

**Colorado
Advanced Potato Selections**

Data Summary

December 13, 2001

Prepared for the 2001 Clonal Evaluation Meeting

David G. Holm

San Luis Valley Research Center
Colorado State University



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Table 1. Summary comparison of advanced selections and named cultivars for yield, grade, maturity, specific gravity, and grade defects - 2001. Advanced selections that may be released for grower evaluation in 2001 are highlighted.

Clone	Usage ¹	# Trials	Total Yield (Cwt/A)	% US #1	Vine Maturity ²	Specific Gravity	% External Defects ³	% Hollow Heart ⁴
Russets								
CO85026-4RU	FM	12	376	88.5	3.5	1.085	3.3	0.0
AC87084-3RU	Dual	8	509	89.2	3.4	1.093	2.8	0.3
AC87079-3RU	FM	7	432	81.9	2.8	1.091	1.6	2.3
AC87138-4RU	Dual	7	495	77.2	3.2	1.087	3.2	1.1
AC89536-5RU	FM	6	496	82.1	3.2	1.083	2.9	0.3
AC91014-2RU	Dual	5	407	74.6	2.9	1.090	2.2	1.3
AC92009-2RU	FM	4	345	89.5	3.1	1.090	1.1	0.0
CO92027-2RU	Dual	4	354	72.6	3.3	1.086	0.2	0.7
CO92077-2RU	FM	4	387	75.1	2.8	1.075	0.9	0.1
NDC5372-1RU	Fry	4	421	74.8	3.1	1.081	2.8	0.1
TC1675-1RU	Fry	4	418	73.0	3.2	1.087	3.8	0.2
Centennial Russet	FM	35	294	77.4	3.0	1.080	0.8	0.3
Russet Norkotah	FM	39	355	83.8	1.8	1.077	2.1	0.4
Russet Nugget	Dual	40	410	79.2	3.8	1.091	1.6	0.2
Reds								
CO86218-2R	FM	12	423	81.2	3.0	1.076	1.6	0.2
DT6063-1R	FM	8	459	85.7	2.8	1.081	2.9	0.4
CO89097-2R	FM	7	497	83.0	2.9	1.080	2.9	0.3
NDC5281-2R	FM	4	386	46.5	2.1	1.087	0.8	0.0
Sangre	FM	21	460	85.6	3.0	1.072	1.6	1.0
Chippers								
BC0894-2W	Chip	11	389	83.1	2.3	1.079	1.3	0.0
AC87340-2W	Chip	7	477	78.5	3.3	1.082	0.9	0.3
AC89653-3W	Chip	6	507	73.6	3.1	1.088	0.6	0.2
Atlantic	Chip	19	435	86.5	3.2	1.096	2.5	4.2
Chipeta	Chip	19	497	82.6	3.3	1.088	5.8	0.4

¹ FM=fresh market; Fry=french fry; Dual= indicates a clone with both fresh market and processing potential.

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. Clone: **CO85026-4RU** (Fremont Russet)
 Usage: Fresh Market
 Parents: Century Russet x WNC630-2

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	12	376	295-422	
Yield US #1 (Cwt/A)	12	333	254-384	
% US #1	12	88.5	82-93	
Yield >10 oz (Cwt/A)	12	108	37-157	
Yield <4 oz (Cwt/A)	12	31	9-64	
% External Defects ¹	12	3.3	0.4-10.0	
% Hollow Heart ²	12	0.0	0.0-0.0	
% Stand	12	98	96-100	
Emergence Uniformity	10	3.4	3.0-3.8	
Vine Vigor ³	10	2.3	2.0-3.0	
Stems/Plant	12	2.5	1.8-2.9	
Vine Size ⁴	10	3.0	1.8-4.0	
Vine Maturity ⁵	12	3.5	3.2-4.0	
Blackspot ⁶	Bud End	11	3.7	24-5.0
	Stem End	11	3.3	1.8-4.8
	Average	11	3.5	-
Weight Loss ⁷	11	3.5	2.3-5.0	
Dormancy ⁸	11	82	64-95	
Enzymatic Browning ⁹	11	4.0	3.0-4.8	
Specific Gravity	11	1.085	1.075-1.096	
Fry Color ¹⁰	Harvest	11	2.4	1.0-4.0
	Storage	11	3.2	2.0-4.0
Fry Texture ¹¹	Harvest	11	2.6	1.0-4.0
	Storage	9	2.5	1.0-3.0

Refer to footnotes on page 26.

