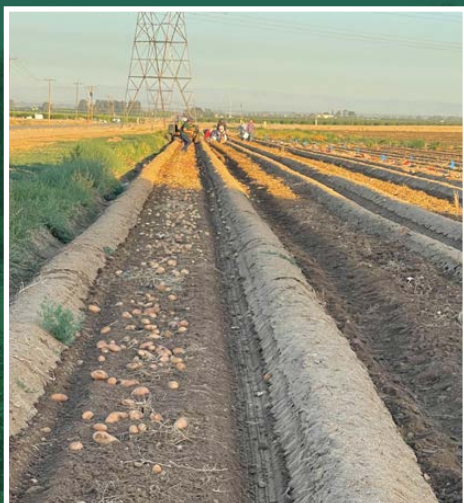


2021 Kern County Potato Variety Trial

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UCCE Kern



UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

UC Cooperative Extension

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Kern County 2021 Potato Variety Trial

There are three sub-trials in this project

Southwest Regional Trial

This trial continues the association that the California potato industry has had with Colorado State University and Texas A & M University in the formation of the Southwest Region Trials. Advanced varieties are made available by CSU and TAMU each year for testing in regional trials. These varieties include russets, whites, reds, and specialty types. These varieties are replicated four times to minimize variations and to have an accurate measure of their true potential for yield, quality, and resistance.

The Kern County Potato Variety Selection Trial

The Kern County trial primarily consists of varieties developed by various university and the private breeders from North America. Selections in the replicated trial are replicated four times. Varieties in the replicated trial could be dropped after the first or second year, or go into a final third year of evaluation.

Observational Trial

Potato varieties with little history or data will be first looked at in the observational trial. It will consist of varieties from all breeders to test how they perform under Kern county conditions. Varieties that have proven merit in the observational trial will likely move up to the Kern County replicated trial the following year.

Planting and harvesting



Planted on 02/15/21



Harvested and graded on 06/14/21

In-house variety display 06-18-21



Southwest Regional Trial

10 Entries

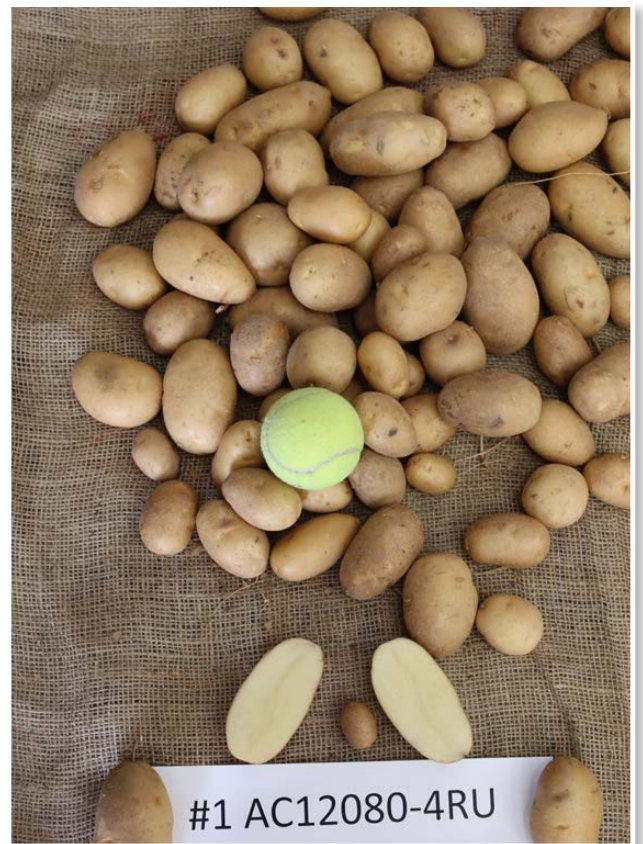
Highest Yield

- CO13232-5W (chipper), 236 cwt

Standards

- Russet Norkotah, 81cwt
- Yukon Gold (Yellow), 105 cwt
- Atlantic (Chipper), 120 cwt

Trial Varieties



1. AC12080-4RU



2. AC12090-3RU



3. CO13003-1RU



4. CO13232-5W



5. CO13232-25W



6. Atlantic



7. Russet Norkotah



8. Snowden



9. Yukon Gold



11. COTX08063-2RU

Kern County Replicated Trial

13 Entries

Highest Yield

- Nectar, 267 cwt

Standards

- Russet Norkotah, 81 cwt
- Yukon Gold (Yellow), 105 cwt
- Atlantic (Chipper), 120 cwt



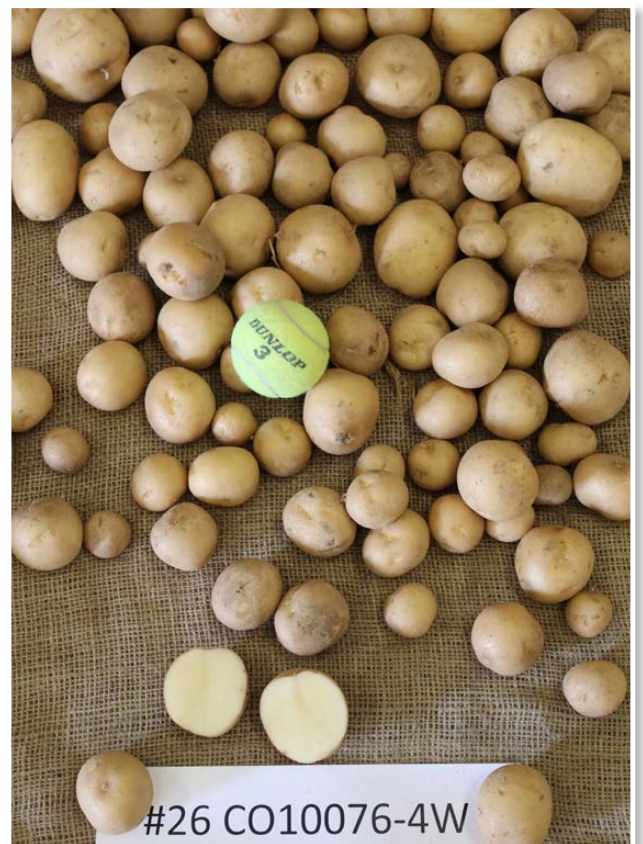
23. TX09403-15W



24. CO11250-1W/Y



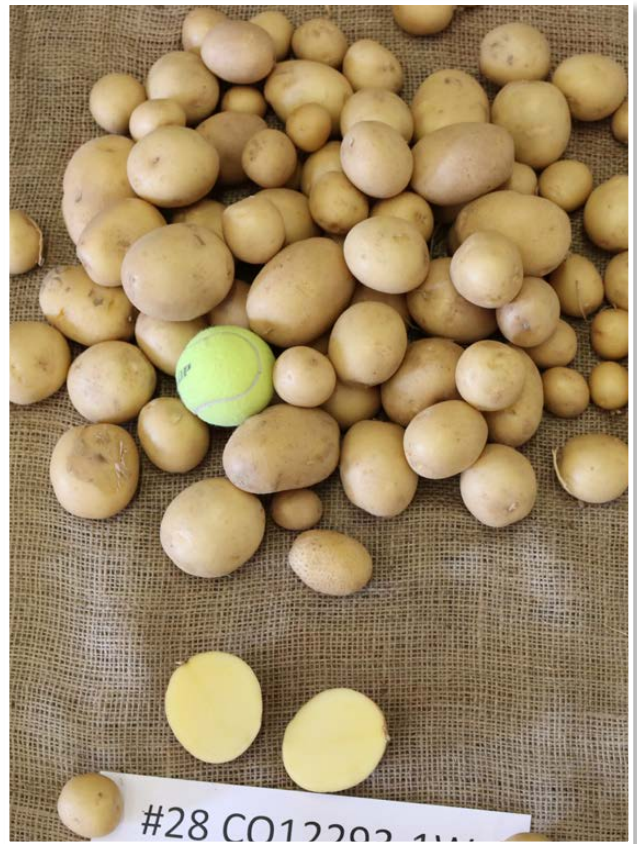
25. CO10073-7W



26. CO10076-4W



27. CO12235-3W



28. CO12293-1W



31. Double Fun



32. Cerata



33. Golden Eye



34. Primabelle



35. Alta Rose



36. Nectar



37. Almera

Observational Trial

73 Entries

Five High Yields

- Caprice, 504 cwt
- RP2011-2Y, 437cwt
- Sally, 459 cwt
- Torino, 533 cwt
- Electra, 714 cwt

