



Summary of Salida Regional Almond Variety Trial

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Grower: Lane Parker & the Salida School District
Sponsored by the Almond Board of California

- Three regional trials established January 2014:
 - Butte County, CSU Chico. 18' x 22' (110 trees / acre) on Krymsk 86
 - Stanislaus County, Salida School District. 16' x 21' (130 trees/acre) on Nemaguard
 - Madera County, commercial grower. 12' x 21' (173 trees / acre) on Hansen
- Four replications of each variety; 11 trees per replication
- All varieties receive the same irrigation, fertilization, pest management at each site

Variety	Breeder/Nursery	Variety	Breeder/Nursery
<i>Self-sterile</i>		<i>Partially Self-fertile</i>	
Eddie	Bright's	Sweetheart	UC Davis
Supareil	Burchell	Winters	UC Davis
Sterling	Burchell		
Booth	Burchell	<i>Fully self-fertile</i>	
Capitola	Burchell	UCD1-232	UC Davis
Folsom	Dave Wilson	UCD1-271	UC Davis
Bennett	Duarte	UCD7-159	UC Davis
Jenette	Fowler	UCD8-160	UC Davis
Durango	Fowler	UCD8-201	UC Davis
Kester	UC Davis	UCD8-27	UC Davis
UCD18-20	UC Davis	Yorizane	USDA
UCD1-16	UC Davis	Y117-86-03	USDA
UCD3-40	UC Davis	Y117-91-03	USDA
Aldrich	N/A	Y121-42-99	USDA
Nonpareil	N/A	P16.013	Burchell
		P13.019	Burchell

Disease susceptibility notes:

Bacterial blast: Aldrich, Bennett-Hickman, Booth, Capitola, Eddie, Supareil, Yorizane, P16.013, UCD1-271, UCD8-27, UCD1-16, UCD3-40

Hull rot:

- Severe - Folsom, UCD 8-201, Y121-42-99
- Moderate – UCD160, UCD1-232, UCD 8-27, UCD 3-40, Nonpareil, Eddie, Supareil, Sterling

Scab: Winters, UCD1-271

Band canker (Botryosphaeria): Nonpareil, Sterling, Y121-42-99

Table 2. Bloom overlap of self-sterile almond varieties				
Variety/Selection	Number of Days Before (-) or After (+) Nonpareil Full Bloom			
	Butte	Stanislaus	Madera	Average
UCD 3-40	-8	-8	-13	-10
Capitola	-2	-2	-1	-2
Winters	0	0	-2	-1
UCD 1-16	1	-1	-2	-1
Supareil	0	-1	-1	-1
Eddie	-1*	+1	-2	-1
Nonpareil	-	-	-	-
Aldrich	+1	+1	-3	0
Jenette	-1	+2	-2	0
Bennet-Hickman	+2*	-1	-1	0
Booth	+1	+1	-1	0
Sterling	+2	-1	0	0
UCD 18-20	+3*	+3	-4	+1
Durango	+1	+1	+1	+1
Sweetheart	+3	+5	-3	+2
Folsom	+6*	+2	+4	+4
Kester	+5*	+3	N/A	+4
Kester on Hansen	+6*	+4	+3	+5

Table 3. Bloom timing of self-fertile almond varieties				
Variety/selection	Number of Days Before (-) or After (+) Nonpareil Full Bloom			
	Butte	Stanislaus	Madera	Average
UCD 8-27	-1	-2	-5	-3
UCD 7-159	0	-1	-1	-1
UCD 8-160	-1	-1	+1	0
UCD 1-271	-1	+3	-3	0
Nonpareil	-	-	-	-
UCD 1-232	+1*	+3	+2	+2
Yorizane	+3	+2	+1	+2
Y 117-86-03	+2*	+4	+2	+3
Y 117-91-03	+5	+2	+3	+3
P16.013	-	+3	-	+3
P19.013	-	+4	-	+4
UCD 8-201	+3*	+3	+6	+4
Y-121-42-99	N/A	+4	+4	+4

