



**UC DAVIS STRAWBERRY BREEDING PROGRAM**  
**DAY NEUTRAL CULTIVAR RELEASES**  
**SANTA MARIA, CA**  
**MAY 24, 2023**

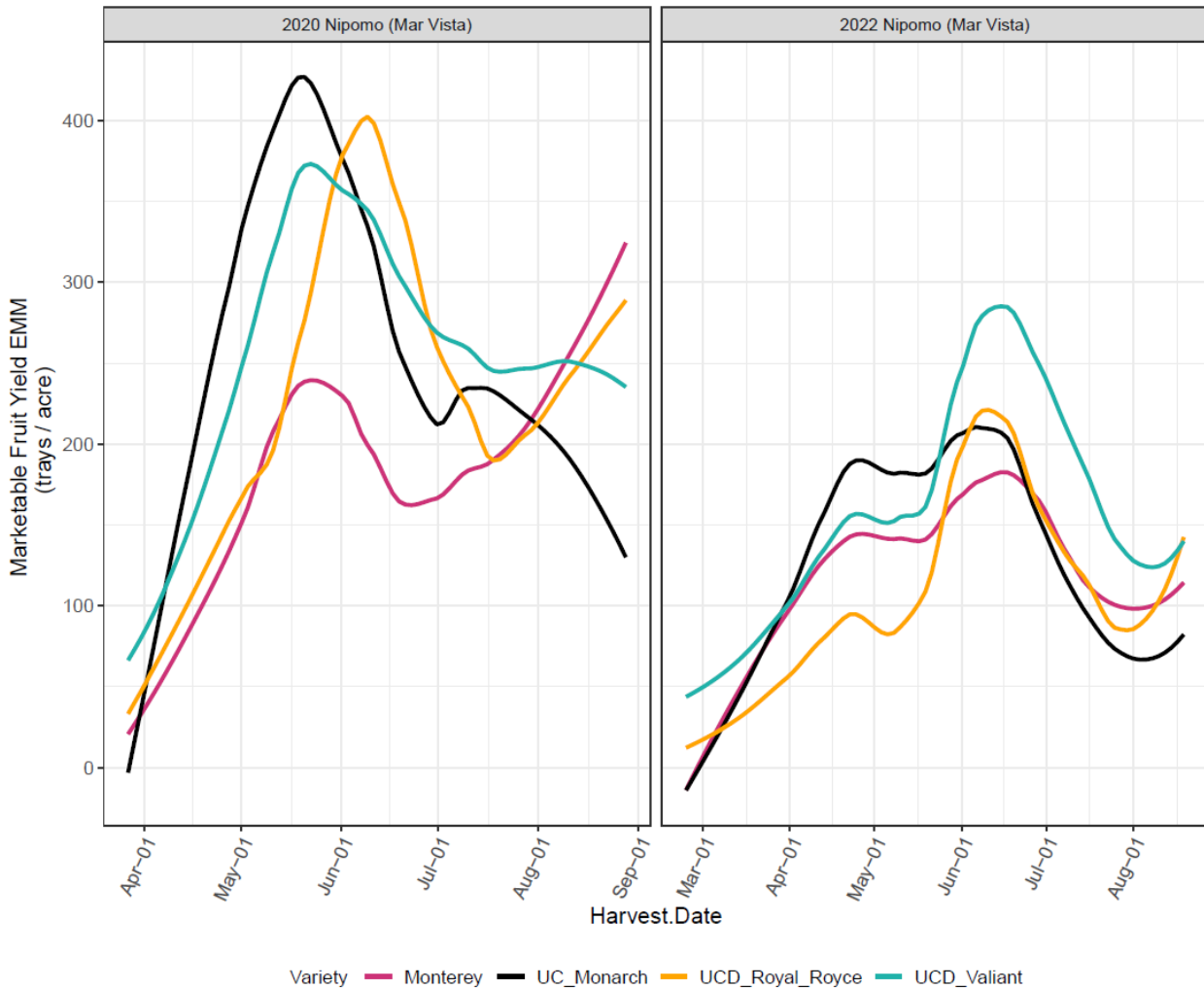
Cultivar	2020 Total Marketable Fruit Yield		2021 Total Marketable Fruit Yield		2022 Total Marketable Fruit Yield		Percent Marketable Fruit	Yield Increase Over Monterey
	g/plant	trays/acre*	g/plant	trays/acre*	g/plant	trays/acre*		
UC Monarch	1,922 ab	10,917	NA	NA	989 b	5,621	65-74%	+ 5-35%
UC Golden Gate	1,807 ab	10,265	2,197 bc	12,481	1,313 a	7,461	73-86%	+ 27-41%
UC Keystone	1,935 ab	10,994	2,181 bc	12,391	778 c	4,418	62-78%	-18 to +40%
UC Eclipse	NA	NA	2,852 a	16,202	1,385 a	7,868	70-85%	+ 47-84%
UCD Valiant	1,985 a	11,275	2,358 b	13,398	1,266 a	7,194	71-86%	+ 34-52%
UCD Royal Royce	1,759 b	9,992	2,048 c	11,632	863 bc	4,901	64-81%	-8.7 to +32%
Monterey	1,424 c	8,092	1,554 d	8,827	945 b	5,367	61-84%	