Standards

- Russet Norkotah, 130 cwt
- Yukon Gold (Yellow), 105 cwt
- Atlantic (Chipper), 120 cwt



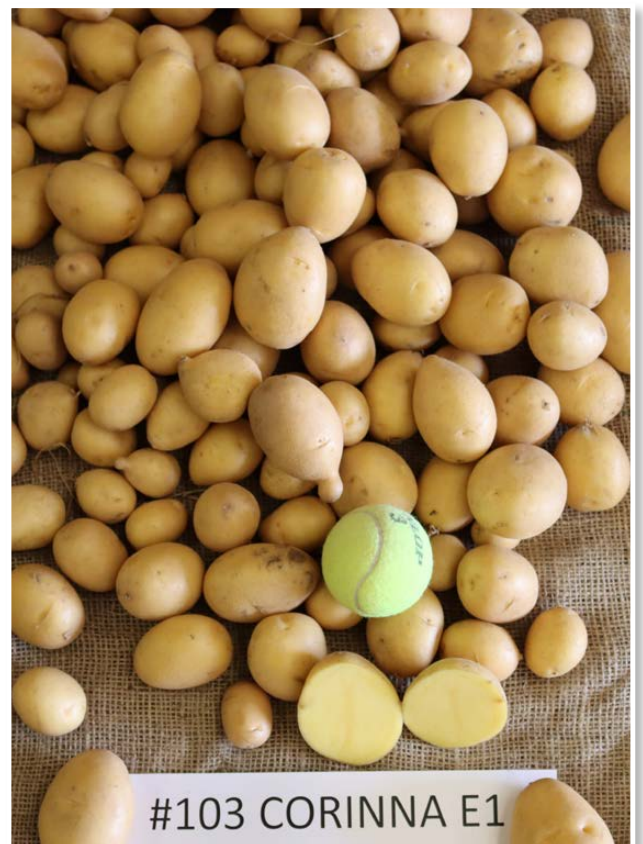
100. Caprice



101. Prada



102. Rosemara



103. Corinna E1



104. Natascha



105 Red Rascal



106. Belmonda



107. Baltic Rose



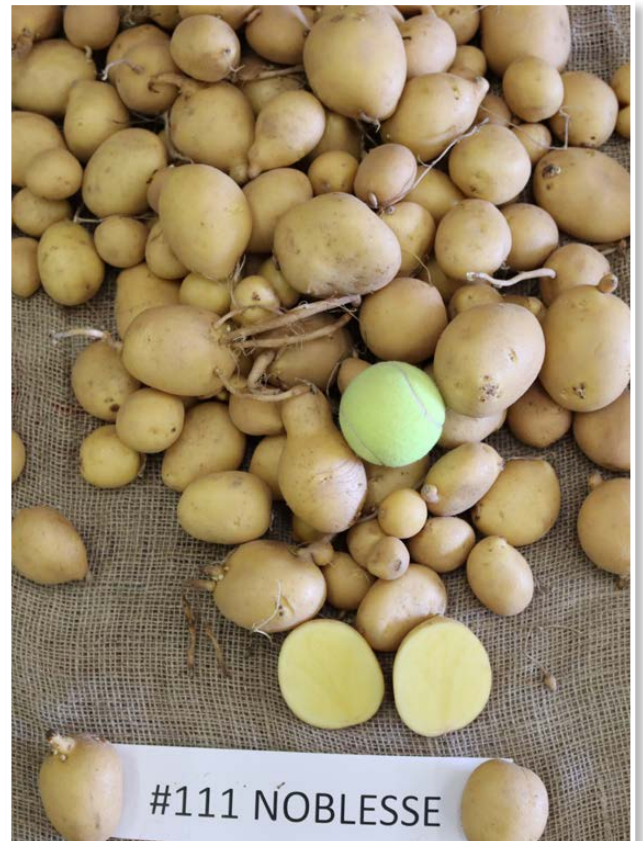
108. Allora



109. Christel



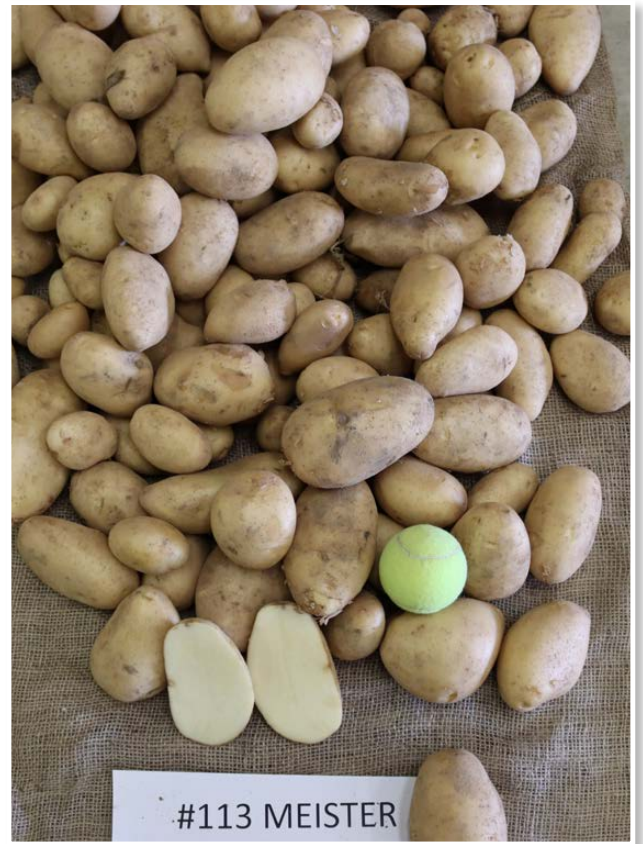
110. Paroli



111. Noblesse



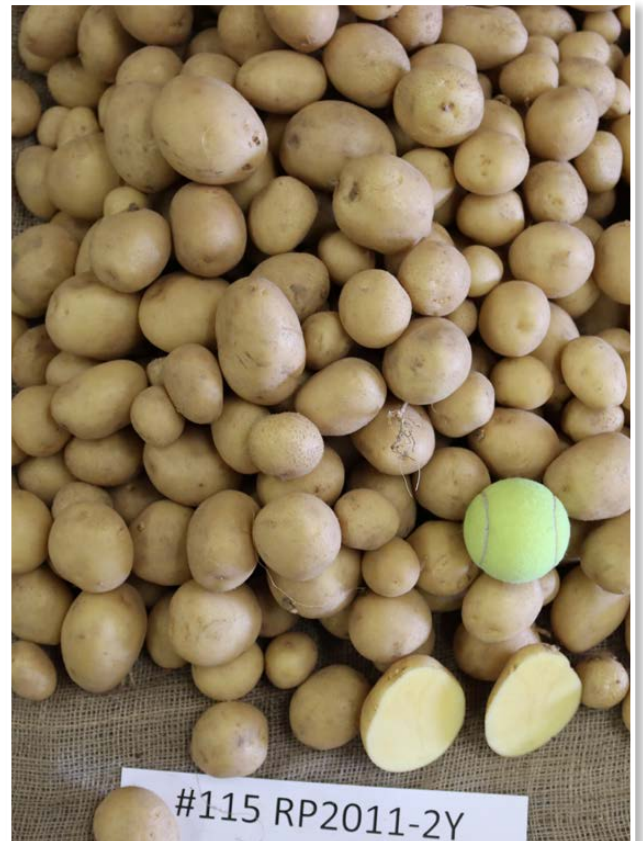
112. Mary Ann



113. Meister



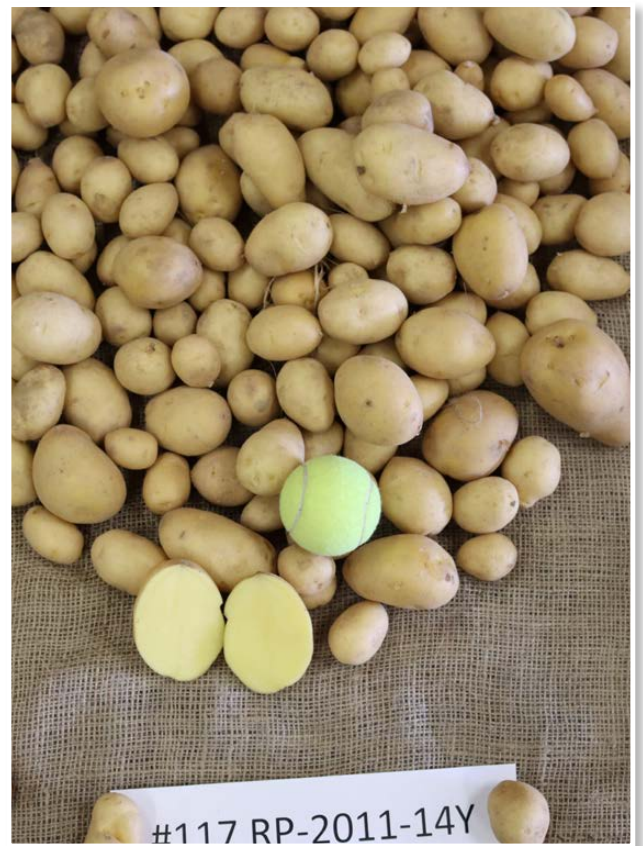
114. RP2009-02R



115. RP2011-2Y



116. EB 2017-1R



117. RP-2011-14Y



118. Divaa



119. Vicky



120. Captain



121. Crop 61



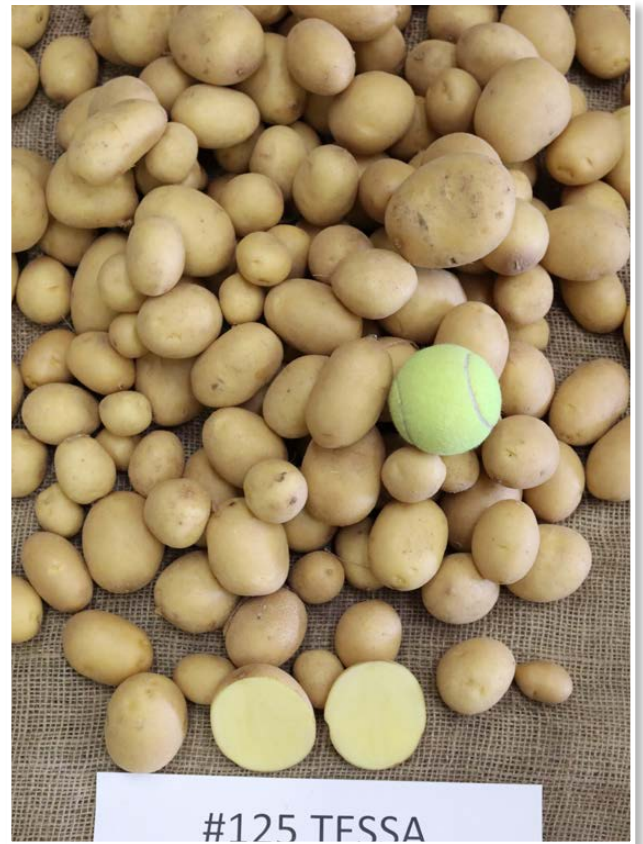
122. Salinero



123. Clairette



124. Thunder Ball



125. Tessa



126. AC13126-1Wadg



127. Florida



128. Acoustic



129. NDTX081451CBs



130. Rock