Table 3. Clone: **AC87084-3RU**
 Usage: Dual
 Parents: A7979-28 x A8292-2

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	8	509	440-577	
Yield US #1 (Cwt/A)	8	455	335-530	
% US #1	8	89.2	76.2-94.3	
Yield >10 oz (Cwt/A)	8	189	63-271	
Yield <4 oz (Cwt/A)	8	40	18-70	
% External Defects ¹	8	2.8	0.5-7.9	
% Hollow Heart ²	8	0.3	0.0-1.9	
% Stand	8	97	93-98	
Emergence Uniformity	8	3.4	3.0-4.2	
Vine Vigor ³	8	3.8	3.3-4.2	
Stems/Plant	8	4.3	2.7-5.2	
Vine Size ⁴	8	4.4	4.0-5.0	
Vine Maturity ⁵	8	3.4	3.0-4.0	
Blackspot ⁶	Bud End	8	3.0	1.8-4.6
	Stem End	8	3.3	1.9-4.9
	Average	8	3.2	
Weight Loss ⁷	8	5.3	4.1-7.6	
Dormancy ⁸	8	75	68-83	
Enzymatic Browning ⁹	8	1.9	1.2-3.4	
Specific Gravity	8	1.093	1.086-1.101	
Fry Color ¹⁰	Harvest	8	1.9	1.0-2.0
	Storage	8	2.4	2.0-3.0
Fry Texture ¹¹	Harvest	8	3.8	3.0-4.0
	Storage	8	3.8	3.0-4.0

Refer to footnotes on page 26.

Table 4. Clone: **AC87079-3RU**
Usage: Fresh Market
Parents: A7979-28 x A8341-5

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	7	432	351-509	
Yield US #1 (Cwt/A)	7	358	233-448	
% US #1	7	81.9	66.1-90.9	
Yield >10 oz (Cwt/A)	7	108	13-219	
Yield <4 oz (Cwt/A)	7	68	39-116	
% External Defects ¹	7	1.6	0.5-4.7	
% Hollow Heart ²	7	2.3	0.0-6.0	
% Stand	7	96	86-100	
Emergence Uniformity	7	3.4	2.8-4.8	
Vine Vigor ³	7	3.9	2.5-4.8	
Stems/Plant	7	3.3	2.4-3.8	
Vine Size ⁴	7	3.6	3.0-4.0	
Vine Maturity ⁵	7	2.9	2.0-3.0	
Blackspot ⁶	Bud End	7	4.2	3.2-5.0
	Stem End	7	3.8	2.8-4.7
	Average	7	4.0	
Weight Loss ⁷	7	5.3	4.5-5.9	
Dormancy ⁸	7	86	71-114	
Enzymatic Browning ⁹	7	4.1	3.4-5.0	
Specific Gravity	7	1.091	1.083-1.098	
Fry Color ¹⁰	Harvest	7	2.0	1.0-3.0
	Storage	7	2.7	2.0-3.0
Fry Texture ¹¹	Harvest	7	3.6	2.0-4.0
	Storage	7	3.4	3.0-4.0

Refer to footnotes on page 26.

Table 5. Clone: **AC87138-4RU**
Usage: Dual
Parents: A81323-6 x Russet Norkotah

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	7	495	435-562	
Yield US #1 (Cwt/A)	7	383	231-496	
% US #1	7	77.2	52.6-89.0	
Yield >10 oz (Cwt/A)	7	107	17-188	
Yield <4 oz (Cwt/A)	7	96	47-182	
% External Defects ¹	7	3.2	0.4-5.6	
% Hollow Heart ²	7	1.1	0.0-3.0	
% Stand	7	98	94-100	
Emergence Uniformity	7	3.2	2.8-3.5	
Vine Vigor ³	7	3.1	2.5-3.5	
Stems/Plant	7	4.7	3.2-5.9	
Vine Size ⁴	7	3.5	3.0-4.0	
Vine Maturity ⁵	7	3.2	3.0-3.5	
Blackspot ⁶	Bud End	7	3.6	2.3-4.9
	Stem End	7	3.1	1.8-4.7
	Average	7	3.3	
Weight Loss ⁷	7	5.0	3.7-6.1	
Dormancy ⁸	7	95	85-121	
Enzymatic Browning ⁹	7	2.7	1.6-3.6	
Specific Gravity	7	1.087	1.081-1.094	
Fry Color ¹⁰	Harvest	7	1.4	1.0-2.0
	Storage	7	1.7	1.0-2.0
Fry Texture ¹¹	Harvest	7	3.0	1.0-4.0
	Storage	7	3.1	2.0-4.0

Refer to footnotes on page 26.

Table 6. Clone: **AC89536-5RU**
 Usage: Fresh Market
 Parents: Butte x A8469-5

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	6	496	367-683	
Yield US #1 (Cwt/A)	6	413	255-603	
% US #1	6	82.1	69.2-89.5	
Yield >10 oz (Cwt/A)	6	117	14-246	
Yield <4 oz (Cwt/A)	6	71	50-87	
% External Defects ¹	6	2.9	0.7-8.7	
% Hollow Heart ²	6	0.3	0.0-0.8	
% Stand	6	99	97-100	
Emergence Uniformity	6	3.6	3.0-4.0	
Vine Vigor ³	6	3.1	2.0-3.8	
Stems/Plant	6	3.0	2.0-3.6	
Vine Size ⁴	6	3.9	3.5-4.5	
Vine Maturity ⁵	6	3.2	3.0-3.5	
Blackspot ⁶	Bud End	6	4.7	4.2-5.0
	Stem End	6	4.6	3.0-5.0
	Average	6	5.0	
Weight Loss ⁷	6	5.5	4.0-6.9	
Dormancy ⁸	6	87	77-106	
Enzymatic Browning ⁹	6	3.8	3.2-4.2	
Specific Gravity	6	1.083	1.079-1.089	
Fry Color ¹⁰	Harvest	6	2.7	2.0-4.0
	Storage	6	3.3	3.0-4.0
Fry Texture ¹¹	Harvest	6	2.7	2.0-4.0
	Storage	6	2.8	2.0-3.0

Refer to footnotes on page 26.

