



UC-Davis Strawberry Breeding Program Oxnard Field Day Short-Day Cultivar Releases and Research Update Oxnard, CA 19 April 2023

Table 1. Cumulative marketable yield for two newly released cultivars ‘UC Surflin,’ formerly known as ‘16C555P053’ and ‘UC Monarch,’ formerly known as ‘17C138P021,’ compared to two checks (UCD_Victor and Fronteras) tested in Oxnard, CA in 2020-2022. Percent marketable fruit was tested using cumulative fruit count.

Cultivar	2020 Early Marketable Fruit Yield (trays/acre)	2020 Total Marketable Fruit Yield (trays/acre)	2021 Early Marketable Fruit Yield (trays/acre)	2021 Total Marketable Fruit Yield (trays/acre)	2022 Early Marketable Fruit Yield (trays/acre)	2022 Total Marketable Fruit Yield (trays/acre)	Percent Marketable Fruit	Relative Yield to Fronteras	Relative Yield to UCD_Victor
UC Surflin	856	8788	1190	8011	906	2187	86-97%	38%	7%
UC Monarch	n/a	n/a	997	5737	811	1628	95%	-0.70%	-23%
UCD_Victor	370	6324	634	7461	501	1726	82-98%	29%	
Fronteras	760	5430	820	5781	1049	2423	84-99%		



Figure 1. A) & B); UC Monarch in open field production and on table top farming operations. C) UC Surflin in field Production.

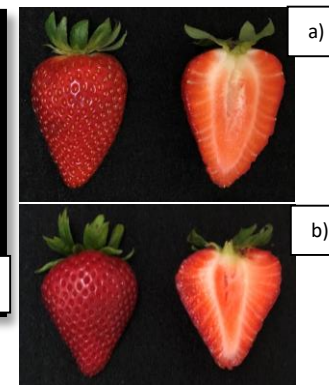


Figure 2. External and internal views of a) UC Monarch and b) UC Surflin.



Figure 1. Marketable yields in trays/acre of UC Surflin compared to Fronteras and UCD_Victor tested in Oxnard, CA in 2020, 2021 and 2022 through the fall plant harvest season (January to June).

