Colorado Potato Cultivar Management

Research Data Summary

2013

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MISSION STATEMENT

The mission of the Colorado Potato Cultivar Management and Physiology Program is to develop cultural management guidelines for the successful, sustainable and economic production of newly released and existing potato cultivars, as well as advanced potato selections that have the potential of being released, through field and laboratory research.

INTRODUCTION

Each potato cultivar has its own unique set of cultural management requirements for maximizing tuber yield of premium size and grade. Therefore, cultural management practices that maximize tuber production and quality of each potato cultivar must be developed. The best guidelines for nutrient management, irrigation management, plant population management, vine kill management, and other management practices are obtained from field experiments conducted in replicated trials. New cultivars are much more successful when release is accompanied by cultivar specific management guidelines. Information reported in this book reveals management practices that are agronomically sound, economically advantageous, and environmentally responsible, while optimizing potato tuber yield and quality. When management guidelines are tailored for individual cultivars it leads to the successful, sustainable, and economic production of the cultivar, which results in the optimization of its genetic potential, while minimizing economic inputs and environmental degradation.

In 2013, potato cultivars were evaluated under Colorado production conditions for their response to nitrogen fertilizer application management, potassium fertilizer application management, soil amendments, plant population (in-row seed piece spacing) management and preceding green manure cover crops. The performance of several advanced potato selections under different grower management conditions are also reported.

MATERIALS AND METHODS

Nitrogen Management Study

The field study was laid out as randomized complete block design. Treatments included nitrogen application rates at 60, 120,180 and 240 lb. N/ac. A control treatment was included where no nitrogen fertilizer was applied. Each treatment was replicated four times.

Soil samples were taken from each experimental site in the spring of 2013. The soil samples were analyzed for residual soil nitrate nitrogen. Water samples were taken from the irrigation well and analyzed for nitrate nitrogen concentration. The residual soil and irrigation water nitrate nitrogen concentration added up to 35lb N/ac. Knowledge of the residual soil and irrigation water nitrate nitrogen content is important to help estimate how much nitrogen fertilizer will be needed to apply to the potato crop for optimum tuber yield and quality. Residual soil N + irrigation water N + applied N fertilizer = available nitrogen for the plant.

Sixty lb. N/ac was applied pre-plant to all plots except the control. The remainder of each treatment was applied in-season. Urea ammonium nitrate (32-0-0) was used as source of N fertilizer application. In-season N application began after tuber formation. In-season N fertilizer applications were done by applying 5-10 lb. N/acre at every application time until all the required N rate for a particular treatment was met.

Potato seed piece were cut and suberized for 7 days before planting. Mercury Russet was planted on May 14 2013, and harvested on September 17 2013. Vine kill was not needed since the vines died naturally. This cultivar is unique for needing no vine kill in the San Luis Valley.

Nitrogen Application Timing Studies

Potato cultivars used in this field study were Mercury Russet (CO99100-1RU) and Crestone Russet (CO99053-3RU). The experimental design consisted of randomized complete block with four treatments and four replications. The treatments included 1. Applying all the required N at planting (All) 2. Applying 66% of the required N at planting and the rest during the potato growing season 3. Applying 50% of the required N at planting and the remainder applied during the growing season, and 4. Appling 33% of the required N at planting and the rest during the potato growing season. The total amount of N applied for each treatment was 140 lb N/acre.

In-season N fertilizer applications were done by applying 5-10 lb. N/acre at every application time until all the required N for each treatment was met.

Potato seed pieces were machine planted 30 cm within rows on May 13, 2013. The vines of Crestone Russet were killed by mechanical flailing on September 5, 2013. No vine kill was needed for Mercury Russet since it died naturally. Mercury Russet was harvested on September 16, and Crestone Russet was harvested on September 25, 2013.

Plant Population Management (In-Row Seed Spacing) Study

Mesa Russet was used as the cultivar for the in-row seed spacing study. The study was laid out in the field as randomized complete block design. In-row seed spacing treatments included planting seed at 10, 12, 14, and 16 inches spacing. Each treatment was replicated four times. Each plot consisted of three rows spaced 34 inches apart. All potato seed were planted by

hand. Seed was cut and suberized for seven days before planting on May 15, 2013. Vines were killed by mechanical flailing on September 5, 2013, and potatoes harvested on September 25, 2013.

RESULTS AND DISCUSSION

Nitrogen Application Rate Study

Mercury Russet (CO99100-1RU)

Tuber Yield and Tuber Size Distribution

Optimum total and marketable (> 4 oz) tuber yield was obtained when 140 lb N/ac was applied. However, for medium size (4-10 oz) and > 6 oz tuber size, optimum yields were obtained when 180 lb N/ac was applied (fig 1a and b).

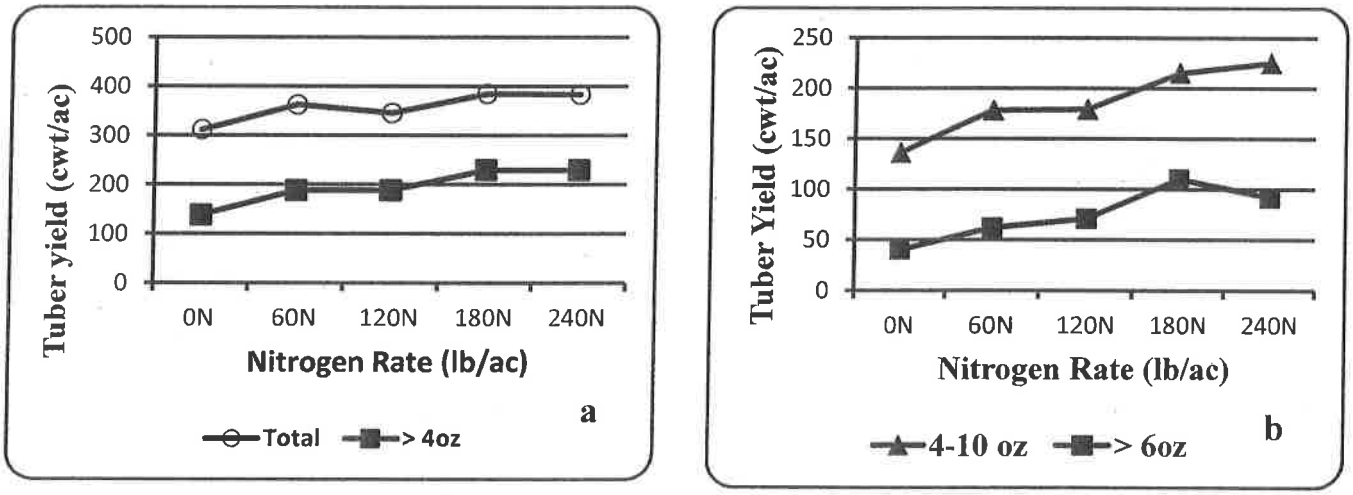


Fig 1. Effect of nitrogen application rate on tuber yield and tuber size distribution of Mercury Russet.

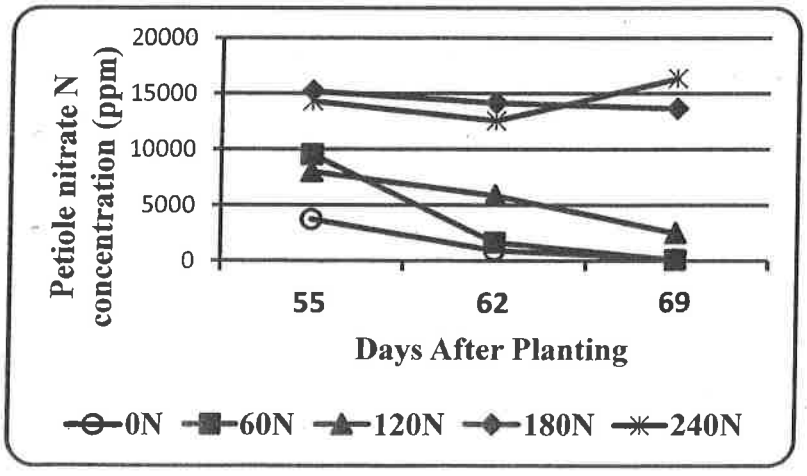


Fig. 2. Effect of nitrogen application rate on petiole nitrate nitrogen concentration of Mercury Russet.

For optimum tuber yield, petiole nitrate N concentration should range from 10000 ppm at 55 DAP to 5000 ppm at 69 DAP (fig 2)

Tuber External and Internal Defects

The maximum tuber external defect (growth cracks, knobs, and misshapes) observed in this study was 1.4%, when N rate ranged from 120 to 180 lb N/ac. (fig 3a). No internal defects (hollow heart and brown center) were observed in tubers when N rate ranged from 180 to 240 lb N/ac, as well as in the control plots (fig 3b).