Table 7. Clone: **AC91014-2RU**
 Usage: Dual
 Parents: A84180-8 x A8519-4

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	5	398	356-448	
Yield US #1 (Cwt/A)	5	299	227-356	
% US #1	5	74.6	62.2-87.8	
Yield >10 oz (Cwt/A)	5	43	15-77	
Yield <4 oz (Cwt/A)	5	90	47-132	
% External Defects ¹	5	2.2	0.6-4.4	
% Hollow Heart ²	5	1.3	0.0-4.4	
% Stand	5	98	97-98	
Emergence Uniformity	5	3.7	3.5-4.0	
Vine Vigor ³	5	3.1	3.0-3.3	
Stems/Plant	5	4.8	3.0-6.4	
Vine Size ⁴	5	2.9	2.5-3.0	
Vine Maturity ⁵	5	2.9	2.5-3.3	
Blackspot ⁶	Bud End	5	3.7	2.7-4.8
	Stem End	5	3.4	2.7-3.8
	Average	5	3.5	
Weight Loss ⁷	5	5.5	3.8-6.4	
Dormancy ⁸	5	94	85-104	
Enzymatic Browning ⁹	5	4.0	3.2-4.8	
Specific Gravity	5	1.090	1.084-1.099	
Fry Color ¹⁰	Harvest	5	1.4	1.0-2.0
	Storage	5	2.0	1.0-3.0
Fry Texture ¹¹	Harvest	5	3.8	3.0-4.0
	Storage	5	4.0	4.0-4.0

Refer to footnotes on page 26.

Table 8. Clone: **AC92009-2RU**
 Usage: Fresh
 Parents: A8343-12 x A8784-3

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	4	345	332-365	
Yield US #1 (Cwt/A)	4	309	290-330	
% US #1	4	89.5	86.4-93.3	
Yield >10 oz (Cwt/A)	4	84	63-111	
Yield <4 oz (Cwt/A)	4	67	44-79	
% External Defects ¹	4	1.1	0.0-2.4	
% Hollow Heart ²	4	0.0		
% Stand	4	98	97-99	
Emergence Uniformity	4	3.1	2.5-3.5	
Vine Vigor ³	4	2.2	2.0-2.5	
Stems/Plant	4	1.9	1.4-2.4	
Vine Size ⁴	4	3.6	3.0-4.0	
Vine Maturity ⁵	4	3.1	3.0-3.5	
Blackspot ⁶	Bud End	4	4.7	3.8-5.0
	Stem End	4	4.4	2.8-5.0
	Average	4	4.2	
Weight Loss ⁷	4	4.8	4.0-5.4	
Dormancy ⁸	4	136	113-171	
Enzymatic Browning ⁹	4	4.2	3.4-4.8	
Specific Gravity	4	1.090	1.081-1.102	
Fry Color ¹⁰	Harvest	4	2.0	1.0-3.0
	Storage	4	2.5	2.0-3.0
Fry Texture ¹¹	Harvest	4	3.3	3.0-4.0
	Storage	4	3.3	3.0-4.0

Refer to footnotes on page 26.

Table 9. Clone: **CO92027-2RU**
 Usage: Dual
 Parents: AC83172-1 x CO85026-4

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	4	354	331 - 394	
Yield US #1 (Cwt/A)	4	258	226 - 291	
% US #1	4	73	64 - 81	
Yield >10 oz (Cwt/A)	4	34	8 - 71	
Yield <4 oz (Cwt/A)	4	95	60 - 122	
% External Defects ¹	4	0.2	0.0 - 0.4	
% Hollow Heart ²	4	0.7	0.3 - 1.9	
% Stand	4	98	97 - 100	
Emergence Uniformity	4	3.1	2.5 - 3.5	
Vine Vigor ³	4	2.9	2.8 - 3.0	
Stems/Plant	4	3.6	2.3 - 5.4	
Vine Size ⁴	4	2.7	2.3 - 3.0	
Vine Maturity ⁵	4	3.3	2.8 - 4.0	
Blackspot ⁶	Bud End	4	4.3	3.7 - 4.9
	Stem End	4	4.1	3.1 - 4.7
	Average	4	4.2	
Weight Loss ⁷	4	6.1	4.2 - 6.9	
Dormancy ⁸	4	78	70 - 87	
Enzymatic Browning ⁹	4	4.0	3.0 - 4.6	
Specific Gravity	4	1.086	1.079 - 1.099	
Fry Color ¹⁰	Harvest	4	1.8	1.0 - 3.0
	Storage	4	2.3	1.0 - 4.0
Fry Texture ¹¹	Harvest	4	3.5	2.0 - 2.0
	Storage	4	3.3	4.0 - 4.0

Refer to footnotes on page 26.

