UNIVERSITY OF CALIFORNIA INTERMOUNTAIN RESEARCH & EXTENSION CENTER RESEARCH PROGRESS

Number 122 **April 2, 2009**

Project Year: 2008

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Potato Variety Development

In 2008 the Intermountain Research & Extension Center (IREC) conducted three potato variety trials on the station grounds. The Western Regional and Southwest Regional Trials were combined into each of the following trials, a Russet Trial with 24 varieties, a Red/Specialty Trial with 48 varieties, and a Chipper Trial with 20 varieties. The experimental varieties were obtained from University and USDA potato breeders in Colorado, Idaho, Michigan, Oregon, and Texas.

Each trial was planted in a randomized complete block design with all entries replicated into four yield plots. The Red/Specialty and Chipper Trials were planted with 48 seed pieces in each plot and the Russet Trial was planted with 44 seed pieces in each plot. The seed pieces were planted with a custom built two row potato planter into plots with two 36" wide raised beds. A total of 368 plots were harvested at maturity for tuber yield and graded for size, internal, and external qualities. The planting dates, harvest dates, and seed spacing for each trial are listed below.

Trial	Planting Date	Harvest Date	Seed Spacing (inches)
Russet Trial	5/09/08	10/08/08	10.0"
Specialty Trial	5/09/08	10/06/08	9.0"
Chip Trial	5/13/08	10/07/08	9.0"

Each of the trials were managed using common commercial practices for irrigations and fertilizer applications, adjusted as appropriate for the different market classes. The seasonal weather was generally favorable for potato growth.

Results

Russet Trial

This year the experimental variety, AC99375-1RU, far out yielded all other varieties in total U.S. No. 1's with 523 cwt/A. This variety also performed well in tuber characteristics

with a good appearance, no hollow heart, and was the highest in specific gravity. Another standout variety was ATX9202-3RU which had a U.S. No. 1's yield of 486 cwt/A. This variety has a darker russet skin, medium set eye, excellent appearance and showed no hollow heart here at IREC.

A93157-6LS, also known as Premier Russet, excelled in our trial again as it has done for the last several years. This variety may become a standard variety grown in the Klamath Basin. 543 cwt/A was the overall yield for this variety and it did well in each of the tuber characteristic categories except for hollow heart. IREC has included this variety in it's trials for six years and this was the first year hollow heart has been an issue (40% in 8-12oz tubers). In a separate management trial, adjusting plant spacing, fertilizer rates and irrigation frequency had little impact on reducing hollow heart in the Premier Russet variety.

There was one light russeted variety, A97066-42LB, which yielded very well with 474 cwt/A in total U.S. No. 1's. This variety had no hollow heart and did well in specific gravity but was average in appearance. Each of the above varieties yielded better than the standard russet varieties. See Tables 1 and 2.

Red/Specialty Trial

The Red/Specialty Trial planted this year was our largest variety trial planted yet with an astounding 48 varieties. Only 13 experimental varieties from 2007 were repeated. There were 18 red skinned and white fleshed varieties, 2 with red skin and yellow flesh, 2 with red skin and red flesh, 11 with white skin and yellow flesh, 3 with purple skin and purple flesh, and 12 varieties with several different combinations of skin and flesh colors. See Table 3.

Starting with the largest category of red skin and white flesh varieties, AOTX93483-1R led the pack with an impressive overall yield of 735 cwt/A and yielded 702 cwt/A of total U.S. No. 1's. This variety is a medium tone of red skin, medium eye depth, and has an average appearance. A large percentage of the yield came from the greater than 10 ounce size category. This variety may need to be planted on a tighter spacing and/or harvested earlier in the season to avoid excessive tuber size. Next in line were NDTX4784-7R and AOTX91861-4R with total overall yields of 593 cwt/A and 585 cwt/A respectively. Both varieties were similar in the tuber characteristics having a round shape, medium set eyes, and low specific gravity. Each of these three varieties yielded and evaluated better than the standard Dark Red Norland and Red LaSoda varieties.

