Colorado Advanced Potato Selections Data Summary

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David G. Holm and Caroline Gray

San Luis Valley Research Center
Department of Horticulture & Landscape Architecture
Colorado State University

Mission Statement

"The mission of the Colorado Potato Breeding and Selection Program is to develop cultivars that will help assure that the Colorado potato industry remains productive, competitive, and sustainable and to develop cultivars that provide the consumer with improved nutrition and quality."

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Table 1. Summary comparison of advanced selections and named cultivars for yield, grade, maturity, specific gravity, and grade defects.

Clone	Usage[1]	# Trials	Total Yield (Cwt/A)	% US #1	Vine Maturity[2]	Specific Gravity	% External Defects[3]	% Hollow Heart[4]
Russets								
AC99375-1RU	Dual	7	500	83	3.1	1.099	1.7	0.0
CO99053-3RU	Dual	7	501	89	3.3	1.089	3.6	0.7
CO99100-1RU	Dual	7	358	85	1.4	1.084	3.9	0.2
AC00395-2RU	Dual	5	494	86	3.9	1.103	1.2	0.6
CO03187-1RU	Dual	4	367	77	1.3	1.087	0.7	0.0
CO03276-5RU	Dual	4	429	67	2.1	1.087	0.4	0.0
Canela Russet	FM	23	369	90	3.1	1.098	1.1	0.1
Centennial Russet	FM	35	294	77	3.0	1.080	0.8	0.3
Mesa Russet	Dual	10	419	86	2.9	1.082	1.8	2.5
Rio Grande Russet	FM	22	533	80	3.0	1.087	2.8	0.4
Russet Norkotah	FM	90	380	84	1.8	1.079	2.2	0.4
Russet Nugget	Dual	64	441	81	3.8	1.093	1.5	0.2
Reds								
CO99076-6R	FM	7	403	78	1.6	1.087	2.2	0.0
CO99256-2R	FM	7	522	69	2.9	1.089	0.4	0.1
Colorado Rose	FM	14	517	85	2.7	1.082	2.7	0.3
Rio Colorado	FM	11	405	56	1.7	1.087	0.9	0.0
Sangre-S10	FM	33	536	88	3.3	1.077	2.2	1.5
Specialties								
CO97226-2R/R	Spec	7	364	34	2.3	1.080	0.2	0.0
CO97232-2R/Y	Spec	7	440	84	2.6	1.071	0.8	1.0
CO97222-1R/R	Spec	7	396	58	2.5	1.076	1.5	0.0
AC99329-7PW/Y	Spec	7	522	79	3.1	1.092	1.6	0.4
AC99330-1P/Y	Spec	7	495	58	2.9	1.082	0.0	0.2
ATC00293-1W/Y	Spec	7	538	83	3.0	1.083	4.2	2.7
CO00405-1RF	Spec	7	334	78	1.4	1.081	1.9	0.0
CO00412-5W/Y	Spec	7	469	74	2.8	1.090	2.2	0.9
CO00415-1RF	Spec	7	384	76	1.5	1.077	4.6	0.0

Table 1 continued on next page

Table 1 (cont'd). Summary comparison of advanced selections and named cultivars for yield, grade, maturity, specific gravity, and grade defects.

Clone	Usage[1]	# Trials	Total Yield (Cwt/A)	% US #1	Vine Maturity[2]	Specific Gravity	% External Defects[3]	% Hollow Heart[4]
Specialties (continued)								
CO01399-10P/Y	Spec	6	543	75	3.5	1.080	0.8	0.1
CO04013-1W/Y	Spec	4	442	41	3.0	1.104	0.0	0.6
CO04021-2R/Y	Spec	4	551	88	3.3	1.086	1.7	0.2
Mountain Rose	Spec	8	383	68	2.2	1.081	1.1	0.0
Purple Majesty	Spec	21	482	55	2.2	1.086	0.6	1.0
Yukon Gold	Spec	35	407	89	1.9	1.086	1.6	0.5
Chippers								
CO00188-4W	Chip	7	420	77	2.5	1.092	2.2	0.1
CO00197-3W	Chip	7	462	73	2.2	1.087	0.9	0.7
CO00270-7W	Chip	7	400	84	2.6	1.087	1.7	0.0
AC01151-5W	Chip	5	478	80	3.0	1.091	2.4	0.1
CO02024-9W	Chip	5	420	80	3.0	1.089	1.7	0.2
CO02033-1W	Chip	5	434	85	2.7	1.099	0.8	1.5
CO02321-4W	Chip	5	437	82	2.8	1.102	3.2	0.0
AC03433-1W	Chip	4	432	82	3.4	1.089	6.0	0.0
CO03243-3W	Chip	4	470	87	3.1	1.089	1.8	0.4
Atlantic	Chip	43	460	87	3.2	1.098	2.5	4.8
Chipeta	Chip	40	538	84	3.3	1.090	5.2	0.6

[1]FM=fresh market; Dual= fresh market and processing potential; Spec=specialty.

[2]Vine maturity: 1=very early; 2=early; 3=medium; 4=late; 5=very late.

[3]Includes defects such as second growth, growth crack, misshapen, and green.

[4]Based on tubers greater than 10 ounces.

Table 2. Detailed data summary for AC99375-1RU.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	500	435-545
Yield US #1 (Cwt/A)		7	415	377-457
% US #1		7	83	77-91
Yield >10 oz (Cwt/A)		7	105	74-148
Yield <4 oz (Cwt/A)		7	75	32-118
% External Defects[1]		7	1.7	0.3-3.5
% Hollow Heart[2]		7	0.0	0.0-0.2
% Stand		7	97	94-100
Emergence Uniformity		7	3.4	2.8-4.3
Vine Vigor[3]		7	3.7	2.5-4.8
Stems/Plant		7	3.7	2.1-6.3
Vine Size[4]		7	4.4	3.0-5.0
Vine Type[5]		7	3.1	3.0-3.5
Vine Maturity[6]		7	3.1	3.0-3.5
Blackspot[7]	Bud End	8	4.6	3.8-5.0
	Stem End	8	4.4	3.7-5.0
	Average	8	4.5	
Weight Loss[8]		8	2.3	1.4-2.8
Dormancy[9]		8	94	82-132
Enzymatic Browning[10]		8	2.8	1.4-4.6
Specific Gravity		8	1.099	1.090-1.104
Fry Color[11]	Harvest	8	0.8	0.0-2.0
	Storage	8	1.1	0.0-2.0
Fry Texture[12]	Harvest	8	3.9	3.0-5.0
	Storage	8	4.0	3.0-5.0

Refer to footnotes on page 46.

Table 3. Detailed data summary for CO99053-3RU.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	501	454-559
Yield US #1 (Cwt/A)		7	447	384-517
% US #1		7	89	85-93
Yield >10 oz (Cwt/A)		7	233	159-299
Yield <4 oz (Cwt/A)		7	37	22-58
% External Defects[1]		7	3.6	0.7-8.9
% Hollow Heart[2]		7	0.7	0.0-2.9
% Stand		7	99	95-100
Emergence Uniformity		7	3.2	3.0-4.0
Vine Vigor[3]		7	3.3	2.8-3.8
Stems/Plant		7	3.9	2.5-5.2
Vine Size[4]		7	4.0	3.8-4.3
Vine Type[5]		7	3.1	2.8 3.8
Vine Maturity[6]		7	3.3	3.0-4.0
Blackspot[7]	Bud End	8	4.8	4.3-5.0
	Stem End	8	4.3	2.8-5.0
	Average	8	4.5	
Weight Loss[8]		8	2.7	1.2-7.6
Dormancy[9]		8	84	54-132
Enzymatic Browning[10]		8	4.0	3.2-4.6
Specific Gravity		8	1.089	1.077-1.096
Fry Color[11]	Harvest	8	1.0	0.0-2.0
	Storage	8	1.9	1.0-3.0
Fry Texture[12]	Harvest	8	3.4	3.0-4.0
	Storage	8	3.3	2.0-4.0

Refer to footnotes on page 46.

