UC-Davis Strawberry Breeding Program Oxnard Field Day
Short-Day Cultivar Advancement and Research Update
Oxnard, CA 6 April 2022

Table 1. Cumulative marketable yield for five experimental cultivars (16C555P053, 16C029P012, 16C108P060, 17C123P051 & 17C138P021) and three checks (UCD_Victor, Fronteras and UCD_Warrior) tested in Oxnard, CA in 2021-2022. Percent marketable fruit was tested using cumulative fruit count.

Cultivar	2021 Early Marketable Fruit Yield (trays/acre)	2021 Total Marketable Fruit Yield (trays/acre)	2022 Total Marketable Fruit Yield (trays/acre)	Percent Marketable Fruit	Relative Yield to Fronteras	Relative Yield to UCD_Victor
16C555P053	1580	7999	1236	86-97%	38%	7%
16C029P012	935	8964	521	97%	55%	20%
16C108P060	1060	6867	1138	96%	19%	-8%
17C123P051	1553	7734	758	96%	34%	4%
17C138P021	1057	5732	1067	95%	-0.7%	-23%
UCD_Victor	781	7455	831	82-98%	29%	
Fronteras	1189	5776	1597	84-99%		
UCD_Warrior	826	5406	683	80-95%		

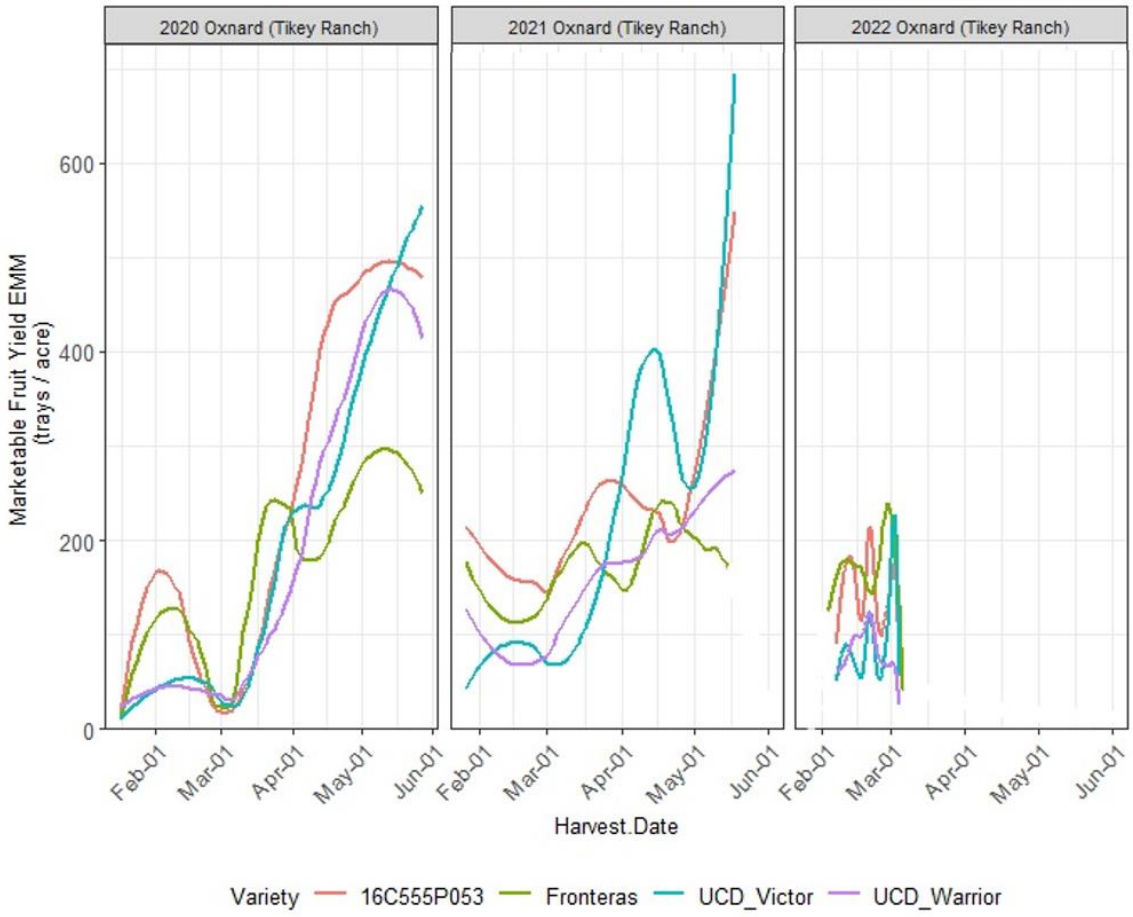

Figure 1. Marketable yields in trays/acre of 16C555P053 compared to Fronteras, UCD_Victor and UCD_Warrior tested in Oxnard, CA in 2020, 2021 and 2022 (up to 05 March 2022) through the fall plant harvest season (February to June).