Table 10. Clone: **CO92077-2RU**
 Usage: Fresh Market
 Parents: Russet Legend x Silverton Russet

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	4	387	350-468	
Yield US #1 (Cwt/A)	4	290	252-348	
% US #1	4	75	72-77	
Yield >10 oz (Cwt/A)	4	48	26-63	
Yield <4 oz (Cwt/A)	4	93	75-117	
% External Defects ¹	4	0.9	0.1-2.3	
% Hollow Heart ²	4	0.1	0.0-0.3	
% Stand	4	95	90-99	
Emergence Uniformity	4	2.8	2.5-3.0	
Vine Vigor ³	4	2.3	2.0-2.8	
Stems/Plant	4	2.4	1.7-3.1	
Vine Size ⁴	4	2.8	2.5-3.0	
Vine Maturity ⁵	4	2.8	2.5-3.0	
Blackspot ⁶	Bud End	4	4.7	4.1-5.0
	Stem End	4	4.5	3.7-5.0
	Average	4	4.6	
Weight Loss ⁷	4	4.2	3.4-4.9	
Dormancy ⁸	4	81	70-101	
Enzymatic Browning ⁹	4	3.0	1.4-4.2	
Specific Gravity	4	1.075	1.069-1.086	
Fry Color ¹⁰	Harvest	4	2.0	1.0-3.0
	Storage	4	2.8	2.0-4.0
Fry Texture ¹¹	Harvest	4	3.0	3.0-3.0
	Storage	4	2.3	2.0-3.0

Refer to footnotes on page 26.

Table 11. Clone: **NDC5372-1RU**
Usage: Dual
Parents: ND4093-4RU x AO84275-3

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	4	421	388-462	
Yield US #1 (Cwt/A)	4	315	292-334	
% US #1	4	75	70-79	
Yield >10 oz (Cwt/A)	4	73	57-100	
Yield <4 oz (Cwt/A)	4	95	77-125	
% External Defects ¹	4	2.8	1.1-4.6	
% Hollow Heart ²	4	0.1	0.0-0.3	
% Stand	4	98	96-100	
Emergence Uniformity	4	3.1	2.8-3.5	
Vine Vigor ³	4	2.8	2.5-3.0	
Stems/Plant	4	3.6	2.4-4.6	
Vine Size ⁴	4	3.0	3.0-3.0	
Vine Maturity ⁵	4	3.1	3.0-3.5	
Blackspot ⁶	Bud End	4	4.8	4.5-5.0
	Stem End	4	3.0	1.9-4.8
	Average	4	3.9	
Weight Loss ⁷	4	5.9	4.0-6.6	
Dormancy ⁸	4	102	91-115	
Enzymatic Browning ⁹	4	3.1	2.0-4.0	
Specific Gravity	4	1.081	1.075-1.092	
Fry Color ¹⁰	Harvest	4	1.3	1.0-2.0
	Storage	4	1.8	1.0 3.0
Fry Texture ¹¹	Harvest	4	2.3	2.0-3.0
	Storage	4	2.3	2.0-3.0

Refer to footnotes on page 26.

Table 12. Clone: **TC1675-1RU**
Usage: Dual
Parents: Russet Nugget x Lemhi Russet

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	4	418	409-425	
Yield US #1 (Cwt/A)	4	306	275-330	
% US #1	4	73.0	64.5-80.4	
Yield >10 oz (Cwt/A)	4	61	35-99	
Yield <4 oz (Cwt/A)	4	96	68-136	
% External Defects ¹	4	3.8	2.7-5.3	
% Hollow Heart ²	4	0.2	0.0-0.7	
% Stand	4	98	95-100	
Emergence Uniformity	4	3.1	2.8-3.5	
Vine Vigor ³	4	3.0	2.8-3.3	
Stems/Plant	4	3.6	2.5-4.9	
Vine Size ⁴	4	3.2	3.0-3.8	
Vine Maturity ⁵	4	3.2	3.0-3.5	
Blackspot ⁶	Bud End	4	4.5	4.2-4.9
	Stem End	4	3.8	2.8-4.9
	Average	4	4.2	
Weight Loss ⁷	4	2.9	2.4-3.6	
Dormancy ⁸	4	109	105-115	
Enzymatic Browning ⁹	4	3.3	2.8-3.6	
Specific Gravity	4	1.087	1.080-1.096	
Fry Color ¹⁰	Harvest	4	1.0	1.0-1.0
	Storage	4	1.8	1.0-2.0
Fry Texture ¹¹	Harvest	4	3.8	3.0-4.0
	Storage	4	3.8	3.0-4.0

Refer to footnotes on page 26.

Table 13. Clone: **Centennial Russet**
 Usage: **Fresh Market**
 Parents: **Nooksack x W12-3**

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	35	294	177-392	
Yield US #1 (Cwt/A)	35	229	129-320	
% US #1	35	77.4	61.9-89.0	
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 Maturity ⁵	15	3.0	2.5-3.5	
Blackspot ⁶	Bud End	33	4.8	3.7-5.0
	Stem End	33	4.8	4.2-5.0
	Average	36	4.8	
Weight Loss ⁷	36	6.7	3.7-9.0	
Dormancy ⁸	29	88	57-123	
Enzymatic Browning ⁹	31	4.0	3.2-5.0	
Specific Gravity	43	1.080	1.069-1.090	
Fry Color ¹⁰	Harvest	35	3.7	3.0-4.0
	Storage	35	3.9	3.0-4.0
Fry Texture ¹¹	Harvest	35	2.4	1.0-4.0
	Storage	35	2.2	1.0-3.0

Refer to footnotes on page 26.