Table 4. Detailed data summary for CO99100-1RU.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	358	308-409
Yield US #1 (Cwt/A)		7	304	271-377
% US #1		7	85	76-92
Yield >10 oz (Cwt/A)		7	80	48-121
Yield <4 oz (Cwt/A)		7	40	25-82
% External Defects[1]		7	3.9	0.0-9.1
% Hollow Heart[2]		7	0.2	0.0-0.7
% Stand		7	99	97-100
Emergence Uniformity		7	3.2	3.0-3.5
Vine Vigor[3]		7	3.4	2.8-4.0
Stems/Plant		7	3.4	2.6-4.2
Vine Size[4]		7	2.4	2.3-2.5
Vine Type[5]		9	2.4	2.0-3.0
Vine Maturity[6]		7	1.4	1.0-2.0
Blackspot[7]	Bud End	8	4.6	3.8-5.0
	Stem End	8	4.8	4.5-5.0
	Average	8	4.7	
Weight Loss[8]		8	3.5	1.4-5.7
Dormancy[9]		8	62	49-77
Enzymatic Browning[10]		8	3.8	3.4-4.6
Specific Gravity		8	1.084	1.078-1.088
Fry Color[11]	Harvest	8	0.4	0.0-1.0
	Storage	8	1.4	1.0-2.0
Fry Texture[12]	Harvest	8	3.0	2.0-4.0
	Storage	8	3.3	3.0-4.0

Refer to footnotes on page 46.

Table 5. Detailed data summary for AC00395-2RU.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		5	494	438-574
Yield US #1 (Cwt/A)		5	426	393-478
% US #1		5	86	80-91
Yield >10 oz (Cwt/A)		5	106	73-128
Yield <4 oz (Cwt/A)		5	63	28-97
% External Defects[1]		5	1.2	0.0-3.0
% Hollow Heart[2]		5	0.6	0.0-2.0
% Stand		5	99	98-100
Emergence Uniformity		5	3.3	2.8-3.8
Vine Vigor[3]		5	3.6	2.8-4.3
Stems/Plant		5	2.9	1.9-3.4
Vine Size[4]		5	4.8	4.5-5.0
Vine Type[5]		5	3.2	3.0-4.0
Vine Maturity[6]		5	3.9	3.8-4.0
Blackspot[7]	Bud End	5	4.9	4.6-5.0
	Stem End	5	4.9	4.7-5.0
	Average	5	4.9	
Weight Loss[8]		5	2.2	2.1-2.3
Dormancy[9]		5	104	70-155
Enzymatic Browning[10]		5	4.7	4.6-4.8
Specific Gravity		5	1.103	1.092-1.108
Fry Color[11]	Harvest	5	1.8	1.0-3.0
	Storage	5	2.4	2.0-3.0
Fry Texture[12]	Harvest	5	3.8	3.0-4.0
	Storage	5	3.8	3.0-4.0

Refer to footnotes on page 46.

Table 6. Detailed data summary for CO03187-1RU.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		4	367	320-419
Yield US #1 (Cwt/A)		4	281	247-322
% US #1		4	77	60-90
Yield >10 oz (Cwt/A)		4	63	49-98
Yield <4 oz (Cwt/A)		4	83	33-169
% External Defects[1]		4	0.7	0.5-0.9
% Hollow Heart[2]		4	0.0	0.0-0.0
% Stand		4	97	95-99
Emergence Uniformity		4	3.4	2.8-4.0
Vine Vigor[3]		4	3.2	3.0-3.5
Stems/Plant		4	3.0	2.6-3.4
Vine Size[4]		4	2.8	2.3-3.3
Vine Type[5]		4	2.8	2.5 3.0
Vine Maturity[6]		4	1.3	1.0-1.5
Blackspot[7]	Bud End	4	4.9	4.8-5.0
	Stem End	4	4.8	4.4-5.0
	Average	4	4.8	
Weight Loss[8]		4	3.3	2.5-4.4
Dormancy[9]		4	64	54-70
Enzymatic Browning[10]		4	4.7	4.4-4.8
Specific Gravity		4	1.087	1.084-1.091
Fry Color[11]	Harvest	4	2.0	1.0-4.0
	Storage	4	2.5	2.0-3.0
Fry Texture[12]	Harvest	4	3.0	3.0-3.0
	Storage	4	3.3	3.0-4.0

Refer to footnotes on page 46.

Table 7. Detailed data summary for CO03276-5RU.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		4	429	357-494
Yield US #1 (Cwt/A)		4	285	227-327
% US #1		4	67	56-75
Yield >10 oz (Cwt/A)		4	47	23-72
Yield <4 oz (Cwt/A)		4	142	103-217
% External Defects[1]		4	0.4	0.2-0.9
% Hollow Heart[2]		4	0.0	0.0-0.0
% Stand		4	98	93-100
Emergence Uniformity		4	3.4	3.3-3.5
Vine Vigor[3]		4	3.8	3.0-4.8
Stems/Plant		4	3.9	2.5-5.4
Vine Size[4]		4	3.5	3.0-4.0
Vine Type[5]		4	3.0	3.0-3.0
Vine Maturity[6]		4	2.1	2.0-2.5
Blackspot[7]	Bud End	4	4.2	3.4-4.8
	Stem End	4	4.2	3.6-4.5
	Average	4	4.2	
Weight Loss[8]		4	2.0	1.6-2.2
Dormancy[9]		4	89	70-98
Enzymatic Browning[10]		4	4.0	3.0-4.8
Specific Gravity		4	1.087	1.087-1.088
Fry Color[11]	Harvest	4	2.0	1.0-3.0
	Storage	4	2.5	1.0-3.0
Fry Texture[12]	Harvest	4	3.3	3.0-4.0
	Storage	4	3.3	3.0-4.0

Refer to footnotes on page 46.

Table 8. Detailed data summary for Canela Russet.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		23	369	312-468
Yield US #1 (Cwt/A)		23	332	277-421
% US #1		23	90	77-94
Yield >10 oz (Cwt/A)		23	113	63-203
Yield <4 oz (Cwt/A)		23	33	18-61
% External Defects[1]		23	1.1	0.0-6.0
% Hollow Heart[2]		23	0.1	0.0-0.9
% Stand		22	96	82-99
Emergence Uniformity		22	2.7	1.5-3.5
Vine Vigor[3]		22	2.7	2.0-3.3
Stems/Plant		22	2.0	1.3-4.2
Vine Size[4]		22	3.9	3.0-5.0
Vine Type[5]		22	3.5	3.0 4.0
Vine Maturity[6]		22	3.1	2.8-3.8
Blackspot[7]	Bud End	24	4.7	3.7-5.0
	Stem End	24	4.2	2.5-5.0
	Average	24	4.5	
Weight Loss[8]		24	3.6	1.3-7.0
Dormancy[9]		24	144	112-195
Enzymatic Browning[10]		24	4.5	3.4-5.0
Specific Gravity		24	1.098	1.075-1.111
Fry Color[11]	Harvest	24	1.8	0.0-3.0
	Storage	24	2.0	0.0-4.0
Fry Texture[12]	Harvest	24	3.8	3.0-5.0
	Storage	24	3.8	3.0-5.0

Refer to footnotes on page 46.

Table 9. Detailed data summary for Centennial Russet.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		35	294	177-392
Yield US #1 (Cwt/A)		35	229	129-320
% US #1		35	77	62-89
Yield >10 oz (Cwt/A)		35	26	4-72
Yield <4 oz (Cwt/A)		35	62	32-102
% External Defects[1]		35	0.8	0.0-3.3
% Hollow Heart[2]		35	0.3	0.0-3.3
% Stand		35	97	90-99
Emergence Uniformity		15	3.2	3.0-3.5
Vine Vigor[3]		15	2.2	1.0-3.0
Stems/Plant		27	3.0	2.2-3.6
Vine Size[4]		15	2.6	2.0-3.0
Vine Type[5]		15	3.2	2.8-3.8
Vine Maturity[6]		35	3.0	2.5-3.5
Blackspot[7]	Bud End	44	4.8	3.7-5.0
	Stem End	44	4.8	4.2-5.0
	Average	47	4.8	
Weight Loss[8]		47	6.1	1.6-9.0
Dormancy[9]		40	88	57-123
Enzymatic Browning[10]		42	4.0	3.2-5.0
Specific Gravity		54	1.080	1.069-1.092
Fry Color[11]	Harvest	46	3.7	3.0-4.0
	Storage	46	3.9	3.0-5.0
Fry Texture[12]	Harvest	46	2.3	1.0-4.0
	Storage	46	2.2	1.0-3.0

Refer to footnotes on page 46.