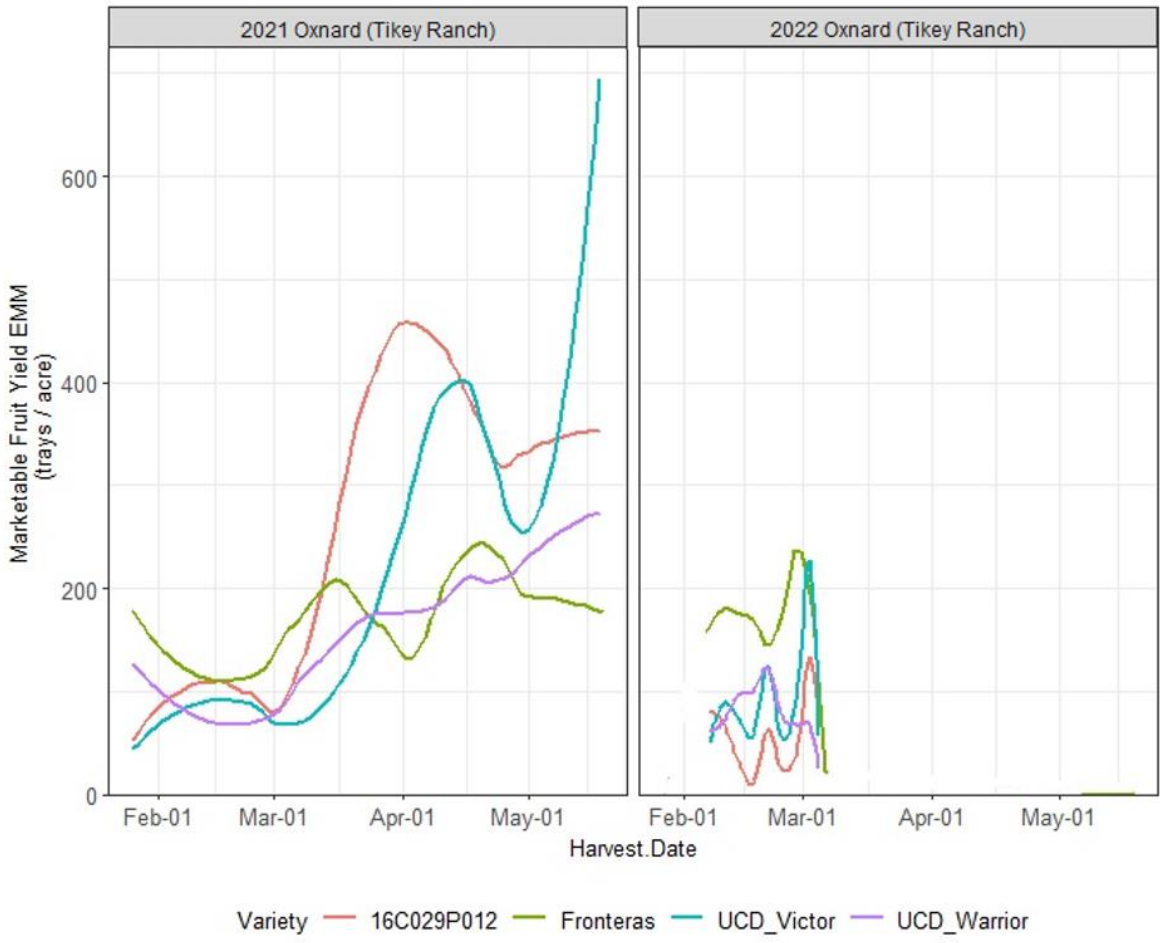

Figure 2. Marketable yields in trays/acre of 16C029P012 compared to Fronteras, UCD_Victor and UCD_Warrior tested in Oxnard, CA in 2021 and 2022 (up to 05 March 2022) through the fall plant harvest season (February to June).