Table 14. Clone: **Russet Norkotah**
 Usage: Fresh Market
 Parents: ND9687-5 x ND9526-4

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	39	355	174-451	
Yield US #1 (Cwt/A)	39	298	144-391	
% US #1	39	83.8	77.8-92.2	
Yield >10 oz (Cwt/A)	39	96	23-212	
Yield <4 oz (Cwt/A)	39	49	22-83	
% External Defects ¹	39	2.1	0.4-5.3	
% Hollow Heart ²	39	0.4	0.0-2.8	
% Stand	39	98	88-100	
Emergence Uniformity	30	3.1	1.0-4.0	
Vine Vigor ³	30	3.0	1.5-4.0	
Stems/Plant	35	3.6	2.5-4.8	
Vine Size ⁴	32	2.3	1.0-3.3	
Vine Maturity ⁵	39	1.8	1.0-3.0	
Blackspot ⁶	Bud End	33	4.8	2.9-5.0
	Stem End	33	4.6	3.4-5.0
	Average	33	4.5	
Weight Loss	34	4.5	1.0-7.1	
Dormancy ⁸	33	98	82-116	
Enzymatic Browning ⁹	33	3.3	2.2-4.8	
Specific Gravity	35	1.077	1.066-1.091	
Fry Color ¹⁰	Harvest	34	2.3	1.0-4.0
	Storage	34	2.4	1.0-4.0
Fry Texture ¹¹	Harvest	34	2.6	2.0-4.0
	Storage	34	2.8	2.0-4.0

Refer to footnotes on page 26.

Table 15. Clone: **Russet Nugget**
 Usage: Dual
 Parents: Krantz x AND71609-1RU

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	40	410	284-557	
Yield US #1 (Cwt/A)	40	327	225-518	
% US #1	40	79.2	68.0-93.0	
Yield >10 oz (Cwt/A)	40	78	11-258	
Yield <4 oz (Cwt/A)	40	77	30-133	
% External Defects ¹	40	1.6	0.1-4.3	
% Hollow Heart ²	40	0.2	0.0-1.2	
% Stand	40	98	96-100	
Emergence Uniformity	30	3.3	3.0-4.0	
Vine Vigor ³	30	3.2	3.0-4.0	
Stems/Plant	36	3.3	2.1-5.1	
Vine Size ⁴	30	4.2	3.8-5.0	
Vine Maturity ⁵	40	3.8	3.0-4.3	
Blackspot ⁶	Bud End	39	4.8	3.6-5.0
	Stem End	39	4.7	3.7-5.0
	Average	42	4.7	
Weight Loss ⁷	42	3.7	1.7-5.5	
Dormancy ⁸	37	94	57-116	
Enzymatic Browning ⁹	38	4.0	3.2-4.6	
Specific Gravity	43	1.090	1.072-1.110	
Fry Color ¹⁰	Harvest	42	1.7	0.5-3.0
	Storage	42	2.2	1.0-3.0
Fry Texture ¹¹	Harvest	42	4.0	2.0-5.0
	Storage	42	3.9	3.0-5.0

Refer to footnotes on page 26.

Table 16. Clone: **CO86218-2R** (Durango Red)
 Usage: Fresh Market
 Parents: Sangre x NDTX9-1068-11R

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	12	423	290-501	
Yield US #1 (Cwt/A)	12	344	226-437	
% US #1	12	81.2	73.1-90.3	
Yield >10 oz (Cwt/A)	12	99	45-189	
Yield <4 oz (Cwt/A)	12	72	32-119	
% External Defects ¹	12	1.6	0.3-4.4	
% Hollow Heart ²	12	0.2	0.0-1.9	
% Stand	12	95	88-99	
Emergence Uniformity	11	3.2	2.8-3.8	
Vine Vigor ³	11	2.3	2.0-3.0	
Stems/Plant	12	2.9	2.0-3.4	
Vine Size ⁴	11	3.0	2.0-4.0	
Vine Maturity ⁵	12	3.0	2.5-3.8	
Blackspot ⁶	Bud End	9	4.2	2.9-5.0
	Stem End	9	4.2	3.1-4.9
	Average	9	4.2	
Weight Loss ⁷	9	4.5	3.8-5.4	
Dormancy ⁸	9	80	68-91	
Enzymatic Browning ⁹	9	2.6	1.2-4.0	
Specific Gravity	10	1.076	1.071-1.082	
Fry Color ¹⁰	Harvest	9	2.8	2.0-3.0
	Storage	9	3.2	2.0-4.0
Fry Texture ¹¹	Harvest	9	2.8	2.0-4.0
	Storage	9	2.7	2.0-3.0

Refer to footnotes on page 26.