Table 10. Detailed data summary for Mesa Russet.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		10	419	345 - 478
Yield US #1 (Cwt/A)		10	360	279 - 406
% US #1		10	86	81 - 92
Yield >10 oz (Cwt/A)		10	97	54 - 144
Yield <4 oz (Cwt/A)		10	51	23 - 61
% External Defects[1]		10	1.8	0.2 - 2.3
% Hollow Heart[2]		10	2.5	0.0 - 5.4
% Stand		10	96	91 - 99
Emergence Uniformity		10	3.3	3.0 - 3.8
Vine Vigor[3]		10	3.7	2.8 - 4.0
Stems/Plant		10	3.0	2.2 - 3.7
Vine Size[4]		10	3.5	3.0 - 4.0
Vine Type[5]		10	3.0	2.3 - 3.8
Vine Maturity[6]		10	2.9	2.8 - 3.0
Blackspot[7]	Bud End	12	4.0	2.9 - 5.0
	Stem End	12	3.8	2.7 - 5.0
	Average	12	3.9	
Weight Loss[8]		12	3.6	1.2 - 6.8
Dormancy[9]		12	94	83 - 105
Enzymatic Browning[10]		12	4.6	4.0 - 5.0
Specific Gravity		12	1.082	1.074 - 1.090
Fry Color[11]	Harvest	12	1.3	0.0 - 2.0
	Storage	12	1.8	1.0 - 4.0
Fry Texture[12]	Harvest	12	2.9	2.0 - 4.0
	Storage	12	3.1	3.0 - 4.0

Refer to footnotes on page 46.

Table 11. Detailed data summary for Rio Grande Russet.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		22	533	367-683
Yield US #1 (Cwt/A)		22	426	255-603
% US #1		22	80	65-91
Yield >10 oz (Cwt/A)		22	123	14-275
Yield <4 oz (Cwt/A)		22	92	33-202
% External Defects[1]		22	2.8	0.1-8.7
% Hollow Heart[2]		22	0.4	0.0-4.1
% Stand		22	99	96-100
Emergence Uniformity		22	3.5	3.0-4.0
Vine Vigor[3]		22	3.6	2.0-4.5
Stems/Plant		22	3.4	2.0-4.8
Vine Size[4]		22	4.1	3.5-5.0
Vine Type[5]		22	3.1	3.0-3.5
Vine Maturity[6]		22	3.0	2.5 -3.5
Blackspot[7]	Bud End	29	4.8	4.1-5.0
	Stem End	29	4.6	3.0-5.0
	Average	29	4.7	
Weight Loss[8]		29	3.8	1.5-7.1
Dormancy[9]		29	91	68-120
Enzymatic Browning[10]		29	3.9	3.0-5.0
Specific Gravity		29	1.087	1.078-1.094
Fry Color[11]	Harvest	29	2.2	1.0-4.0
	Storage	29	2.8	2.0-4.0
Fry Texture[12]	Harvest	29	3.1	2.0-4.0
	Storage	29	3.0	2.0-4.0

Refer to footnotes on page 46.

Table 12. Detailed data summary for Russet Norkotah.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		90	380	174-557
Yield US #1 (Cwt/A)		90	321	144-480
% US #1		90	84	69-94
Yield >10 oz (Cwt/A)		90	109	23-247
Yield <4 oz (Cwt/A)		90	51	13-131
% External Defects[1]		90	2.2	0.0-5.3
% Hollow Heart[2]		90	0.4	0.0-2.8
% Stand		89	98	88-100
Emergence Uniformity		80	3.2	1.0-4.0
Vine Vigor[3]		80	2.9	1.0-4.0
Stems/Plant		85	3.7	2.3-5.7
Vine Size[4]		80	2.5	1.0-4.0
Vine Type[5]		80	2.7	2.0-3.5
Vine Maturity[6]		89	1.8	1.0-3.0
Blackspot[7]	Bud End	85	4.7	2.9-5.0
	Stem End	85	4.4	2.6-5.0
	Average	86	4.5	
Weight Loss[8]		86	3.6	1.0-7.1
Dormancy[9]		85	98	70-140
Enzymatic Browning[10]		85	3.4	2.2-4.8
Specific Gravity		89	1.079	1.066-1.091
Fry Color[11]	Harvest	86	2.1	1.0-4.0
	Storage	86	2.4	1.0-4.0
Fry Texture[12]	Harvest	86	2.7	1.0-4.0
	Storage	86	2.7	1.0-4.0

Refer to footnotes on page 46.

Table 13. Detailed data summary for Russet Nugget.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		64	441	284-585
Yield US #1 (Cwt/A)		64	360	225-518
% US #1		64	81	68-93
Yield >10 oz (Cwt/A)		64	91	11-258
Yield <4 oz (Cwt/A)		64	73	30-133
% External Defects[1]		64	1.5	0.1-4.3
% Hollow Heart[2]		64	0.2	0.0-1.9
% Stand		64	98	96-100
Emergence Uniformity		54	3.3	2.8-4.0
Vine Vigor[3]		54	3.4	2.5-4.0
Stems/Plant		60	3.4	2.1-5.7
Vine Size[4]		54	4.2	3.8-5.0
Vine Type[5]		54	3.5	2.2-4.0
Vine Maturity[6]		64	3.8	3.0-4.3
Blackspot[7]	Bud End	78	4.7	3.0-5.0
	Stem End	78	4.5	2.1-5.0
	Average	81	4.6	
Weight Loss[8]		81	3.1	1.1-5.5
Dormancy[9]		76	95	57-144
Enzymatic Browning[10]		77	4.0	2.8-4.8
Specific Gravity		83	1.093	1.072-1.110
Fry Color[11]	Harvest	81	1.4	0.0-3.0
	Storage	81	1.9	1.0-3.0
Fry Texture[12]	Harvest	81	4.1	2.0-5.0
	Storage	81	4.0	2.0-5.0

Refer to footnotes on page 46.

Table 14. Detailed data summary for CO99076-6R.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	403	379-448
Yield US #1 (Cwt/A)		7	316	262-344
% US #1		7	78	68-87
Yield >10 oz (Cwt/A)		7	60	17-100
Yield <4 oz (Cwt/A)		7	79	45-102
% External Defects[1]		7	2.2	0.5-4.8
% Hollow Heart[2]		7	0.0	0.0-0.3
% Stand		7	96	92-99
Emergence Uniformity		7	3.4	2.8-4.0
Vine Vigor[3]		7	3.6	3.0-4.3
Stems/Plant		7	4.0	2.4-4.8
Vine Size[4]		7	3.1	3.0-3.3
Vine Type[5]		7	2.6	2.3-3.0
Vine Maturity[6]		7	1.6	1.0-2.3
Blackspot[7]	Bud End	8	4.1	3.1-5.0
	Stem End	8	3.3	2.3-4.8
	Average	8	3.7	
Weight Loss[8]		8	6.6	1.7-8.7
Dormancy[9]		8	69	56-79
Enzymatic Browning[10]		8	1.6	1.0-2.0
Specific Gravity		8	1.087	1.082-1.090
Fry Color[11]	Harvest	8	2.1	1.0-3.0
	Storage	8	2.8	2.0-3.0
Fry Texture[12]	Harvest	8	2.4	2.0-3.0
	Storage	8	2.0	1.0-3.0

Refer to footnotes on page 46.

Table 15. Detailed data summary for CO99256-2R.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	522	422-571
Yield US #1 (Cwt/A)		7	361	235-431
% US #1		7	69	56-78
Yield >10 oz (Cwt/A)		7	49	9-81
Yield <4 oz (Cwt/A)		7	159	113-200
% External Defects[1]		7	0.4	0.1-0.8
% Hollow Heart[2]		7	0.1	0.0-0.3
% Stand		7	98	96-100
Emergence Uniformity		7	3.1	2.8-3.8
Vine Vigor[3]		7	3.2	2.8-4.0
Stems/Plant		7	3.8	2.9-4.8
Vine Size[4]		7	4.2	3.8-5.0
Vine Type[5]		7	3.1	3.0-3.3
Vine Maturity[6]		7	2.9	2.5-3.0
Blackspot[7]	Bud End	8	4.0	2.6-5.0
	Stem End	8	3.8	2.6-4.8
	Average	8	3.9	
Weight Loss[8]		8	5.3	1.6-7.3
Dormancy[9]		8	93	84-118
Enzymatic Browning[10]		8	2.8	1.8-3.4
Specific Gravity		8	1.089	1.080-1.098
Fry Color[11]	Harvest	8	1.1	1.0-2.0
	Storage	8	1.9	1.0-2.0
Fry Texture[12]	Harvest	8	2.9	2.0-3.0
	Storage	8	2.8	2.0-3.0

Refer to footnotes on page 46.

