



**UC DAVIS STRAWBERRY BREEDING PROGRAM**  
**SUMMER CULTIVAR RELEASE**  
**SANTA MARIA, CA**  
**OCTOBER 19, 2022**

Cultivar	2020 Total Marketable Fruit Yield - Nipomo (Conventional)		2020 Total Marketable Fruit Yield - Santa Maria (Organic)		2021 Total Marketable Fruit Yield - Nipomo (Conventional)		Percent Marketable Fruit	Yield Increase Over Portola
	g/plant	trays/acre*	g/plant	trays/acre*	g/plant	trays/acre*		
17C242P023	765 a	5,158	544 a	3,672	1505 a	10,149	76-80%	48-66%
UCD_Mojo	666 ab	4,493	410 ab	2,763	1203 b	8,113	75-87%	11-45%
UCD_Finn	653 ab	4,401	418 ab	2,819	878 c	5,922	73-80%	0-42%
Portola	460 b	3,100	368 b	2,485	926 c	6,248	67%	

**TABLE 1.** Cumulative marketable yield for 17C242P023 compared to UCD Mojo, UCD Finn and Portola tested in a conventional field in *Nipomo, CA* in 2020 and 2021 from end-August to end-November and in an organic field in *Santa Maria, CA* in 2020 from end-August to end-October

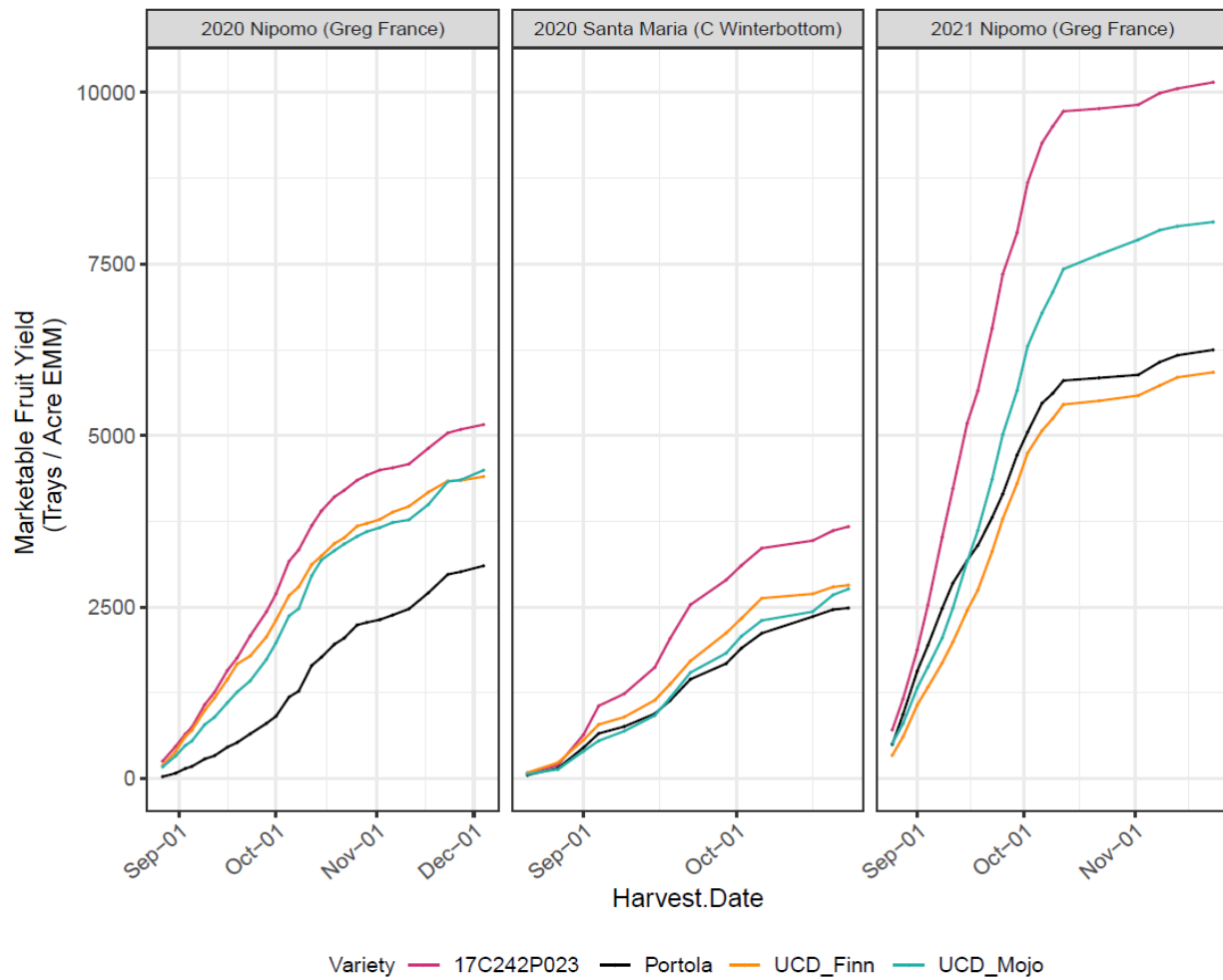
Values followed by different letters indicate significant statistical differences ( $\alpha=0.05$ )