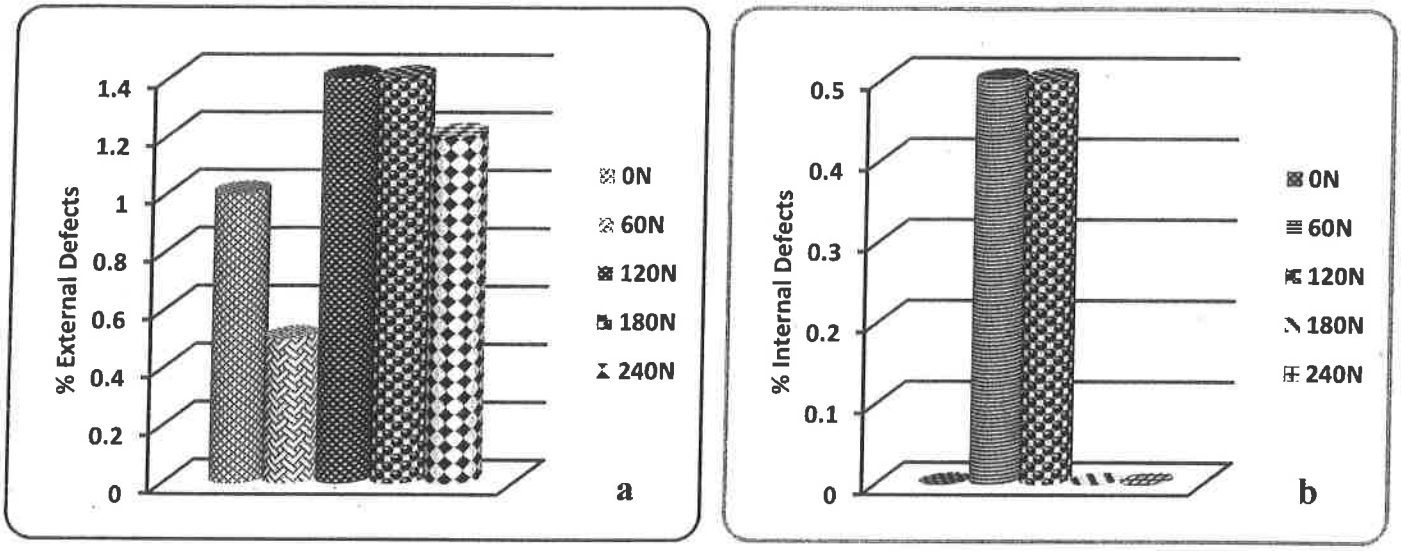


Figure 3. Effect of nitrogen application rate on a) tuber external and b) internal defects of Mercury Russet.

Tuber Specific Gravity

Tuber specific gravity decreased as nitrogen rate increased (fig 4)

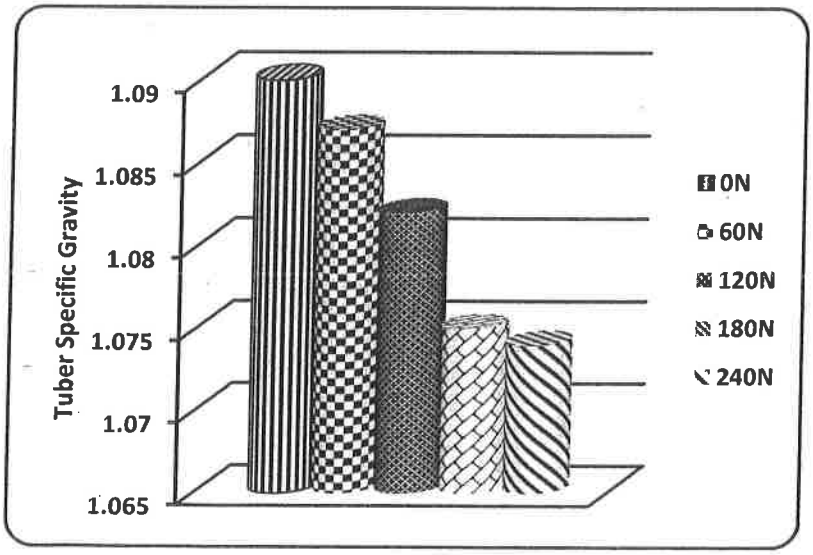


Fig 4. Effect of nitrogen application rate on tuber specific gravity of Mercury Russet.

Nitrogen Application Timing Study

Mercury Russet (CO99100-1RU)

Tuber Yield and Tuber Size Distribution

Optimum total and marketable tuber yield were obtained when 66 and 50% of the required N rate was applied, respectively, at planting (Table 5a). For optimum medium size (4-10 oz) and large marketable size (> 6 oz) tuber yield, it is recommended that 50% of the required N rate is applied at planting (fig 5b).

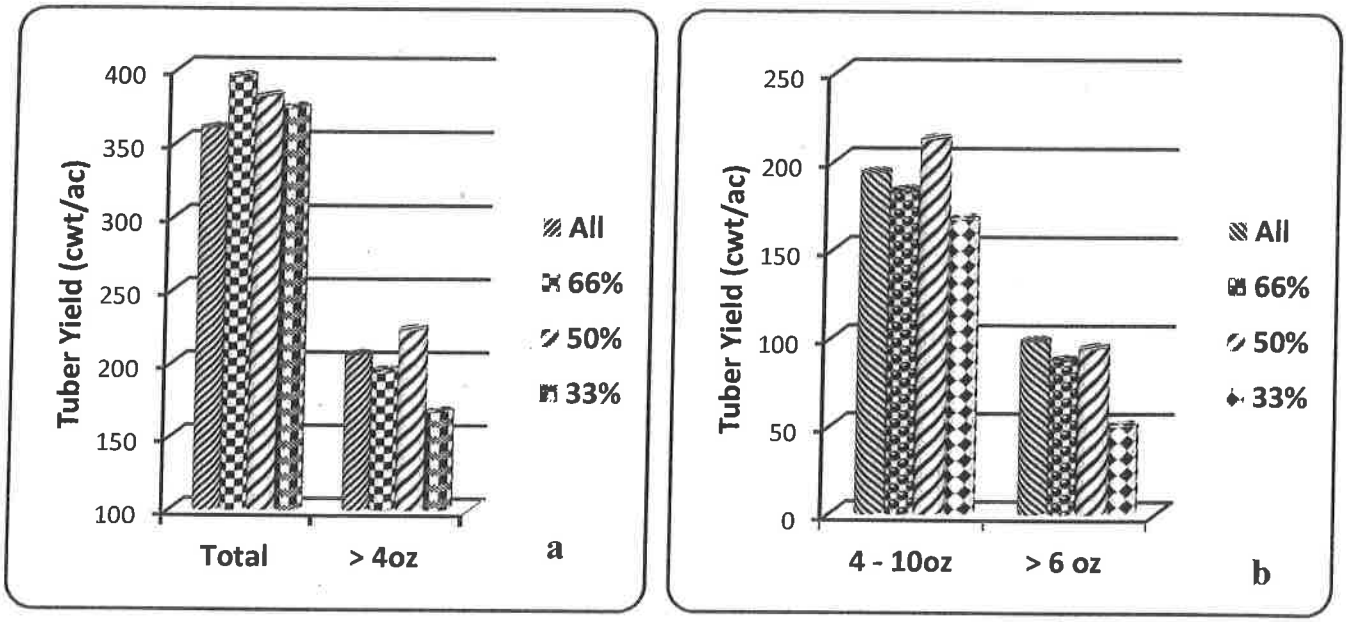


Figure 5. Effect of nitrogen application timing on tuber yield and tuber size distribution of Mercury Russet.