Table 16. Detailed data summary for Colorado Rose.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		14	517	390-641
Yield US #1 (Cwt/A)		14	439	310-530
% US #1		14	85	76-91
Yield >10 oz (Cwt/A)		14	153	69-249
Yield <4 oz (Cwt/A)		14	63	43-98
% External Defects[1]		14	2.7	0.2-6.5
% Hollow Heart[2]		14	0.3	0.0-0.8
% Stand		14	96	90-100
Emergence Uniformity		14	3.0	2.5-3.5
Vine Vigor[3]		14	3.0	2.2-3.8
Stems/Plant		14	3.5	2.3-4.5
Vine Size[4]		14	3.4	3.0-4.0
Vine Type[5]		14	3.1	3.0-3.5
Vine Maturity[6]		14	2.7	2.0-3.8
Blackspot[7]	Bud End	15	3.8	2.1-4.8
	Stem End	15	3.8	2.4-5.0
	Average	15	3.8	
Weight Loss[8]		15	5.8	1.4-8.2
Dormancy[9]		15	62	54-78
Enzymatic Browning[10]		15	4.3	3.4-5.0
Specific Gravity		15	1.082	1.071-1.086
Fry Color[11]	Harvest	15	2.3	1.0-3.0
	Storage	14	2.9	2.0-3.0
Fry Texture[12]	Harvest	15	2.8	2.0-4.0
	Storage	14	2.9	2.0-3.0

Refer to footnotes on page 46.

Table 17. Detailed data summary for Rio Colorado.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		11	405	321-474
Yield US #1 (Cwt/A)		11	226	115-298
% US #1		11	56	28-72
Yield >10 oz (Cwt/A)		11	10	0-22
Yield <4 oz (Cwt/A)		11	175	110-289
% External Defects[1]		11	0.9	0.0-2.2
% Hollow Heart[2]		11	0.0	0.0-0.0
% Stand		11	96	92-99
Emergence Uniformity		11	3.4	3.0-4.0
Vine Vigor[3]		11	3.1	2.8-4.0
Stems/Plant		11	4.2	2.9-6.4
Vine Size[4]		11	3.1	2.5-3.8
Vine Type[5]		11	3.2	2.8-3.5
Vine Maturity[6]		11	1.7	1.0-3.0
Blackspot[7]	Bud End	12	3.6	2.1-4.8
	Stem End	12	3.0	1.8-4.2
	Average	12	3.3	
Weight Loss[8]		12	6.6	1.2-10.2
Dormancy[9]		12	86	70-118
Enzymatic Browning[10]		12	1.4	1.0-2.4
Specific Gravity		12	1.087	1.080-1.096
Fry Color[11]	Harvest	12	1.4	1.0-3.0
	Storage	12	1.8	1.0-4.0
Fry Texture[12]	Harvest	12	2.8	2.0-4.0
	Storage	12	2.7	1.0-3.0

Refer to footnotes on page 46.

Table 18. Detailed data summary for Sangre-S10.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		33	536	410-646
Yield US #1 (Cwt/A)		33	470	358-569
% US #1		33	88	81-93
Yield >10 oz (Cwt/A)		33	185	101-319
Yield <4 oz (Cwt/A)		33	55	31-90
% External Defects[1]		33	2.2	0.3-5.7
% Hollow Heart[2]		33	1.5	0.0-8.2
% Stand		30	97	91-100
Emergence Uniformity		30	3.0	2.3-3.5
Vine Vigor[3]		30	2.9	1.8-3.5
Stems/Plant		30	3.1	1.9-4.3
Vine Size[4]		30	4.1	3.5-5.0
Vine Type[5]		30	3.3	3.0-4.0
Vine Maturity[6]		30	3.3	3.0-4.0
Blackspot[7]	Bud End	43	3.8	2.0-5.0
	Stem End	43	4.2	2.5-5.0
	Average	43	4.0	
Weight Loss[8]		43	2.7	1.0-4.5
Dormancy[9]		43	88	56-126
Enzymatic Browning[10]		43	3.3	2.4-4.8
Specific Gravity		43	1.077	1.060-1.090
Fry Color[11]	Harvest	43	3.6	2.0-4.0
	Storage	43	3.9	3.0-4.0
Fry Texture[12]	Harvest	43	2.2	1.0-4.0
	Storage	43	2.3	1.0-3.0

Refer to footnotes on page 46.

Table 19. Detailed data summary for CO97226-2R/R.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	364	336-406
Yield US #1 (Cwt/A)		7	126	83-224
% US #1		7	34	24-55
Yield >10 oz (Cwt/A)		7	1	0.0-1.0
Yield <4 oz (Cwt/A)		7	238	179-278
% External Defects[1]		7	0.2	0.0-0.7
% Hollow Heart[2]		7	0.0	0.0-0.0
% Stand		7	98	96-99
Emergence Uniformity		7	3.1	3.0-3.3
Vine Vigor[3]		7	3.1	3.0-3.5
Stems/Plant		7	4.2	3.0-5.9
Vine Size[4]		7	3.1	3.0-3.8
Vine Type[5]		7	2.9	2.0-3.3
Vine Maturity[6]		7	2.3	1.3-3.0
Blackspot[7]	Bud End	--	--	-- --
	Stem End	--	--	-- --
	Average	--	--	
Weight Loss[8]		8	4.9	1.9-10.6
Dormancy[9]		8	68	48-94
Enzymatic Browning[10]		--	--	-- --
Specific Gravity		8	1.080	1.076-1.084
Fry Color[11]	Harvest	--	--	-- --
	Storage	--	--	-- --
Fry Texture[12]	Harvest	8	2.9	2.0-4.0
	Storage	8	2.6	2.0-4.0

Refer to footnotes on page 46.

Table 20. Detailed data summary for CO97232-2R/Y.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	440	416-471
Yield US #1 (Cwt/A)		7	371	318-420
% US #1		7	84	76-91
Yield >10 oz (Cwt/A)		7	89	43-148
Yield <4 oz (Cwt/A)		7	66	36-100
% External Defects[1]		7	0.8	0.3-1.7
% Hollow Heart[2]		7	1.0	0.0-2.7
% Stand		7	93	85-99
Emergence Uniformity		7	3.1	2.8-3.5
Vine Vigor[3]		7	3.3	3.0- 4.0
Stems/Plant		7	3.3	2.6-4.0
Vine Size[4]		7	2.6	2.0-3.0
Vine Type[5]		7	2.0	2.0-2.0
Vine Maturity[6]		7	2.6	2.0-3.0
Blackspot[7]	Bud End	8	4.7	4.1-5.0
	Stem End	8	4.4	3.5-5.0
	Average	8	4.5	
Weight Loss[8]		8	4.2	1.5-8.8
Dormancy[9]		8	69	49-94
Enzymatic Browning[10]		8	4.4	4.0-5.0
Specific Gravity		8	1.071	1.069-1.075
Fry Color[11]	Harvest	8	1.1	0.0-2.0
	Storage	8	1.8	1.0-2.0
Fry Texture[12]	Harvest	8	2.1	1.0-3.0
	Storage	8	2.4	2.0-3.0

Refer to footnotes on page 46.

Table 21. Detailed data summary for CO97222-1R/R.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	396	349-447
Yield US #1 (Cwt/A)		7	231	151-309
% US #1		7	58	42-76
Yield >10 oz (Cwt/A)		7	27	7-56
Yield <4 oz (Cwt/A)		7	159	91 -223
% External Defects[1]		7	1.5	0.0-3.0
% Hollow Heart[2]		7	0.0	0.0-0.0
% Stand		7	96	94-99
Emergence Uniformity		7	2.9	2.0-3.5
Vine Vigor[3]		7	2.8	2.3-3.3
Stems/Plant		7	3.7	2.3-5.1
Vine Size[4]		7	3.0	2.8-3.0
Vine Type[5]		7	2.9	2.5-3.0
Vine Maturity[6]		7	2.5	2.0-3.0
Blackspot[7]	Bud End	--	--	-- --
	Stem End	--	--	-- --
	Average	--	--	
Weight Loss[8]		8	3.3	1.4-4.3
Dormancy[9]		8	81	56-132
Enzymatic Browning[10]		--	--	-- --
Specific Gravity		8	1.076	1.073-1.080
Fry Color[11]	Harvest	--	--	-- --
	Storage	--	--	-- --
Fry Texture[12]	Harvest	7	2.1	1.0-3.0
	Storage	7	2.0	1.0-3.0

Refer to footnotes on page 46.