Of the other red skinned varieties, CO97222-1R/R, which is a red fleshed tuber, yielded 400 cwt/A in total U.S. No. 1's but had an unattractive tuber. A yellow fleshed variety, CO00379-2R/Y, had a yield of 380 cwt/A in total U.S. No. 1's and had an excellent appearance. Both of these varieties are round in shape with a medium eye depth.

Next, ATC00293-1W/Y, in the white skin and yellow flesh category, had a total yield of 594 cwt/A with the greater percent of tubers being in the 6-10 ounce category. This

variety is an attractive tuber, oblong in shape and has a slightly deep eye. Four other varieties yielded better than the standard Yukon Gold; TXYG107, TX1673-1W/Y, TXYG079, and TXYG057 with similar total U.S. No. 1's of 409, 408, 407, and 406 cwt/A respectively. The more attractive tuber of the four was TXYG079, with deep eyes and an oblong shape.

Among the remaining Red/Specialty varieties of purple skin or unique color combinations of skin and flesh, ATTX98500-2P/Y was the high yielding variety for the third year with 514 cwt/A in total U.S. No. 1's. This is a dark purple skinned tuber with yellow flesh, medium eye depth, round shape and average appearance. AC99329-7PW/Y, a distinctive looking purple and white skinned variety with yellow flesh round shape and shallow eyes, yielded 437 cwt/A in total U.S. No. 1's. Purple Majesty and CO97227-2P/PW are both dark purple in skin color with similar tuber characteristics and comparable low yields with only 50 percent of the tubers being U.S. No. 1's. CO97227-2P/PW does have the purple and white flesh to distinguish itself, but it also yielded poorly in 2007. See Tables 4 & 5.

Chip Trial

This year the standard varieties yielded better in comparison with the experimental varieties planted in the trial, unlike last year. Chipeta ranked first with 508 cwt/A in total U.S. No. 1's. 9781 came in second with 462 cwt/A in total U.S. No. 1's, with a majority of tubers in the greater than 10 ounce size category similar to Chipeta. Marci and Ivory Crisp were also towards the top with a larger percent of the tubers being in the 6-10 ounce category and having a yield of 448 cwt/A and 424 cwt/A in total U.S. No. 1's respectively. See Tables 6 & 7. The storage data for the Chip Trial has not been completed but 60 days after harvest (DAH) the following varieties have shown sprout: Atlantic, A93157-6LS, AC00170-2W, CO00197-3W, CO00270-7W, and MSK061-4.

Each year tuber samples from every chip variety are sent to a local commercial packing shed to have the tubers fried as chips. Cook samples are taken at harvest and after 60 days storage at 50^0F. After the chips are cooked they are sent back to IREC and ranked for potato chip color using the Snack Food Association (SFA) Rating of 1-3 with 1 being the best. In this portion of the Chip Trial evaluation, five experimental varieties improved and rated better after 60 DAH while the standard varieties generally declined over time. The variety 3502 stood out in having a high specific gravity and a low percentage of defects. Marci and A9315-6LS had poor SFA ratings and a large percentage of defects. See Table 8.

Storage

Two replications from each variety in all three trials are stored in a controlled environment for assessment of dormancy and storability. The Russet and Red/Specialty varieties will be stored for 180 days after harvest at 40^0F each. The Chip varieties will be stored for 120 days after harvest at 50^0F. Sprout inhibitor is not applied to the varieties during any time of the storage duration. The results of the storage evaluation will be reported separately upon completion of the storage period.

Table 1. Tuber Yield & Size Grade of Standard & Experimental Russet Skinned Potato Varieties. Tulelake 2008.