Table 17. Clone: **DT6063-1R (Cherry Red)**
 Usage: Fresh Market
 Parents: ND4750-2R x LA1858

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	8	459	363-538	
Yield US #1 (Cwt/A)	8	4394	307-462	
% US #1	8	85.7	78.0-90.7	
Yield >10 oz (Cwt/A)	8	137	79-192	
Yield <4 oz (Cwt/A)	8	51	30-89	
% External Defects ¹	8	2.9	2.0-5.5	
% Hollow Heart ²	8	0.4	0.0-1.1	
% Stand	8	98	96-100	
Emergence Uniformity	8	3.3	2.8-3.8	
Vine Vigor ³	8	3.3	2.8-3.8	
Stems/Plant	8	3.2	2.1-3.9	
Vine Size ⁴	8	3.4	3.0-4.0	
Vine Maturity ⁵	8	2.8	2.3-3.3	
Blackspot ⁶	Bud End	8	4.9	4.6-5.0
	Stem End	8	4.8	4.6-5.0
	Average	8	4.8	
Weight Loss ⁷	8	5.2	3.5-6.1	
Dormancy ⁸	8	77	64-88	
Enzymatic Browning ⁹	8	4.1	3.4-4.6	
Specific Gravity	8	1.081	1.077-1.088	
Fry Color ¹⁰	Harvest	8	2.7	2.0-3.0
	Storage	8	3.1	2.0-4.0
Fry Texture ¹¹	Harvest	8	2.6	2.0-3.0
	Storage	8	2.9	2.0-3.0

Refer to footnotes on page 26.

Table 18. Clone: **CO89097-2R**
 Usage: Fresh Market
 Parents: NDTX9-1068-11R x DT6063-1R

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	7	497	390-581	
Yield US #1 (Cwt/A)	7	414	310-527	
% US #1	7	83.0	75.6-90.7	
Yield >10 oz (Cwt/A)	7	139	69-249	
Yield <4 oz (Cwt/A)	7	67	46-98	
% External Defects ¹	7	2.9	0.2-6.5	
% Hollow Heart ²	7	0.3	0.0-0.8	
% Stand	7	97	95-100	
Emergence Uniformity	7	3.0	2.5-3.5	
Vine Vigor ³	7	2.9	2.2-3.0	
Stems/Plant	7	3.4	2.3-4.5	
Vine Size ⁴	7	3.5	3.0-4.0	
Vine Maturity ⁵	7	2.9	2.2-3.8	
Blackspot ⁶	Bud End	7	4.0	2.1-4.8
	Stem End	7	4.0	2.4-5.0
	Average	7	4.0	
Weight Loss ⁷	7	6.7	4.7-8.2	
Dormancy ⁸	7	66	54-78	
Enzymatic Browning ⁹	7	4.2	3.4-4.8	
Specific Gravity	7	1.080	1.071-1.086	
Fry Color ¹⁰	Harvest	7	2.6	2.0-3.0
	Storage	6	2.8	2.0-3.0
Fry Texture ¹¹	Harvest	7	2.9	2.0-4.0
	Storage	6	2.8	2.0-3.0

Refer to footnotes on page 26.

Table 19. Clone: **NDC5281-2R**
Usage: Fresh Market
Parents: ND3196-1R x ND2224-5R

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	4	386	321-452	
Yield US #1 (Cwt/A)	4	179	115-272	
% US #1	4	46.5	28.4-61.2	
Yield >10 oz (Cwt/A)	4	2	0-7	
Yield <4 oz (Cwt/A)	4	203	123-289	
% External Defects ¹	4	0.8	0.3-1.8	
% Hollow Heart ²	4	0.0	0.0-0.0	
% Stand	4	97	96-99	
Emergence Uniformity	4	3.4	3.3-3.8	
Vine Vigor ³	4	3.1	3.0-3.3	
Stems/Plant	4	4.8	2.9-6.4	
Vine Size ⁴	4	3.3	2.8-3.8	
Vine Maturity ⁵	4	2.1	1.3-3.0	
Blackspot ⁶	Bud End	4	3.7	2.7-4.7
	Stem End	4	3.5	2.9-4.2
	Average	4	3.6	
Weight Loss ⁷	4	8.4	6.1-10.0	
Dormancy ⁸	4	86	78-101	
Enzymatic Browning ⁹	4	1.5	1.0-2.4	
Specific Gravity	4	1.087	1.082-1.096	
Fry Color ¹⁰	Harvest	4	2.3	1.0-3.0
	Storage	4	2.8	2.0-4.0
Fry Texture ¹¹	Harvest	4	3.0	2.0-4.0
	Storage	4	2.8	2.0-3.0

Refer to footnotes on page 26.