**TABLE 1.** Cumulative marketable yield for three newly released day-neutral cultivars (UC Golden Gate, UC Keystone and UC Eclipse) and one short-day (UC Monarch) compared to three commercial checks (UCD Valiant, UCD Royal Royce and Monterey) tested in Nipomo, CA in 2020-2022 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

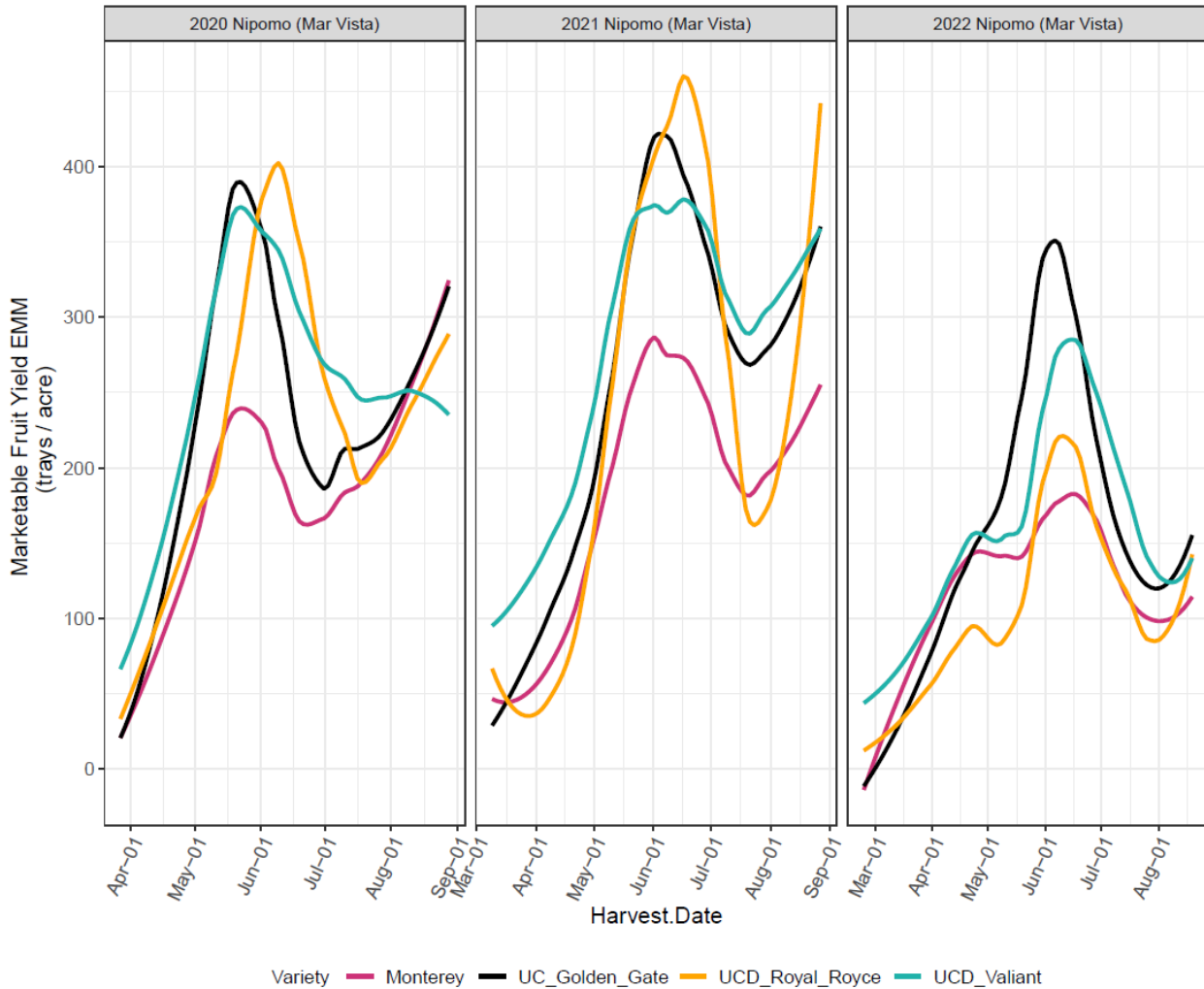
## UC MONARCH (17C138P021)



**FIGURE 1.** Marketable yields in trays/acre of UC Monarch compared to Monterey, UCD Royal Royce, UCD Valiant in Nipomo, CA during the fall plant harvest seasons of 2020 and 2022 (March/April to August).