	Tuber Yield (cwt/A)							
	U.S. No. 1's (cwt)							
Variety Name	**Total 1's**	**>12oz**	**8-12oz**	**4-8oz**	**<4oz**	**Culls**	**Total**	**%1's**
Ranger Russet	433	185	122	127	42	39	514	84
Russet Burbank	354	26	114	214	75	30	458	77
Russet Norkotah	284	32	83	169	79	6	368	77
A0008-1TE	420	104	162	155	46	15	481	87
A97066-42LB	474	212	142	120	26	50	549	86
AC96052-1RU	389	83	129	176	50	8	446	87
AO96141-3	400	79	154	166	43	54	497	81
AOTX95265-4RU	417	144	140	134	46	12	475	88
CO97087-2RU	368	64	103	201	86	11	464	79
CO98067-7RU	340	37	99	205	80	10	430	79
CO98368-2RU	266	16	55	194	88	15	368	72
PA99N2-1	461	224	125	112	33	63	557	83
PA99N82-4	424	177	131	116	35	57	516	82
A93157-6ls (IREC)	478	150	176	152	46	19	543	88
AC99375-1RU	523	148	169	206	51	19	593	88
AOTX96216-2RU	376	267	68	41	10	47	433	87
AOTX96265-2RU	468	169	181	118	25	25	517	90
AOTX98152-3RU	486	96	182	209	70	19	575	84
ATX9202-3RU	486	156	193	137	38	9	533	91
ATX97147-4RU	467	169	169	130	31	54	552	85
ATX99013-1RU	315	29	97	188	96	11	422	75
CO99053-4RU	469	196	150	123	33	29	530	88
CO99053-3RU	278	27	89	162	68	7	353	79
CO99100-1RU	407	87	171	150	25	10	443	92
Mean	408	120	133	154	51	26	484	84
LSD {0.05}	52.0	40.7	27.2	27.0	13.2	20.8	51.7	5.1
CV%	9.0	24.1	14.4	12.4	18.5	57.1	7.6	4.3

Table 2. Tuber Characteristics of Experimental & Standard Russet Skinned Potato Varieties.. Tulelake 2008.

Variety Name	Hollow Heart[1]	Shape[2]	Eye[3]	Russeting[4]	Appearance[5]	Specific Gravity
Ranger Russet	0	5.0	2.8	3.5	3.0	1.086
Russet Burbank	0	4.6	4.0	4.0	3.3	1.085
Russet Norkotah	10	4.3	3.0	4.5	4.0	1.075
A0008-1TE	10	4.0	3.5	3.3	4.0	1.078
A97066-42LB	0	4.0	3.0	1.5	3.5	1.094
AC96052-1RU	10	4.0	3.5	5.0	5.0	1.085
AO96141-3	0	5.0	3.0	3.8	2.8	1.091
AOTX95265-4RU	20	4.5	2.8	4.3	3.8	1.076
CO97087-2RU	10	4.0	4.0	3.8	3.3	1.086
CO98067-7RU	10	4.0	3.4	4.4	4.0	1.076
CO98368-2RU	0	4.0	4.0	3.5	3.8	1.073
PA99N2-1	10	4.0	3.8	3.8	3.5	1.080
PA99N82-4	60	3.8	3.5	4.5	3.3	1.078
A93157-6ls (IREC)	40	4.8	3.0	4.3	4.0	1.090
AC99375-1RU	0	4.0	3.0	3.8	4.0	1.098
AOTX96216-2RU	10	4.0	4.0	4.5	3.3	1.077
AOTX96265-2RU	10	4.0	3.4	4.0	3.7	1.088
AOTX98152-3RU	20	3.8	3.0	3.5	3.5	1.090
ATX9202-3RU	0	4.3	2.8	4.0	4.8	1.083
ATX97147-4RU	0	4.3	3.7	4.0	3.7	1.073
ATX99013-1RU	20	4.5	3.3	4.8	3.3	1.080
CO99053-4RU	10	4.0	3.3	3.5	4.5	1.086
CO99053-3RU	0	4.8	4.0	3.5	3.5	1.088
CO99100-1RU	30	4.0	3.8	3.8	3.8	1.082
Mean	1.1	4.2	3.4	3.9	3.7	1.083
LSD {0.05}	1.3	0.5	0.6	0.9	0.7	0.0
CV%	82.3	8.9	11.7	16.3	14.0	0.4

Rating Scales

[1]1= % of 8-12oz Tubers
[2]1= Round 5= Long
[3]1= Deep 5= Shallow
[4]1= Light 5= Heavy
[5]1= Poor 5=Excellent

Table 3. Skin & Flesh Colors of Experimental & Standard Varieties. Specialty Variety Trial. Tulelake 2008.