Table 4. Average Hull Split Start Date, Duration of Hull Split, and Harvest Timing in Relation to Nonpareil UC Regional Almond Variety Trials

	Butte on Krymsk 86			Stanislaus on Nemaguard			Madera on Hansen		
	Average start	Harvest +/- NP	Average duration	Average start	Harvest +/- NP	Average duration	Average start	Harvest +/- NP	Average duration
Y117-91-03	7/13	-6	15	7/12	-7	13	7/10	-19	17
Yorizane	7/17	+5	21	7/12	-3	16	7/9	-12	25
Eddie	7/15	-2	16	7/12	0	19	7/11	-7	27
Nonpareil	7/19	-	14	7/11	-	20	7/11	-	33
Y121-42-99	-	-	-	7/17	-1	13	7/22	+10	34
Kester	7/25	+5	13	7/20	+5	17	7/21	+10	34
Folsom	7/21	+7	20	7/19	+8	20	7/19	+4	30
Capitola	7/25	+10	18	7/22	+8	17	7/22	+7	30
UCD8-201	7/24	+9	18	7/22	+11	20	7/24	+6	28
Sterling	7/26	+6	14	7/23	+12	20	8/5	+9	30
Sweetheart	7/28	+15	21	7/24	+10	17	7/28	+3	21
Y117-86-03	7/29	+12	16	7/28	+12	16	7/27	+7	25
UCD1-16	7/29	+16	21	7/22	+13	22	7/27	+5	25
UCD1-271	7/29	+10	15	7/23	+13	20	7/14	+14	43
Booth	7/23	+8	18	7/25	+12	19	7/25	+20	40
Jeanette	7/29	+24	29	7/30	+20	21	7/20	-1?	24
Bennett	7/28	+11	16	7/30	+21	22	7/24	+12	33
Kester on Hansen	7/29	+15	19	7/27	+20	24	-	-	-
UCD7-159	7/31	+19	22	7/30	+17	18	7/27	+14	32
UCD8-27	7/30	+18	22	7/28	+23	27	7/21	+9	33
Aldrich	8/7	+24	19	8/4	+21	18	7/31	+14	29
Durango	8/9	+25	19	8/5	+21	17	7/26	+15	34
¹ Supareil	8/3	+24	23	8/9	+28	19	8/3	+20	36
¹ UCD8-160	8/4	+26	24	8/1	+23	22	7/28	+27	50
^{1,3} Winters	8/4	+33	31	8/5	+27	22	8/9	+25	33
UCD18-20	8/14	+33	22	8/14	+31	17	8/2	+21	33
¹ UCD1-232	8/7	+32	27	8/16	+31	15	8/8	+25	25
UCD3-40	8/11	+37	28	8/17	+32	15	8/12	+24	29
P13.019	-	-	-	7/31	+9	18	-	-	-
P16.013	-	-	-	8/14	+30	20	-	-	-

Table 5. Average Cumulative Yield for First Five Harvests, Canopy Size as Measured by Photosynthetically Active Radiation (PAR) and Yield per PAR. UC Regional Almond Variety Trials.