Table 22. Detailed data summary for AC99329-7PW/Y.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	522	452-585
Yield US #1 (Cwt/A)		7	410	349-471
% US #1		7	79	71-84
Yield >10 oz (Cwt/A)		7	93	43-141
Yield <4 oz (Cwt/A)		7	104	62-149
% External Defects[1]		7	1.6	0.5-3.7
% Hollow Heart[2]		7	0.4	0.0-1.6
% Stand		7	99	98-100
Emergence Uniformity		7	3.8	3.0-4.0
Vine Vigor[3]		7	4.1	3.0-5.0
Stems/Plant		7	5.0	3.0-7.4
Vine Size[4]		7	4.3	4.0-4.8
Vine Type[5]		7	3.3	3.0-3.5
Vine Maturity[6]		7	3.1	2.8-3.5
Blackspot[7]	Bud End	8	4.4	3.1-5.0
	Stem End	8	3.4	2.6-5.0
	Average	8	3.9	
Weight Loss[8]		8	4.3	2.0-5.9
Dormancy[9]		8	39	23-52
Enzymatic Browning[10]		8	4.0	3.0-4.6
Specific Gravity		8	1.092	1.081-1.096
Fry Color[11]	Harvest	8	2.5	1.0-4.0
	Storage	8	2.8	2.0-3.0
Fry Texture[12]	Harvest	8	3.0	2.0-4.0
	Storage	8	3.4	3.0-4.0

Refer to footnotes on page 46.

Table 23. Detailed data summary for AC99330-1P/Y.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	495	441-531
Yield US #1 (Cwt/A)		7	288	208-376
% US #1		7	58	43-74
Yield >10 oz (Cwt/A)		7	24	3-69
Yield <4 oz (Cwt/A)		7	207	129-271
% External Defects[1]		7	0.0	0.0-0.2
% Hollow Heart[2]		7	0.2	0.0-0.6
% Stand		7	98	96-99
Emergence Uniformity		7	3.2	2.8-3.8
Vine Vigor[3]		7	3.7	3.0-4.5
Stems/Plant		7	4.9	3.0-6.7
Vine Size[4]		7	3.4	2.8-4.0
Vine Type[5]		7	2.5	2.0-3.0
Vine Maturity[6]		7	2.9	2.0-3.0
Blackspot[7]	Bud End	8	4.7	4.0-5.0
	Stem End	8	4.4	3.7-4.8
	Average	8	4.6	
Weight Loss[8]		8	3.3	1.4-5.0
Dormancy[9]		8	60	49-66
Enzymatic Browning[10]		8	2.9	2.2-3.6
Specific Gravity		8	1.082	1.075-1.090
Fry Color[11]	Harvest	8	1.9	1.0-4.0
	Storage	8	3.1	3.0-4.0
Fry Texture[12]	Harvest	8	2.9	2.0-4.0
	Storage	8	3.1	3.0-4.0

Refer to footnotes on page 46.

Table 24 . Detailed data summary for ATC00293-1W/Y.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	538	402-621
Yield US #1 (Cwt/A)		7	449	338-520
% US #1		7	83	73-91
Yield >10 oz (Cwt/A)		7	130	61-256
Yield <4 oz (Cwt/A)		7	66	40-111
% External Defects[1]		7	4.2	1.7-6.8
% Hollow Heart[2]		7	2.7	1.1-3.9
% Stand		7	98	95-100
Emergence Uniformity		7	3.0	2.5-3.3
Vine Vigor[3]		7	3.1	2.0-4.0
Stems/Plant		7	3.4	2.8-3.8
Vine Size[4]		7	4.4	4.0-4.8
Vine Type[5]		7	3.1	3.0-3.5
Vine Maturity[6]		7	3.0	3.0-3.0
Blackspot[7]	Bud End	7	4.3	2.6-5.0
	Stem End	7	4.2	2.8-5.0
	Average	7	4.3	
Weight Loss[8]		7	2.0	1.6-2.8
Dormancy[9]		7	114	98 -129
Enzymatic Browning[10]		7	4.5	4.2-4.8
Specific Gravity		7	1.083	1.075-1.087
Fry Color[11]	Harvest	7	1.0	0.0-2.0
	Storage	7	1.7	1.0-3.0
Fry Texture[12]	Harvest	7	2.3	1.0-3.0
	Storage	7	2.4	2.0-3.0

Refer to footnotes on page 46.

Table 25. Detailed data summary for CO00405-1RF.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	334	277-373
Length: <2"		4	53	23-66
Length: 2-4"		4	201	167-260
Length: >4"-6"		4	66	40-99
Length: >6"		4	4	0-8
% External Defects[1]		7	1.9	0.0-4.7
% Hollow Heart[2]		7	0.0	0.0-0.0
% Stand		7	99	98-100
Emergence Uniformity		7	3.1	2.8-3.5
Vine Vigor[3]		7	2.9	2.0-3.8
Stems/Plant		7	4.2	3.6-5.5
Vine Size[4]		7	2.3	1.8-3.0
Vine Type[5]		7	2.1	1.3-3.0
Vine Maturity[6]		7	1.4	1.0-2.0
Blackspot[7]	Bud End	7	4.8	3.9-5.0
	Stem End	7	4.6	3.9-5.0
	Average	7	4.7	
Weight Loss[8]		7	3.8	3.1-4.8
Dormancy[9]		7	74	61-87
Enzymatic Browning[10]		7	4.3	3.6-5.0
Specific Gravity		7	1.081	1.077-1.086
Fry Color[11]	Harvest	7	1.4	1.0-2.0
	Storage	7	1.9	1.0-2.0
Fry Texture[12]	Harvest	7	3.0	2.0-5.0
	Storage	7	3.1	2.0-5.0

Refer to footnotes on page 46.

Table 26. Detailed data summary for CO00412-5W/Y.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	469	367-579
Yield US #1 (Cwt/A)		7	347	266-448
% US #1		7	74	61-82
Yield >10 oz (Cwt/A)		7	73	26-143
Yield <4 oz (Cwt/A)		7	111	75-167
% External Defects[1]		7	2.2	0.7-3.8
% Hollow Heart[2]		7	0.9	0.0-2.7
% Stand		7	98	96-100
Emergence Uniformity		7	3.6	3.0-4.3
Vine Vigor[3]		7	3.6	3.0-4.3
Stems/Plant		7	4.8	2.8-5.7
Vine Size[4]		7	3.7	3.0-4.5
Vine Type[5]		7	3.0	3.0-3.0
Vine Maturity[6]			2.8	2.5-3.0
Blackspot[7]	Bud End	7	4.2	2.0-5.0
	Stem End	7	3.8	1.9-4.7
	Average	7	4.0	
Weight Loss[8]		7	2.5	1.7-4.6
Dormancy[9]		7	76	63-87
Enzymatic Browning[10]		7	3.6	3.2-4.0
Specific Gravity		7	1.090	1.077-1.097
Fry Color[11]	Harvest	7	1.7	1.0-3.0
	Storage	7	2.4	2.0-4.0
Fry Texture[12]	Harvest	7	2.7	2.0-3.0
	Storage	7	3.0	2.0-4.0

Refer to footnotes on page 46.

Table 27. Detailed data summary for CO00415-1RF.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	384	278-446
Length: <2"		4	47	17-72
Length: 2-4"		4	259	207-304
Length: >4"-6"		4	55	19-77
Length: >6"		4	7	0-22
% External Defects[1]		7	4.6	1.1-8.4
% Hollow Heart[2]		7	0.0	0.0-0.0
% Stand		7	92	54-100
Emergence Uniformity		7	3.1	2.0-3.5
Vine Vigor[3]		7	3.1	2.5-4.0
Stems/Plant		7	4.5	3.1-7.2
Vine Size[4]		7	2.6	2.0-3.3
Vine Type[5]		7	2.5	2.0-3.0
Vine Maturity[6]		7	1.5	1.0-2.0
Blackspot[7]	Bud End	7	4.9	4.5-5.0
	Stem End	7	4.7	3.1-5.0
	Average	7	4.8	
Weight Loss[8]		7	2.8	2.2-4.1
Dormancy[9]		7	91	70-105
Enzymatic Browning[10]		7	4.5	4.0-4.8
Specific Gravity		7	1.077	1.071-1.082
Fry Color[11]	Harvest	7	1.9	1.0-2.0
	Storage	7	2.9	2.0-3.0
Fry Texture[12]	Harvest	7	2.4	1.0-4.0
	Storage	7	2.6	1.0-4.0

Refer to footnotes on page 46.