VARIETY	SKIN	FLESH
Dk Red Norland	Red	White
Red LaSoda	Red	White
CO98012-5R	Red	White
NDA7985-1R	Red	White
CO00405-1R	Red	White
CO00415-1R	Red	White
AOTX91861-4R	Red	White
AOTX93483-1R	Red	White
ATTX98453-6R	Red	White
BTX2332-1R	Red	White
CO00277-2R	Red	White
CO00291-5R	Red	White
COTX94216-1R	Red	White
COTX94218-1R	Red	White
NDTX4784-7R	Red	White
NDTX4828-2R	Red	White
NDTX5003-2R	Red	White
NDTX7590-3R	Red	White
ATTX961014-1R/Y	Red	Yellow
CO00379-2R/Y	Red	Yellow
CO97222-1R/R	Red	Red
PA96RR1-193	Red	Red
Yukon Gold	White	Yellow
CO99045-1W/Y	White	Yellow
ATC00293 -1W/Y	White	Yellow
CO00412-5W/Y	White	Yellow
TX1673-1W/Y	White	Yellow
TXYG055	White	Yellow
TXYG057	White	Yellow
TXYG079	White	Yellow
TXYG098	White	Yellow
TXYG105	White	Yellow
TXYG107	White	Yellow
Purple Majesty	Purple	Purple
CO97215-2P/P	Purple	Purple
OR00068-11	Purple	Purple
ATTX00289-6Y/Y	Yellow	Yellow
AC99329-7PW/Y	Purple/White	Yellow
ATTX98500-3PW/Y	Purple/White	Yellow
AC99330-1P/Y	Purple	Yellow
ATTX98500-2P/Y	Purple	Yellow
POR01PG45-5	Purple	Yellow
CO97227-2P/PW	Purple	Purple/White
A00286-3Y	Yellow with pink eyes	Yellow
POR02PG26-5	Yellow with red eyes	Yellow
POR02PG37-2	Yellow with red eyes	Yellow
A99331-2RY	Red/Spect. eyes	Yellow
POR03PG23-1	Red with white swirl	Red with white pinwheel pattern

Table 4. Tuber Yield & Size Grade of Experimental & Standard Specialty Varieties. Tulelake 2008.