Table 20. Clone: **Sangre**
 Usage: Fresh Market
 Parents: Viking x A6356-9

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	21	460	364-571	
Yield US #1 (Cwt/A)	21	395	305-497	
% US #1	21	85.6	72.2-92.8	
Yield >10 oz (Cwt/A)	21	129	35-319	
Yield <4 oz (Cwt/A)	21	58	30-117	
% External Defects ¹	21	1.6	0.0-5.7	
% Hollow Heart ²	21	1.0	0.0-8.2	
% Stand	21	97	92-100	
Emergence Uniformity	11	3.1	2.5-3.5	
Vine Vigor ³	11	2.5	1.8-3.0	
Stems/Plant	21	3.0	1.9-3.9	
Vine Size ⁴	11	3.8	3.0-4.0	
Vine Maturity ⁵	21	3.0	1.5-4.0	
Blackspot ⁶	Bud End	26	4.2	2.4-5.0
	Stem End	26	4.5	2.5-5.0
	Average	27	4.4	
Weight Loss ⁷	27	3.7	2.2-5.1	
Dormancy ⁸	23	92	71-109	
Enzymatic Browning ⁹	24	3.3	1.8-4.8	
Specific Gravity	27	1.072	1.059-1.081	
Fry Color ¹⁰	Harvest	26	3.2	1.0-4.0
	Storage	26	3.1	1.0-4.0
Fry Texture ¹¹	Harvest	26	2.5	2.0-4.0
	Storage	26	2.4	1.0-3.0

Refer to footnotes on page 26.

Table 21. Clone: **BC0894-2W**
 Usage: Chipping
 Parents: B9955-46 x B0159-42

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	11	389	330 - 471	
Yield US #1 (Cwt/A)	11	323	272 - 403	
% US #1	11	83.1	75.7 - 91.5	
Yield >10 oz (Cwt/A)	11	73	24 - 135	
Yield <4 oz (Cwt/A)	11	60	26 - 103	
% External Defects ¹	11	1.3	0.1 - 3.6	
% Hollow Heart ²	11	0.0		
% Stand	11	96	90 - 99	
Emergence Uniformity	10	3.0	2.2 - 3.8	
Vine Vigor ³	10	3.1	3.0 - 3.8	
Stems/Plant	10	2.9	2.3 - 3.8	
Vine Size ⁴	10	2.9	2.2 - 3.5	
Vine Maturity ⁵	11	2.3	1.2 - 2.8	
Blackspot ⁶	Bud End	16	4.7	3.6 - 5.0
	Stem End	16	4.1	2.6 - 5.0
	Average	16	4.4	
Weight Loss ⁷	16	5.2	3.4 - 12.9	
Dormancy ⁸	16	87	75 - 105	
Enzymatic Browning ⁹	16	3.4	1.4 - 4.4	
Specific Gravity	18	1.079	1.075 - 1.087	
Chip Color ¹⁰	40	17	3.2	2.0 - 4.5
	40R	17	2.5	1.0 - 4.0
	50	17	1.6	1.0 - 2.5
	50R	17	1.6	1.0 - 3.0

Refer to footnotes on page 26.

Table 22. Clone: **AC87340-2W**
Usage: Chipping
Parents: NDA2031-2 x Spartan Pearl

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	7	477	429-544	
Yield US #1 (Cwt/A)	7	375	305-464	
% US #1	7	78.5	66.4-86.1	
Yield >10 oz (Cwt/A)	7	77	26-120	
Yield <4 oz (Cwt/A)	7	97	55-149	
% External Defects ¹	7	.9	0.1-1.6	
% Hollow Heart ²	7	0.3	0.0-1.1	
% Stand	7	98	97-99	
Emergence Uniformity	7	3.6	3.0-4.0	
Vine Vigor ³	7	3.0	2.5-3.5	
Stems/Plant	7	3.6	2.6-4.8	
Vine Size ⁴	7	3.1	2.8-3.5	
Vine Maturity ⁵	7	3.3	3.0 -3.8	
Blackspot ⁶	Bud End	14	3.7	2.7-4.8
	Stem End	14	4.1	3.1-5.0
	Average	14	3.9	
Weight Loss ⁷	14	5.1	3.3-6.9	
Dormancy ⁸	14	74	49-93	
Enzymatic Browning ⁹	14	3.6	1.8-4.4	
Specific Gravity	14	1.082	1.075-1.094	
Chip Color ¹⁰	40	14	3.5	2.0-5.0
	40R	14	2.8	1.0-5.0
	50	14	1.5	1.0-2.5
	50R	14	1.5	1.0-2.5

Refer to footnotes on page 26.

Table 23. Clone: **AC89653-3W**
 Usage: Chipping
 Parents: NDA2031-2 x Spartan Pearl

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	6	507	450-611	
Yield US #1 (Cwt/A)	6	378	277-522	
% US #1	6	73.6	61.1-85.5	
Yield >10 oz (Cwt/A)	6	46	21-97	
Yield <4 oz (Cwt/A)	6	126	84-178	
% External Defects ¹	6	0.6	0.1-1.0	
% Hollow Heart ²	6	0.2	0.0-0.5	
% Stand	6	98	96-100	
Emergence Uniformity	6	3.6	3.0-4.0	
Vine Vigor ³	6	3.8	3.3-4.0	
Stems/Plant	6	4.2	3.2-5.5	
Vine Size ⁴	6	3.7	3.0-4.0	
Vine Maturity ⁵	6	3.1	2.8-3.3	
Blackspot ⁶	Bud End	12	4.4	3.8-5.0
	Stem End	12	4.0	3.0-4.8
	Average	12	4.2	
Weight Loss ⁷	12	5.8	4.3-9.1	
Dormancy ⁸	12	66	49-78	
Enzymatic Browning ⁹	12	4.5	3.4-4.8	
Specific Gravity	12	1.088	1.079-1.096	
Chip Color ¹⁰	40	12	3.9	2.5-5.0
	40R	12	3.7	2.5-5.0
	50	12	2.4	1.5-3.5
	50R	12	2.4	1.5-3.5

Refer to footnotes on page 26.

