

Table 1: Full season yield distributions and marketable yield

Variety	Type skin/flesh	Total Marketable Yield (Cwt) ¹	All Culls (cwt)	Yield of Marketable Tubers by Size Distribution (Cwt)			Yield of Marketable Tubers by Size Distribution (50 lb bags)			% of Marketable Yield by Size Distribution		
				Chef's (> 3")	#1 "A's" (> 2 1/2")	"B's" (< 2")	Chef's (> 3")	#1 "A's" (> 2 1/2")	"B's" (< 2")	Chef's (%)	#1 "A's" (%)	"B's" (%)
Red Skin, White Flesh												
NDAF113484B-1	Red/White	159	20	14	106	39	28	211	79	9	66	25
NY164	Red/White	143	7	31	85	27	61	171	54	21	60	19
R25-1	Red/White	105	6	0	64	41	0	128	82	0	61	39
Fenway	Red/White	95	25	4	51	40	8	101	81	4	53	42
Red Skin, Yellow Flesh												
R20-3	Red/Yellow	222	18	23	108	91	47	215	182	11	49	41
MSZ416-08RY	Red/Yellow	222	14	39	136	46	78	272	93	18	61	21
Baltic Rose	Red/Yellow	100	11	6	48	46	13	96	92	6	48	46
White Skin, White Flesh												
AF5225-1	White/Cream	194	11	16	130	49	31	260	97	8	67	25
NDAF102629C-4	White/White	185	14	25	135	25	50	270	50	13	73	13
AF5280-5	White/White	156	10	13	89	54	26	178	108	8	57	35
Audrey	White/White	107	39	10	52	45	20	103	90	10	48	42
White Skin, Yellow Flesh												
Belmonda	White/Yellow	138	32	10	84	44	20	169	88	7	61	32
Tokio	White/Yellow	124	21	1	42	80	2	84	161	1	34	65
Paroli	White/Yellow	118	48	20	50	48	39	101	96	17	43	41
Tacoma	White/Yellow	110	9	3	54	52	7	109	104	3	50	47
MSX1561Y	White/Yellow	110	23	37	61	12	74	122	24	34	55	11
Sunshine	White/Yellow	98	25	13	41	44	26	82	88	13	42	45
Natascha	White/Yellow	80	6	7	46	26	14	93	52	9	58	33
Tessa	White/Yellow	52	60	5	24	24	9	47	47	9	45	45

Planting date for most tubers: 5/31/19

Vine Kill:

Harvest Date: 10/11/19

Grading Date: 11/6/19

Planting date for Fenway Red, Audrey, Baltic Rose, Sunshine, Belmonda, Paroli, Tessa, Tokio, Tacoma: 6/10/19

Trial specifics: Row Spacing = 40 inches In-row spacing = 8 inches Plot length = 50 feet Number Hills per variety = 67

¹ - Total Marketable Yield equals sum of marketable Chef's, A's and B's.

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				Chef's (> 3")	#1 "A's" (> 2 1/2")	"B's" (< 2")	Chef's (> 3")	#1 "A's" (> 2 1/2")	"B's" (< 2")	Chef's (%)	#1 "A's" (%)	"B's" (%)
Russet												
AF3362-1	Russet	182	10	82	88	12	164	177	24	45	48	6
Specialty												
AF5414-1	Red/Red	225	9	12	114	98	25	229	196	5	51	44
M5AA183-2	Purple/Yellow	204	19	19	153	32	37	306	65	9	75	16
Blackberry	Purple/Dark Purple	202	33	0	95	107	0	191	214	0	47	53
R219-1	Red/Red	170	1	8	105	57	16	210	113	5	62	33
AF5245-1	Purple/White	131	15	7	80	45	13	159	90	5	61	34
AF5412-3	Purple/Purple	107	35	21	74	13	42	148	25	20	69	12

Planting date for most tubers: 5/31/19

Vine Kill:

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Planting date for Fenway Red, Audrey, Baltic Rose, Sunshine, Belmonda, Paroli, Tessa, Tokio, Tacoma: 6/10/19

Trial specifics: Row Spacing = 40 inches In-row spacing = 8 inches Plot length = 50 feet Number Hills per variety = 67

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Table 2: Early season, full season information and cull distribution