\*Calculations made based on a planting density of 24,500 plants/acre

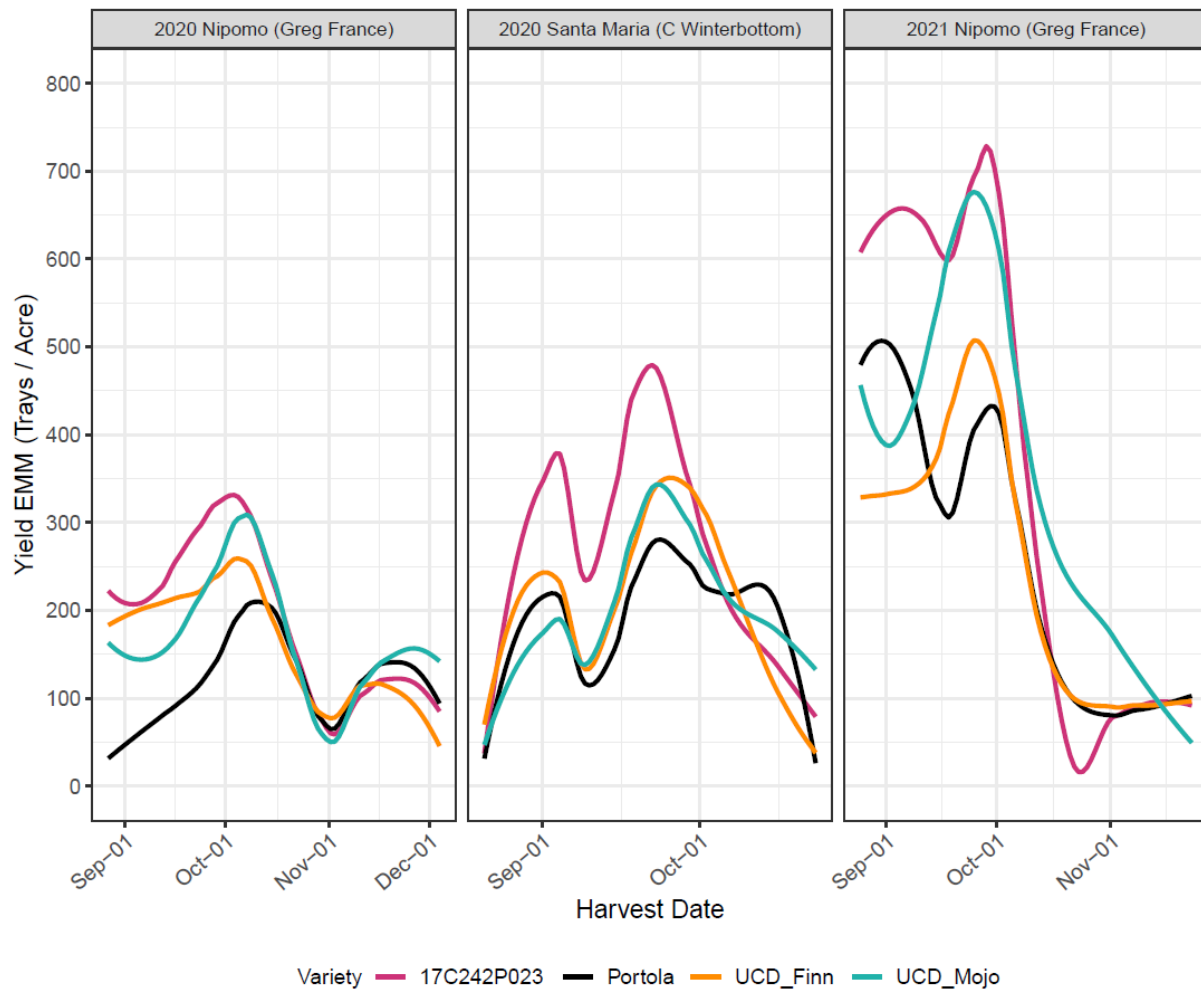
**17C242P023**



- Cumulative marketable yields of 17C242P023 were in average 27% higher than all 3 checks when tested across locations in Santa Maria and Oxnard districts in 2019-2021. Good performance in conventional and organic production systems.
- This selection has good percentage of marketable fruit and fruit size. Overall, bigger berry and better size consistency through the season than Portola.
- Performs well in both, summer and fall planted strawberry production.



**FIGURE 1.** Cumulative marketable yields in trays/acre of 17C242P023 compared to UCD Mojo, UCD Finn and Portola tested in a conventional field in *Nipomo, CA* in 2020 and 2021 from end-August to end-November and in an organic field in *Santa Maria, CA* in 2020 from end-August to end-October



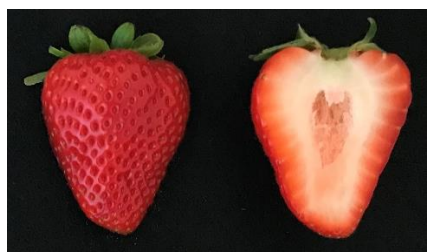
**FIGURE 2.** Marketable fruit yield trend in trays/acre of 17C242P023 compared to UCD Mojo, UCD Finn and Portola tested in a conventional field in *Nipomo, CA* in 2020 and 2021 from end-August to end-November and in an organic field in *Santa Maria, CA* in 2020 from end-August to end-October.



1	Resistant
2	Moderately Resistant
3	Moderately Susceptible
4	Susceptible

Cultivar	Verticillium Resistance	Phytophthora Resistance	Fusarium Resistance	Macrophomina Resistance
17C242P023	2	2	1	4
UCD_Finn	3	2	4	4
UCD_Mojo	2	3	4	2
Portola	3	2	1	4

