

Table 11

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS2018 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES*

ENTRY	SP GR	NUMBER OF SPOTS PER TUBER						PERCENT (%)	
		0	1	2	3	4	5+	BRUISE FREE	AVERAGE SPOTS/TUBER
ADAPTATION TRIAL, CHIP-PROCESSING LINES									
Manistee (MSL292-A)	1.078	0	4	10	8	3	0	0	2.4
MSZ022-07	1.072	3	2	4	3	6	1	16	2.5
MSZ096-03	1.077	3	1	9	6	3	3	12	2.6
MSZ219-46	1.073	1	4	6	8	4	3	4	2.7
MSZ025-02	1.073	2	2	5	9	5	3	8	2.8
MSZ052-02	1.072	0	2	8	8	4	3	0	2.9
MSZ222-19	1.082	0	1	7	7	5	5	0	3.2
MSZ242-07	1.088	0	1	7	7	5	5	0	3.2
MSZ219-14	1.077	1	0	5	9	5	5	4	3.3
MSZ219-01	1.078	0	1	4	7	8	5	0	3.5
MSZ246-1	1.083	0	0	6	5	8	6	0	3.6
MSZ052-14	1.073	0	1	6	5	3	10	0	3.6
MSZ219-13	1.075	0	0	3	9	6	7	0	3.7
MSZ248-10	1.076	1	0	2	8	7	8	4	3.7
Mackinaw (MSX540-4)	1.085	0	0	4	6	5	10	0	3.8
MSZ242-13	1.090	0	1	1	5	5	14	0	4.2
MSZ242-09	1.083	0	0	1	3	9	12	0	4.3
Atlantic	1.085	0	0	1	2	6	10	0	4.3
Snowden	1.080	0	0	2	0	8	15	0	4.4
ADAPTATION TRIAL, CHIP AND TABLESTOCK LINES									
MSZ109-05RR	1.061	1	14	10	0	0	0	4	1.4
MSV093-1Y	1.066	3	9	11	2	1	0	12	1.6
MSV358-3	1.078	5	9	6	2	1	2	20	1.6
Pike	1.079	6	6	5	6	1	1	24	1.7
MSU379-1	1.072	0	4	3	4	1	0	0	2.2
HuronChipper (MSW485-2)	1.083	3	3	8	8	3	0	12	2.2
MSV235-2PY	1.070	0	7	7	7	4	1	0	2.4
MSX156-1Y	1.062	0	6	9	3	1	5	0	2.6
MSY156-02	1.078	1	1	9	11	2	1	4	2.6
MSW064-01	1.081	0	0	6	2	4	1	0	3.0
MSV313-2	1.077	0	5	6	3	4	7	0	3.1
MSX245-2Y	1.081	2	2	5	4	6	6	8	3.1
Lamoka	1.078	0	0	6	4	9	0	0	3.2
MSW075-01	1.074	1	1	4	6	9	4	4	3.3
MSW502-4	1.083	0	1	6	6	4	8	0	3.5
NY152	1.075	0	1	4	3	5	6	0	3.6
MSX225-02	1.075	0	2	1	5	8	9	0	3.8
MSV498-1	1.072	0	0	3	6	7	9	0	3.9
MSW044-01	1.080	0	0	1	10	4	10	0	3.9
MSV507-007	1.074	0	0	1	5	4	9	0	4.1
NORTH CENTRAL REGION TRIAL									
ND081571-2R	1.054	25		0	0	0	0	100	0.0
ND102663B-3R	1.061	22	3	0	0	0	0	88	0.1
MSZ109-08PP	1.060	20	4	0	0	0	0	83	0.2
MSZ109-10PP	1.060	18	7	0	0	0	0	72	0.3