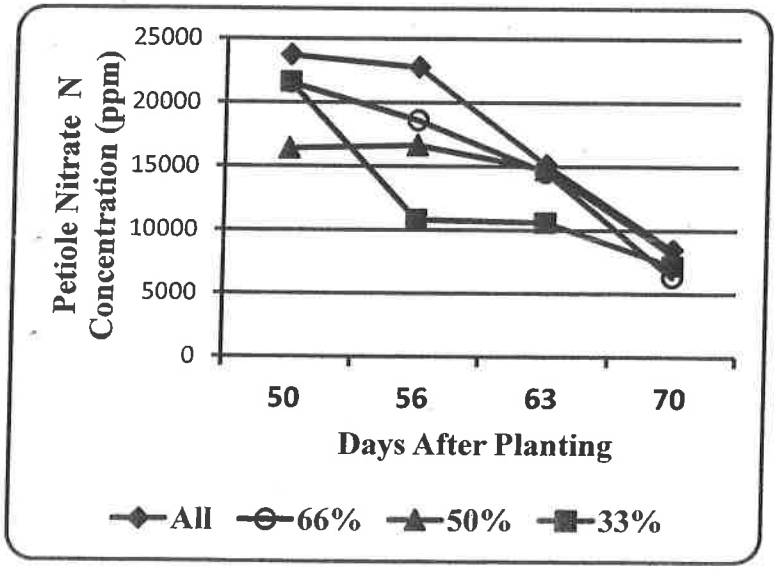


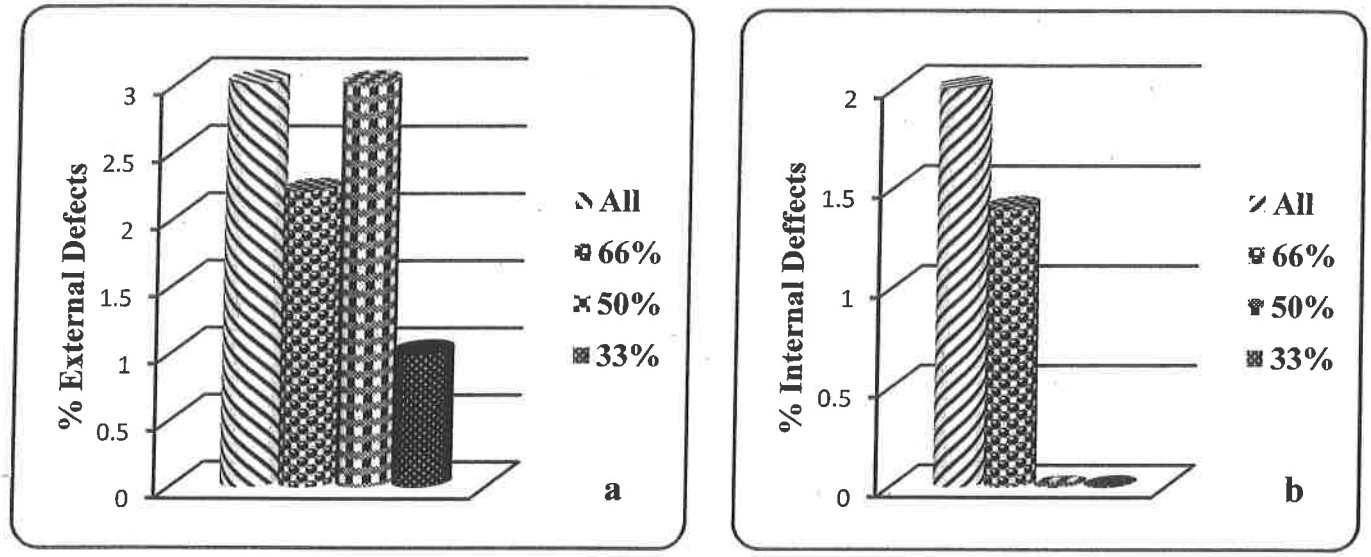
Fig. 6. Effect of nitrogen application timing on petiole nitrate N concentration of Mercury Russet.

To obtain maximum total tuber yield, petiole nitrate N concentration should range from 22000 ppm at 50 DAP to about 6000 ppm at 70 DAP. For maximum marketable tuber yield, petiole nitrate N concentration should range from 16000 ppm at 50 DAP to 7000 ppm at 70 DAP (fig 6).

Tuber External and Internal Defects

Tuber external defects were low when 33% of the required N rate was applied at planting (fig 7a), and no tuber internal defects were observed when 33 or 50% of the required N rate was applied at planting (fig 7b).

Fig 7. Effect of nitrogen application timing on tuber external (growth cracks, knobs, and misshapes) and internal (hollow heart and brown center) defects of Mercury Russet.



Tuber Specific Gravity

A low tuber specific gravity was recorded when all the required N rate was applied at planting. Tuber specific gravity remained the same for treatments that received 33, 50, and 66% of the required N rate at planting (fig 8).

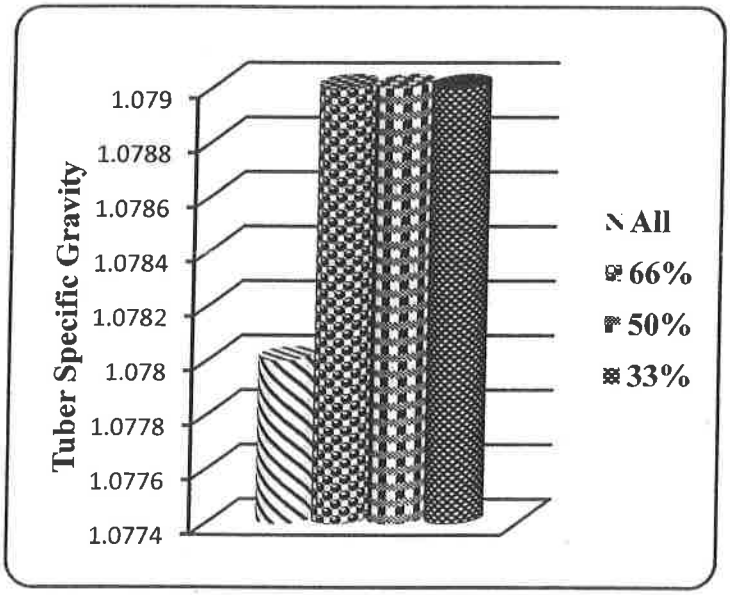


Figure 8. Effect of nitrogen application timing on tuber specific gravity of Mercury Russet.

Crestone Russet (CO99053-3RU)

Tuber Yield and Tuber Size Distribution

With the exception of medium size (4-10 oz) tuber yield, total and marketable size tuber yields were maximized when 33% of the required N rate was applied at planting (fig 9a and b). Medium size tuber yield was optimized when 50% of the required N rate was applied at planting.

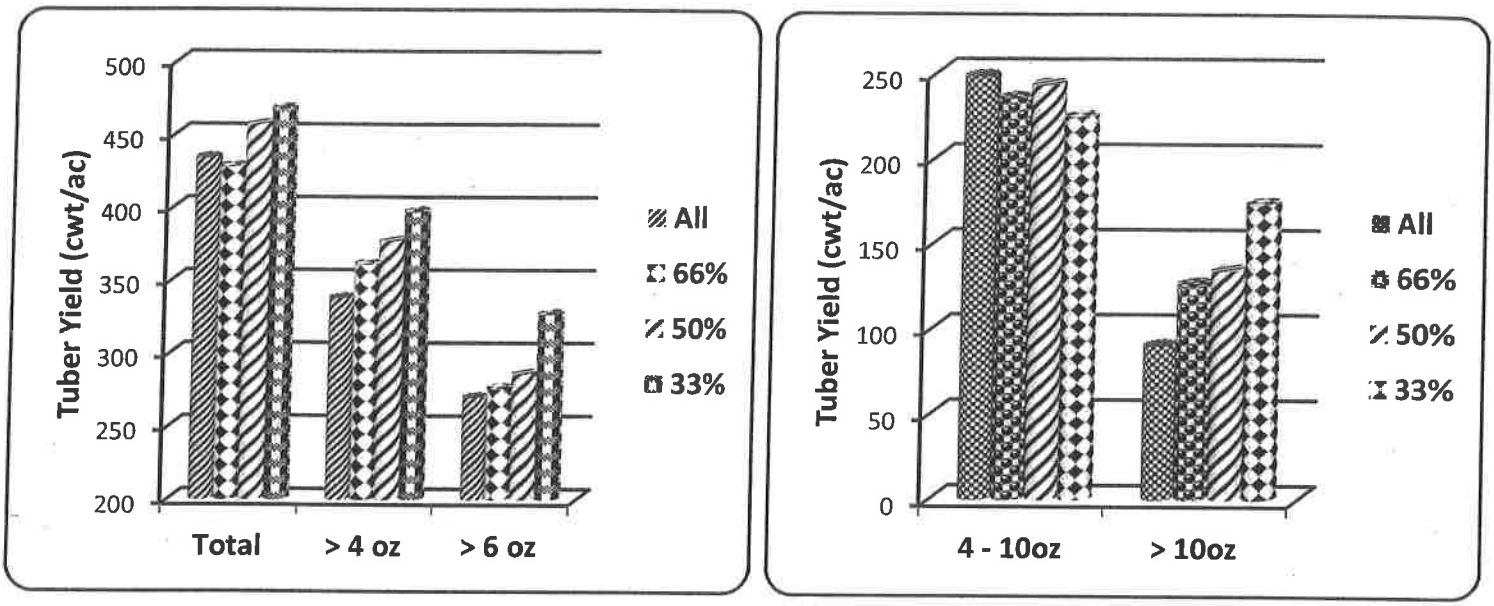
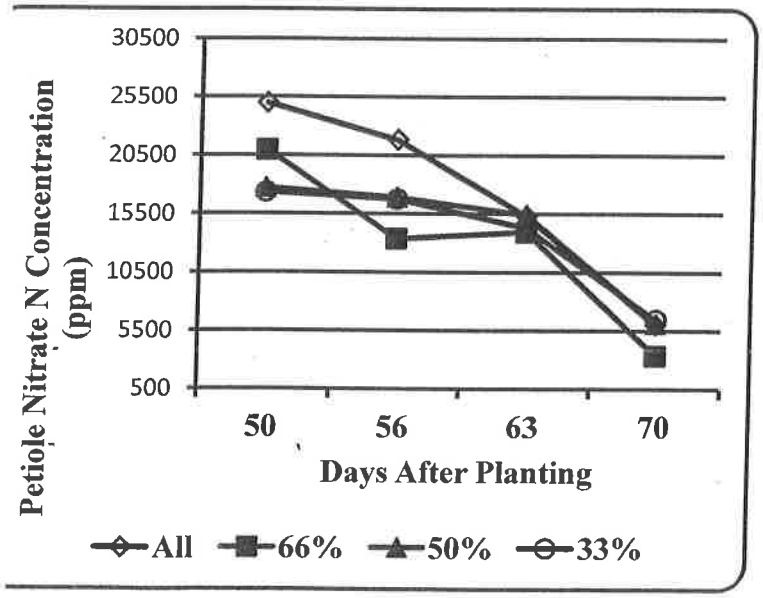