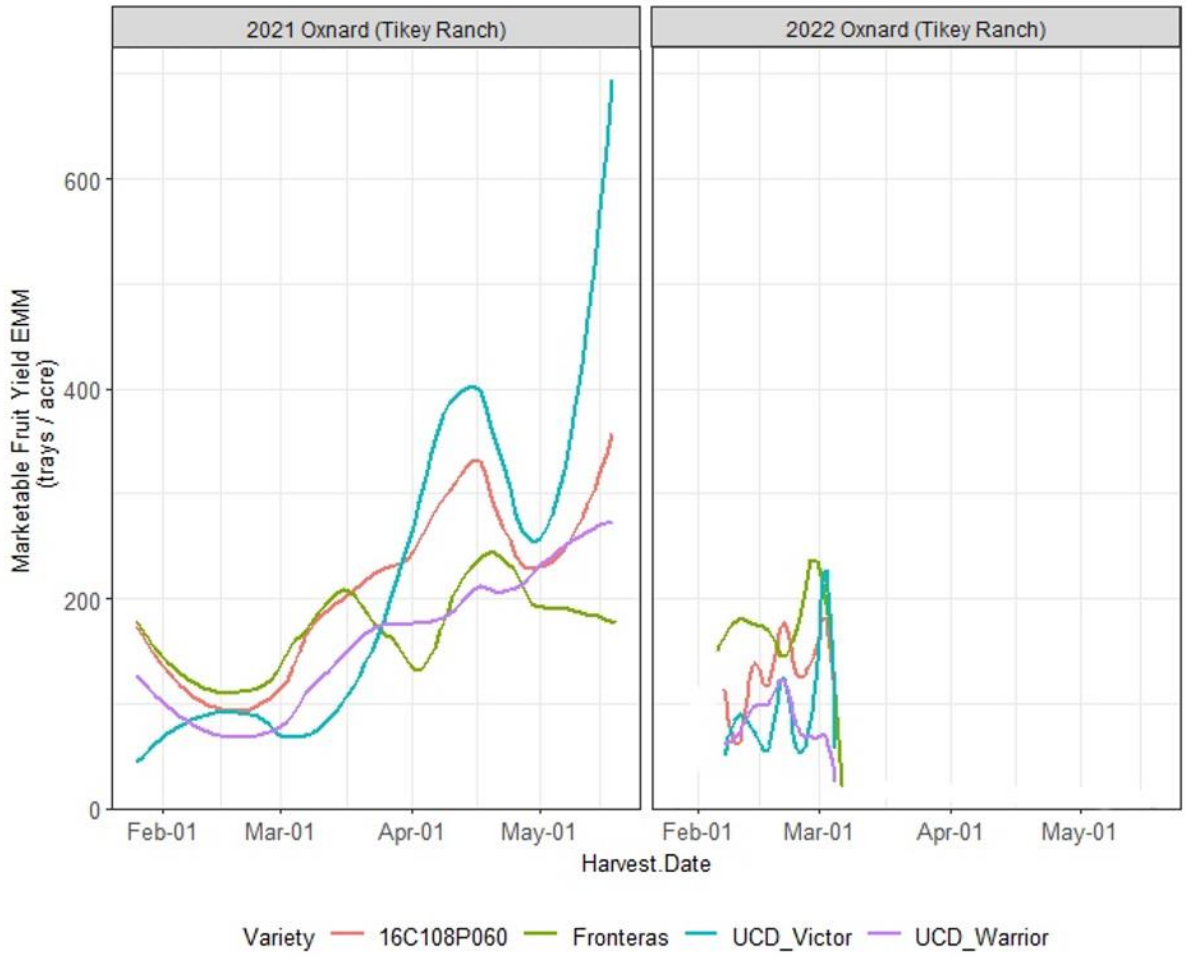

Figure 3. Marketable yields in trays/acre of 16C108P060 compared to Fronteras, UCD_Victor and UCD_Warrior tested in Oxnard, CA in 2021 and 2022 (up to 05 March 2022) through the fall plant harvest season (February to June).