	Cumulative Yield 3 rd – 7 th leaf				Quality	Average PAR	Cum Yield / PAR
	Average	Butte	Stanislaus	Madera			
Nonpareil	11,638	12,949	8,520	13,446	+	69	169
Kester/Hansen		--	11,089	--			
UCD 18-20	10,940	11,412	9,290	12,118		64	171
Booth	10,197	11,312	8,103	11,176		72	142
Y117-91-03	10,140	10,103	9,412	12,142		67	151
Yorizane	9,742	9,061	7,965	13,021		56	174
Capitola	9,701	9,727	8,069	11,307		74	131
Aldrich	9,668	10,989	8,162	9,855		63	154
Y117-86-03	9,392	8,256	7,778	10,764		58	162
Bennett-Hickman	9,331	8,660	8,950	10,324	+	63	148
Durango	9,316	9,944	7,969	9,699		64	146
Kester	9,304	8,660	7,993	11,260		67	139
Winters	9,195	9,923	7,887	9,777		61	151
Jenette	9,161	10,222	6,185	11,078		57	161
UCD 8-201	8,910	8,979	7,167	10,148	+	56	159
UCD 8-160	8,821	8,694	8,353	9,416		49	180
Sterling	8,570	7,888	7,490	10,061		69	124
Eddie	8,422	7,908	7,255	10,102	+	67	126
Folsom	8,245	8,693	6,684	9,368		71	116
UCD 1-16	8,106	8,171	6,496	9,650		60	135
Sweetheart	8,005	7,429	6,806	10,372		72	111
UCD 7-159	7,966	7,960	8,129	7,756		59	135
Supareil	7,723	6,964	6,644	9,292	+	76	102
UCD 1-232	7,396	8,181	6,881	7,034		58	128
UCD 8-27	7,049	7,438	5,151	8,349		64	110
Y121-42-99	6,208	--	6,208	--			
UCD 3-40	5,731	6,940	5,867	3,940		68	84
UCD 1-271	5,473	4,887	6,537	4,836		61	90
P13.019	No data						
P16.013	No data						

Table 6. Harvestability Rating / Ease of Shaking (Sticktight)

	2017	2018	2019	2020	mean
Eddie	1.0	1.0	1.0	1.0	1.0
Durango	1.3		1.0	1.0	1.1
Supareil	1.5		1.0	1.0	1.2
Bennett	2.0	1.0	1.0	1.0	1.3
18-20	1.0	2.0	1.3	1.3	1.4
Nonpareil	1.3	2.5	1.0	1.0	1.4
Aldrich	1.3	3.0	1.0	1.0	1.6
Booth	2.5	1.5	1.3	1.0	1.6
1-16	1.5	3.0	1.0	1.0	1.6
8-27	3.3	1.0	1.3	1.0	1.6
Jenette	2.8	2.0	1.0	1.0	1.7
3-40	2.0	2.5	1.3	1.0	1.7
Capitola	1.5	4.0	1.0	1.0	1.9
8-160	1.0	4.0	1.5	1.0	1.9
P13.019	1.5	4.0	1.0	1.5	2.0
Folsom	1.8	4.0	1.3	1.8	2.2
Kester / Hansen	4.5	1.0	2.5	1.3	2.3
8-201	2.8		3.0	1.5	2.4
Y-117-91-03	3.3	2.5	2.0	2.0	2.4
Y116-161-99	2.8	2.8	2.0	2.8	2.6
P16-013	1.0	3.0	2.0	4.5	2.6
1-232	3.0	2.0	3.0	3.0	2.8
Kester	5.3		2.5	1.0	2.9
Y117-86-03	3.0		3.3	2.5	2.9
Winters	1.5	5.0	3.0	3.8	3.3
Sweetheart	5.5	5.0	3.0	2.3	3.9
Y121-42-99	5.0	5.5	2.3	3.8	4.1
Sterling	5.0	6.0	4.0	2.3	4.3
7-159	5.3		5.3	4.0	4.8
1-271	5.8	6.0	5.5	3.5	5.2

Scale:

1 = less than 20

2 = 20 - 50

3 = 50 - 100

4 = 100 - 200

5 = 200 - 500

6 = over 500

**Rating over 2 likely
needs poling**

Table 7. Main kernel defects for 2020 harvest. Items are listed if they had 6% or more of kernels exhibiting the defect.