Figure 9. Effect of nitrogen application timing on tuber yield and tuber size distribution of Crestone Russet



.Fig 10. Effect of nitrogen application timing on petiole nitrate N concentration of Crestone Russet.

To obtain maximum total and marketable tuber yield, petiole nitrate N concentration should range from about 17000 ppm at 50 DAP to about 6000 ppm at 70 DAP. (fig 10).

Tuber External and Internal Defects

Tuber external defects were significantly reduced when 50 % of the required N rate was applied at planting (11a). Tuber internal defects were significantly reduced when 50% or All the N rate required were applied at planting (11b).

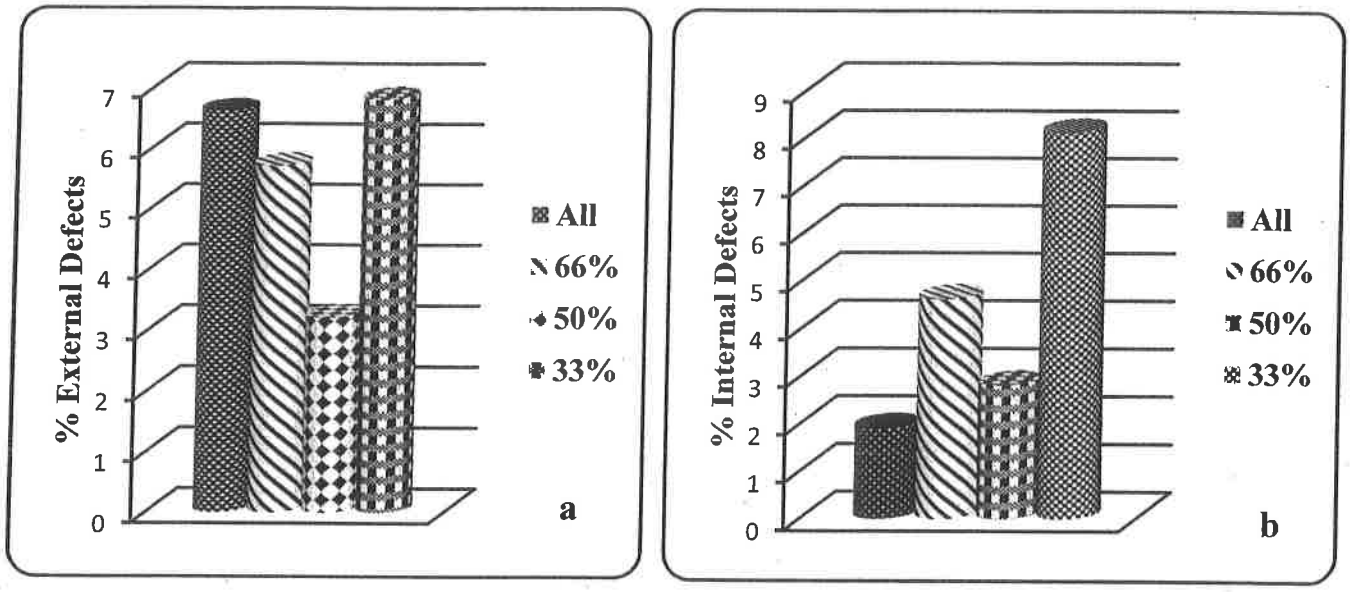


Fig 11. Effect of nitrogen application timing on tuber external (growth cracks, knobs, and misshapes) and internal (hollow heart and brown center) defects of Crestone Russet.

Tuber Specific Gravity

Maximum tuber specific gravity was recorded for Crestone Russet when 50% of the required N rate was applied at planting (12). Applying all the required N at planting showed the lowest specific gravity among all the treatments.

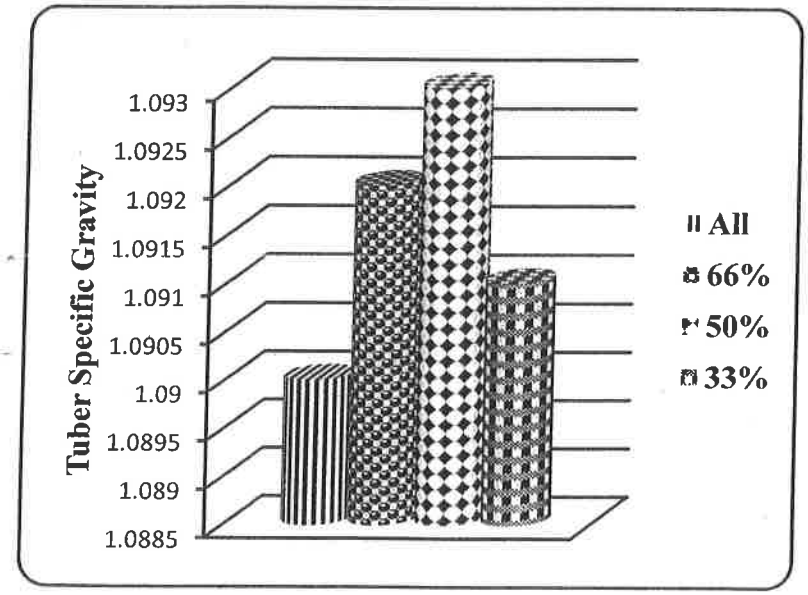


Figure 12. Effect of nitrogen application timing on tuber specific gravity of Crestone Russet.

In-Row Seed Spacing Study

Mesa Russet

Tuber Yield and Tuber Size Distribution

To obtain optimum total and marketable size tuber yield with reduced seed input, Mesa Russet should be planted at in-row spacing of 16 inches with row spacing of 34 inches (Fig 13a and b). The only exception is, where medium size (4-10 oz) tuber yield is the focus of production, then Mesa Russet could be planted at in-row spacing of 10 inches (fig 13b), but that will require extra more seed to plant.