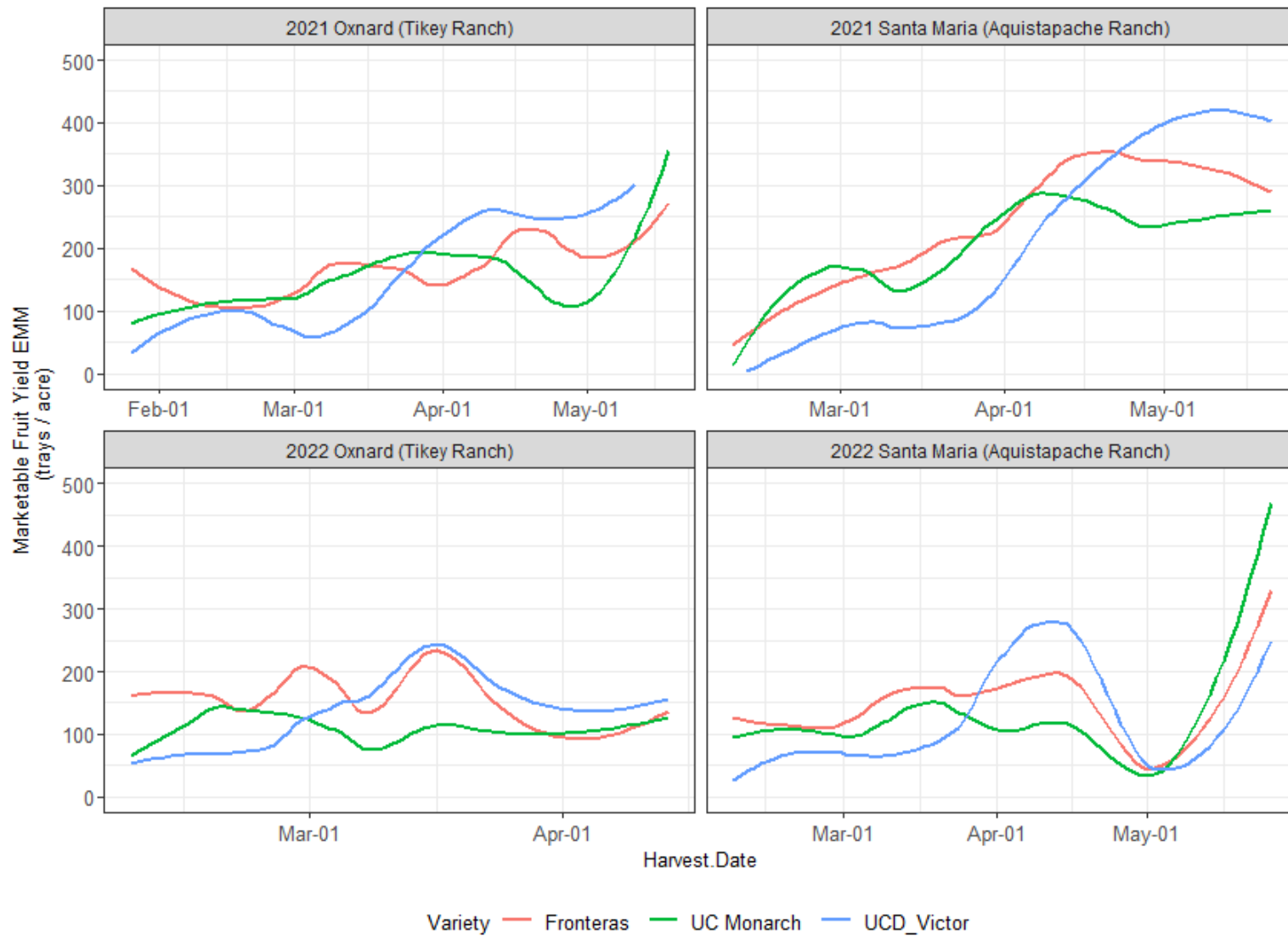


Figure 3. Marketable yields in trays/acre of UC Monarch compared to Fronteras and UCD_Victor tested in Santa Maria, CA and Oxnard, CA in 2021 and 2022 through the fall plant harvest season (January to June).