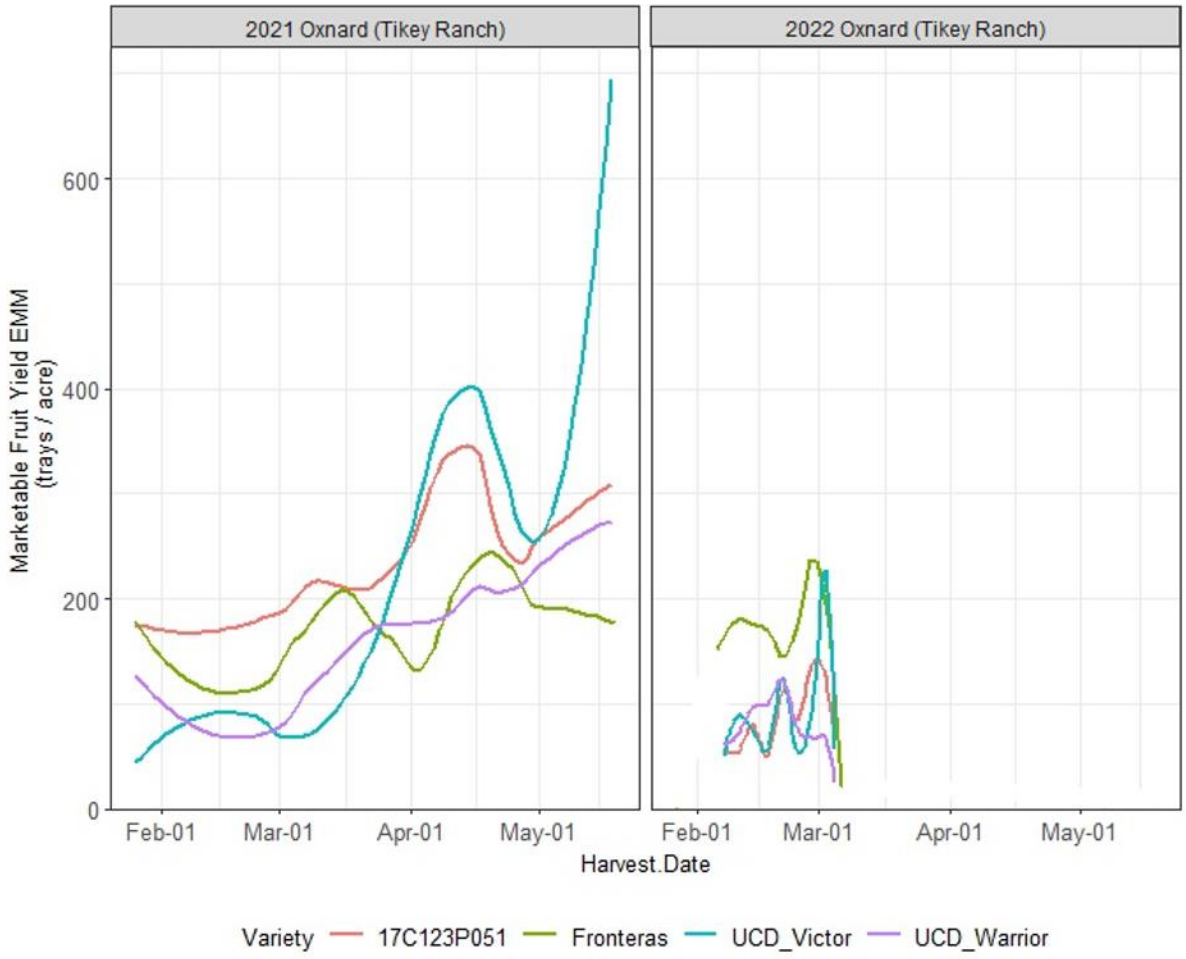

Figure 4. Marketable yields in trays/acre of 17C123P051 compared to Fronteras, UCD_Victor and UCD_Warrior tested in Oxnard, CA in 2021 and 2022 (up to 05 March 2022) through the fall plant harvest season (February to June).