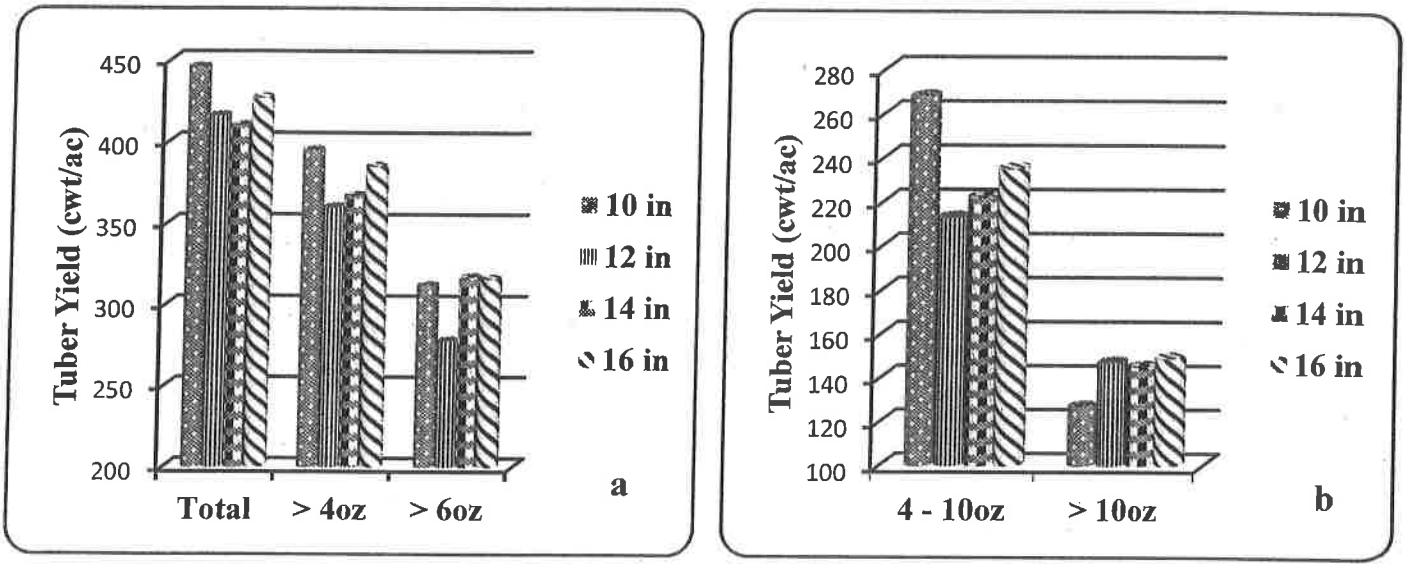
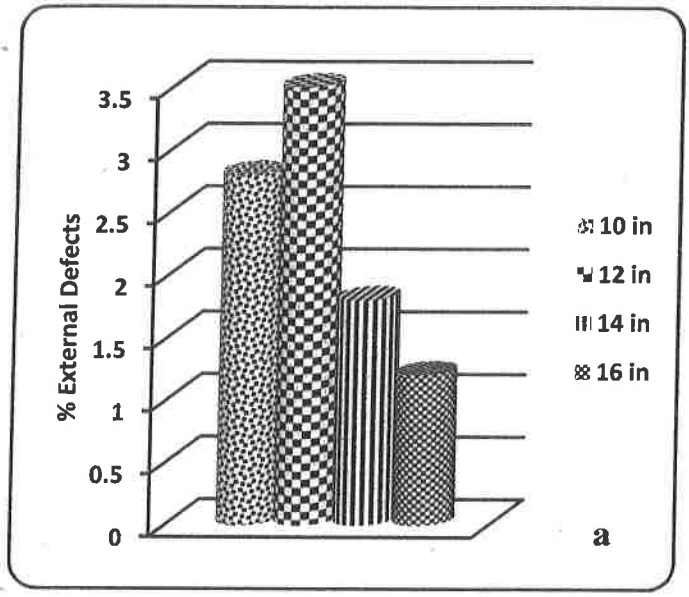
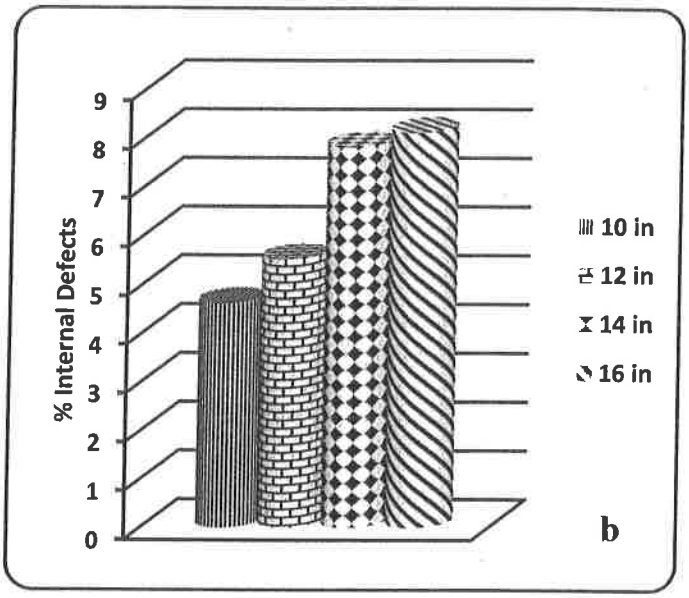


Fig. 13. Response of Mesa Russet to in-row seed spacing.

Tuber External and Internal Defects

Tuber external defects were significantly reduced when Mesa Russet was planted at in row spacing of 16 inches, with row spacing of 34 inches (fig 14a). On the other hand, tuber internal defects (hollow heart and brown center) increased as seed spacing was widened from 10 to 16 inches (fig. 14b).





Tuber Specific Gravity

Tuber specific gravity reduced significantly for tubers that were planted at in-row spacing of 14 inches. Tubers planted at a spacing of 10 inches showed the highest specific gravities (fig 15).

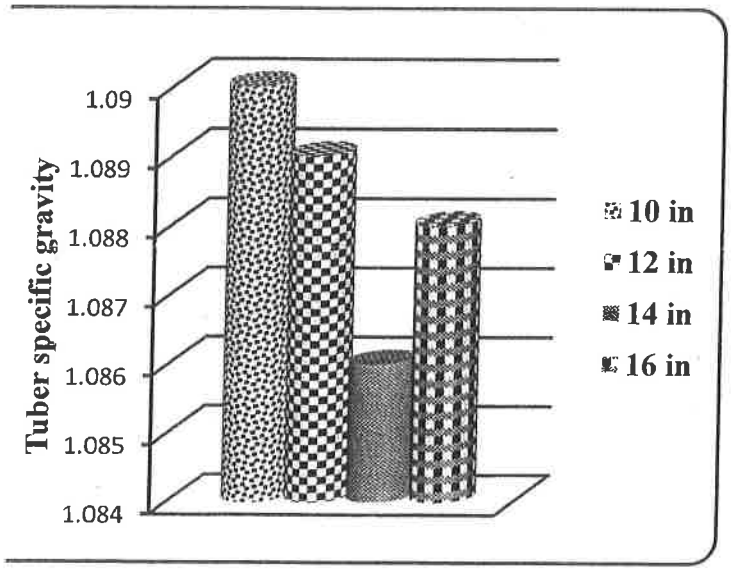


Fig 15. Effect of in-row seed spacing on tuber specific gravity of Mesa Russet.

Table 1. Effect of additional late nitrogen fertilizer application on yield and tuber size distribution of Canela Russet, 2013.

Nitrogen rate (lbN/ac)	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
Control	444	21	423(95)[1]	389(88)	357	202(46)	155	221	323	66
20lb Inorganic	430	27	403(94)	364(85)	347	200(47)	147	203	308	56
40lb Inorganic	415	21	394(95)	360(87)	333	145(35)	188	249	299	61
20lb Organic	437	21	417(95)	375(86)	369	190(44)	179	227	327	48
40lb Organic	433	19	414(96)	379(88)	337	173(40)	164	241	302	77

[1]Figures in brackets indicate % of total.

Table 2. Effect of additional late nitrogen fertilizer application on tuber quality of Canela Russet, 2013.

Nitrogen rate (lbN/ac)	% External Defects[1]	% Internal Defects[2]	Specific Gravity
Control	0	0	1.091
20lb Inorganic	0	0	1.092
40lb Inorganic	0	0	1.094
20lb Organic	0	0	1.093
40lb Organic	0	0	1.094

[1]Includes growth cracks, knobs, and misshapes.
[2]Includes hollow heart and brown center.

Table 3. Effect of additional late nitrogen fertilizer application on yield and tuber size distribution of Rio Grande Russet, 2013.

Nitrogen rate (lbN/ac)	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
Control	417	69	348(84)[1]	270(65)	328	198(48)	130	150	250	20
20lb Inorganic	402	79	322(80)	246(61)	306	202(50)	104	120	230	16
40lb Inorganic	435	82	353(81)	278(64)	332	223(51)	109	130	257	21
20lb Organic	397	81	316(80)	231(58)	301	207(52)	94	109	216	15
40lb Organic	407	82	325(80)	239(59)	304	215(53)	89	110	218	21

[1]Figures in brackets indicate % of total.

Table 4. Effect of additional late nitrogen fertilizer application on tuber quality of Rio Grande Russet, 2013.