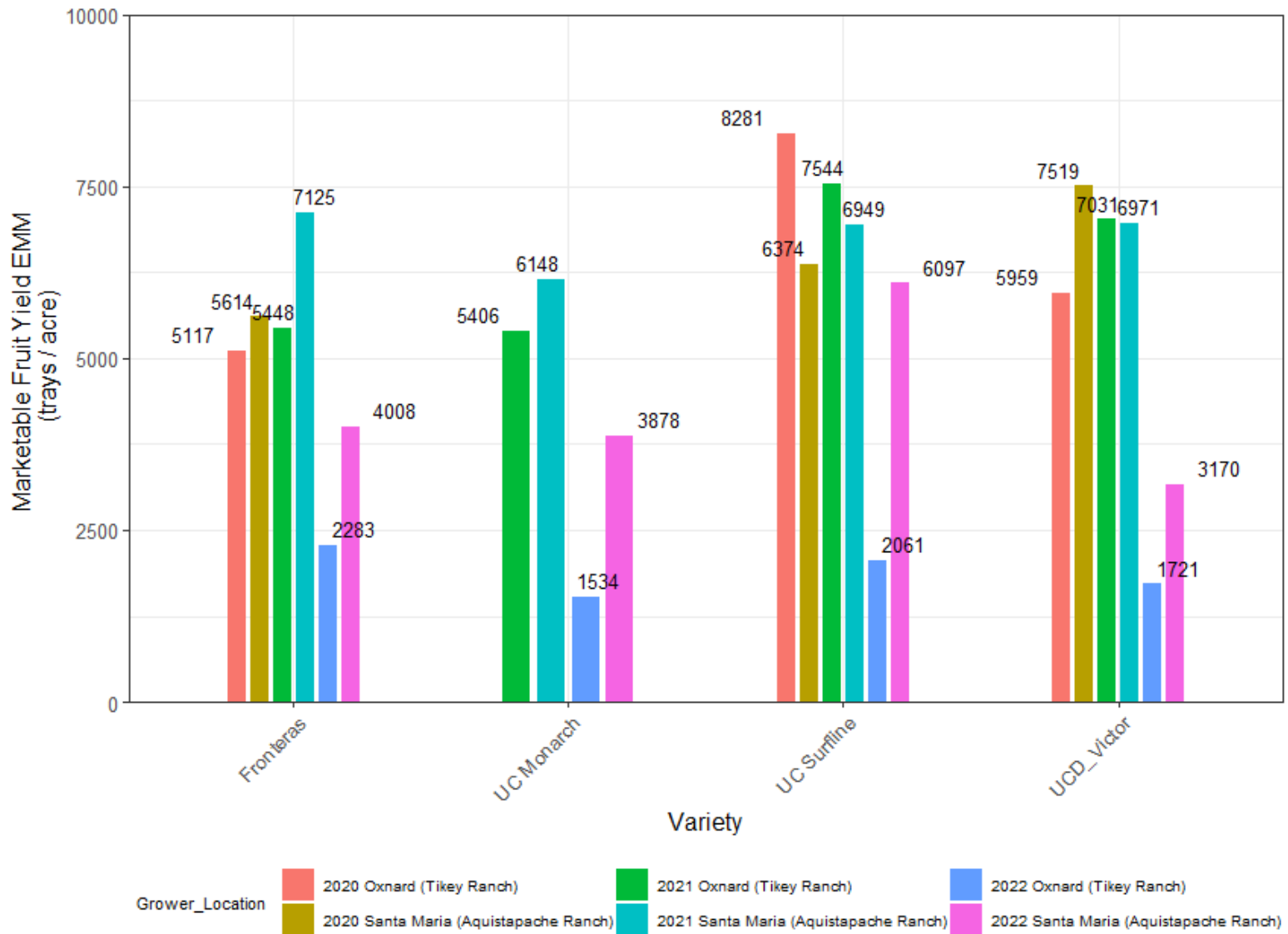


Figure 4. End of season cumulative yield in trays/acre of newly released cultivars UC Monarch and UC Surfline compared to Fronteras and UCD_Victor tested in Santa Maria, CA and Oxnard, CA, in 2020, 2021 and 2022 through the fall plant harvest season (January to June).

Table 2. Cumulative marketable yields for two newly released cultivars compared to Fronteras and UCD_Victor tested in Oxnard, CA in 2020, 2021 and 2022 through the fall plant harvest season (January to June). Yields are given in grams per plant and trays per acre. Values followed by a different letter indicate significant statistical differences ($\alpha=0.05$)

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

Cultivar	2020 Total Marketable Fruit Weight		2021 Total Marketable Fruit Weight		2022 Total Marketable Fruit Weight	
	g/plant	trays/acre*	g/plant	trays/acre*	g/plant	trays/acre*
Fronteras	758 b	5430	807 bc	5781	223 a	2423
UCD_Victor	883 b	6324	1041 ac	7461	116 be	1726
UC Surflin	1227 a	8788	1117 ab	8011	173 ab	2187
UC Monarch	n/a	n/a	801 bc	5737	149 bd	1628

Table 3. Average firmness, brix values, acids and disease resistance scores measured in the 2020, 2021 and 2022 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
				UC Surflin	339.1	8.18	9.82
UC Monarch	307.4	7.73	11	2	2	1	3
UCD_Victor	296.5	7.89	10.47	3	2	1	3
Fronteras	225.9	8.66	10.44	3	2	1	3

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