131. TX17763-2Y/Y



132. V07116-1 ACC Robin



133. Lilly



134. CO10085-1RU



135. Rosi



136. CO14206-1W/Y



137. CO14035-4R



138. Danina E1



139.CO08062-3PF/P



#140 CO14032-6R

140. CO14032-6R



#141 MONTANA

141. Montana E1



#142 CO11023-2W

142. CO11023-9W

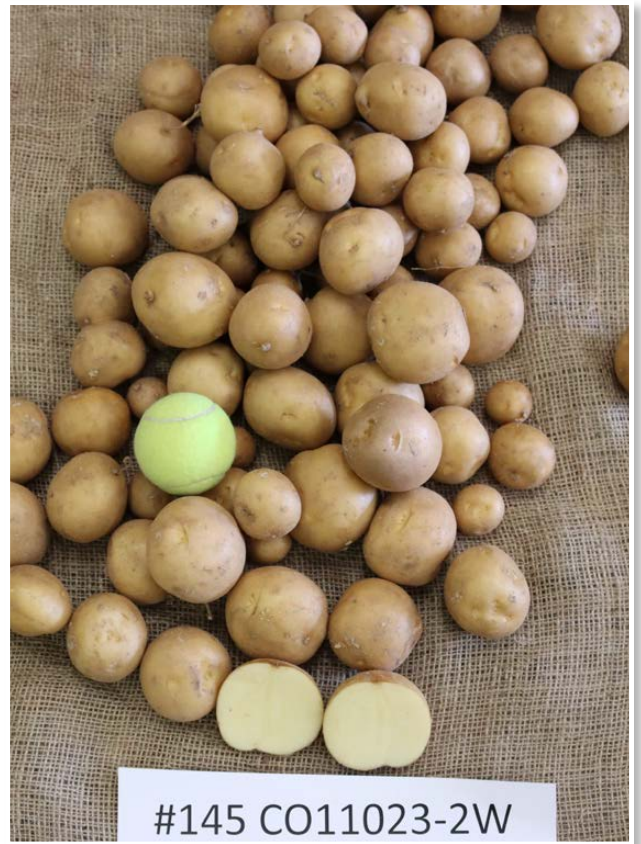


#143 CP 14040-3R

143. CO14040-3R



144. CO11266-1W/Y



145. CO11023-2W



146. CO14226-3W/Y



147. CO14105-1R



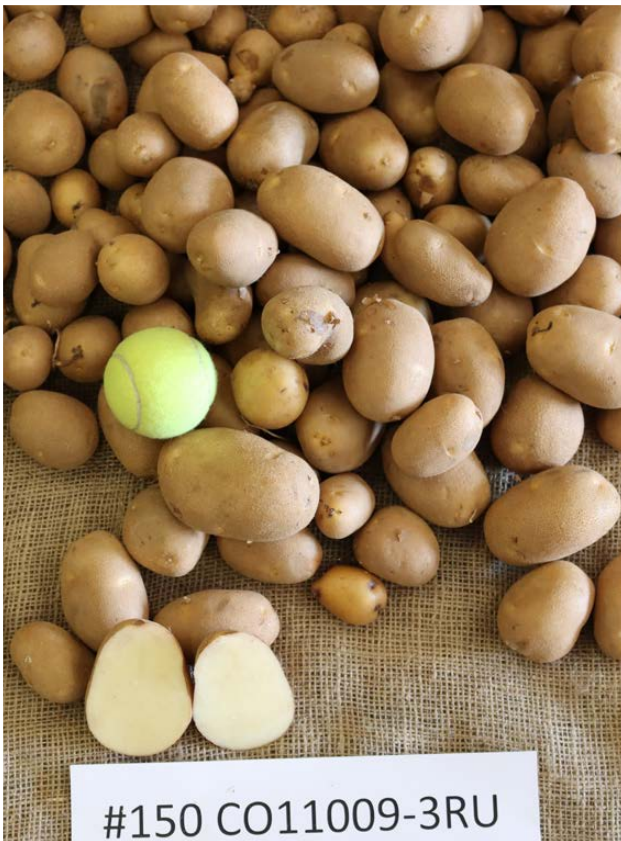
#148 BONNATA

148. Bonnata



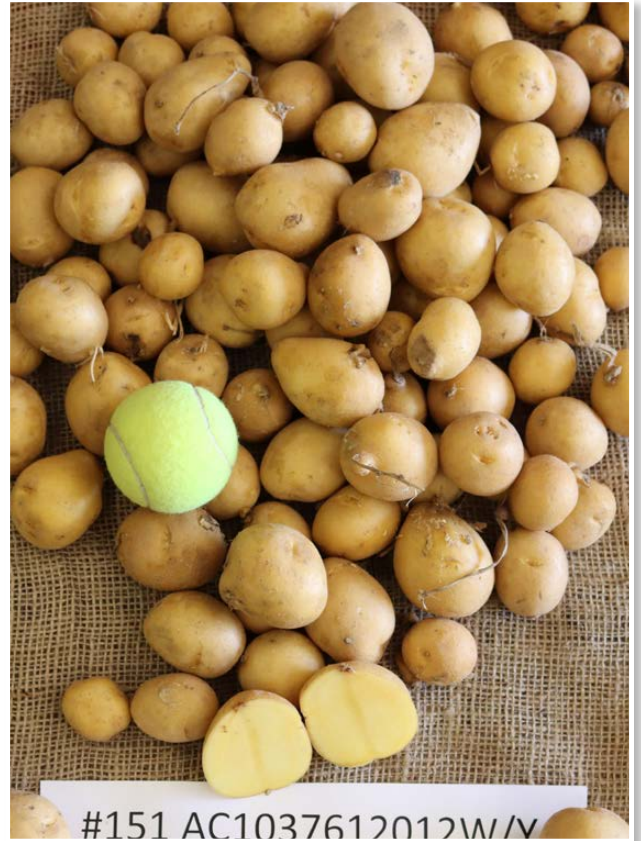
#149 CO11037-5W

149. CO11037-5W



#150 CO11009-3RU

150. CO11009-3RU



#151 AC1037612012W/Y

151. AC10376-1-2012W/Y



#152 SPETOR-PSS13

152. SPECTOR-PSS13/041/35



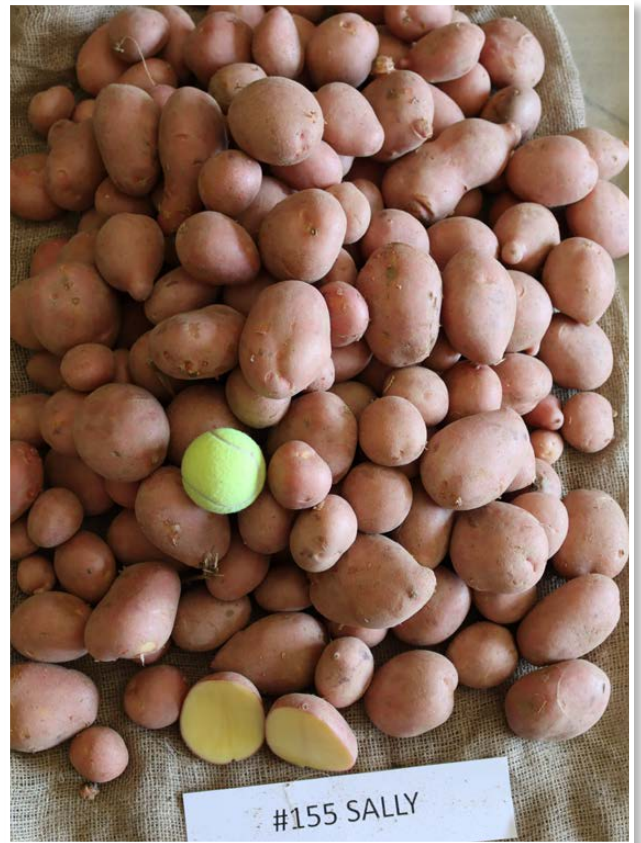
#153 CO10087-4RUSTO

153. CO10087-4RUsto



#154 AGATA

154. Agata



#155 SALLY

155. Sally



#156 CO10064-1W/Y