Nitrogen rate (lbN/ac)	% External Defects[1]	% Internal Defects[2]	Specific Gravity
Control	4.8	1.1	1.081
20lb Inorganic	2.7	0	1.082
40lb Inorganic	3.7	0	1.083
20lb Organic	1.2	0	1.081
40lb Organic	0.9	0	1.079

[1]Includes growth cracks, knobs, and misshapes.
[2]Includes hollow heart and brown center.

Table 5. Effect of bio blend (soil amendment) on yield and tuber size distribution of Rio Grande Russet, 2013.

Treatment	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
Control	457	114	343(75)[1]	214(47)	333	272(60)	61	71	204	10
Bioblend	475	115	360(76)	240(51)	341	299(63)	42	61	221	19

[1]Figures in brackets indicate % of total.

Table 6. Effect of bio blend (soil amendment) on tuber quality of Rio Grande Russet, 2013.

Treatment	% External Defects[1]	% Internal Defects[2]	Specific Gravity
Control	3.9	2.5	1.094
Bioblend	2.8	3.3	1.096

[1]Includes growth cracks, knobs, and misshapes
[2]Includes hollow heart and brown center.

Table 7. Effect of source and rate of potassium fertilizer application on tuber yield and tuber size distribution of Rio Grande Russet, 2013

Treatment	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
Control[1]	412	161	251(61)[2]	123(30)	251	233(57)	18	18	123	0
SOP 40	462	145	317(69)	160(35)	317	289(63)	28	28	160	0
S0P 80	467	142	325(70)	173(37)	325	280(60)	45	45	173	0
SOP 120	466	166	300(64)	150(32)	300	285(61)	15	15	150	0
MOP – S40	439	137	302(69)	157(36)	302	271(62)	31	31	157	0
MOP –S80	464	150	314(68)	156(34)	308	283(61)	25	31	150	6
MOP - S120	431	150	281(65)	152(35)	281	257(60)	24	24	152	0
MOP +S40	470	161	309(66)	160(34)	309	274(58)	35	35	160	0
MOP +S80	463	154	309(67)	178(38)	306	281(61)	25	28	175	3
MOP + S120	424	129	295(70)	202(48)	295	242(57)	53	53	202	0

[1]SOP = Sulfate of potash, MOP – S = Muriate of potash with no sulfur fertilizer added, MOP + S = Muriate of potash with sulfur fertilizer added

[2]Figures in brackets indicate % of total

Table 8. Effect of source and rate of potassium fertilizer application on tuber quality of Rio Grande Russet, 2013

Treatment	% External Defects[2]	% Internal Defects[3]	Specific Gravity
Control[1]	2.7	1.9	1.100
SOP 40	1.6	0.6	1.100
S0P 80	2.1	0.7	1.096
SOP 120	1.9	1.0	1.097
MOP – S40	3.3	1.4	1.097
MOP –S80	4.1	1.4	1.098
MOP - S120	2.7	2.5	1.095
MOP +S40	3.4	0	1.095
MOP +S80	3.4	1.8	1.096
MOP + S120	1.9	1.1	1.096

[1]SOP = Sulfate of potash, MOP – S = Muriate of potash with no sulfur fertilizer added, MOP + S = Muriate of potash with sulfur fertilizer added

[2]Includes growth cracks, knobs, and misshapes

[3]Includes hollow heart and brown center.

Table 9. Effect of source of potassium fertilizer averaged over application rate on tuber yield and tuber size distribution of Rio Grande Russet, 2013

Treatment	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
Control	412	161	251(61)[1]	123(30)	251	233(57)	18	18	123	0
SOP	465	151	314(68)	161(35)	314	285(61)	29	29	161	0
MOP	449	147	302(67)	168(37)	301	268(60)	33	34	166	2

[1]Figures in brackets indicate % of total

Table 10. Effect of potassium sulfate, muriate of potash mixed with sulfur fertilizer, and muriate of potash without sulfur fertilizer on tuber yield and tuber size distribution of Rio Grande Russet potato, 2013

Treatment	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
Control[1]	412	161	251(61)[2]	123(30)	251	233(57)	18	18	123	0
SOP	465	151	314(68)	161(35)	314	285(61)	29	29	161	0
MOP - S	445	146	299(67)	155(35)	297	270(61)	27	28	153	2
MOP + S	452	148	304(67)	180(40)	303	266(59)	38	39	179	1

[1]MOP-S = Muriate of Potash with no Sulfur fertilizer added.
MOP+S = Muriate of Potash with Sulfur fertilizer added.
[2] Figures in brackets indicate % of total

Table 11. Effect of source of potassium averaged over application rate on tuber quality of Rio Grande Russet, 2013

Treatment	% External Defects[1]	% Internal Defects[2]	Specific Gravity
Control	2.7	1.9	1.100
SOP	1.9	0.8	1.098
MOP	3.2	1.4	1.096

[1]Includes growth cracks, knobs, and misshapes
[2]Includes hollow heart and brown center.

Table 12. Effect of potassium sulfate, muriate of potash mixed with sulfur fertilizer, and muriate of potash without sulfur fertilizer on tuber quality of Rio Grande Russet potato, 2013

Treatment	% External Defects[2]	% Internal Defects[3]	Specific Gravity
Control[1]	2.7	1.9	1.100
SOP	1.9	0.8	1.098
MOP-S	3.4	1.8	1.097
MOP+S	2.9	1.0	1.096

[1]MOP-S = Muriate of Potash with no Sulfur fertilizer added.
MOP+S = Muriate of Potash with Sulfur fertilizer added.
[2]Includes growth cracks, knobs, and misshapes
[3]Includes hollow heart and brown center.

Table 13. Effect of preceding cover crop on potato yield and tuber size distribution of Colorado Rose, 2013

Cover Crop	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 –16oz	> 16oz
	Yield (cwt/ac)									
Barley	419	67	352(84)[1]	280(67)	315	202(48)	113	150	243	37
Rye/Sudan Grass	573	90	483(84)	410(72)	411	247(43)	164	236	339	72
Fallow Ground	424	78	346(82)	274(65)	317	193(46)	124	153	245	29
Barley - Canola	413	79	334(81)	249(60)	314	241(58)	73	93	229	20
Barley- Sudan Grass	397	77	320(81)	264(67)	290	203(51)	87	117	234	30
Barley - Camelina	357	70	287(80)	220(62)	260	160(45)	100	127	193	27
Barley - Canola + Compost	406	75	331(82)	258(64)	298	213(53)	85	118	225	33
Barley - Canola + Manure	439	104	335(76)	256(58)	326	240(55)	86	95	247	9
Barley – Mustard	466	89	377(81)	293(63)	330	238(51)	92	139	246	47
Barley – Cover Crop mixture	339	69	270(80)	230(68)	189	122(36)	67	148	149	81
Rye/Cover Crop mixture – Sudan Grass	393	76	317(81)	242(62)	303	193(49)	110	125	228	14

[1]Figures in brackets indicate % of total

Table 14. Effect of preceding cover crop on potato tuber quality of Colorado Rose, 2013

Cover Crop	% External Defects[1]	% Internal Defects[2]	Specific Gravity
Barley	2.3	0	1.083
Rye/Sudan Grass	2.1	1.4	1.083
Fallow Ground	1.8	1.4	1.081
Barley - Canola	0.6	0	1.083
Barley- Sudan Grass	0.6	0	1.085
Barley - Camelina	0.6	0	1.083
Barley - Canola + Compost	0.5	0	1.082
Barley - Canola + Manure	1.2	0	1.079
Barley – Mustard	0.4	0	1.082
Barley – Cover Crop mixture	3.1	0.7	1.083
Rye/Cover Crop mixture – Sudan Grass	1.3	0	1.082

[1]Includes growth cracks, knobs, and misshapes
[2]Includes hollow heart and brown center.