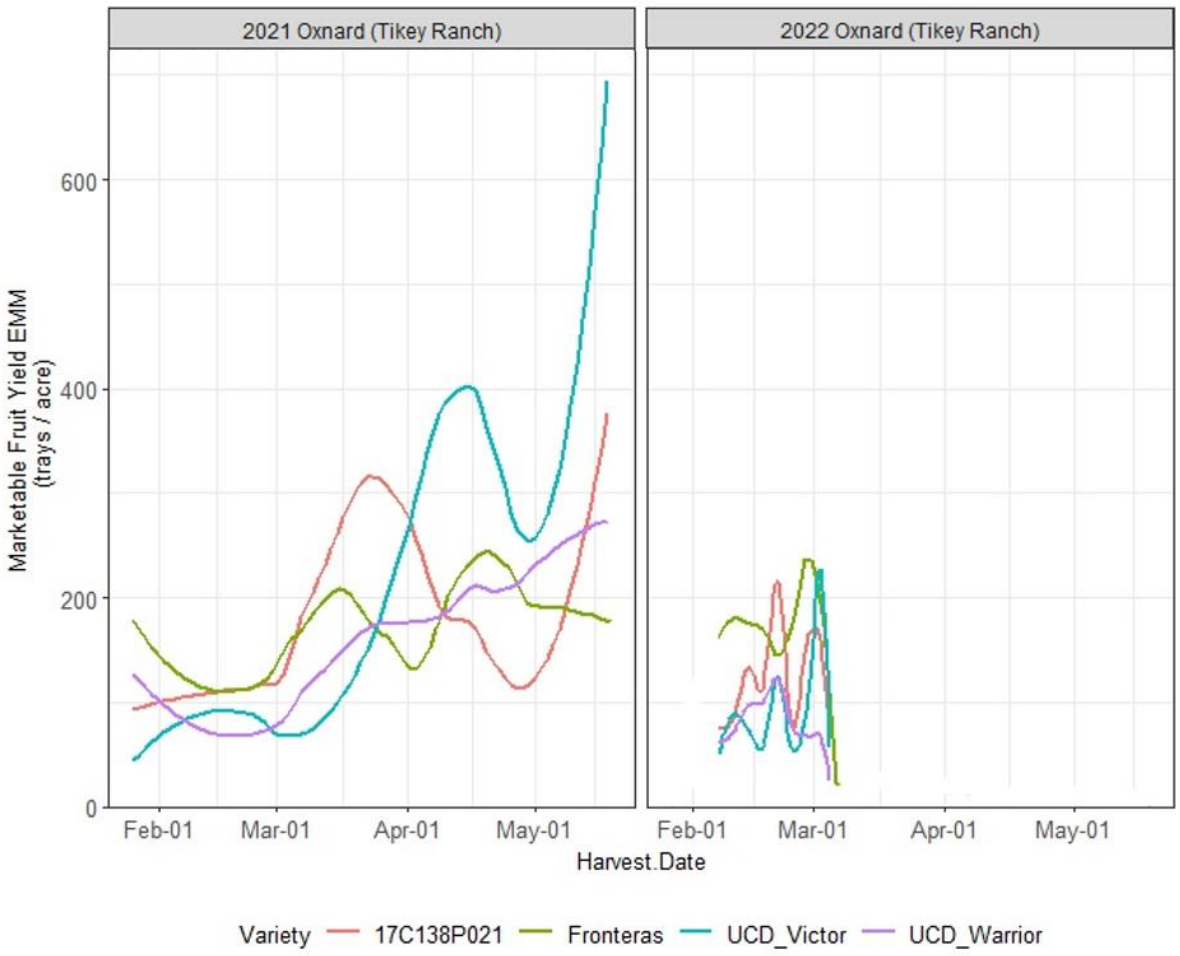

Figure 5. Marketable yields in trays/acre of 17C138P021 compared to Fronteras, UCD_Victor and UCD_Warrior tested in Oxnard, CA in 2021 and 2022 (up to 05 March 2022) through the fall plant harvest season (February to June).