156. CO10064-1W/Y



#157 ALBERTINE E1

157. Albertine E1



#158 COTX10118-4

158. COTX10118-4 PUE/Y



#159 CO10098-5W/Y

159. CO10098-5W/Y



#160 IYTL #13

160. IYTL #13



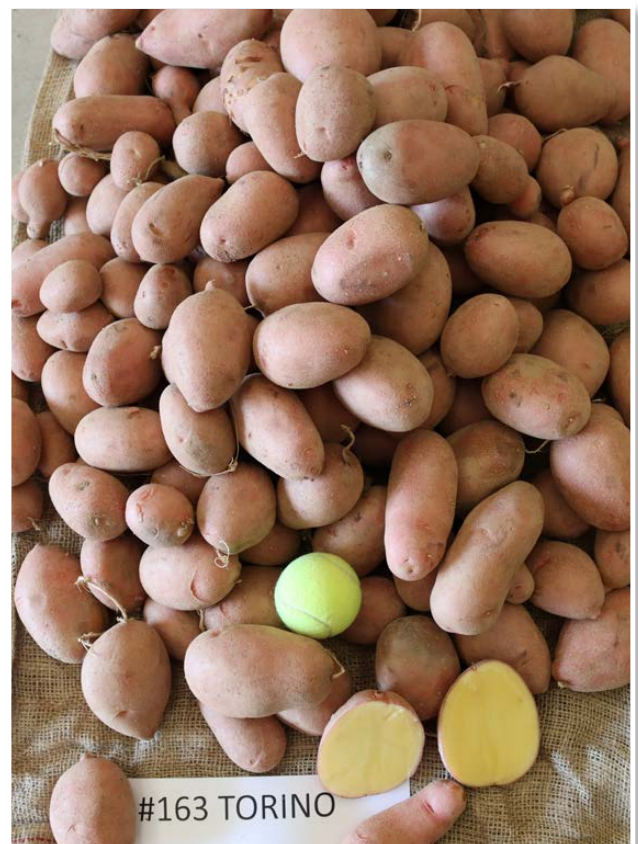
#161 NOYA

161. Noya



#162 RICARADA

162. Ricarda



#163 TORINO

163. Torino



#164 ALASKA GOLD

164. Alaska Gold



#165 AC1149-6W

165. AC1149-6W



#166 HZC 07 1356

166. HZC-07-1356



#167 CO12378-1RU

167. CO12378-1RU



#168 AAC HAMMER

168. AAC Hammer



#169 MSW343-2R

169. MSW343-2R



#170 CO99-RP

170. CO99-RP



#171 ELECTRA

171. Electra

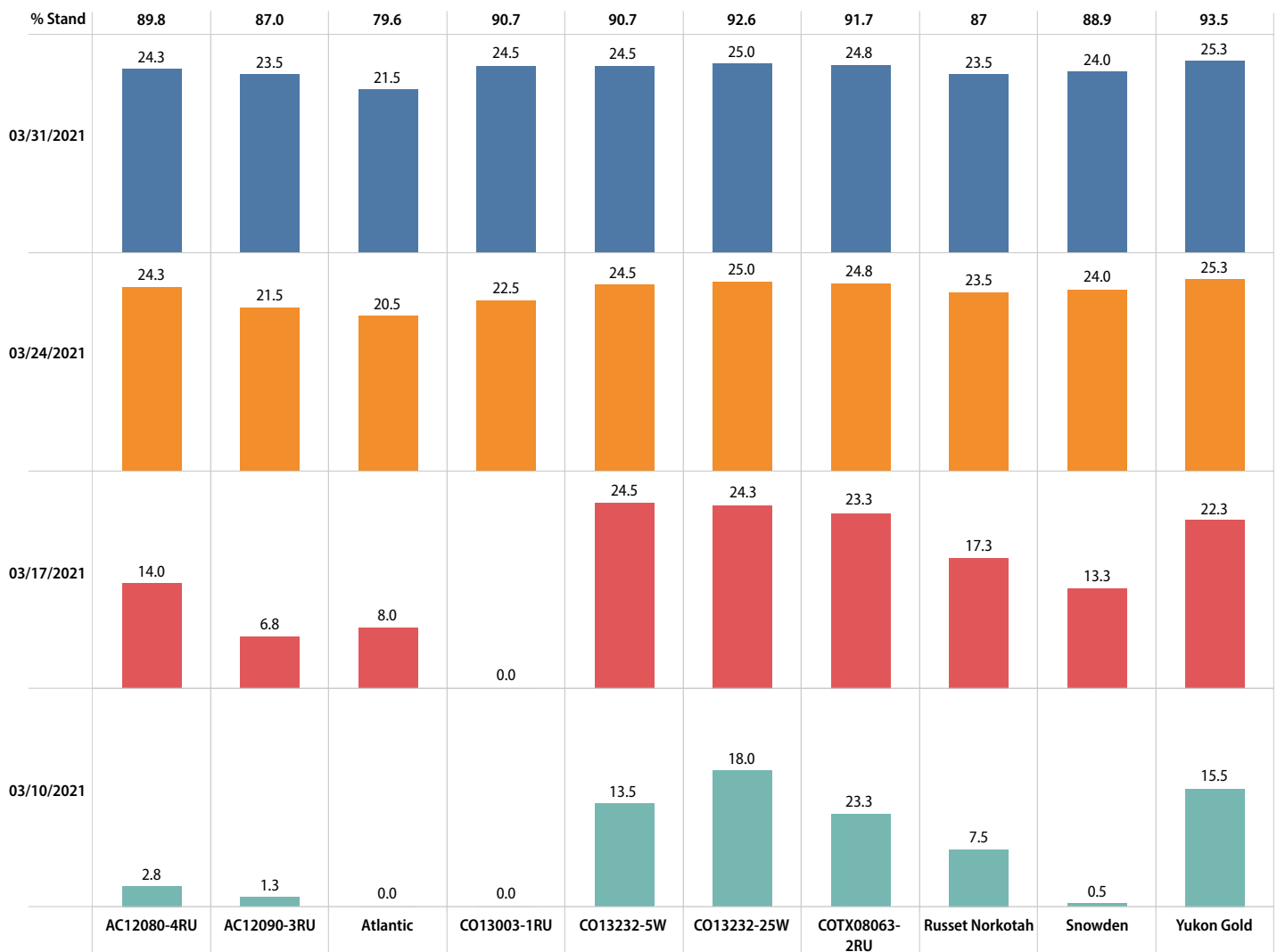


172. Constance

Plant Emergence Data

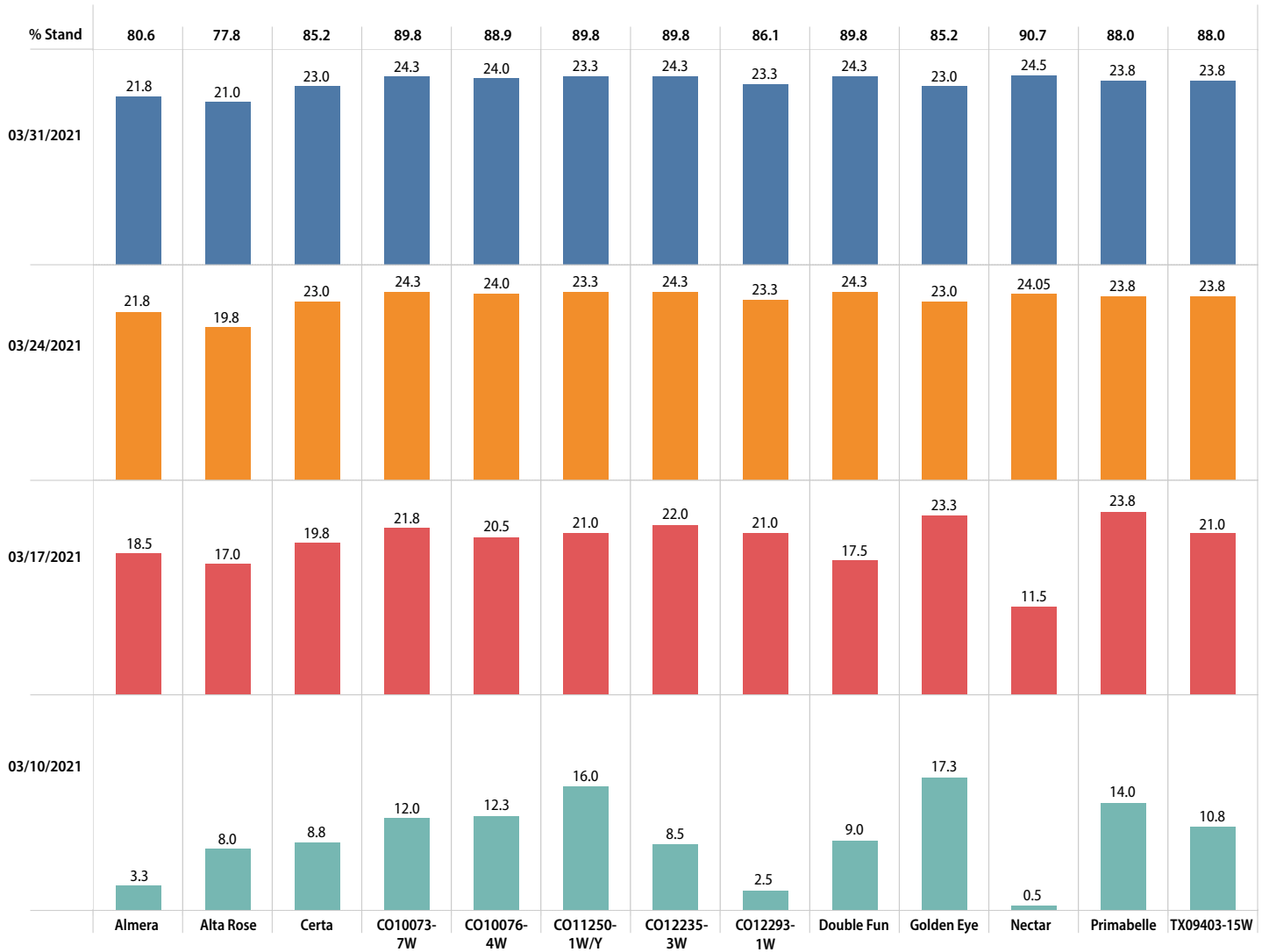
Southwest Regional Trial

Planted on 02/15/2021



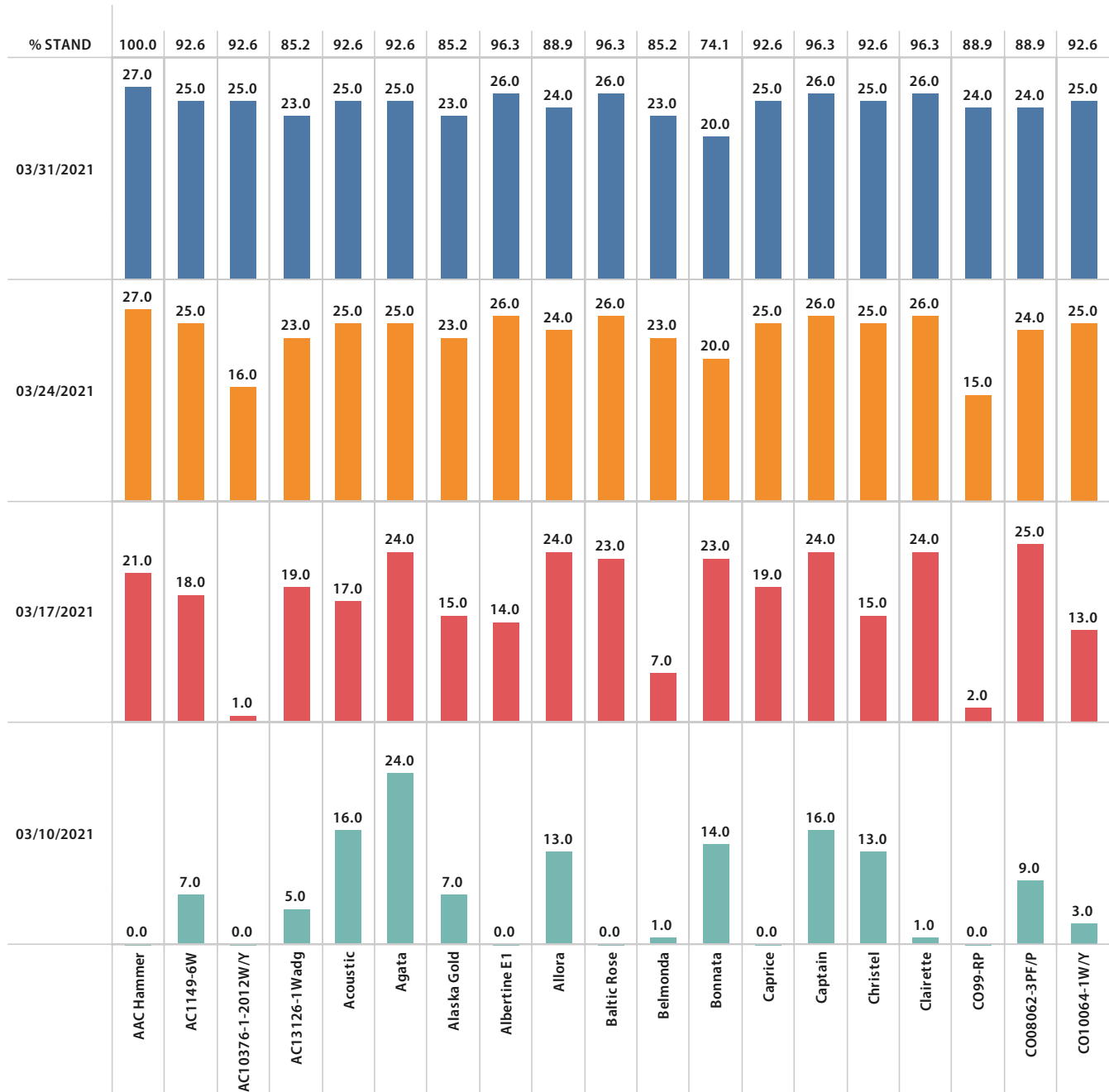
Kern County Replicated Trial

Planted on 02/15/2021



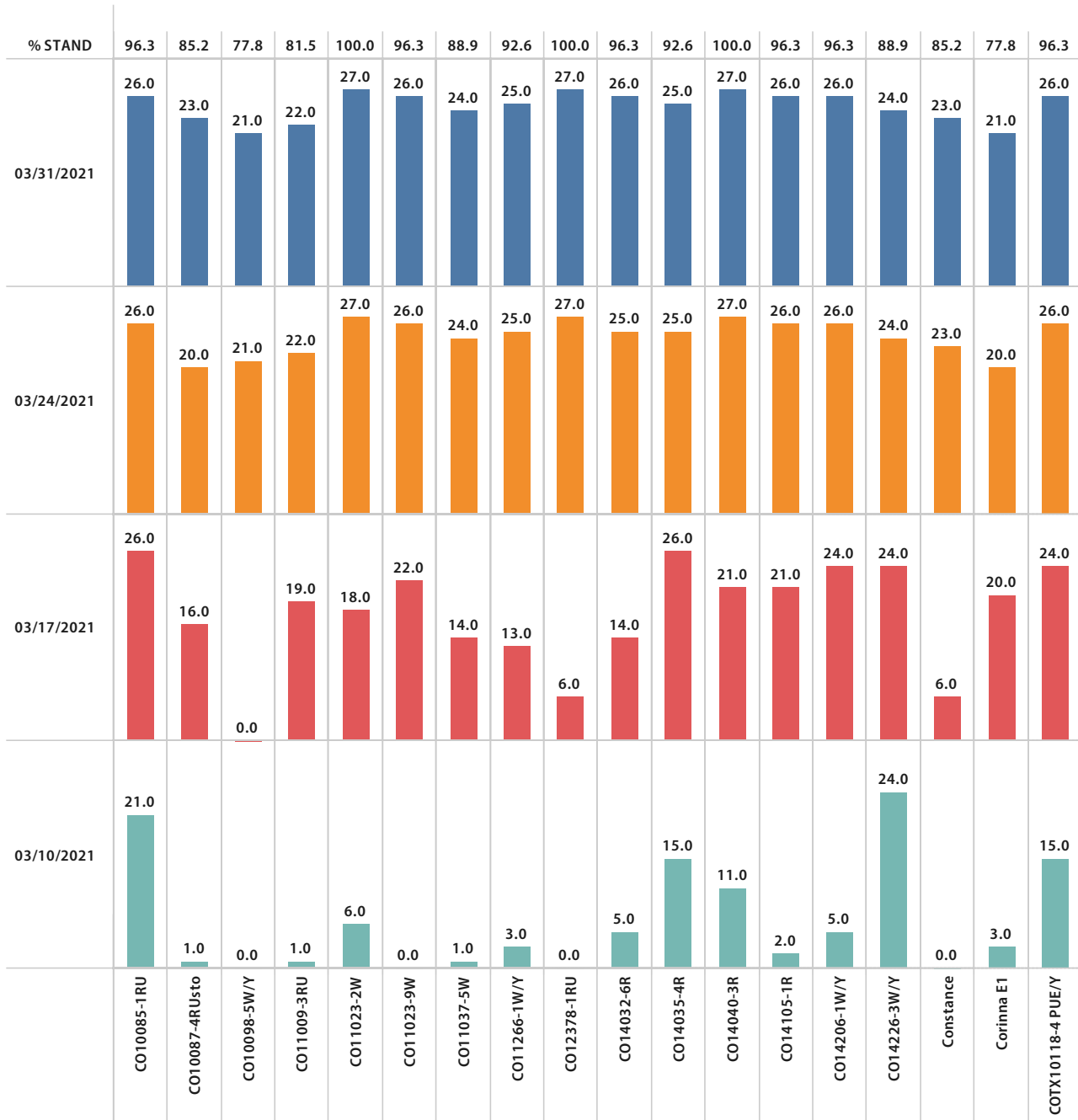