	Tuber Yield (cwt/A)							
	U.S. No. 1's (cwt)							
Variety Name	**Total 1's**	**>10oz**	**6-10oz**	**4-6oz**	**<4oz**	**Culls**	**Total**	**%1's**
DK Red Norland	501	246	194	61	29	6	535	94
Red LaSoda	503	294	161	48	28	10	540	93
CO98012-5R	389	58	198	134	107	5	502	78
NDA7985-1R	409	265	110	34	20	11	440	93
CO00405-1R	102	0	27	75	170	16	288	35
CO00415-1R	120	2	26	93	206	26	352	33
AOTX91861-4R	528	141	284	104	49	9	585	90
AOTX93483-1R	702	545	117	40	25	8	735	96
ATTX98453-6R	457	281	141	35	24	12	493	93
BTX2332-1R	510	307	160	42	25	5	541	94
CO00277-2R	422	161	189	73	54	4	480	88
CO00291-5R	340	40	194	106	48	2	390	87
COTX94216-1R	339	75	151	112	78	10	426	80
COTX94218-1R	345	98	163	84	56	3	403	85
NDTX4784-7R	536	213	247	76	45	12	593	90
NDTX4828-2R	367	99	165	103	68	19	454	81
NDTX5003-2R	446	154	202	90	39	9	494	90
NDTX7590-3R	344	138	147	59	28	96	468	74
ATTX961014-1R/Y	228	19	107	102	86	8	323	72
CO00379-2R/Y	380	95	180	106	78	4	462	82
CO97222-1R/R	400	133	171	97	84	30	514	78
PA96RR1-193	237	4	90	143	149	5	391	60
Yukon Gold	372	163	142	67	42	11	424	88
CO99045-1W/Y	379	89	161	129	108	10	497	76
ATC00293-1W/Y	505	167	239	99	50	38	594	85
CO00412-5W/Y	370	61	170	139	122	6	498	74
TX1673-1W/Y	408	138	184	86	46	4	458	89
TXYG055	372	130	167	75	45	6	424	88
TXYG057	406	164	177	65	37	10	453	90
TXYG079	407	188	155	65	34	20	461	88
TXYG098	358	132	149	78	41	16	416	86
TXYG105	313	79	153	82	60	10	383	81
TXYG107	409	180	156	73	39	24	471	87
Purple Majesty	228	3	87	138	208	23	458	50
CO97215-2P/P	316	41	150	125	114	3	433	73
OR00068-11	253	13	91	150	166	5	424	60
ATTX00289-6Y/Y	411	170	170	71	50	16	476	86
AC99329-7PW/Y	437	130	211	96	68	13	518	84
ATTX98500-3PW/Y	318	61	164	93	75	30	423	75
AC99330-1P/Y	130	0	29	100	207	3	340	38
ATTX98500-2P/Y	514	170	230	113	77	7	598	86
POR01PG45-5	373	66	181	125	136	10	518	72
CO97227-2P/PW	252	1	73	178	213	30	494	51
A00286-3Y	418	123	195	100	61	15	494	85
POR02PG26-5	243	9	98	136	129	14	386	63
POR02PG37-2	281	22	118	141	154	6	441	64
A99331-2RY	208	7	81	120	175	8	391	53
POR03PG23-1	117	2	36	79	158	9	284	42
Mean	363	118	150	95	86	14	462	77
LSD {0.05}	43.2	34.1	28.6	19.9	18.6	10.7	4635	4.4
CV%	8.5	20.7	13.6	15.1	15.5	55.8	7.2	4.1

Table 5. Tuber Characteristics of Experimental & Standard Specialty Varieties. Tulelake 2008.