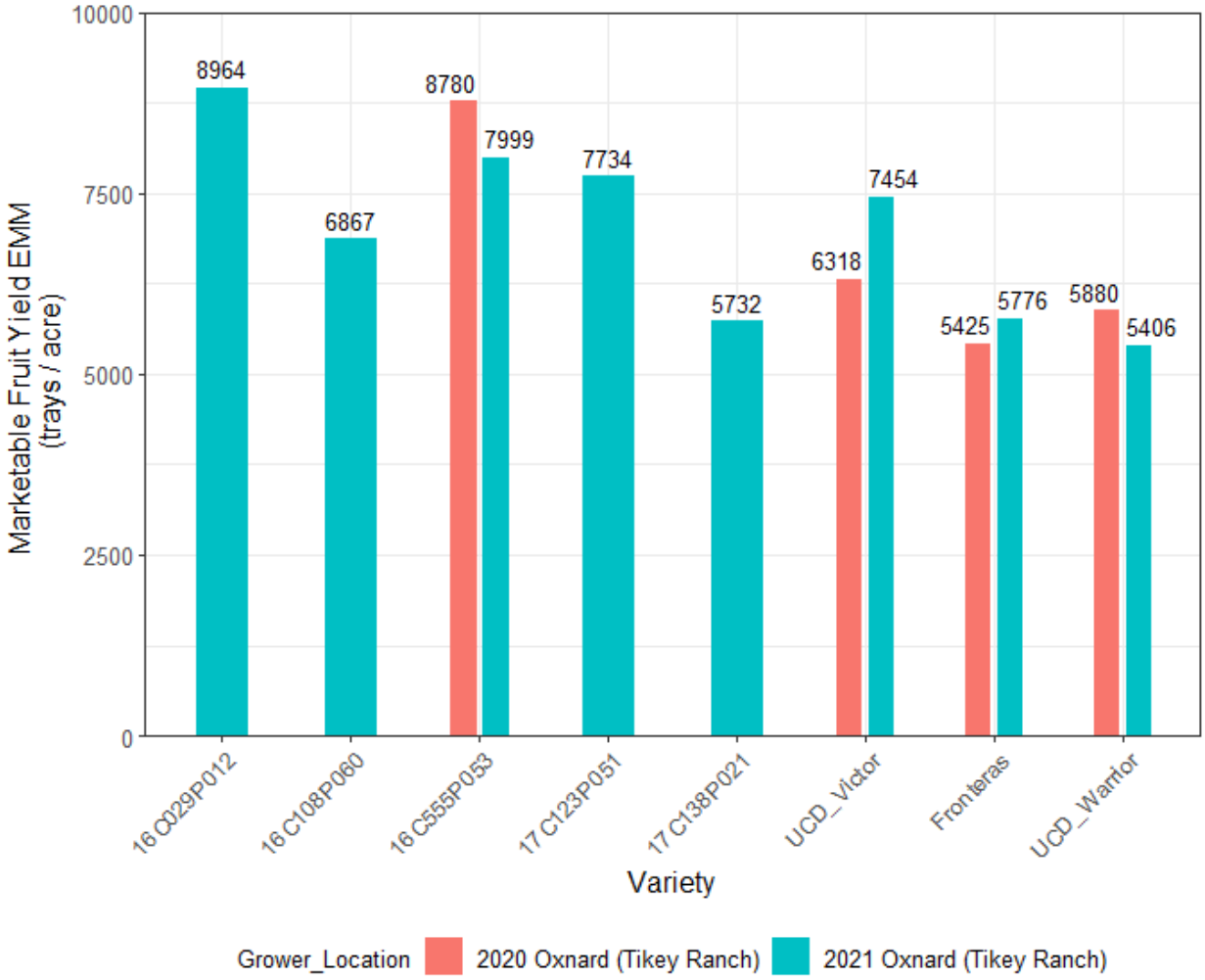

Figure 6. End of season cummulative yield in trays/acre of selections 16C023P012, 16C108P060, 16C555P053, 17C123P051 and 17C138P021 compared to Fronteras, UCD_Victor and UCD_Warrior tested in Oxnard, CA in 2020 and 2021 through the fall plant harvest season (February to June).

Table 2. Cumulative marketable yields for five experimental cultivars compared to Fronteras, UCD_Victor and UCD_Warrior tested in Oxnard, CA in 2020, 2021 and 2022 (Yield so far) through the fall plant harvest season (February to June). Yields are given in grams per plant and cartons per acre. Values followed by different letter indicate significant statistical differences (α=0.05)

*Values were calculated based on a planting density of 26,000 plants/acre

	2020 Total Marketable Fruit Weight		2021 Total Marketable Fruit Weight		2022 Total Marketable Fruit Weight	
Cultivar	g/plant	trays/acre*	g/plant	trays/acre*	g/plant	trays/acre*
Fronteras	758 b	5425	807 bc	5776	223 a	1597
UCD_Victor	883 b	6318	1041 ac	7455	116 be	831
UCD_Warrior	822 b	5880	755 c	5406	95 de	683
16C555P053	1227 a	8780	1117 ab	7999	173 ab	1236
16C029P012	n/a	n/a	1252 a	8964	73 e	521