Table 28. Detailed data summary for CO01399-10P/Y.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		6	543	458-648
Yield US #1 (Cwt/A)		6	406	303-511
% US #1		6	75	66-80
Yield >10 oz (Cwt/A)		6	72	27-117
Yield <4 oz (Cwt/A)		6	132	103-192
% External Defects[1]		6	0.8	0.0-1.7
% Hollow Heart[2]		6	0.1	0.0-0.4
% Stand		6	99	96-100
Emergence Uniformity		6	2.9	2.5-3.0
Vine Vigor[3]		6	3.1	2.5-3.5
Stems/Plant		6	3.5	2.4-4.2
Vine Size[4]		6	4.3	4.0-4.8
Vine Type[5]		6	3.0	3.0-3.3
Vine Maturity[6]		6	3.5	3.0-4.0
Blackspot[7]	Bud End	6	4.6	4.2-5.0
	Stem End	6	4.5	4.0-5.0
	Average	6	4.6	
Weight Loss[8]		6	2.4	1.4-3.0
Dormancy[9]		6	87	70-111
Enzymatic Browning[10]		6	3.5	3.2-4.4
Specific Gravity		6	1.080	1.077-1.085
Fry Color[11]	Harvest	6	0.7	0.0-2.0
	Storage	6	1.2	0.0-2.0
Fry Texture[12]	Harvest	6	3.0	2.0-4.0
	Storage	6	3.3	3.0-4.0

Refer to footnotes on page 46.

Table 29. Detailed data summary for CO04013-1W/Y.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		4	442	381-474
Yield US #1 (Cwt/A)		4	185	141-233
% US #1		4	41	36-49
Yield >10 oz (Cwt/A)		4	7	0-16
Yield <4 oz (Cwt/A)		4	257	240-281
% External Defects[1]		4	0.0	0.0-0.2
% Hollow Heart[2]		4	0.6	0.0-1.6
% Stand		4	99	96-100
Emergence Uniformity		4	3.2	2.5-4.0
Vine Vigor[3]		4	3.6	3.3-4.0
Stems/Plant		4	5.9	3.9-8.2
Vine Size[4]		4	4.2	3.5-4.8
Vine Type[5]		4	3.1	2.5-3.5
Vine Maturity[6]		4	3.0	3.0-3.0
Blackspot[7]	Bud End	4	3.6	2.9-4.5
	Stem End	4	3.6	2.8-4.2
	Average	4	3.6	
Weight Loss[8]		4	5.7	2.5-8.7
Dormancy[9]		4	57	47-63
Enzymatic Browning[10]		4	3.2	2.4 –4.0
Specific Gravity		4	1.104	1.097-1.109
Fry Color[11]	Harvest	4	1.0	1.0-1.0
	Storage	4	1.3	1.0-2.0
Fry Texture[12]	Harvest	4	3.8	3.0-5.0
	Storage	4	3.5	3.0-5.0

Refer to footnotes on page 46.

Table 30. Detailed data summary for CO04021-2R/Y.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		4	551	502-585
Yield US #1 (Cwt/A)		4	482	416-527
% US #1		4	88	83-93
Yield >10 oz (Cwt/A)		4	168	121-230
Yield <4 oz (Cwt/A)		4	60	26-86
% External Defects[1]		4	1.7	1.4-2.1
% Hollow Heart[2]		4	0.2	0.0-0.6
% Stand		4	91	83-98
Emergence Uniformity		4	3.2	3.0-3.5
Vine Vigor[3]		4	3.6	2.5-4.8
Stems/Plant		4	4.6	3.6-5.7
Vine Size[4]		4	4.6	4.0-5.0
Vine Type[5]		4	3.1	3.0-3.3
Vine Maturity[6]		4	3.3	3.0-3.5
Blackspot[7]	Bud End	4	4.2	3.2-5.0
	Stem End	4	4.3	3.7-5.0
	Average	4	4.2	
Weight Loss[8]		4	4.9	2.8-6.6
Dormancy[9]		4	73	49-91
Enzymatic Browning[10]		4	3.6	2.8 –4.0
Specific Gravity		4	1.086	1.078-1.091
Fry Color[11]	Harvest	4	1.8	1.0-2.0
	Storage	4	1.8	1.0-2.0
Fry Texture[12]	Harvest	4	3.0	3.0-3.0
	Storage	4	3.0	3.0-3.0

Refer to footnotes on page 46.

Table 31. Detailed data summary for Mountain Rose.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		8	383	288-449
Yield US #1 (Cwt/A)		8	262	150-354
% US #1		8	68	52-79
Yield >10 oz (Cwt/A)		8	23	4-63
Yield <4 oz (Cwt/A)		8	116	91-148
% External Defects[1]		8	1.1	0.0-2.4
% Hollow Heart[2]		8	0.0	0.0-0.0
% Stand		8	98	94-100
Emergence Uniformity		8	3.6	3.0-4.3
Vine Vigor[3]		8	2.7	2.0-3.0
Stems/Plant		8	3.7	2.9-4.9
Vine Size[4]		8	2.7	2.3-3.0
Vine Type[5]		8	2.9	2.5-3.0
Vine Maturity[6]		8	2.2	1.5-3.0
Blackspot[7]	Bud End	---	---	--- ---
	Stem End	---	---	--- ---
	Average	---		
Weight Loss[8]		11	4.1	1.3-6.3
Dormancy[9]		11	102	77-153
Enzymatic Browning[10]		---	---	--- ---
Specific Gravity		11	1.081	1.074-1.086
Fry Color[11]	Harvest	---	---	--- ---
	Storage	---	---	--- ---
Fry Texture[12]	Harvest	6	2.5	1.0-3.0
	Storage	6	2.7	2.0-3.0

Refer to footnotes on page 46.

Table 32. Detailed data summary for Purple Majesty.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		21	482	360-606
Yield US #1 (Cwt/A)		21	269	155-401
% US #1		21	55	40-72
Yield >10 oz (Cwt/A)		21	29	13-61
Yield <4 oz (Cwt/A)		21	210	122-326
% External Defects[1]		21	0.6	0.0-1.7
% Hollow Heart[2]		21	1.0	0.0-3.4
% Stand		21	97	92-100
Emergence Uniformity		21	3.5	2.5-4.0
Vine Vigor[3]		21	3.5	2.5-4.5
Stems/Plant		21	4.4	3.2-6.1
Vine Size[4]		21	3.1	2.3-4.0
Vine Type[5]		21	2.8	2.3-3.0
Vine Maturity[6]		21	2.2	1.5-3.0
Blackspot[7]	Bud End	---	---	--- ---
	Stem End	---	---	--- ---
	Average	---	---	
Weight Loss[8]		25	3.7	1.1-6.8
Dormancy[9]		25	62	42-85
Enzymatic Browning[10]		---	---	--- ---
Specific Gravity		25	1.086	1.076-1.094
Fry Color[11]	Harvest	---	---	--- ---
	Storage	---	---	--- ---
Fry Texture[12]	Harvest	20	2.5	1.0-4.0
	Storage	20	2.7	2.0-3.0

Refer to footnotes on page 46.

Table 33. Detailed data summary for Yukon Gold.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		35	407	321-513
Yield US #1 (Cwt/A)		35	363	293-444
% US #1		35	89	82-94
Yield >10 oz (Cwt/A)		35	157	81-248
Yield <4 oz (Cwt/A)		35	37	22-66
% External Defects[1]		35	1.6	0.0-4.4
% Hollow Heart[2]		35	0.5	0.0-2.2
% Stand		35	96	90-104
Emergence Uniformity		35	3.4	2.5-5.0
Vine Vigor[3]		35	3.6	3.0-4.3
Stems/Plant		35	2.5	1.6-3.8
Vine Size[4]		35	3.1	2.5-4.0
Vine Type[5]		35	2.7	2.0-3.5
Vine Maturity[6]		35	1.9	1.0-3.0
Blackspot[7]	Bud End	40	4.2	2.0-5.0
	Stem End	40	4.0	2.4-5.0
	Average	40	4.1	
Weight Loss[8]		40	2.2	1.0-4.3
Dormancy[9]		40	89	63-132
Enzymatic Browning[10]		40	4.4	3.4-5.0
Specific Gravity		40	1.086	1.079-1.093
Fry Color[11]	Harvest	40	1.8	1.0-4.0
	Storage	40	2.7	1.0-4.0
Fry Texture[12]	Harvest	40	3.0	1.0-4.0
	Storage	40	3.1	1.0-4.0

Refer to footnotes on page 46.