Observational Trial

Planted on 02/15/2021



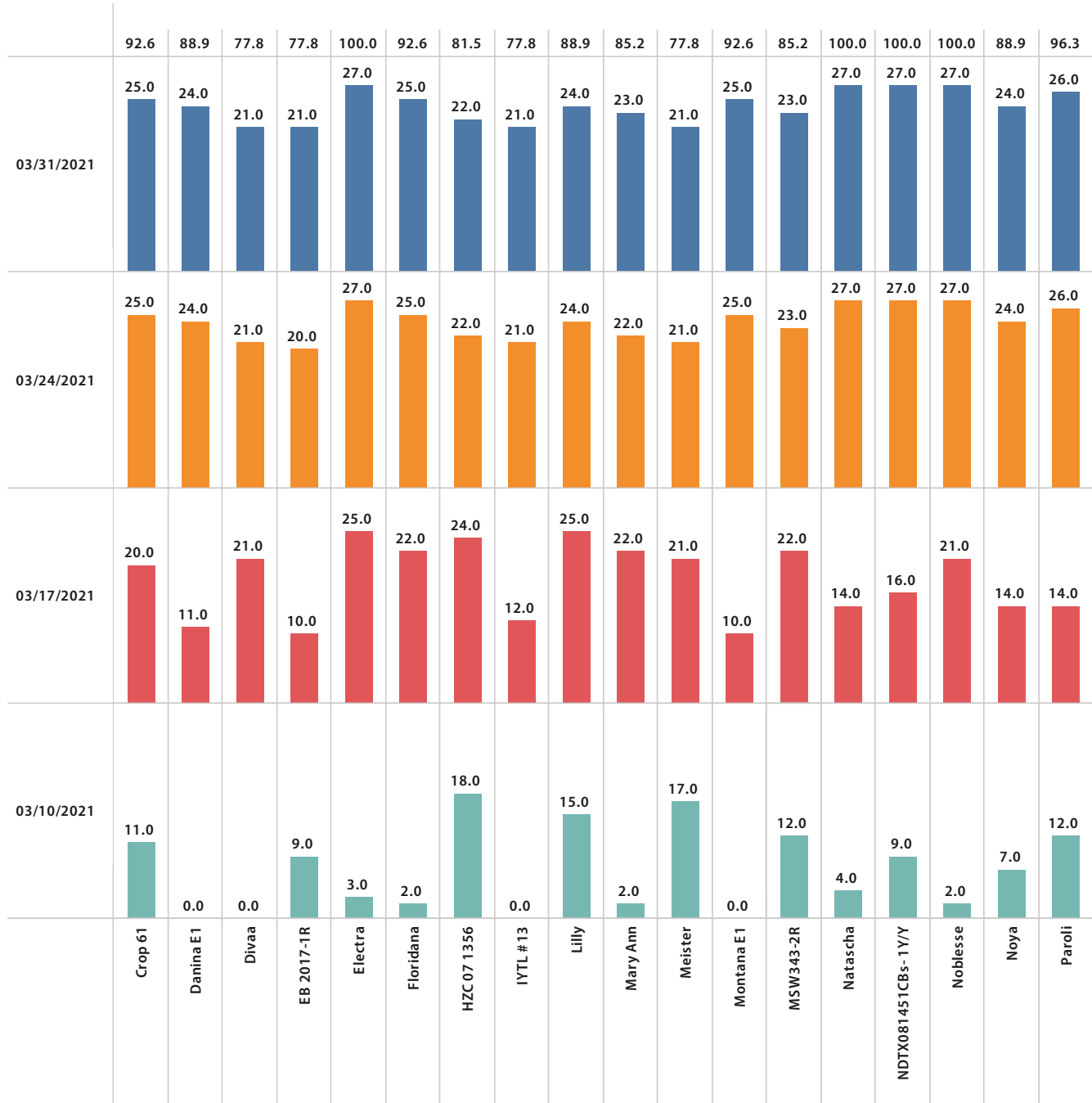
Observational Trial, *continued*

Planted on 02/15/2021



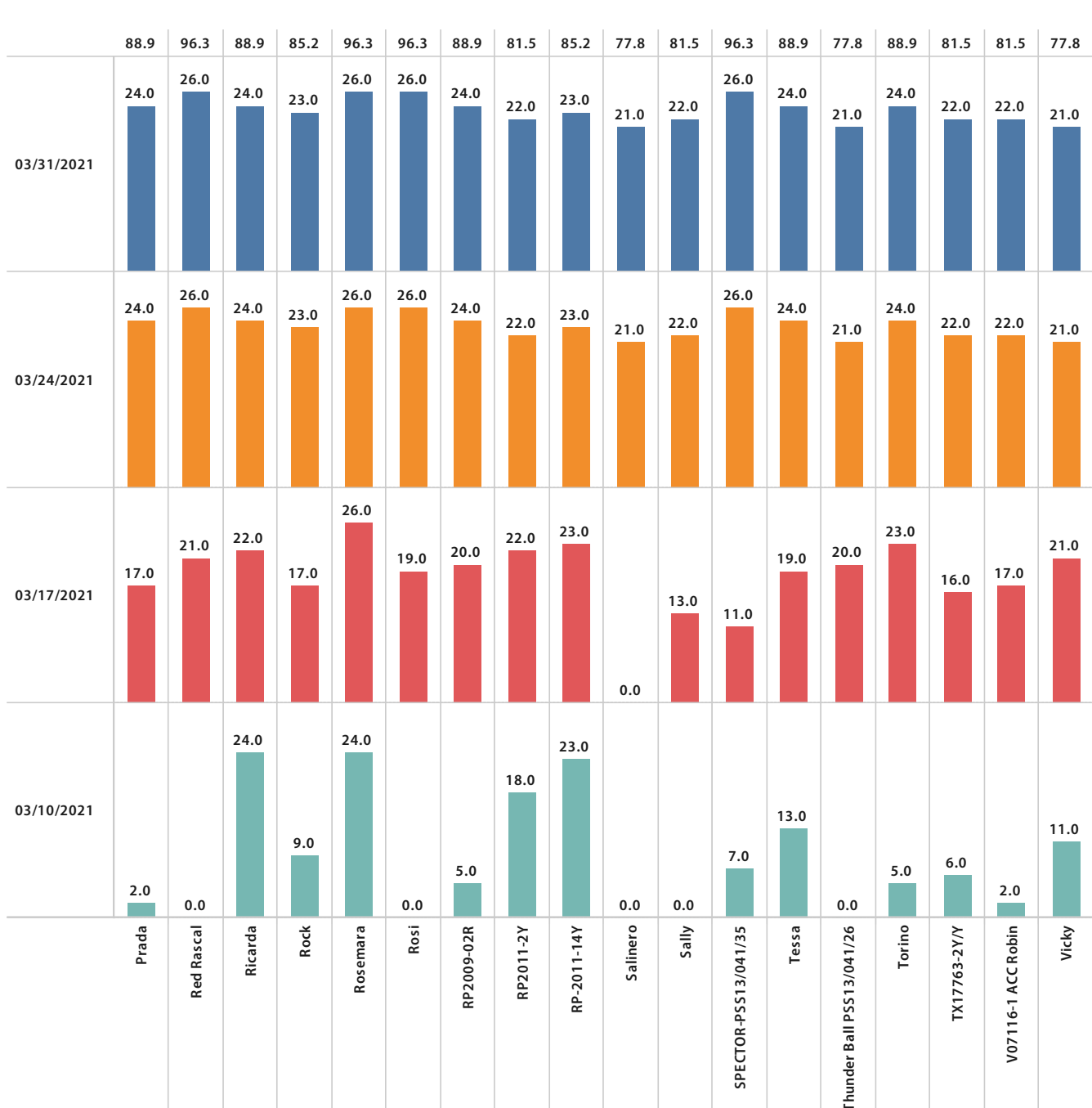
Observational Trial, *continued*

Planted on 02/15/2021



Observational Trial, *continued*

Planted on 02/15/2021



Yield Data

Table 1: Tuber yield and size of Southwest Regional Trial potato entries

Graded tuber yield CWT/ A									
ID#	Clone	Type	0-4 oz	4-6 oz	6-10 oz	11 oz >	Culls	Total yield	Marketable yield
Russet trial									
1	AC12080-4RU	Russet	65.21	81.55	9.19	0.00	0.00	158.63 ab	155.95 ab
2	AC12090-3RU	Russet	42.62	61.89	6.00	0.00	6.76	117.28 bc	110.52 bc
3	CO13003-1RU	Russet	47.22	75.04	7.02	0.00	0.38	129.66 abc	129.28 abc
7	Russet Norkotah	Russet	60.49	20.80	0.00	0.00	0.00	81.29 c	81.29 c
11	COTX08063-2RU	Russet	66.49	62.15	0.00	0.00	0.00	128.64 abc	128.64 abc