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ENTRY	SP GR	NUMBER OF SPOTS PER TUBER						PERCENT (%)	
		0	1	2	3	4	5+	BRUISE FREE	AVERAGE SPOTS/TUBER
Red Norland	1.055	17	7	0	1	0	0	68	0.4
MSZ107-06PP	1.069	13	10	0	0	0	0	57	0.4
Russet Norkotah	1.066	14	10	1	0	0	0	56	0.5
W13103-2Y	1.057	13	12	0	0	0	0	52	0.5
AND00272-1R	1.060	11	12	2	0	0	0	44	0.6
QSNDSU07-04	1.058	14	7	3	1	0	0	56	0.6
ND12128B-1R	1.066	9	12	4	0	0	0	36	0.8
W13008-1rus	1.067	8	13	2	2	0	0	32	0.9
W14176-14rus	1.084	6	13	7	0	0	0	23	1.0
W13015-17rus	1.073	8	9	6	2	0	0	32	1.1
W13027-46rus	1.069	7	7	9	1	1		28	1.3
ND1232B-2RY	1.069	5	9	3	1	4	0	23	1.5
MSU Red Marker #2	1.074	3	7	12	3	0	0	12	1.6
MSW316-3PY	1.066	3	7	6	7	2	0	12	1.9
MSR226-ARR	1.069	1	8	8	5	3	0	4	2.0
MSQ558-2RR	1.066	1	7	5	7	2	1	4	2.2
ND1243-1PY	1.072	0	7	5	7	3	3	0	2.6
ND113113B-2PSY	1.071	1	3	4	10	3	2	4	2.7
W14176-5rus	1.085	0	2	8	8	2	5	0	3.0
ND1241-1Y	1.096	0	2	9	6	2	6	0	3.0
RUSSET TRIAL									
Silverton Russet	1.065	16	9	0	0	0	0	64	0.4
W10594-16RUS	1.076	14	7	4	0	0	0	56	0.6
CO07015-4RUS	1.067	10	10	4	1	0	0	40	0.8
CO07049-1RUS	1.068	7	11	7	0	0	0	28	1.0
Reveille Russet (ATX91137-1Rus)	1.069	7	12	3	2	1	0	28	1.1
Caribou	1.072	7	12	3	2	1	0	28	1.1
CO09036-2RUS	1.073	1	15	9	0	0	0	4	1.3
Goldrush Russet	1.062	2	15	5	3	0	0	8	1.4
Russet Norkotah	1.069	2	13	9	1	0	0	8	1.4
AF5091-8RUS	1.065	4	8	12	1	0	0	16	1.4
AF5406-7RUS	1.075	6	7	9	2	1	0	24	1.4
A07061-6RUS	1.071	2	10	4	3	0	0	11	1.4
TX08352-5Rus (Vanguard)	1.060	0	11	14	1	0	0	0	1.6
AF5179-4RUS	1.084	4	6	8	7	1	0	15	1.8
A06021-1TRUS	1.077	1	8	9	7	0	0	4	1.9
WAF10612-1RUS	1.074	1	8	9	5	2	0	4	2.0
Mountain Gem (A03158-2TERUS)	1.069	0	6	13	5	1	0	0	2.0
AF5312-1RUS	1.066	1	4	12	5	3	0	4	2.2
CW08071-2RUS	1.073	0	7	8	5	0	5	0	2.5
A08433-4VRRUS	1.077	0	5	7	8	5	1	0	2.6
A071012-4BFRUS	1.086	0	2	6	7	4	6	0	3.2
W10612-8RUS	1.073	0	0	2	8	6	5	0	3.7
CO05068-1RUS	1.088	0	0	4	5	9	7	0	3.8
ADAPTATION TRIAL, TABLESTOCK LINES									
Red Norland	1.055	22	3	0	0	0	0	88	0.1