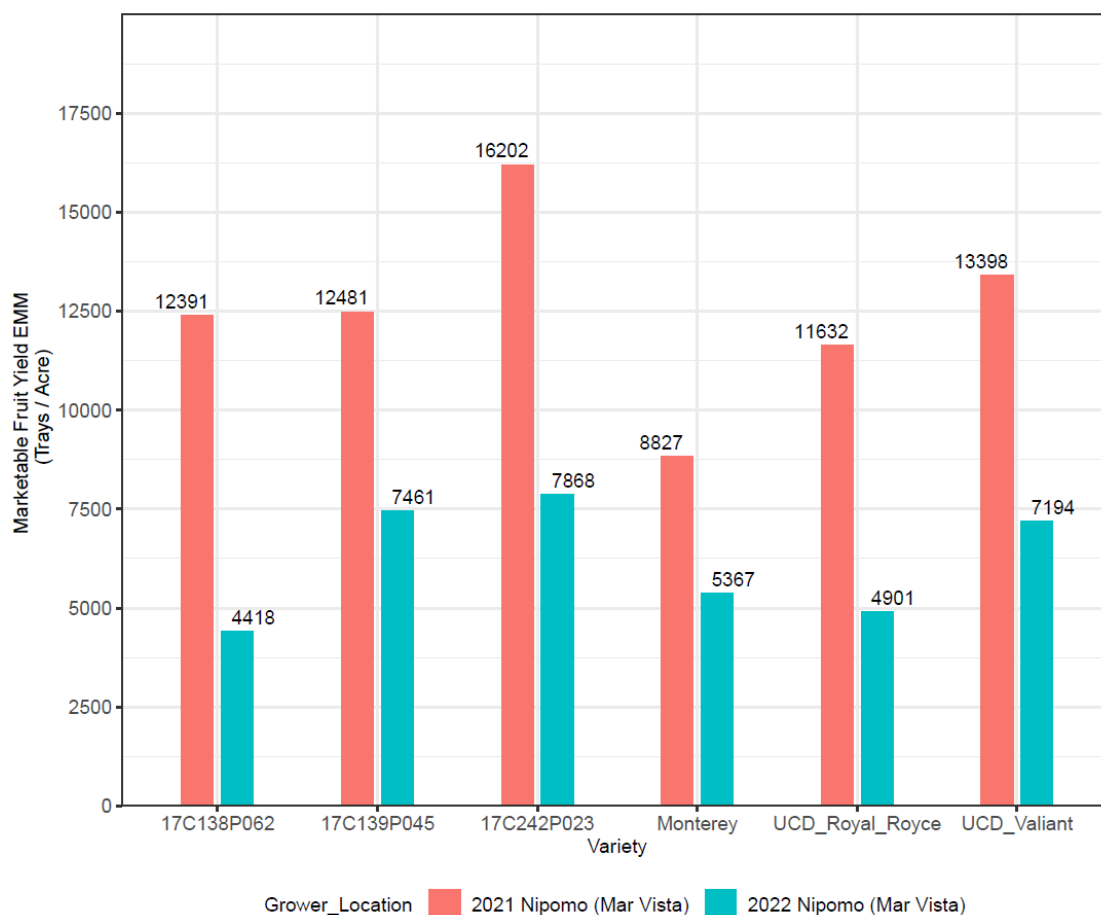
**TABLE 2.** Disease resistance scores from annual disease trials performed at the Cal Poly Strawberry Center and UC Davis. Picture shows 17C242P023 (right bed) alive in an organic field in Lompoc affected predominantly by *Fusarium*. UCD\_Finn and UCD\_Mojo were planted on the left (dead plants).



Cultivar	Firmness (gf)	Brix (%)	Acid (%)	Brix/Acid	Fruit Size (g)
17C242P023	315	7.5	0.7	10.7	30.2
UCD_Mojo	384	8.5	0.8	11.1	26.5
UCD_Finn	385	8.4	0.6	13.2	24.0
Portola	302	8	0.8	10.1	26.3

**TABLE 3.** View of external and internal appearance of 17C242P023. The table shows average firmness, brix, acid, brix/acid and fruit size values measured in all summer trials (2019-2021)

- Minimal fruit deterioration after harvest (14 days post-harvest evaluation), comparable to Portola. It is a firm berry and even though it has lower brix values than Portola, its brix/acid ratio make it similar to Portola when perceiving sweetness levels.
- Positive comments from growers and cooperators, confirming they perceive better flavor of 17C242P023 when comparing to Portola.