Table 15. Effect of preceding cover crop on potato tuber diameter of Colorado Rose, 2013

Cover Crop	< 2ins. dia [1]	2-4ins. dia	> 4ins. dia	> 2ins.dia< 10oz	>2ins. dia.>0oz	> 2ins. dia
	yield (cwt/ac)					
Barley	44	371	5	226	150	376
Rye/Sudan Grass	48	504	19	288	236	524
Fallow Ground	45	369	10	226	153	379
Barley - Canola	42	365	5	277	93	370
Barley- Sudan Grass	43	354	0	237	117	354
Barley - Camelina	39	314	6	194	127	321
Barley - Canola + Compost	41	358	8	248	118	366
Barley - Canola + Manure	52	387	0	292	95	387
Barley – Mustard	45	406	14	280	139	419
Barley – Cover Crop mixture	37	281	21	154	148	302
Rye/Cover Crop mixture – Sudan Grass	44	349	0	225	125	350

[1] dia = diameter

Table 16. Yield and tuber size distribution of Russet Norkotah (sel. 8) grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	340	72	268	178	258	217	41	51	168	10
2	305	82	223	141	223	217	6	6	141	0
3	420	43	377	299	273	209	64	168	195	104
4	396	45	351	298	279	187	92	164	226	72
Mean	365	61	305	229	258	208	51	97	182	47

Table 17. Tuber quality of Russet Norkotah (sel. 8) grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.075
2	0	0	0	0	0	1.069
3	1.5	0	1.5	0	0	1.072
4	0	0	0	0	0	1.075
Mean	0.4	0	0.4	0	0	1.073

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 18. Yield and tuber size distribution of CO05040-1RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	375	219	156	41	156	156	0	0	41	0
2	367	217	150	72	150	129	21	21	72	0
3	375	106	269	127	269	255	14	14	127	0
4	371	162	209	117	199	164	35	45	107	10
Mean	372	176	196	89	194	176	18	20	87	2.5

Table 19. Tuber quality of CO05040-1RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.078
2	7.8	1.1	8.9	0	0	1.074
3	1.5	0	1.5	0	0	1.076
4	1.1	0	1.1	0	0	1.082
Mean	2.6	0.3	2.9	0	0	1.078

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 20. Yield and tuber size distribution of CO05068-1RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	494	39	455	354	443	287	156	168	342	12
2	627	53	574	461	539	338	201	236	426	35
3	482	19	463	426	406	193	213	270	369	57
4	621	47	574	506	494	221	273	353	426	80
Mean	556	40	517	437	471	260	211	257	391	46

Table 21. Tuber quality of CO05068-1RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	2.1	2.1	1.092
2	0	1.0	1.0	0	0	1.098
3	0	0	0	0	0	1.097
4	2.3	0	2.3	0	0	1.10
Mean	0.6	0.3	0.8	0.5	0.5	1.097

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 22. Yield and tuber size distribution of CO05175-1RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	584	16	568	496	490	289	201	279	418	78
2	523	35	488	408	410	219	191	269	330	78
3	445	39	406	353	285	166	119	240	232	121
4	527	19	508	490	342	125	217	383	324	166
Mean	520	27	493	437	382	200	182	293	326	111

Table 23. Tuber quality of CO05175-1RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	2.1	2.1	1.087
2	0	0	0	2.4	2.4	1.082
3	0	0	0	0	0	1.085
4	0	0	0	0	0	1.086
Mean	0	0	0	1.1	1.1	1.085

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 24. Yield and tuber size distribution of CO05132-2RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	326	66	260	172	260	199	61	61	172	0
2	254	96	158	103	158	119	39	39	103	0
3	267	43	224	182	224	158	66	66	182	0
4	274	53	221	176	211	168	43	53	166	10
Mean	280	65	216	158	213	161	52	55	133	2.5

Table 25. Tuber quality of CO05132-2RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	3.8	1.9	5.7	0	0	1.078
2	12.9	0	12.9	0	0	1.074
3	7.7	0	7.7	0	0	1.076
4	0	0	0	0	0	1.078
Mean	6.1	0.5	6.6	0	0	1.077

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 26. Yield and tuber size distribution of CO05189-2RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	322	187	135	37	135	135	0	0	37	0
2	296	204	92	12	92	92	0	0	12	0
3	270	92	178	70	178	164	14	14	70	0
4	334	174	160	37	160	160	0	0	37	0
Mean	306	164	141	39	141	138	4	4	39	0

Table 27. Tuber quality of CO05189-2RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.079
2	0	0	0	0	0	1.072
3	0	0	0	0	0	1.074
4	0	0	0	0	0	1.078
Mean	0	0	0	0	0	1.076

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 28. Yield and tuber size distribution of CO05149-3RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	277	131	146	53	146	146	0	0	53	0
2	295	158	137	45	137	131	6	6	45	0
3	279	84	195	119	195	154	41	41	119	0
4	338	90	248	117	248	217	31	31	117	0
Mean	297	116	182	84	182	162	20	20	84	0

Table 29. Tuber quality of CO05149-3RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	1.5	0	1.5	0	0	1.074
2	0	4.2	4.2	2.8	2.8	1.076
3	0	0	0	0	0	1.074
4	0	0	0	0	0	1.077
Mean	0.4	1.05	1.4	0.7	0.7	1.075

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 30. Yield and tuber size distribution of CO05189-3RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	432	12	420	398	267	98	168	322	244	154
2	416	29	387	359	293	127	166	260	265	94
3	308	12	296	267	148	103	45	193	119	148
4	367	25	342	320	241	100	141	242	219	101
Mean	381	20	361	336	237	107	130	254	212	124

Table 31. Tuber quality of CO05189-3RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.068
2	6.9	1.5	8.4	0	0	1.062
3	0	0	0	0	0	1.069
4	0	0	0	0	0	1.074
Mean	1.7	0.4	2.1	0	0	1.068

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 32. Yield and tuber size distribution of CO05152-5RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	462	148	314	121	314	314	0	0	121	0
2	438	133	305	154	305	291	14	14	154	0
3	346	100	246	113	246	232	14	14	113	0
4	419	109	310	191	310	281	29	29	191	0
Mean	416	123	294	145	294	280	14	14	145	0

Table 33. Tuber quality of CO05152-5RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0.9	1.3	2.2	0	0	1.077
2	0	0	0	0	0	1.073
3	0	0	0	0	0	1.073
4	0	0	0	0	0	1.077
Mean	0.2	0.3	0.6	0	0	1.075

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 34. Yield and tuber size distribution of CO05110-6RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	358	100	258	123	258	244	14	14	123	0
2	308	158	150	49	150	144	6	6	49	0
3	316	82	234	115	234	228	6	6	115	0
4	320	123	197	47	197	197	0	0	47	0
Mean	326	116	210	84	210	203	7	7	84	0

Table 35. Tuber quality of CO05110-6RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.072
2	1.3	0	1.3	0	0	1.071
3	0	0	0	0	0	1.075
4	0	0	0	0	0	1.072
Mean	0.3	0	0.3	0	0	1.073

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 36. Yield and tuber size distribution of CO05024-11RU grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	398	82	316	215	316	277	39	39	215	0
2	429	66	363	228	363	312	51	51	228	0
3	441	53	388	318	351	248	103	139	281	37
4	455	45	410	322	367	271	96	139	279	43
Mean	431	62	369	271	349	277	72	92	251	20

Table 37. Tuber quality of CO05024-11RU grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	1.6	0	1.6	0	0	1.084
2	0	0	0	0	0	1.076
3	0	0	0	0	0	1.076
4	0	0	0	0	0	1.081
Mean	0.4	0	0.4	0	0	1.079

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 38. Yield and tuber size distribution of Yukon Gold grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	420	57	363	275	328	238	90	125	240	35
2	410	82	328	238	318	277	41	51	228	10
3	492	49	443	367	443	283	160	160	367	0
4	469	57	412	344	398	269	129	143	330	14
Mean	448	61	387	306	372	267	105	120	291	15

Table 39. Tuber quality of Yukon Gold grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	7.3	1.0	8.3	0	0	1.080
2	1.5	0	1.5	0	0	1.073
3	2.5	0	2.5	0	0	1.087
4	0	0	0	0	0	1.088
Mean	2.8	0.25	3.1	0	0	1.082

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 40. Yield and tuber size distribution of CO04099-3W/Y grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	549	334	215	35	215	215	0	0	35	0
2	424	381	43	0	43	43	0	0	0	0
3	437	187	250	62	250	236	14	14	62	0
4	443	248	195	62	195	195	0	0	62	0
Mean	463	288	176	40	176	172	3.5	3.5	40	0

Table 41. Tuber quality of CO04099-3W/Y grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0.8	0	0.8	0	0	1.083
2	0	0	0	0	0	1.078
3	0	0	0	0	0	1.083
4	0	0	0	0	0	1.087
Mean	0.2	0	0.2	0	0	1.083

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 42. Yield and tuber size distribution of CO05037-3W/Y grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	603	379	224	49	224	224	0	0	49	0
2	554	349	205	35	205	205	0	0	35	0
3	375	135	240	133	240	211	29	29	133	0
4	494	213	281	111	281	281	0	0	111	0
Mean	507	269	238	82	238	230	7	7	82	0

Table 43. Tuber quality of CO05037-3W/Y grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.079
2	0	0	0	0	0	1.072
3	0	0	0	0	0	1.074
4	0	0	0	0	0	1.074
Mean	0	0	0	0	0	1.075