Specialty trial									
9	Yukon Gold	Yellow	46.33	7.81	1.15	0.00	0.00	105.28 c	105.28 bc
Chip trial									
4	CO13232-5W	Chipper	66.49	108.22	0.00	0.00	0.00	174.71 a	174.71 a
5	CO13232-25W	Chipper	70.19	54.37	1.15	0.00	0.00	125.70 abc	125.70 abc
6	Atlantic	Chipper	42.62	77.72	0.00	0.00	0.00	120.34 bc	120.34 bc
8	Snowden	Chipper	60.36	60.75	1.28	0.00	0.00	122.39 abc	122.39 bc

*Mean comparisons were performed using Tukey's-Kramer HSD; means with the same letter within columns are not significantly different

Table 2: Tuber yield and size of Kern County Variety Trial potato entries

Graded tuber yield CWT/ A									
ID#	Clone	Type	0-4 oz	4-6 oz	6-10 oz	11 oz >	Culls	Total yield	Marketable yield
23	TX09403-15W	Chipper	34.71	69.04	5.36	0.00	0.00	109.11 d	109.11 d
24	CO11250-1W/Y	Specialty/ Yellow	76.44	97.76	2.30	0.00	0.00	176.50 bcd	176.50 bcd
25	CO10073-7W	Chipper	85.63	57.17	0.00	0.00	0.00	142.80 cd	142.80 cd
26	CO10076-4W	Chipper	78.61	89.72	3.06	0.00	1.28	172.67 bcd	171.39 bcd
27	CO12235-3W	Chipper	44.41	118.68	39.31	0.00	0.13	202.53 abc	202.40 abc
28	CO12293-1W	Chipper	44.92	102.35	7.66	0.00	0.26	155.18 cd	154.93 cd
31	Double Fun	Specialty/ purple	81.16	118.94	9.06	0.00	1.15	210.31 abc	209.17 abc
32	Cerata	Red	36.63	143.06	18.89	1.40	0.00	199.98 abc	199.98 abc
33	Golden Eye	Yellow	75.42	108.09	3.70	0.00	1.40	188.62 abcd	187.22 abcd
34	Primabelle	Yellow	77.46	145.99	27.95	0.00	0.00	251.41 ab	251.41 ab
35	Alta Rose	RED	70.70	97.24	4.21	0.00	0.00	172.16 bcd	172.16 bcd
36	Nectar	Yellow	75.17	171.90	19.78	0.00	2.94	269.78 a	266.85 a
37	Almera		65.47	132.59	25.14	19.02	1.66	243.88 ab	242.22 ab

*Mean comparisons were performed using Tukey's-Kramer HSD; means with the same letter within columns are not significantly different