**FIGURE 3.** Fall season cumulative marketable yield (trays/acre) of selections 17C138P062, 17C139P045 & 17C242P023 compared to Monterey, UCD Royal Royce, UCD Valiant tested during the harvesting season March/April-August of 2021 & 2022 in Nipomo, CA.

Cultivar	2021 Total Marketable Fruit Yield - Nipomo (Conventional)		2022 Total Marketable Fruit Yield - Nipomo (Conventional)		Yield Increase Over Monterey
	g/plant	trays/acre*	g/plant	trays/acre*	
17C242P023	2,852 a	16,202	1,385 a	7,868	+ 47-84%
17C139P045	2,197 bc	12,481	1,313 a	7,461	+ 39-41%
17C138P062	2,181 bc	12,391	778 c	4,418	-0.2 - +40%
UCD Valiant	2,358 b	13,398	1,266 a	7,194	+ 34-52%
UCD Royal Royce	2,048 c	11,632	863 bc	4,901	-0.09 - +32%
Monterey	1,554 d	8,827	945 b	5,367	

**TABLE 4.** Cumulative marketable yield for 17C242P023 in fall planting season compared to two day-neutral experimental cultivars (17C139P045, 17C138P062) and the commercial checks UCD Valiant, UCD Royal Royce and Monterey tested in Nipomo, CA in 2021 and 2022 from March to August.

Values followed by different letters indicate significant statistical differences ( $\alpha=0.05$ )

\*Calculations made based on a planting density of 20,633 plants/acre