Varieties with defect	Trial					
	Butte	(%)	Stanislaus	(%)	Madera	(%)
Double kernels	UCD 8-27	51	UCD 8-27	24	UCD 8-27	29
	UCD 8-201	44	UCD 8-201	18	UCD 8-201	23
	UCD 1-16	17	UCD 1-16	12	Y117-86-03	18
	Folsom	16			Booth	16
	UCD18-20	15			UCD 1-16	11
	Booth	15			Folsom	8
	Y117-86-03	14			Capitola	7
	Y117-91-03	12			UCD18-20	7
	UCD1-232	9				
	UCD 8-160	8				
	Wood Colony	7				
	Nonpareil	7				
	Kester	6				
Twin kernels (two kernels within the same pellicle)	UCD 8-27	14	UCD 8-27	15	UCD 8-27	13
	Jenette	11	UCD 8-201	12	UCD1-232	10
	UCD 8-201	9	Supareil	9.5	UCD 8-201	10
	UCD 8-160	9	Sweetheart	9.5	Jenette	8
	UCD1-232	6	UCD 3-40	9	Supareil	8
	Booth	6	Booth	9	UCD 1-16	7
			UCD 8-160	7.5	UCD 3-40	6
			Nonpareil	7		
			Bennett	6		
			Folsom	6		
		Jenette	6			
Navel orange worm damage	UCD1-271	7			UCD1-271	12
	UCD 3-40	6			UCD 7-159	9
					UCD 8-27	7
					Y117-91-03	7
					UCD 3-40	7
					Bennett	6
					Eddie	6
					Winters	6
					Y117-86-03	6
				Supareil	6	
Blank kernels	UCD1-232	10	UCD 8-27	7.5		
	UCD 8-27	6	Folsom	6.5		
	Y117-86-03	6				
Chipped/broken			UCD 8-27	7.5	UCD18-20	11
			Winters	7		
			Sterling	6.5		
			UCD 8-160	6		

Varieties with defect	Trial					
	Butte	(%)	Stanislaus	(%)	Madera	(%)
Crease	Jenette	17	Jenette	13		
	Capitola	14	UCD 7-159	10		
	Nonpareil	9	Folsom	8		
	Sterling	8	Capitola	7		
	Y117-86-03	7	Supareil	6.5		
	Folsom	6				
	UCD 7-159	6				
Shrivel	Capitola	14				
	Yorizane	9				
	Supareil	7				
	UCD 8-201	6				
Rupture/callous					UCD1-271	28
					Lonestar	14
					UCD1-232	14
					Eddie	14
					UCD 8-160	11
					Yorizane	10
					Y117-91-03	8
				Nonpareil	6	
Stain/dicolor	UCD1-271	27	UCD 1-271	21	UCD1-232	24
	Yorizane	10	Yorizane	21	UCD1-271	24
	UCD 8-160	9	Bennett	6.5	Eddie	20
	Winters	7	Eddie	4.5	Sweetheart	12
	Kester/Hansen	6	UCD 1-232	4	UCD 8-160	12
					Nonpareil	11
					UCD 3-40	10
					Bennett	10
					Kester	9
					UCD 8-27	9
					Y117-86-03	9
					UCD 8-201	8
					Capitola	6
					Lonestar	6
					Yorizane	6
mold	Eddie	16	UCD 1-232	28		
	UCD1-271	15	UCD 3-40	21		
	Bennett	10	Y117-86-03	21		
	UCD1-232	9	P16.013	20		
	Kester/Hansen	7	UCD 1-271	18		
	Nonpareil	7	Bennett	7.5		
	UCD 7-159	7	UCD 8-160	7		
	Folsom	6	Y117-91-03	6		
	Wood Colony	6				
gum	UCD 3-40	14			Capitola	13
					UCD 8-27	8



Plot map for Salida RAVT - Planted January 17, 2014.. Eleven trees per plot.