Table 34. Detailed data summary for CO00188-4W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	420	367-483
Yield US #1 (Cwt/A)		7	325	270-377
% US #1		7	77	70-86
Yield >10 oz (Cwt/A)		7	38	12-68
Yield <4 oz (Cwt/A)		7	85	39-133
% External Defects[1]		7	2.2	0.5-4.3
% Hollow Heart[2]		7	0.1	0.0-0.6
% Stand		7	98	95-100
Emergence Uniformity		7	3.6	3.0-4.8
Vine Vigor[3]		7	3.8	3.3-4.3
Stems/Plant		7	4.1	2.1-4.8
Vine Size[4]		7	3.0	2.8-3.3
Vine Type[5]		7	2.8	2.5-3.0
Vine Maturity[6]		7	2.5	2.0-3.0
Blackspot[7]	Bud End	13	4.7	3.8-5.0
	Stem End	13	3.3	1.4-4.6
	Average	13	4.0	
Weight Loss[8]		13	3.2	2.1-4.6
Dormancy[9]		13	98	84-123
Enzymatic Browning[10]		13	4.3	3.4-5.0
Specific Gravity		14	1.092	1.085-1.098
Chip Color[11]	40	14	3.4	2.0-4.5
	40R	14	2.8	1.5-4.0
	50	14	1.6	1.0-2.5
	50R	14	1.7	1.0-2.5

Refer to footnotes on page 46.

Table 35. Detailed data summary for CO00197-3W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	462	354-511
Yield US #1 (Cwt/A)		7	339	269-396
% US #1		7	73	59-82
Yield >10 oz (Cwt/A)		7	55	29-95
Yield <4 oz (Cwt/A)		7	119	81-183
% External Defects[1]		7	0.9	0.1-1.6
% Hollow Heart[2]		7	0.7	0.0-3.2
% Stand		7	96	93-100
Emergence Uniformity		7	3.6	3.0-4.3
Vine Vigor[3]		7	3.5	2.8-4.3
Stems/Plant		7	3.6	2.5-4.1
Vine Size[4]		7	3.2	2.5-4.0
Vine Type[5]		7	2.9	2.8-3.0
Vine Maturity[6]		7	2.2	1.5-3.0
Blackspot[7]	Bud End	13	3.8	2.4-4.6
	Stem End	13	2.7	1.1-3.8
	Average	13	3.2	
Weight Loss[8]		13	2.5	1.6-4.3
Dormancy[9]		13	83	69-109
Enzymatic Browning[10]		13	2.7	1.4-3.8
Specific Gravity		14	1.087	1.079-1.095
Chip Color[11]	40	14	4.0	3.0-5.0
	40R	14	3.5	1.5-4.5
	50	14	2.3	1.0-3.5
	50R	14	2.2	1.0-4.0

Refer to footnotes on page 46.

Table 36. Detailed data summary for CO00270-7W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		7	400	336-456
Yield US #1 (Cwt/A)		7	337	288-383
% US #1		7	84	80-92
Yield >10 oz (Cwt/A)		7	81	56-140
Yield <4 oz (Cwt/A)		7	56	24-76
% External Defects[1]		7	1.7	0.4-4.8
% Hollow Heart[2]		7	0.0	0.0-0.0
% Stand		7	95	93-99
Emergence Uniformity		7	3.3	3.0-3.5
Vine Vigor[3]		7	3.5	3.0-4.0
Stems/Plant		7	3.4	2.3-4.2
Vine Size[4]		7	3.0	2.3-3.3
Vine Type[5]		7	2.5	2.0-2.8
Vine Maturity[6]		7	2.6	2.0-3.0
Blackspot[7]	Bud End	13	4.3	3.1-4.9
	Stem End	13	3.8	2.6-4.5
	Average	13	4.1	
Weight Loss[8]		13	3.0	2.0-5.4
Dormancy[9]		13	64	48-94
Enzymatic Browning[10]		13	3.3	2.2-4.0
Specific Gravity		14	1.087	1.078-1.097
Chip Color[11]	40	14	3.4	1.5-4.5
	40R	14	2.6	1.0-4.0
	50	14	1.7	1.0-3.0
	50R	14	1.6	1.0-2.5

Refer to footnotes on page 46.

Table 37. Detailed data summary for AC01151-5W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		5	478	407-557
Yield US #1 (Cwt/A)		5	381	344-430
% US #1		5	80	67-90
Yield >10 oz (Cwt/A)		5	70	53-115
Yield <4 oz (Cwt/A)		5	85	45-134
% External Defects[1]		5	2.4	0.6-7.4
% Hollow Heart[2]		5	0.1	0.0-0.6
% Stand		5	97	96-99
Emergence Uniformity		5	3.2	2.8-4.0
Vine Vigor[3]		5	3.2	3.0-3.5
Stems/Plant		5	3.6	2.3-4.8
Vine Size[4]		5	3.3	3.0-3.5
Vine Type[5]		5	3.0	3.0-3.0
Vine Maturity[6]		5	3.0	3.0-3.0
Blackspot[7]	Bud End	9	4.3	3.2-5.0
	Stem End	9	2.9	1.7-4.1
	Average	9	3.6	
Weight Loss[8]		9	2.3	1.6-3.3
Dormancy[9]		9	99	70-127
Enzymatic Browning[10]		9	1.9	1.2-3.2
Specific Gravity		10	1.091	1.079-1.103
Chip Color[11]	40	10	4.3	3.0-5.0
	40R	10	3.6	2.5-4.5
	50	10	2.3	1.0-3.0
	50R	10	2.2	1.0-3.5

Refer to footnotes on page 46.

Table 38. Detailed data summary for CO02024-9W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		5	420	343-480
Yield US #1 (Cwt/A)		5	332	295-369
% US #1		5	80	69-89
Yield >10 oz (Cwt/A)		5	52	25-71
Yield <4 oz (Cwt/A)		5	80	39-146
% External Defects[1]		5	1.7	0.6-3.7
% Hollow Heart[2]		5	0.2	0.0-0.8
% Stand		5	97	96-98
Emergence Uniformity		5	3.3	3.3-3.5
Vine Vigor[3]		5	3.4	3.0-4.0
Stems/Plant		5	3.6	2.6-4.9
Vine Size[4]		5	3.1	2.8-3.5
Vine Type[5]		5	3.0	2.8-3.0
Vine Maturity[6]		5	3.0	3.0-3.0
Blackspot[7]	Bud End	9	4.2	3.8-4.5
	Stem End	9	2.6	1.6-3.4
	Average	9	3.4	
Weight Loss[8]		9	3.0	2.1-3.9
Dormancy[9]		9	101	84-134
Enzymatic Browning[10]		9	3.4	2.0-4.6
Specific Gravity		10	1.089	1.083-1.095
Chip Color[11]	40	10	3.7	3.0-4.5
	40R	10	2.6	1.5-4.0
	50	10	1.6	1.0-2.5
	50R	10	1.4	1.0-2.0

Refer to footnotes on page 46.

Table 39. Detailed data summary for CO02033-1W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		5	434	368-484
Yield US #1 (Cwt/A)		5	370	329-399
% US #1		5	85	79-89
Yield >10 oz (Cwt/A)		5	49	15-75
Yield <4 oz (Cwt/A)		5	60	36-92
% External Defects[1]		5	0.8	0.2-1.6
% Hollow Heart[2]		5	1.5	0.0-2.6
% Stand		5	98	96-101
Emergence Uniformity		5	3.5	3.0-4.0
Vine Vigor[3]		5	3.6	3.3-4.0
Stems/Plant		5	3.7	3.0-4.7
Vine Size[4]		5	3.3	3.0-3.8
Vine Type[5]		5	3.0	2.8-3.0
Vine Maturity[6]		5	2.7	2.0-3.0
Blackspot[7]	Bud End	9	3.3	2.7-4.2
	Stem End	9	3.0	2.0-4.4
	Average	9	3.2	
Weight Loss[8]		9	3.3	2.3-5.2
Dormancy[9]		9	118	70-167
Enzymatic Browning[10]		9	3.7	2.4-4.6
Specific Gravity		10	1.099	1.090-1.106
Chip Color[11]	40	10	3.4	2.5-4.0
	40R	10	2.7	1.5-3.5
	50	10	1.9	1.0-2.5
	50R	10	1.9	1.0-2.5

Refer to footnotes on page 46.