Variety	Type skin/flesh	Source	Early Season Marketable Yield (Cwt)	Full Season Total Marketable Yield (Cwt) ¹	Full Season Culls Total (cwt)	Full Season Cull Distribution				
						Green (cwt)	Rodents (cwt)	Scab (cwt)	Cracks (cwt)	Mishapes /knobs (cwt)
AF5414-1	Red/Red	University of Maine	34.3	225	8.91	0.26	3.41	0.00	0.00	5.24
R20-3	Red/Yellow	Cornell University	36.4	222	17.55	4.45	11.27	0.00	0.00	1.83
MSZ416-08RY	Red/Yellow	Michigan State University	48.2	222	14.41	6.81	5.50	0.00	2.10	0.00
MSAA183-2PY	Purple/Yellow	Michigan State University	39.6	204	19.39	0.00	8.65	9.17	0.00	1.57
Blackberry	Purple/Dark Purple	Michigan State University	51.1	202	33.01	0.00	30.13	0.79	1.57	0.52
AF5225-1	White/Cream	University of Maine	51.9	194	11.27	2.36	7.86	0.00	1.05	0.00
NDAF102629C-4	White/White	University of Maine	23.1	185	13.89	2.36	4.72	0.00	6.81	0.00
AF3362-1	Russet	University of Maine	36.9	182	10.48	1.05	5.76	2.36	0.00	1.31
R219-1	Red/Red	Cornell University	47.4	170	0.52	0.00	0.52	0.00	0.00	0.00
NDAF113484B-1	Red/White	University of Maine	40.3	159	19.91	2.88	13.36	2.62	0.00	1.05
AF5280-5	White/White	University of Maine	43.0	156	10.22	5.50	2.62	0.00	2.10	0.00
NY164	Red/White	Cornell University	25.9	143	7.07	1.31	0.79	0.00	4.45	0.52
Belmonda	White/Yellow	Childstock Farm	18.9	138	31.96	15.98	10.48	1.57	0.00	3.93
AF5245-1	Purple/White	University of Maine	31.4	131	15.20	0.00	12.31	0.00	2.88	0.00
Tokio	White/Yellow	Childstock Farm	30.9	124	20.96	0.52	7.07	12.84	0.00	0.52
Paroli	White/Yellow	Childstock Farm	30.7	118	47.68	14.41	11.79	3.14	18.34	0.00
Tacoma	White/Yellow	Childstock Farm	12.6	110	9.43	2.88	1.83	2.88	0.00	1.83
MSX1561Y	White/Yellow	Michigan State University	21.7	110	22.53	6.03	1.57	14.41	0.00	0.52
AF5412-3	Purple/Purple	University of Maine	41.9	107	34.58	1.31	27.51	0.26	0.00	5.50
Audrey	White/White	Childstock Farm	13.6	107	38.78	14.93	7.07	16.51	0.00	0.26
R25-1	Red/White	Cornell University	25.9	105	5.50	0.52	2.36	0.26	0.00	2.36
Baltic Rose	Red/Yellow	Childstock Farm	21.2	100	11.00	1.57	4.98	4.45	0.00	0.00
Sunshine	White/Yellow	Childstock Farm	12.3	98	24.63	15.46	3.93	1.05	1.31	2.88
Fenway	Red/White	Childstock Farm	18.9	95	24.89	2.36	15.98	2.62	3.93	0.00
Natascha	White/Yellow	Childstock Farm	23.8	80	5.50	1.83	2.36	0.00	0.00	1.31
Tessa	White/Yellow	Childstock Farm	15.2	52	59.74	3.41	11.53	44.80	0.00	0.00

Early Season Planting was 5/31/19 for most tubers and 6/10/19 for Fenway Red, Audrey, Baltic Rose, Sunshine, Belmonda, Paroli, Tessa, Tokio, Tacoma

Early Season Harvest was 8/30/19 for most tubers and 9/6/19 for Fenway Red, Audrey, Baltic Rose, Sunshine, Belmonda, Paroli, Tessa, Tokio, Tacoma

¹ - Total Marketable Yield equals sum of marketable Chef's, A's and B's.