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ENTRY	SP GR	NUMBER OF SPOTS PER TUBER						PERCENT (%)	
		0	1	2	3	4	5+	BRUISE FREE	AVERAGE SPOTS/TUBER
MSZ109-08PP	1.058	15	10	0	0	0	0	60	0.4
MSV111-2	1.069	16	7	1	1	0	0	64	0.5
MSZ428-1PP	1.066	14	10	1	0	0	0	56	0.5
MSZ109-10PP	1.061	16	7	3	0	0	0	62	0.5
MSZ413-6P	1.067	12	11	2	0	0	0	48	0.6
Yukon Gold	1.066	13	9	3	0	0	0	52	0.6
MSW316-03PY	1.069	11	4	4		0	0	58	0.6
MSZ107-06PP	1.072	11	12	2	0	0	0	44	0.6
MSV179-1	1.060	11	5	2	2	0	1	52	1.0
MSX398-2	1.077	9	10	2	3	0	0	38	1.0
MST252-1Y	1.064	6	11	6	2	0	0	24	1.2
MSX497-06	1.063	8	7	4	3	2	1	32	1.5
MSZ590-1	1.065	6	7	7	4	0	1	24	1.5
MSZ407-2Y	1.075	3	10	5	6	1	0	12	1.7
Onaway	1.058	4	7	7	6	1		16	1.7
MSX324-1P	1.076	3	5	11	6	1	0	12	1.9
MSZ598-2	1.065	0	9	7	2	3	4	0	2.4
PRELIMINARY TRIAL, CHIP-PROCESSING LINES									
MCAA228-1	1.074	12	7	1	0	0	0	60	0.5
AC00206-2W	1.069	8	9	2	1	0	0	40	0.8
AC03452-2W	1.067	10	6	4	1	0	0	48	0.8
MCAA725-3	1.069	8	9	2	0	1	0	40	0.9
AC05153-1W	1.071	6	10	3	1	0	0	30	1.0
MCAA208-2	1.085	7	7	6	0	0	0	35	1.0
MSZ100-03	1.067	6	8	2	3	0	0	32	1.1
MSZ144-4Y	1.068	2	7	4	0	0	0	15	1.2
MSZ092-02	1.073	5	6	6	2	0	0	26	1.3
MSZ242-03	1.076	3	8	6	2	1	0	15	1.5
B2904-2	1.080	7	3	5	2	2	1	35	1.6
MCAA266-1	1.071	4	5	7	4	1	0	19	1.7
MSX225-1	1.086	3	5	6	5	0	0	16	1.7
CO02321-4W	1.080	2	7	2	7	1	0	11	1.9
MSZ020-08	1.073	0	6	10	3	1	0	0	2.0
MCAA037-1	1.084	1	4	4	2	2	0	8	2.0
MSZ159-3	1.078	2	6	2	1	0	3	14	2.0
MCAA240-6	1.082	1	5	8	4	2	0	5	2.1
Pike	1.080	2	6	5	4	4	0	10	2.1
MSZ269-18	1.072	2	4	6	5	3	0	10	2.2
MCAA061-7	1.080	2	3	6	5	3	0	11	2.2
MSZ022-14	1.065	0	6	5	4	4	0	0	2.3
MSX177-7Y	1.076	1	7	5	5	2	3	4	2.4
BNC311-4	1.074	4	3	2	5	4	2	20	2.4
W9968-5	1.087	2	5	5	3	1	4	10	2.4
MCAA217-3	1.089	2	2	5	6	3	2	10	2.6
MCAA232-4	1.077	2	2	4	6	3	2	11	2.6
MSZ022-19	1.074	0	2	9	4	3	2	0	2.7
MSW537-6	1.088	0	2	6	8	5	0	0	2.8