Row #	Rep 1	Rep 2	Rep 3	Rep 4
1	Nonpareil	Nonpareil	Nonpareil	Nonpareil
2	UCD3-40	UCD3-40	Folsom	UCD8-160*
3	Nonpareil	Nonpareil	Nonpareil	Nonpareil
4	Bennett	Aldrich	Booth	Jenette
5	Nonpareil	Nonpareil	Nonpareil	Nonpareil
6	Y117-91-03*	UCD1-271*	Sterling	UCD1-232*
7	Nonpareil	Nonpareil	Nonpareil	Nonpareil
8	Winters	P16-013*	P13-019*	UCD1-16
9	Nonpareil	Nonpareil	Nonpareil	Nonpareil
10	UCD8-27*	Sweetheart	Kester / Hansen	Yorizane*
11	Nonpareil	Nonpareil	Nonpareil	Nonpareil
12	Eddie	Y121-42-99*	UCD18-20	Capitola
13	Nonpareil	Nonpareil	Nonpareil	Nonpareil
14	Capitola	Jenette	Supareil	Booth
15	Nonpareil	Nonpareil	Nonpareil	Nonpareil
16	Kester / Hansen	Y117-86-03*	Eddie	UCD3-40
17	Nonpareil	Nonpareil	Nonpareil	Nonpareil
18	UCD3-40	Y117-91-03*	UCD7-159*	Aldrich
19	Nonpareil	Nonpareil	Nonpareil	Nonpareil
20	UCD1-271*	P13-019*	UCD8-160*	Folsom
21	Nonpareil	Nonpareil	Nonpareil	Nonpareil
22	Folsom	Kester / Hansen	Bennett	P16-013*
23	Nonpareil	Nonpareil	Nonpareil	Nonpareil
24	Y121-42-99*	Supareil	UCD1-232*	Y117-86-03*
25	Nonpareil	Nonpareil	Nonpareil	Nonpareil
26	Sterling	UCD8-201*	Durango	Sterling
27	Nonpareil	Nonpareil	Nonpareil	Nonpareil
28	Jenette	UCD8-27*	Kester	Y117-91-03*
29	Nonpareil	Nonpareil	Nonpareil	Nonpareil
30	Sweetheart (9 trees)	Winters	P16-013*	UCD8-201*
31	Nonpareil	Nonpareil	Nonpareil	Nonpareil
32	Kester (10 trees)	UCD18-20	Capitola	UCD3-40
33	Nonpareil	Nonpareil	Nonpareil	Nonpareil
34	UCD1-232*	Booth	UCD1-16	UCD7-159*
35	Nonpareil	Nonpareil	Nonpareil	Nonpareil
36	P13-019*	UCD3-40	UCD8-27*	Eddie
37	Nonpareil	Nonpareil	Nonpareil	Nonpareil
38	Supareil	Durango	Aldrich	UCD1-271*
39	Nonpareil	Nonpareil	Nonpareil	Nonpareil
40	Y117-86-03*	Yorizane*	Y121-42-99*	Durango
41	Nonpareil	Nonpareil	Nonpareil	Nonpareil
42	UCD8-160*	Folsom	Winters	Kester / Hansen
43	Nonpareil	Nonpareil	Nonpareil	Nonpareil
44	UCD18-20	Capitola	UCD3-40	Kester / Hansen
45	Nonpareil	Nonpareil	Nonpareil	Nonpareil
46	UCD8-201*	UCD7-159*	Y117-91-03*	Supareil
47	Nonpareil	Nonpareil	Nonpareil	Nonpareil
48	Booth	UCD8-160*	Sweetheart	P13-019*
49	Nonpareil	Nonpareil	Nonpareil	Nonpareil
50	Durango	Sterling	UCD1-271*	Y121-42-99*
51	Nonpareil	Nonpareil	Nonpareil	Nonpareil
52	P16-013*	Bennett	Yorizane*	Winters
53	Nonpareil	Nonpareil	Nonpareil	Nonpareil
54	Aldrich	UCD1-16	Y117-86-03*	UCD18-20
55	Nonpareil	Nonpareil	Nonpareil	Nonpareil
56	UCD7-159*	UCD1-232*	UCD3-40	UCD8-27*
57	Nonpareil	Nonpareil	Nonpareil	Nonpareil
58	Yorizane*	Kester	Jenette	Sweetheart
59	Nonpareil	Nonpareil	Nonpareil	Nonpareil
60	UCD1-16	Eddie	UCD8-201*	Bennett
61	Nonpareil	Nonpareil	Nonpareil	Nonpareil

10 Np on Empeyrean 1 (red)
10 Np on Viking (blue)

Shasta*

5 Np on Viking, 5 Emp. 1, 5 nema, 5 Viking, 5 Emp. 1