Trial Specifics Early Season: Row Spacing = 40 inches In-row spacing = 8 inches Plot length = 10 feet Number Hills per variety = 15

Trial Specifics Full Season: Row Spacing = 40 inches In-row spacing = 8 inches Plot length = 50 feet Number Hills per variety = 67

Table 3: Comments on yield, size, shape and taste

In taste testing, potatoes were boiled whole until soft

Variety	Comments
AF5414-1	Dark red skin. Round, to slightly flattened round, a little oblong. Very nice shape. Good producer. Fairly smooth skin. No scab. Very few culls. Slightly deeper eyes than some other varieties. Tasting: Moist flesh, a little bit of grain but not bad. Melts out of the mouth, doesn't linger. Good, interesting flavor.
R20-3	Light pink skin with a little netting/texture. No scab. Mostly round with a slight oblong, a little bit flattened. Tasting: Skin color fades to a russet color after boiling - brown. Very dry flesh, firm. Holds texture, a little grainy but good. Nice taste, pleasant. Skin is thin and decent tasting.
MSZ416-08RY	Excellent yield. Beautiful dark red skin, pretty smooth. Excellent size. Round round shape. Excellent uniformity. Lots of large As and a good amount of chfs as well. Tasting: Mild but pleasant flavor. Not a smooth texture but nice. Some strings. Light yellow flesh.
MSAA183-2PY	Really pretty dark blue/purple skin. Nice round shape, some slightly flattened. Excellent size, lots of big As and some chfs. Bs are also big. Pretty clean, a little bit of scab. Decent yields. Tasting: Kept its color, both flesh and skin. Waxy texture. Very strong potato flavor. Sticks in the mouth a little. Right in the middle, not dry or moist. Nice texture.
Blackberry	Very uniform. High setting, lots of Bs with nice smaller As. Fairly deep eye. Dark purple, almost black skin. Round round shape, nice. Dark purple, black flesh on the inside. Some texture to the skin, but not bad. Quite attractive looking. Tasting: Wet flesh, firm but breaks into chunks, thin skin. Holds skin and flesh color well. No taste at all, like eating nothing.
AF5225-1	White skin, fairly smooth. Nice round shape, with some flattened. Decent size. Large A or B, very little in between. Few culls. Good white. Tasting: Fluffy texture, very light, almost like mashed potatoes. Soft texture. Strong potato flavor, very good, pleasant. Doesn't stick in mouth.
NDAF102629C-4	White skin. Round, round really nice shape. Fairly smooth skin that is a bright white. Really uniform. Great size, not a lot of chfs but definitely large As. Yield was mostly large As or large Bs and consistent. Tasting: Bright white flesh. A little texture but melts in the mouth. Nice moist flesh. Not a ton of flavor but it's tasty. Good.
AF3362-1	Russet. Beautiful russet. Oblong, long russet shape. Nice russet/netting to skin but no elephant hide. No real scab issues, a little wireworm damage. Lots of chfs, large As, few Bs. Very nice all around. A few misshapes. Tasting: Good, strong flavor. Flaky, dry flesh, stays white, pasty due to dryness. Skin isn't super thick, adds a little sweetness to the taste. Delicious.
R219-1	Fingerling. Dark red skin. Long fingerling, pretty good large size. Clean skin. Nice shape, no real funky shapes. Nice color. Rose flesh. A few issues with small A's falling into the Bs. Really nice big As, impressed. Tasting: Dry flesh. Strong flavor, some dispute from taste testers on likability where some enjoyed it and some hated it. Some sweetness, some bitterness.
NDAF113484B-1	Very nice looking red skin. Beautiful round round shape. Good size. Fair amount of rodent damage. No scab, or misshapes. Really big A or a nice B. A few chfs as well. Nice variety. Tasting: Very firm texture, a little bit of grain but good. Thin skin. Tastes like an ordinary potato, nothing particularly interesting. Bright white flesh after cooking.
AF5280-5	White skin, very attractive, bright white with little texture. Round round shape mostly. Size is variable, chfs, lots of As and Bs. No scab, no misshapes. Lots of potatoes. Looks good. Tasting: Really firm flesh, moist. A little grainy texture. Mild okay flavor. Bright white flesh when