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ENTRY	SP GR	NUMBER OF SPOTS PER TUBER						PERCENT (%)	
		0	1	2	3	4	5+	BRUISE FREE	AVERAGE SPOTS/TUBER
CO02033-1W	1.083	2	3	4	1	4	5	11	2.9
MSZ194-2	1.078	0	5	3	4	3	4	0	2.9
MSZ200-6	1.072	0	2	5	4	6	3	0	3.2
MSAA085-1	1.076	2	1	2	6	4	5	10	3.2
B2869-29	1.087	0	4	3	3	3	7	0	3.3
Snowden	1.081	0	1	5	5	5	4	0	3.3
MSAA571-3Y	1.074	1	3	1	5	2	8	5	3.4
MSZ102-5	1.076	0	4	1	4	5	6	0	3.4
MSZ120-4	1.079	0	2	4	2	7	5	0	3.5
MSZ268-1Y	1.074	1	2	1	2	4	8	6	3.7
MSAA076-6	1.086	0	0	2	8	3	7	0	3.8
MSAA678-1	1.080	1	1	1	2	5	7	6	3.8
BNC182-5	1.081	0	2	2	2	2	12	0	4.0
MSAA570-3	1.080	0	0	0	4	5	4	0	4.0
MSAA353-1	1.077	0	0	0	8	2	9	0	4.1
MSZ248-02	1.067	0	0	0	5	6	8	0	4.2
PRELIMINARY TRIAL, TABLESTOCK LINES									
AF5280-5	1.058	17	8	0	0	0	0	68	0.3
NY149	1.071	13	8	3	1	0	0	52	0.7
Soraya	1.059	9	15	1	0	0	0	36	0.7
MSV177-1	1.079	8	14	3	0	0	0	32	0.8
Queen Anne	1.057	8	14	3	0	0	0	32	0.8
Jazzy	1.060	8	10	6	0	0	0	33	0.9
W9576-11Y	1.058	9	9	7	0	0	0	36	0.9
Bonnata	1.065	5	15	6	0	0	0	19	1.0
MSAA196-1	1.060	6	12	5	1	0	0	25	1.0
MSX526-02Y	1.066	5	14	5	1	0	0	20	1.1
MSAA196-6	1.061	5	14	3	1	2	0	20	1.2
Laperla	1.050	3	15	4	3	0	0	12	1.3
Wendy	1.062	0	18	7	0	0	0	0	1.3
MSL211-3	1.064	3	13	7	2	0	0	12	1.3
MSAA174-1	1.058	6	6	9	4	0	0	24	1.4
MSX293-1Y	1.074	3	12	5	5	0	0	12	1.5
MSZ510-4	1.062	3	9	7	2	1	0	14	1.5
Yukon Gold	1.075	2	12	6	4	1	0	8	1.6
Orlena	1.053	1	10	8	5	1	0	4	1.8
MSX472-2	1.068	2	6	9	6	2	0	8	2.0
AF4138-8	1.059	0	10	7	5	3	0	0	2.0
MSW119-2	1.070	2	8	7	4	3	1	8	2.0
MSZ615-2	1.065	2	6	9	5	3	0	8	2.0
MSZ513-2	1.066	1	8	9	4	0	3	4	2.1
MSZ706-1	1.078	1	6	5	8	5	0	4	2.4
MSAA168-8	1.073	0	6	7	8	2	2	0	2.5
Alegria	1.070	0	1	10	8	6	0	0	2.8
MSAA168-3	1.070	1	3	4	11	3	3	4	2.8
Reba	1.069	0	1	8	11	2	3	0	2.9