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 44. Yield and tuber size distribution of CO05037-2R/Y grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	442	342	100	4	100	100	0	0	4	0
2	404	379	25	0	25	25	0	0	0	0
3	406	203	203	60	203	197	6	6	60	0
4	431	277	154	29	154	154	0	0	29	0
Mean	421	300	121	23	121	119	2	2	23	0

Table 45. Tuber quality of CO05037-2R/Y grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.093
2	0	0	0	0	0	1.086
3	0	0	0	0	0	1.088
4	0	0	0	0	0	1.090
Mean	0	0	0	0	0	1.089

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 46. Yield and tuber size distribution of CO04188-4R/Y grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	451	185	267	123	267	244	23	23	123	0
2	430	248	182	57	182	182	0	0	57	0
3	298	117	181	113	181	158	23	23	113	0
4	484	166	318	221	318	248	70	70	221	0
Mean	416	179	237	129	237	208	29	29	129	0

Table 47. Tuber quality of CO04188-4R/Y grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.081
2	0	0	0	0	0	1.076
3	0	0	0	0	0	1.077
4	2.1	0	2.1	0	0	1.078
Mean	0.5	0	0.5	0	0	1.078

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 48. Yield and tuber size distribution of CO04067-8R/Y grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	510	180	330	98	330	330	0	0	98	0
2	453	213	240	57	240	240	0	0	57	0
3	371	150	221	158	221	199	22	22	158	0
4	488	164	324	172	324	297	27	27	172	0
Mean	456	177	279	121	279	267	12	12	121	0

Table 49. Tuber quality of CO04067-8R/Y grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	2.0	0	2.0	0	0	1.076
2	2.7	0	2.7	0	0	1.074
3	8.3	0	8.3	0	0	1.076
4	5.0	0	5.0	0	0	1.077
Mean	4.5	0	4.5	0	0	1.076

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 50. Yield and tuber size distribution of Purple Majesty grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	431	240	191	45	191	183	8	8	45	0
2	453	223	230	92	230	211	19	19	92	0
3	547	180	367	226	367	287	80	80	226	0
4	451	195	256	107	256	248	8	8	107	0
Mean	471	210	261	118	261	232	29	29	118	0

Table 51. Tuber quality of Purple Majesty grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.076
2	0	0	0	0	0	1.077
3	0	0	0	0	0	1.081
4	0	0	0	0	0	1.078
Mean	0	0	0	0	0	1.078

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 52. Yield and tuber size distribution of AC05175-3P/Y grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	470	226	244	88	244	238	6	6	88	0
2	453	281	172	31	172	172	0	0	31	0
3	318	185	133	23	133	133	0	0	23	0
4	385	178	207	62	207	207	0	0	62	0
Mean	407	218	189	51	189	188	1.5	1.5	51	0

Table 53. Tuber quality of AC05175-3P/Y grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.072
2	0	0	0	0	0	1.071
3	0	0	0	0	0	1.067
4	0	0	0	0	0	1.068
Mean	0	0	0	0	0	1.070

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 54. Yield and tuber size distribution of CO04056-3P/PW grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	408	293	115	23	115	115	0	0	23	0
2	381	330	51	4	51	51	0	0	4	0
3	363	217	146	49	146	146	0	0	49	0
4	365	238	127	41	127	127	0	0	41	0
Mean	379	270	110	29	110	110	0	0	29	0

Table 55. Tuber quality of CO04056-3P/PW grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.078
2	0	0	0	0	0	1.079
3	0	0	0	0	0	1.083
4	0	0	0	0	0	1.081
Mean	0	0	0	0	0	1.080

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 56. Yield and tuber size distribution of Sangre grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	722	78	644	568	615	277	338	367	539	29
2	543	74	469	357	457	295	162	174	344	12
3	685	41	644	597	431	175	256	469	383	213
4	684	57	627	588	543	213	330	414	504	84
Mean	659	63	596	528	512	240	272	356	443	85

Table 57. Tuber quality of Sangre grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	1.1	0	1.1	0	0	1.077
2	1.5	0	1.5	0	0	1.074
3	0	0.5	0.5	0	0	1.088
4	3.6	0	3.6	0	0	1.085
Mean	1.6	0.1	1.7	0	0	1.081

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 58. Tuber diameter of Sangre grown under different management practices, 2013

Field Number	< 2in. dia.[1]	2 – 4in. dia.	> 4in. dia.	> 2in. dia. < 10oz	> 2in dia. > 10oz	> 2ins.dia.
			Yield (cwt/ac)			
1	31	689	0	322	367	689
2	23	518	0	344	174	518
3	16	609	59	199	469	668
4	23	625	39	250	414	664
Mean	23	610	25	279	356	635

[1]dia. = diameter

Table 59. Yield and tuber size distribution of CO04063-4R/R grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	358	301	57	12	57	57	0	0	12	0
2	271	232	39	12	39	39	0	0	12	0
3	248	178	70	23	70	70	0	0	23	0
4	281	240	41	0	41	41	0	0	0	0
Mean	290	238	52	12	52	52	0	0	12	0

Table 60. Tuber quality of CO04063-4R/R grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.070
2	0	0	0	0	0	1.059
3	5.0	0	5.0	0	0	1.066
4	0	0	0	0	0	1.064
Mean	1.3	0	1.3	0	0	1.065

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 61. Tuber diameter of CO04063-4R/R grown under different management practices, 2013

Field Number	< 2in. dia.[1]	2 – 4in. dia.	> 4in. dia.	> 2in. dia. < 10oz	> 2in dia. > 10oz	> 2ins.dia.
			Yield (cwt/ac)			
1	236	121	0	121	0	121
2	166	103	0	103	0	103
3	113	125	0	125	0	125
4	164	117	0	117	0	117
Mean	170	117	0	117	0	117

[1]dia. = diameter

Table 62. Yield and tuber size distribution of CO05211-4R grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	373	150	223	98	223	215	8	8	98	0
2	373	191	182	57	182	182	0	0	57	0
3	310	135	174	74	174	166	8	8	74	0
4	359	195	164	62	164	156	8	8	62	0
Mean	354	168	186	73	186	180	6	6	73	0

Table 63. Tuber quality of CO05211-4R grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	8.2	0	8.2	0	0	1.084
2	0	2.2	2.2	0	0	1.068
3	0	0	0	0	0	1.076
4	0	0	0	0	0	1.076
Mean	2.1	0.6	2.1	0	0	1.076

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 64. Tuber diameter of CO05211-4R grown under different management practices, 2013

Field Number	< 2in. dia.[1]	2 – 4in. dia.	> 4in. dia.	> 2in. dia. < 10oz	> 2in dia. > 10oz	> 2ins.dia.
			Yield (cwt/ac)			
1	43	332	0	324	8	332
2	119	256	0	256	0	256
3	62	248	0	240	8	248
4	96	262	0	254	8	262
Mean	80	275	0	269	6	275

[1]dia. = diameter

Table 65. Yield and tuber size distribution of CO04159-1R grown under different management practices, 2013

Field Number	Total	< 4oz	> 4oz	> 6oz	4 – 16oz	4 – 10oz	10 – 16oz	> 10oz	6 – 16oz	> 16oz
					Yield (cwt/ac)					
1	231	57	174	123	174	139	35	35	123	0
2	306	80	226	160	226	205	21	21	160	0
3	195	74	121	84	121	100	21	21	84	0
4	236	86	150	98	150	150	0	0	98	0
Mean	242	74	168	116	168	149	19	19	116	0

Table 66. Tuber quality of CO04159-1R grown under different management practices, 2013

Field Number	% Growth Cracks	% Misshapes	% External Defects[1]	% Hollow Heart	% Internal Defects[2]	Specific Gravity
1	0	0	0	0	0	1.080
2	2.0	0	2.0	0	0	1.076
3	4.2	0	4.2	0	0	1.080
4	0	0	0	0	0	1.082
Mean	1.6	0	1.6	0	0	1.080

[1]Includes growth cracks and misshapes.
[2]Includes hollow heart and brown center.

Table 67. Tuber diameter of CO04159-1R grown under different management practices, 2013

Field Number	< 2in. dia.[1]	2 – 4in. dia.	> 4in. dia.	> 2in. dia. < 10oz	> 2in dia. > 10oz	> 2ins.dia.
			Yield (cwt/ac)			
1	25	203	0	168	35	203
2	29	279	0	258	21	279
3	35	156	0	135	21	156
4	39	195	0	195	0	195
Mean	32	208	0	189	19	208

[1]dia. = diameter