Table 3: Tuber yield and size of Observational Trial potato entries

Graded tuber yield CWT/ A									
ID#	Clone	Type	0-4 oz	4-6 oz	6-10 oz	11 oz >	Culls	Total yield	Marketable yield
100	Caprice	Yellow	280.76	223.59	0.00	0.00	0.00	504.35	504.35
101	Prada	White	51.56	85.25	60.24	0.00	0.00	197.04	197.04
102	Rosemara	Red	54.62	197.55	0.00	0.00	0.00	252.17	252.17
103	Corinna E1	Yellow	92.91	57.17	0.00	0.00	0.00	150.08	150.08
104	Natascha	white	104.65	95.97	0.00	6.13	3.57	210.31	206.74
105	Red Rascal	Red	57.68	130.17	5.10	0.00	0.00	192.96	192.96
106	Belmonda	Yellow	109.24	95.46	0.00	0.00	2.04	206.74	204.70
107	Baltic Rose	Red	84.74	54.11	0.00	0.00	0.00	138.85	138.85
108	Allora	Yellow	76.06	51.56	0.00	0.00	0.00	127.62	127.62
109	Christel	w/y	79.63	85.76	0.00	0.00	0.00	165.39	165.39
110	Paroli	y/y	120.47	51.05	0.00	0.00	0.00	171.52	171.52
111	Noblesse	W/Y	65.85	130.17	5.10	0.00	0.00	201.13	201.13
112	Mary Ann	y/y	99.54	23.48	0.00	0.00	0.00	123.02	123.02
113	Meister	white	56.15	279.23	36.24	21.95	11.74	405.31	393.57
114	RP2009-02R	r/w finger	91.88	18.38	0.00	0.00	0.00	110.26	110.26
115	RP2011-2Y	Y	213.38	223.59	0.00	0.00	0.00	436.96	436.96
116	EB 2017-1R	Red	67.38	123.02	0.00	0.00	0.00	190.41	190.41
117	RP-2011-14Y	Y	150.08	49.52	0.00	0.00	2.04	201.64	199.59
118	Divaa	W	75.04	99.54	10.21	0.00	20.93	205.72	184.79
119	Vicky	Red	116.90	43.90	0.00	0.00	0.00	160.80	160.80
120	Captain	W	108.73	64.83	0.00	0.00	0.00	173.56	173.56
121	Crop 61	R/W	34.71	93.93	0.00	0.00	10.21	138.85	128.64
122	Salinero	Yellow	69.42	65.85	0.00	0.00	0.00	135.27	135.27
123	Clairette	W	127.62	134.76	4.08	0.00	0.00	266.47	266.47
124	Thunder Ball PSS13/041/26	Red	116.39	60.75	0.00	0.00	0.00	177.13	177.13
125	Tessa	Y/Y	117.92	83.21	0.00	0.00	0.00	201.13	201.13
126	AC13126-1Wadg	White, PVY	53.60	123.53	46.45	0.00	0.00	223.59	223.59
127	Floridana	Yellow	61.77	174.58	0.00	0.00	0.00	236.35	236.35
128	Acoustic	RU	89.33	109.24	0.00	0.00	0.00	198.57	198.57
129	NDTX081451CBs- 1Y/Y	y/y	178.66	13.78	0.00	0.00	0.00	192.45	192.45
130	Rock	Ru	84.23	24.50	0.00	0.00	0.00	108.73	108.73
131	TX17763-2Y/Y	Y/Y	94.44	81.68	12.25	4.59	0.00	192.96	192.96
132	V07116-1 ACC Robin	R/W	63.81	53.60	0.00	0.00	8.17	125.58	117.41
133	Lilly	Yellow	103.12	107.20	13.78	0.00	0.00	224.10	224.10
134	CO10085-1RU	Russet	59.21	87.80	11.74	0.00	0.00	158.76	158.76
135	Rosi	Red	33.69	22.97	0.00	0.00	0.00	56.66	56.66
136	CO14206-1W/Y	Yellow	80.14	48.49	0.00	0.00	3.57	132.21	128.64
137	CO14035-4R	Red	75.55	93.42	0.00	0.00	3.57	172.54	168.97

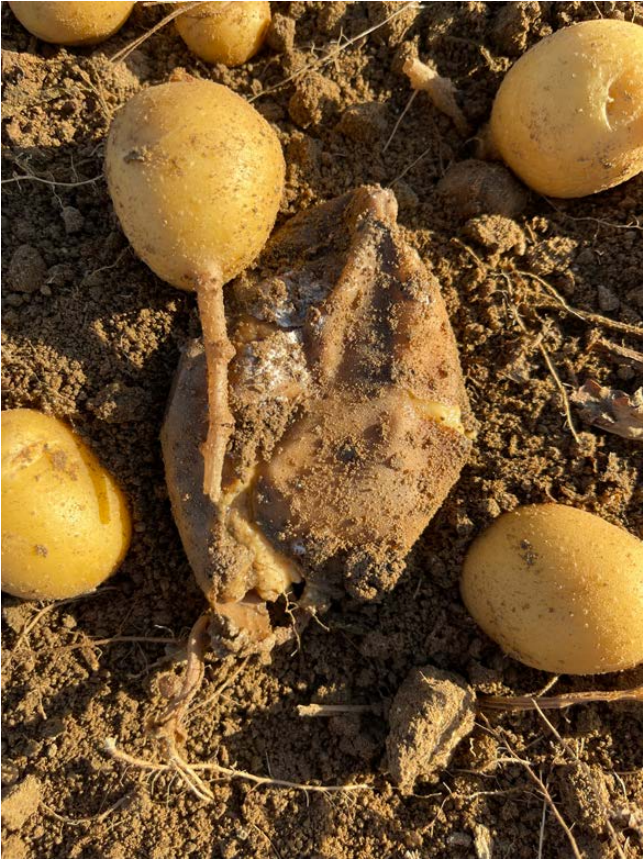
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Table 3: Tuber yield and size of observational trial potato entries, continued

Graded tuber yield CWT/ A									
ID#	Clone	Type	0-4 oz	4-6 oz	6-10 oz	11 oz >	Culls	Total yield	Marketable yield
138	Danina E1	Yellow	74.02	21.95	0.00	0.00	0.00	95.97	95.97
139	CO08062-3PF/P	Fingerling	286.37	83.72	0.00	0.00	1.53	371.62	370.09
140	CO14032-6R	Red	109.24	111.28	0.00	0.00	0.00	220.52	220.52
141	Montana E1	Yellow	116.90	18.89	0.00	0.00	0.00	135.79	135.79
142	CO11023-9W	Chipper	74.53	64.83	0.00	0.00	0.00	139.36	139.36
143	CO14040-3R	Red	96.48	12.76	0.00	0.00	4.59	113.83	109.24
144	CO11266-1W/Y	Specialty/ Yellow	90.86	22.46	0.00	0.00	0.00	113.32	113.32
145	CO11023-2W	Chipper	51.05	78.61	0.00	0.00	2.55	132.21	129.66
146	CO14226-3W/Y	Yellow	143.95	22.97	0.00	0.00	0.00	166.92	166.92
147	CO14105-1R	Red	100.05	152.12	45.43	0.00	0.00	297.60	297.60
148	Bonnata	Yellow	78.61	152.12	0.00	0.00	0.00	230.73	230.73
149	CO11037-5W	Chipper	57.17	88.82	0.00	0.00	0.00	145.99	145.99
150	CO11009-3RU	Russet	106.18	86.27	0.00	0.00	7.66	200.10	192.45
151	AC10376-1- 2012W/Y	Yellow	69.93	14.29	0.00	0.00	4.59	88.82	84.23
152	SPECTOR- TORPSS13/041/35	RED	102.09	53.09	0.00	0.00	0.00	155.18	155.18
153	CO10087-4RUsto	Russet, PVY Marker	55.64	39.82	0.00	0.00	2.55	98.01	95.46
154	Agata	Yellow	98.52	88.31	0.00	0.00	0.00	186.83	186.83
155	Sally	Red	30.63	325.17	84.23	19.40	0.00	459.42	459.42
156	CO10064-1W/Y	Yellow	88.82	70.44	0.00	0.00	0.00	159.27	159.27
157	Albertine E1	Chipper	88.82	30.12	0.00	0.00	0.00	118.94	118.94
158	COTX10118-4 PUE/Y	P/Y	12.25	89.33	9.70	0.00	0.00	111.28	111.28
159	CO10098-5W/Y	Yellow	74.02	18.38	0.00	0.00	3.57	95.97	92.40
160	IYTL #13	chipper	55.64	33.18	0.00	0.00	0.00	88.82	88.82
161	Noya	Yellow	73.51	14.80	0.00	0.00	6.64	94.95	88.31
162	Ricarda	RED	70.96	36.75	0.00	0.00	0.00	107.71	107.71
163	Torino		58.70	336.40	138.34	0.00	26.03	559.48	533.44
164	Alaska Gold	Yellow	92.91	104.14	0.00	0.00	6.64	203.68	197.04
165	AC1149-6W	Chipper	95.46	128.13	0.00	0.00	4.08	227.67	223.59
166	HZC 07 1356	Yellow	95.46	115.88	0.00	0.00	0.00	211.33	211.33
167	CO12378-1RU	RU	77.59	27.57	0.00	0.00	0.00	105.16	105.16
168	AAC Hammer	Yellow	98.52	22.97	11.23	0.00	0.00	132.72	132.72
169	MSW343-2R	Red	79.12	38.29	0.00	0.00	0.00	117.41	117.41
170	CO99-RP	Red	24.50	60.24	14.80	0.00	7.66	107.20	99.54
171	Electra	Yellow	57.17	475.25	102.09	79.63	0.00	714.15	714.15
172	Constance		76.06	173.05	0.00	0.00	6.64	255.75	249.11

Challenges this year

- Early heat wave
- Temperature fluctuations
- Southern blight and Soft rot.





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For more information

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