Table 24. Clone: **Atlantic**
Usage: **Chipping**
Parents: **Wauseon x B5141-6**

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	19	435	307-566	
Yield US #1 (Cwt/A)	19	376	265-491	
% US #1	19	86.5	79.0-93.2	
Yield >10 oz (Cwt/A)	19	134	58-290	
Yield <4 oz (Cwt/A)	19	47	22-96	
% External Defects ¹	19	2.5	0.1-8.3	
% Hollow Heart ²	19	4.2	0.3-16.4	
% Stand	19	97	93-99	
Emergence Uniformity	19	3.6	3.0-4.3	
Vine Vigor ³	19	3.6	3.0-4.0	
Stems/Plant	19	3.0	2.2-4.2	
Vine Size ⁴	19	3.1	2.2-4.0	
Vine Maturity ⁵	19	3.1	2.8-3.8	
Blackspot ⁶	Bud End	22	3.1	1.8-5.0
	Stem End	22	2.9	1.7-4.3
	Average	22	3.0	
Weight Loss ⁷	22	5.3	3.0-7.9	
Dormancy ⁸	20	90	64-116	
Enzymatic Browning ⁹	21	4.5	3.8-5.0	
Specific Gravity	25	1.096	1.083-1.120	
Chip Color ¹⁰	40	24	3.7	2.0-5.0
	40R	24	3.2	1.5-4.5
	50	24	2.5	1.0-3.5
	50R	24	2.2	1.0-3.5

Refer to footnotes on page 26.

Table 25. Clone: **Chipeta**
 Usage: Chipping
 Parents: WNC612-13 x Wischip

Variable	# Trials	Mean	Range	
Total Yield (Cwt/A)	19	497	399-626	
Yield US #1 (Cwt/A)	19	412	306-566	
% US #1	19	82.6	70.6-90.4	
Yield >10 oz (Cwt/A)	19	149	52-388	
Yield <4 oz (Cwt/A)	19	55	22-119	
% External Defects ¹	19	5.8	1.2-12.5	
% Hollow Heart ²	19	0.4	0.0-3.5	
% Stand	19	98	95-100	
Emergence Uniformity	15	3.3	3.0-3.8	
Vine Vigor ³	15	3.8	3.2-4.5	
Stems/Plant	18	3.6	2.5-4.9	
Vine Size ⁴	15	4.1	4.0-4.5	
Vine Maturity ⁵	19	3.3	3.0-4.0	
Blackspot ⁶	Bud End	22	4.0	2.7-5.0
	Stem End	22	3.9	2.2-4.9
	Average	24	4.0	
Weight Loss ⁷	23	3.9	2.2-5.3	
Dormancy ⁸	20	100	78-118	
Enzymatic Browning ⁹	21	3.7	2.8-5.0	
Specific Gravity	25	1.088	1.076-1.100	
Chip Color ¹⁰	40	24	4.4	3.0-5.0
	40R	24	3.6	2.0-5.0
	50	24	2.5	1.0-4.0
	50R	24	2.0	1.0-3.0

Refer to footnotes on page 26.

Footnotes

- ¹Percent external defects based on the proportion of the total sample weight with significant defects.
- ²Percent hollow heart calculated as follows: (Weight of tubers >10 ounces with defects/total sample weight) x 100.
- ³Vine vigor is rated on a 1 to 5 scale, with 5 indicating very vigorous vines.
- ⁴Vine size is rated on a 1 to 5 scale, with 5 indicating very large vines.
- ⁵Vine maturity is rated on the following basis: 1=very early; 2=early; 3=medium; 4=late; and 5=very late.
- ⁶Blackspot was rated on a 1 to 5 scale, with 5 indicating no discoloration.
- ⁷Tubers were stored at 45F for approximately 3 months.
- ⁸Days from harvest to first visible growth. Tubers were stored at 45F.
- ⁹Degree of darkening rated at 60 minutes after slicing fresh lengthwise. Rated on a 1 to 5 scale, with 5 indicating no discoloration.
- ¹⁰Chip color was rated using the Snack Food Association 1-5 scale. Ratings of ≤ 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 ≤ 2.0 are acceptable.
- ¹¹Fry 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.

Russet Selections



CO85026-4RU (Fremont Russet)



AC87084-3RU



AC87079-3RU



AC87138-4RU



AC89536-5RU



AC91014-2RU

Russet Selections (continued)



AC92009-2RU



ACO92027-2RU



CO92077-2RU



NDC5372-1



TC1675-1RU

Red Selections



CO86218-2R (Durango Red)



DT6063-1R (Cherry Red)



CO89097-2R



NDC5281-2R

Chipping Selections



BC0894-2W



AC87340-2W



AC89653-3W