Variety Name	Appearance[1]	Skin Color[2]	Internal Color[3]	Tuber Shape[4]	Eye Depth[5]	Specific Gravity
DK Red Norland	2.5	1.5	1.0	1.0	2.5	1.070
Red LaSoda	1.8	2.3	1.0	1.0	1.5	1.076
CO98012-5R	3.8	3.3	1.0	1.0	3.0	1.072
NDA7985-1R	3.5	3.0	1.0	1.3	3.3	1.068
CO00405-1R	4.0	2.5	1.0	5.0	3.8	1.084
CO00415-1R	4.5	2.8	1.0	5.0	3.8	1.067
AOTX91861-4R	3.3	2.3	1.0	1.0	2.8	1.072
AOTX93483-1R	3.5	2.3	1.0	1.5	2.8	1.069
ATTX98453-6R	3.5	2.5	1.0	1.0	3.0	1.070
BTX2332-1R	3.0	2.0	1.0	1.0	3.0	1.075
CO00277-2R	3.0	3.3	1.0	1.0	2.8	1.081
CO00291-5R	4.0	3.0	1.0	1.3	3.0	1.078
COTX94216-1R	3.0	3.3	1.0	1.0	2.5	1.076
COTX94218-1R	3.5	2.8	1.0	1.0	3.0	1.082
NDTX4784-7R	3.8	3.3	1.0	1.0	3.0	1.071
NDTX4828-2R	3.0	3.5	1.0	1.0	2.8	1.070
NDTX5003-2R	2.8	3.3	1.0	1.0	1.8	1.079
NDTX7590-3R	2.8	2.3	1.0	2.3	3.5	1.063
ATTX961014-1R/Y	3.3	3.0	2.0	1.8	3.0	1.083
CO00379-2R/Y	4.5	2.5	2.5	3.0	3.5	1.069
CO97222-1R/R	1.8	2.8	4.3	3.0	1.8	1.071
PA96RR1-193	3.0	3.7	2.0	1.0	2.7	1.084
Yukon Gold	3.5	1.5	2.3	2.3	3.3	1.087
CO99045-1W/Y	3.8	2.0	3.3	4.0	3.3	1.091
ATC00293-1W/Y	4.0	1.5	3.3	2.8	3.5	1.080
CO00412-5W/Y	3.8	2.5	3.0	1.8	3.5	1.089
TX1673-1W/Y	3.8	2.0	1.5	1.5	3.3	1.082
TXYG055	4.0	1.5	2.3	2.3	3.3	1.089
TXYG057	3.3	1.0	2.5	2.3	3.8	1.086
TXYG079	4.3	1.3	2.0	3.0	4.0	1.087
TXYG098	3.8	1.0	2.5	2.5	3.5	1.091
TXYG105	4.5	1.5	2.3	3.0	3.3	1.085
TXYG107	3.5	1.8	2.3	3.0	3.5	1.089
Purple Majesty	3.3	5.0	5.0	3.5	3.8	1.077
CO97215-2P/P	3.0	5.0	5.0	1.8	3.3	1.080
OR00068-11	3.0	5.0	5.0	1.3	3.0	1.091
ATTX00289-6Y/Y	3.0	1.0	2.8	3.0	3.5	1.070
AC99329-7PW/Y	2.5	3.3	2.5	1.0	2.0	1.089
ATTX98500-3PW/Y	2.8	3.0	3.0	1.5	3.3	1.077
AC99330-1P/Y	3.0	5.0	2.3	1.0	3.0	
ATTX98500-2P/Y	2.5	5.0	2.8	1.0	3.0	1.077
POR01PG45-5	2.5	3.0	2.3	2.8	3.3	1.093
CO97227-2P/PW	2.7	5.0	5.0	4.0	3.0	1.080
A00286-3Y	4.5	1.3	3.0	3.0	4.3	1.088
POR02PG26-5	3.5	1.0	2.5	1.0	3.0	1.078
POR02PG37-2	3.5	1.0	3.5	1.0	3.0	1.086
A99331-2RY	3.8	3.0	2.5	1.0	2.8	1.081
POR03PG23-1	3.3	3.3	4.0	1.3	3.3	1.065
Mean	3.3	2.7	2.2	1.9	3.1	1.079
LSD {0.05}	0.8	0.6	0.5	0.5	0.7	0.0
CV%	16.8	16.9	17.1	17.8	15.3	0.2

Rating Scales	
[1]1= Worst	5= Best
[2]1= White	5= Dark
[3]1=White/Pink	5= Dark
[4]1= Round	5= Long
[5]1= Deep	5= Shallow

Table 6. Tuber Yield & Size Grade of Experimental & Standard Chip Varieties. Tulelake 2008.

	Tuber Yield (cwt/A)							
	U.S. No. 1's (cwt)							
Variety Name	**Total 1's**	**>10oz**	**6-10oz**	**4-6oz**	**<4oz**	**Culls**	**Total**	**%1's**
Atlantic	377	71	190	115	79	20	476	79
Chipeta	508	293	178	37	18	7	533	95
Ivory Crisp	424	137	192	95	55	11	490	86
CO97043-14W	418	191	152	74	54	21	493	85
CO97065-7W	390	61	219	110	62	7	458	85
Pike	293	47	149	97	53	8	354	83
Dakota Pearl	355	67	189	99	48	7	410	87
7681	413	105	223	86	36	4	453	91
9781	462	296	131	35	19	12	493	94
3502	363	62	187	113	53	5	420	86
A93157-6ls	312	192	84	36	24	13	349	90
Mega Chip	397	138	186	74	35	31	463	86
Marci	448	164	202	83	47	25	521	86
AC00170-2W	230	13	91	126	160	8	397	58
CO00188-4W	372	50	201	121	90	7	469	80
CO00197-3W	356	66	182	109	82	14	452	79
CO00270-7W	412	160	184	67	33	11	456	90
MSJ316-A	398	147	181	70	51	6	456	88
MSK061-4	315	49	161	106	68	8	392	81
MSJ036-A	118	13	51	55	74	4	196	59
Mean	368	116	167	85	57	11	437	83
LSD {0.05}	53.7	33.7	33.0	20.1	15.4	10.8	57.7	4.4
CV%	10.3	20.5	14.0	16.6	19.1	66.3	9.3	3.7

Table 7. Tuber Characteristics of Experimental & Standard Chip Varieties. Tulelake 2008.