Table 40. Detailed data summary for CO02321-4W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		5	437	357-508
Yield US #1 (Cwt/A)		5	358	305-397
% US #1		5	82	78-85
Yield >10 oz (Cwt/A)		5	77	54-105
Yield <4 oz (Cwt/A)		5	65	43-95
% External Defects[1]		5	3.2	2.5-4.0
% Hollow Heart[2]		5	0.0	0.0-0.0
% Stand		5	97	95-99
Emergence Uniformity		5	4.0	3.5-4.8
Vine Vigor[3]		5	3.9	3.5-4.5
Stems/Plant		5	3.3	2.1-4.1
Vine Size[4]		5	3.3	3.0-3.5
Vine Type[5]		5	2.9	2.8-3.3
Vine Maturity[6]		5	2.8	2.5-3.0
Blackspot[7]	Bud End	9	4.6	4.0-5.0
	Stem End	9	3.7	3.0-4.4
	Average	9	4.1	
Weight Loss[8]		9	3.4	2.5-4.5
Dormancy[9]		9	81	63-106
Enzymatic Browning[10]		9	4.3	3.6-4.8
Specific Gravity		10	1.102	1.094-1.109
Chip Color[11]	40	10	3.7	2.5-4.5
	40R	10	2.6	2.0-3.0
	50	10	1.6	1.0-2.5
	50R	10	1.7	1.0-3.0

Refer to footnotes on page 46.

Table 41. Detailed data summary for AC03433-1W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		4	432	355-492
Yield US #1 (Cwt/A)		4	357	272-421
% US #1		4	82	77-86
Yield >10 oz (Cwt/A)		4	75	22-95
Yield <4 oz (Cwt/A)		4	50	41-64
% External Defects[1]		4	6.0	3.7-7.6
% Hollow Heart[2]		4	0.0	0.0-0.0
% Stand		4	96	95-98
Emergence Uniformity		4	3.0	2.8-3.3
Vine Vigor[3]		4	3.3	2.8-4.5
Stems/Plant		4	3.4	2.5-4.6
Vine Size[4]		4	3.8	3.5-4.0
Vine Type[5]		4	3.0	3.0-3.0
Vine Maturity[6]		4	3.4	3.0-4.0
Blackspot[7]	Bud End	7	4.8	4.3-5.0
	Stem End	7	3.8	2.5-4.7
	Average	7	4.3	
Weight Loss[8]		7	3.4	2.2-5.3
Dormancy[9]		7	82	70-101
Enzymatic Browning[10]		7	4.4	3.5-4.8
Specific Gravity		8	1.089	1.083-1.092
Chip Color[11]	40	8	3.2	2.5-4.0
	40R	8	2.7	2.0-3.5
	50	8	1.8	1.0-3.0
	50R	8	1.6	1.0-2.5

Refer to footnotes on page 46.

Table 42. Detailed data summary for CO03243-3W.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		4	470	449-501
Yield US #1 (Cwt/A)		4	410	385-438
% US #1		4	87	86-88
Yield >10 oz (Cwt/A)		4	98	87-113
Yield <4 oz (Cwt/A)		4	52	46-60
% External Defects[1]		4	1.8	0.6-2.8
% Hollow Heart[2]		4	0.4	0.0-0.7
% Stand		4	98	97-99
Emergence Uniformity		4	3.8	3.5-4.3
Vine Vigor[3]		4	3.7	2.8-5.0
Stems/Plant		4	2.9	2.5-3.5
Vine Size[4]		4	4.1	3.8-4.3
Vine Type[5]		4	3.0	3.0-3.0
Vine Maturity[6]		4	3.1	3.0-3.3
Blackspot[7]	Bud End	7	4.1	3.4-4.5
	Stem End	7	3.4	2.9-3.9
	Average	7	3.8	
Weight Loss[8]		7	3.3	2.3-4.3
Dormancy[9]		7	81	63-101
Enzymatic Browning[10]		7	3.3	2.4-4.2
Specific Gravity		8	1.089	1.083-1.095
Chip Color[11]	40	8	3.6	2.5-4.5
	40R	8	2.9	2.5-4.0
	50	8	1.9	1.0-3.0
	50R	8	1.7	1.0-3.0

Refer to footnotes on page 46.

Table 43. Detailed data summary for Atlantic.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		43	460	307-597
Yield US #1 (Cwt/A)		43	398	265-512
% US #1		43	87	76-93
Yield >10 oz (Cwt/A)		43	146	58-290
Yield <4 oz (Cwt/A)		43	50	19-109
% External Defects[1]		43	2.5	0.1-9.1
% Hollow Heart[2]		43	4.8	0.2-16.4
% Stand		43	96	88-100
Emergence Uniformity		37	3.7	3.0-4.3
Vine Vigor[3]		37	3.5	2.8-4.3
Stems/Plant		43	3.2	2.2-4.9
Vine Size[4]		37	3.2	2.2-4.0
Vine Type[5]		37	3.0	2.8-3.8
Vine Maturity[6]		43	3.2	2.8-4.0
Blackspot[7]	Bud End	59	3.2	1.8-5.0
	Stem End	59	2.7	1.4-4.3
	Average	60	3.0	
Weight Loss[8]		60	4.4	1.1-7.9
Dormancy[9]		57	84	56-119
Enzymatic Browning[10]		58	4.5	3.8-5.0
Specific Gravity		61	1.098	1.083-1.120
Chip Color[11]	40	61	4.0	2.0-5.0
	40R	61	3.5	1.5-5.0
	50	61	2.6	1.0-4.0
	50R	61	2.6	1.0-5.5

Refer to footnotes on page 46.

Table 44. Detailed data summary for Chipeta.

Variable		# Trials	Mean	Range
Total Yield (Cwt/A)		40	538	399-757
Yield US #1 (Cwt/A)		40	456	306-606
% US #1		40	84	71-90
Yield >10 oz (Cwt/A)		40	167	52-388
Yield <4 oz (Cwt/A)		40	54	22-119
% External Defects[1]		40	5.2	1.1-13.0
% Hollow Heart[2]		40	0.6	0.0-4.0
% Stand		40	98	94-100
Emergence Uniformity		33	3.7	3.0-5.0
Vine Vigor[3]		33	3.9	3.0-5.0
Stems/Plant		39	3.5	2.0-4.9
Vine Size[4]		33	4.5	4.0-5.0
Vine Type[5]		33	3.1	2.5-4.0
Vine Maturity[6]		40	3.3	3.0-4.0
Blackspot[7]	Bud End	55	3.9	2.2-5.0
	Stem End	55	3.7	1.4-4.9
	Average	57	3.8	
Weight Loss[8]		57	3.2	1.0-8.0
Dormancy[9]		53	103	70-153
Enzymatic Browning[10]		54	4.0	2.8-5.0
Specific Gravity		57	1.090	1.073-1.107
Chip Color[11]	40	57	4.5	3.0-5.0
	40R	57	3.8	1.5-5.0
	50	57	2.6	1.0-4.0
	50R	57	2.3	1.0-4.0

Refer to footnotes on page 46.

Footnotes for Tables 2-44:

[1]Percent external defects based on the proportion of the total sample weight with significant defects.

[2]Percent hollow heart calculated as follows: (Weight of tubers >10 ounces with defects/total sample weight) x 100.

[3]Vine vigor is rated on a 1 to 5 scale, with 5 indicating very vigorous vines.

[4]Vine size is rated on a 1 to 5 scale, with 5 indicating very large vines.

[5]Vine maturity is rated on the following basis: 1=very early; 2=early; 3=medium; 4=late; and 5=very late.

[6]Blackspot was rated on a 1 to 5 scale, with 5 indicating no discoloration.

[7]Tubers were stored at 45F for approximately 3 months.

[8]Days from harvest to first visible growth. Tubers were stored at 45F.

[9]Degree of darkening rated at 60 minutes after slicing fresh lengthwise. Rated on a 1 to 5 scale, with 5 indicating no discoloration.

[10]Chip color was rated using the Snack Food Association 1-5 scale. Ratings of $\leq$2.0 are acceptable. Reconditioned samples were stored at 60F for three weeks. Fry color was rated on a 0 to 4 scale, with 0 being the lightest or best color. Color ratings of $\leq$2.0 are acceptable.

[11]Fry texture was rated on a 1 to 5 scale, with 5 indicating the cooked flesh was dry and mealy and 1 representing a soggy, wet texture.

Figure 1. Photographs of advanced selections.

Figure 1 (cont'd). Photographs of advanced selections.

Figure 1 (cont'd). Photographs of advanced selections.

Figure 1 (cont'd). Photographs of advanced selections.

Figure 1 (cont'd). Photographs of advanced selections.