Table 3 con't: Comments on yield, size, shape and taste

Variety	Comments
NY164	Really nice dark red skin. Round round shape, very uniform. Lots of nice As. Smooth skin. Yield is decent with larger As and some chefs. Only culls are some cracks. Even Bs are a decent size. No scab. Tasting: Smooth texture, soft and moist. Thin skin. Good, mild flavor. Nice potato.
Belmonda	Bright white skin, fairly smooth. Nice size and shape. Oblong, to oblong round. Tiny bit of scab. Tasting: Medium dark yellow flesh. Dry, firm texture. Lingers in the mouth. Mild flavor, okay. A little grainy texture.
AF5245-1	Dark blue/purple skin. Round, slightly oblong with some variable shape but most are round. Slightly deeper eye. A little bit of scab. Tasting: Firm flesh, neither moist not dry. Fairly smooth texture. Not a strong flavor, a little different than standard potatoes, has a little sweetness at the end. Skin fades to grey, flesh stays very white.
Tokio	Medium yellow, close to Tacoma color. Firm flesh. Dry flesh. Thick flesh but smooth, lingers in the mouth/sticks for a little while. Very little flavor.
Paroli	Less impressive in the full season harvest than the early harvest. Had some PVY, some splits and misshapes, very little scab. White skin, fairly smooth, a little bit of texture. Shape is mostly round with a few slightly oblong. Overall size is decent. Tasting: Moist flesh, gluey/pasty but smooth, doesn't dissolve. Thin skin but bitter. Not much taste from the flesh so skin taste can overwhelm.
Tacoma	Mostly oblong shape with some teardrop ends. Bright white, fairly smooth skin. A little scab. Nice size. Sizes were either big As or medium Bs, all very uniform size. Tasting: Firm texture, relatively smooth. Interesting taste, almost like a russet potato, a little more on the back end. Okay flavor. Thin skin. Moist flesh, medium yellow after cooking
MSX156-1Y	White skin, a little texture. Round shape. Scab, more than I'd like to see and compared to other varieties. Some nice size tubers. Tasting: Extremely firm flesh. Sweet taste, really delicious, very interesting. Thin skin. Grainy texture but not bad. A little gluey but halfway between
AF5412-3	Blue/purple skin. Oblong shape but round oblong, nice. Good size, pretty uniform. Really nice. Purple interior. Fair amount of rodent damage. Very little scab. Overall yield is pretty good. No shape issues but maybe a tiny bit lumpy but still nice.
Audrey	Lots of rodent damage. Some scab. White skin, very bright with a little texture, mostly smooth. Oblong shape, almost like a russet. Scab was the most visible issue on the line. Some variable shapes in the As and Bs. Tasting: Texture is chunky and unpleasant, almost like it is uncooked (maybe good for cold salad). Little to no taste to Natasha, Chuck had almost metallic tasting.
R25-1	Oblong fingerling, nice, round oblong. Decent size. Nice overall. Pink skin. Tasting: Firm texture, a little pasty, little grainy. A super mild flavor, not much there. Flesh stays nice and white and skin is red.
Baltic Rose	Dark pink skin, deep yellow flesh. Round to slightly oblong shape, very nice. A little texture to skin, has tiny white spots all over it. A tiny bit of scab. Size isn't bad, a few chefs that are nice. A lot of large Bs and small As. Tasting: No graininess, so incredibly smooth. Great tasting. Thin skin. Excellent texture, so smooth and moist. Dark yellow color

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Variety	Comments
Sunshine	Similar to others from Childstock Farm. Oblong shape. Rodent damage and misshapes. Not bad looking. White skin, fairly smooth, pretty skin. Decent size. Some oblongs will drop down through the grader (As into Bs). Decent amount of are banana shaped. Tasting: Very firm and moist, almost wet texture. Chuck thinks it is sweet, pretty good taste, he really likes it. Texture is weird and unpleasant to Natasha, gives back throat
Fenway	Nice dark red color. Round, round shape. Relatively uniform. Yields aren't great. Good size. Few chefs but decent size As. Very little scab. Decent amount of small tubers contributed to low yield. Tasting: Thick skin with a little bitterness. Grainy texture but not bad, a good chew but doesn't linger. Moist flesh. Flavor is okay.
Natascha	Low yielding due to too early seed cutting. Oblong to slightly round shape. Pretty, bright white skin with dark yellow flesh. Tasting: Softer texture, smooth flesh, moist and a tiny bit gluey. Has a tiny bit of texture to it but it's nice. Good flavor, nice and potato-y. Skin thicker than most and lingers but not off putting.
Tessa	Similar to Audrey. Bigger tubers are oblong shaped. A ton of scab in this variety, would not continue development of it. White skin, smooth skin. Tasting: Pale yellow color. Very dry texture. Lingers in your mouth for a long time, requires some chewing to finish. Taste wise, mild but fine, a tiny bit of sweetness.