Variety Name	Shape[1]	Eye[2]	Skin[3]	Specific Gravity
Atlantic	1.0	3.0	2.3	1.103
Chipeta	1.0	2.8	1.3	1.090
Ivory Crisp	1.0	2.8	1.3	1.107
CO97043-14W	1.0	3.0	1.0	1.085
CO97065-7W	1.0	2.3	1.5	1.098
Pike	1.0	3.0	1.0	1.098
Dakota Pearl	1.3	3.0	1.0	1.085
7681	1.0	2.8	1.8	1.105
9781	1.3	2.8	1.0	1.091
3502	1.3	2.3	1.5	1.109
A93157-6ls	5.0	3.3	4.8	1.089
Mega Chip	1.5	2.3	1.8	1.100
Marci	2.0	3.3	2.8	1.087
AC00170-2W	1.0	3.0	1.0	1.084
CO00188-4W	1.0	3.8	1.8	1.091
CO00197-3W	1.8	3.8	1.0	1.087
CO00270-7W	1.0	3.3	1.0	1.083
MSJ316-A	1.0	3.3	1.0	1.094
MSK061-4	2.0	4.0	1.0	1.099
MSJ036-A	1.0	3.0	1.0	1.090
Mean	1.4	3.0	1.5	1.094
LSD {0.05}	0.5	0.8	0.6	0.0
CV%	25.6	18.7	26.0	0.3

Rating Scales

[1]1= Round	5= Long
[2]1= Deep	5= Shallow
[3]1= White	5= Dark

Table 8. Chip Fry Quality & Snack Food Association (SFA) Rating at Harvest & After 60 Days Storage at 50^0F of Chip Varieties. Tulelake 2008.

	Date: 10/15/08			Date: 12/10/08		
Variety Name	**Specific Gravity**	**Total Defects Found[1]**	**SFA[2]**	**Specific Gravity**	**Total Defects Found[1]**	**SFA[2]**
Atlantic	1.103	0.6	2	1.109	36.6	3
Chipeta	1.090	0.0	2	1.096	11.9	3
Ivory Crisp	1.107	0.0	1	1.098	3.0	2
CO97043-14W	1.085	0.7	2	1.090	6.4	1
CO97065-7W	1.098	4.6	2	1.093	1.9	1
Pike	1.098	0.0	1	1.104	8.5	3
Dakota Pearl	1.085	5.0	2	1.092	0.3	2
7681	1.105	2.2	3	1.104	4.5	3
9781	1.091	8.7	1	1.090	17.8	3
3502	1.109	1.9	2	1.106	0.0	1
A93157-6ls	1.089	19.4	3	1.089	33.3	3
Mega Chip	1.100	1.3	2	1.107	7.2	2
Marci	1.087	14.3	3	1.096	38.1	3
AC00170-2W	1.084	0.6	2	1.094	1.4	1
CO00188-4W	1.091	0.3	1	1.094	0.5	2
CO00197-3W	1.087	3.5	2	1.100	11.8	2
CO00270-7W	1.083	0.0	2	1.106	0.8	2
MSJ316-A	1.094	0.0	3	1.094	6.3	1
MSK061-4	1.099	2.9	2	1.100	2.9	2
MSJ036-A	1.090	4.0	3	1.094	2.2	3

1= % of potato found to have undesirable coloring, external, and/or internal defects
2= Rating of 1-3 (1= best or most desired, 3= worst or dark yellow to brown in color)