREE	AVERAGE SPOTS/TUBER
MSBB272-01P	1.065	24	1	0	0	0	0	96	0.0
NDA050237B-1R	1.061	21	4	0	0	0	0	84	0.2
MSFF334-1Pinto	1.062	19	6	0	0	0	0	76	0.2
MSFF338-1PP	1.057	20	4	1	0	0	0	80	0.2
MSFF335-3Pinto	1.060	17	4	2	2	0	0	68	0.6
MSCC282-2PP	1.069	7	10	8	0	0	0	28	1.0
MSCC282-3RR	1.071	5	9	7	1	2	1	20	1.6
PRET									
Paroli	1.052	25	0	0	0	0	0	100	0.0
W15248-17Y	1.050	25	0	0	0	0	0	100	0.0
Bonafide (MSV093-1Y)	1.060	23	2	0	0	0	0	92	0.1
CO09128-5W/Y	1.067	23	2	0	0	0	0	92	0.1
Danina	1.071	23	2	0	0	0	0	92	0.1
CO09128-3W/Y	1.056	21	2	0	0	0	0	91	0.1
Dark Red Norland	**1.056**	**22**	**3**	**0**	**0**	**0**	**0**	**88**	**0.1**
MSZ436-2SPL	1.050	22	3	0	0	0	0	88	0.1
MSFF228-2RY	1.064	21	4	0	0	0	0	84	0.2
MSGGUNK-4Spl	1.058	21	4	0	0	0	0	84	0.2
Spartan Splash	1.068	19	6	0	0	0	0	76	0.2
Reba	**1.070**	**10**	**7**	**6**	**1**	**1**	**0**	**40**	**1.0**
NCR									
MSGG039-11	1.059	24	1	0	0	0	0	96	0.0
MSGG302-1	1.083	24	1	0	0	0	0	96	0.0
MSGG409-2	1.074	23	3	0	0	0	0	88	0.1
MSGG158-11PP	1.057	22	3	0	0	0	0	88	0.1
MSGG207-1	1.066	22	3	0	0	0	0	88	0.1
MSGG078-7	1.054	18	4	0	0	0	0	82	0.2
MSGG190-1	1.069	20	5	0	0	0	0	80	0.2
MSGG302-3	1.081	20	3	1	0	0	0	83	0.2
MSGG084-1	1.059	19	6	0	0	0	0	76	0.2
MSGG135-1R	1.069	19	6	0	0	0	0	76	0.2
MSGG242-1	1.076	18	7	0	0	0	0	72	0.3
MSGG181-5	1.064	18	5	1	1	0	0	72	0.4
MSGG137-1R	1.062	17	5	3	0	0	0	68	0.4
MSGG328-5	1.061	16	7	2	0	0	0	64	0.4
MSGG039-08	1.066	13	12	0	0	0	0	52	0.5
MSGG409-3	1.079	9	10	0	0	0	0	47	0.5
MSGG690-1	1.067	9	10	0	0	0	0	47	0.5
MSGG268-4	1.064	15	7	2	1	0	0	60	0.6
MSGG212-4	1.085	16	6	1	1	1	0	64	0.6
MSGG068-1	1.061	15	6	2	2	0	0	60	0.6
MSGG190-4	1.066	15	6	2	2	0	0	60	0.6
MSGG263-1	1.077	14	7	3	1	0	0	56	0.6
MSGG365-1	1.078	15	4	3	2	0	0	63	0.7
MSGG221-3	1.060	16	4	5	2	0	0	59	0.7
MSGG384-2	1.075	11	7	6	1	0	0	44	0.9
MSGG127-3R	1.076	8	11	6	0	0	0	32	0.9
MSGG169-2	1.072	10	4	5	0	0	1	50	1.0
MSGG426-2	1.074	11	7	4	3	0	0	44	1.0
MSGG863-A2	1.081	11	7	4	3	0	0	44	1.0
MSGG294-1	1.061	12	4	5	4	0	0	48	1.0
MSGG349-3	1.070	5	6	7	1	1	0	25	1.4
MSGG276-4	1.076	9	6	3	2	3	1	38	1.5
MSGG282-20	1.073	4	5	7	4	0	0	20	1.6
MSGG195-1	1.079	5	5	9	5	0	0	21	1.6
MSGG194-3	1.067	1	9	6	7	1	0	4	1.9
MSGG343-1	1.088	1	11	7	2	2	2	4	2.0
MSHH664-1	1.065	0	2	1	9	3	10	0	3.7
USPB/SFA TRIAL CHECK SAMPLES (Not bruised)									
W15NYR11-13	1.072	19	6	0	0	0	0	76	0.2
NY163	1.080	16	8	1	0	0	0	64	0.4

ENTRY	SP GR	NUMBER OF SPOTS PER TUBER 0	1	2	3	4	5+	PERCENT (%) BRUISE FREE	AVERAGE SPOTS/TUBER
MSAFB635-15	1.084	13	8	3	1	0	0	52	0.7
MSZ242-13	1.093	14	6	3	2	0	0	56	0.7
Lamoka	**1.080**	**11**	**9**	**5**	**0**	**0**	**0**	**44**	**0.8**
MSAFB609-12	1.080	10	11	4	0	0	0	40	0.8
NY168	1.086	8	13	4	0	0	0	32	0.8
Snowden	**1.085**	**12**	**4**	**5**	**3**	**1**	**0**	**48**	**1.1**
W15125-4	1.082	2	8	8	5	2	0	8	1.9
MSW474-1	1.081	5	4	5	5	0	4	22	2.1
USPB/SFA TRIAL BRUISE SAMPLES									
W15NYR11-13	1.072	11	11	3	0	0	0	44	0.7
NY163	1.080	13	6	4	3	0	0	50	0.9
MSZ242-13	1.093	8	8	8	1	0	0	32	1.1
MSAFB609-12	1.080	4	9	9	3	0	0	**16**	1.4
Lamoka	**1.080**	**6**	**7**	**7**	**3**	**2**	**0**	**24**	**1.5**
MSAFB635-15	1.084	5	9	5	2	1	3	20	1.8
NY168	1.086	3	8	7	6	0	1	**12**	1.8
W15125-4	1.082	0	7	6	3	5	2	0	2.5
MSW474-1	1.081	1	5	4	8	3	3	4	2.7
Snowden	**1.085**	**1**	**1**	**4**	**6**	**6**	**7**	**4**	**3.4**

* Thirteen to twenty-five (dependent on the number of replications used) A-size tuber samples were collected at harvest, held at 50 F at least 12 hours, and placed in a six-sided plywood drum and rotated ten times to produce simulated bruising. Samples were abrasive-peeled and scored 11/9 &11/2022.

The table is presented in ascending order of average number of spots per tuber.