16C108P060	n/a	n/a	959 bc	6867	159 bc	1138
17C123P051	n/a	n/a	1080 ac	7734	106 cde	758
17C138P021	n/a	n/a	801 bc	5732	149 bd	1067

Table 3. Average firmness, brix values, acids and disease resistance scores measured in the 2020 and 2021 harvest season. Berries for average firmness, brix values and acid were collected in Oxnard, CA and evaluated once early in the season (March-April) and during peak harvest (May). Disease resistance scores are based on screenings in artificially inoculated fields in Davis, CA and from the Cal Poly Strawberry Center trials, where 1 (Dark Green) is Resistant, 2 (Light green) is Moderately Resistant, 3 (Yellow) is Moderately Susceptible and 4 (Red) is Susceptible.

Cultivar	Firmness (g)	Brix	Brix/acid	CSC Verticillium Resistance	CSC Phytophthora Resistance	CSC Fusarium Resistance	CSC Macrophomina Resistance
16C029P012	395.6	8.3	12.1	2	2	1	3
16C108P060	309.4	8.1	10.7	2	2	2	3
16C555P053	422.6	6.9	7.2	2	1	1	3
17C123P051	366.3	7.6	10.1	2	2	2	2
17C138P021	466.9	8.4	9.1	2	2	1	3
UCD_Victor	375.3	7.4	9.9	3	2	1	3
Fronteras	291.4	8.2	12.7	3	2	1	3
UCD_Warrior	303.1	7.9	11.2	3	2	1	2

California Strawberry Commission Website: https://www.calstrawberry.com/en-us/