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ENTRY	SP GR	NUMBER OF SPOTS PER TUBER						PERCENT (%)	
		0	1	2	3	4	5+	BRUISE FREE	AVERAGE SPOTS/TUBER
PRELIMINARY TRIAL, PIGMENTED LINES									
MSZ436-2SPL	1.053	16	6	0	0	0	0	73	0.3
Cerata	1.061	19	5	1	0	0	0	76	0.3
MSZ107-01PP	1.070	18	5	1	0	0	0	75	0.3
MSAA182-3R	1.075	14	5	2	0	0	0	67	0.4
MSZ602-2PP	1.061	14	8	1	0	0	0	61	0.4
MSAA706-7PP	1.054	5	4	0	0	0	0	56	0.4
W8890-1R	1.056	13	11	1	0	0	0	52	0.5
MSW476-4R	1.072	13	11	0	1	0	0	52	0.6
MSX569-1R	1.052	14	6	5	0	0	0	56	0.6
MSZ109-07PP	1.059	11	5	4	0	0	0	55	0.7
MSAA127-7PP	1.055	13	7	4	1	0	0	52	0.7
MSZ427-1R	1.058	13	7	4	1	0	0	52	0.7
MSZ493-1PP	1.061	8	14	3	0	0	0	32	0.8
AF4831-2R	1.073	9	10	6	0	0	0	36	0.9
MSS514-1PP	1.060	3	8	0	1	0	0	25	0.9
CO98012-5R	1.065	9	7	8	0	1	0	36	1.1
MSZ433-3P	1.076	7	9	7	1	0	0	29	1.1
AF5245-1P	1.073	3	13	9	0	0	0	12	1.2
MSZ427-3R	1.051	9	6	8	2	0	1	35	1.3
MSAA127-1PP	1.051	6	1	5	3	0	0	40	1.3
MSZ609-1P	1.074	3	3	5	1	0	0	25	1.3
Mystery Splash	1.062	9	5	4	4	1	1	38	1.4
MSX324-2R	1.068	2	10	8	4	0	0	8	1.6
MSAA166-2P	1.068	1	12	8	4	0	0	4	1.6
MSAA161-1PY	1.076	7	7	5	4	2	1	27	1.6
MSAA183-2PY	1.062	2	10	4	4	1	0	10	1.6
MSAA161-4RY	1.068	3	10	6	3	2	0	13	1.6
MSAA157-2PY	1.067	2	9	4	8	2	0	8	2.0
MSAA101-1RR	1.076	0	8	7	5	3	1	0	2.3
W8405-1R	1.060	3	3	4	5	0	3	17	2.3
USPB/SFA TRIAL CHECK SAMPLES (Not bruised)									
Mackinaw (MSX540-4)	1.084	18	7	0	0	0	0	72	0.3
NDTX081648CB-13W	1.076	18	5	1	0	0	0	75	0.3
ND7519-4	1.082	17	8	0	0	0	0	68	0.3
NDA081453CAB-2C	1.076	15	9	1	0	0	0	60	0.4
W9968-5	1.08	15	6	4	0	0	0	60	0.6
Snowden	1.078	10	15	0	0	0	0	40	0.6
Lamoka	1.077	11	11	3	0	0	0	44	0.7
AF5429-3	1.073	14	7	1	2	1	0	56	0.8
MSW044-1	1.085	9	9	5	2	0	0	36	1.0
NY162	1.075	2	5	12	5	0	0	8	1.8
MSV030-4	1.078	3	6	10	4	2	0	12	1.8
AF5040-8	1.082	2	7	5	6	4	1	8	2.2
USPB/SFA TRIAL BRUISE SAMPLES									
AF5429-3	1.073	9	14	1	1	0	0	36	0.8

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ENTRY	SP GR	NUMBER OF SPOTS PER TUBER						PERCENT (%)		AVERAGE SPOTS/TUBER
		0	1	2	3	4	5+	BRUISE FREE		
NDTX081648CB-13W	1.076	8	11	1	2	2	0	33		1.1
NDA081453CAB-2C	1.076	7	11	3	2	1	1	28		1.3
W9968-5	1.080	6	9	7	3	0	0	24		1.3
ND7519-4 (bruise bag has -1)	1.082	4	9	6	5	0	0	17		1.5
Mackinaw (MSX540-4)	1.084	3	8	7	4	2	1	12		1.9
Snowden	1.078	0	5	7	8	3	1	0		2.5
Lamoka	1.077	2	4	4	9	4	2	8		2.6
MSW044-1	1.085	0	4	7	6	6	2	0		2.8
NY162	1.075	2	0	5	8	5	5	8		3.2
MSV030-4	1.078	0	1	2	6	9	8	0		3.8
AF5040-8	1.082	1	0	3	2	3	16	4		4.2

* 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 10/26 & 11/1&2/2018. The table is presented in ascending order of average number of spots per tuber.