- + **High yielding short-day cultivar**, comparable yields to Fronteras and UCD Victor. Performs well in day-neutral environments with higher chill: Watsonville-Salinas and Santa Maria districts. Yield increase of 5-35% over Monterey observed in 2020 & 2022.
- + Unique long-truss plant architecture, compact, suitable for table top and machine harvesting
- + Firm, flavorful long-shelf life fruit with enhanced aroma
- + **Resistant to fusarium** and moderately resistant to phytophthora and verticillium

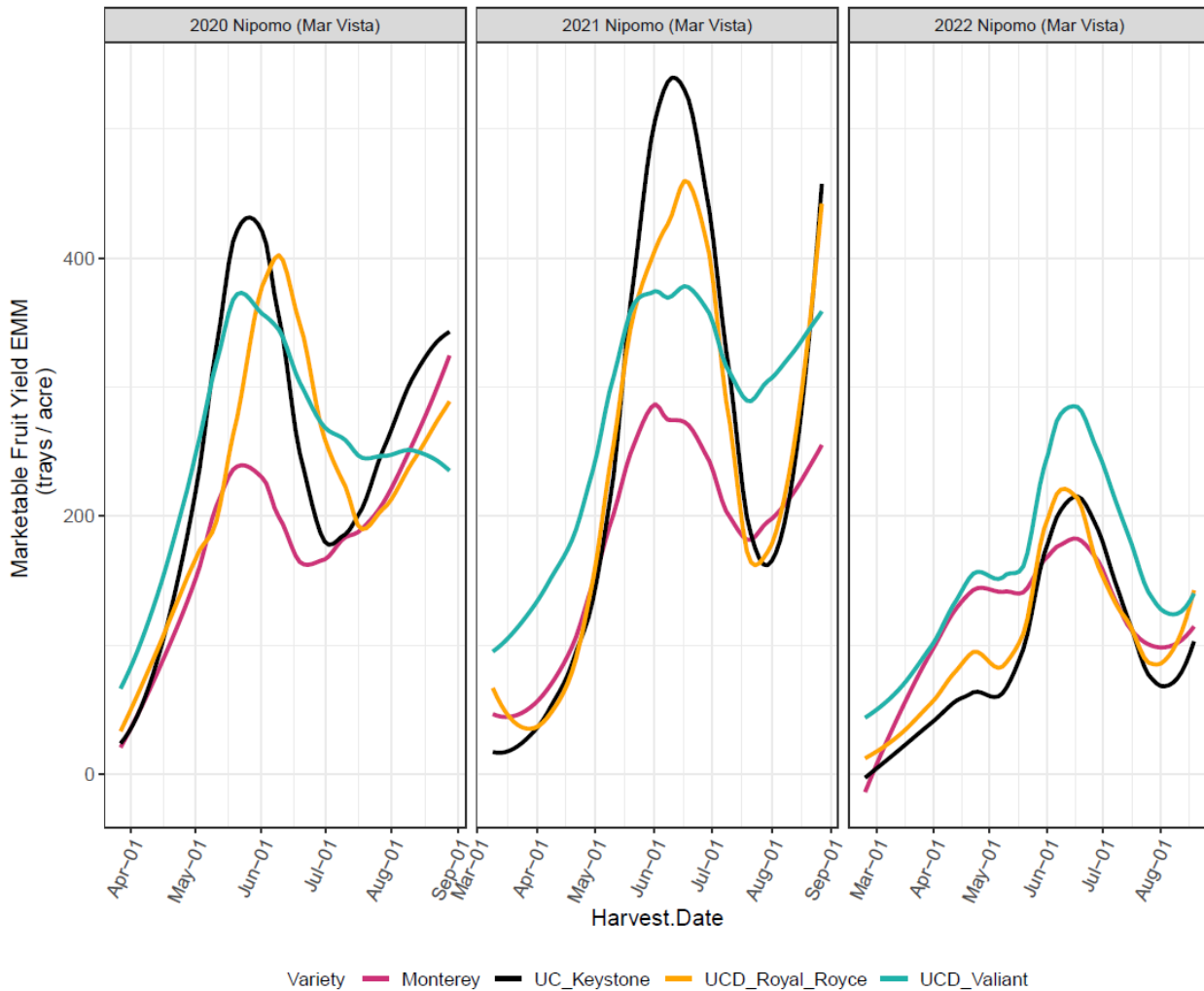
## UC GOLDEN GATE (17C139P045)



**FIGURE 2.** Marketable yields in trays/acre of UC Golden Gate compared to Monterey, UCD Royal Royce, UCD Valiant in Nipomo, CA during the fall plant harvest seasons of 2020, 2021 and 2022 (March/April to August).

- ✦ **High-yielding day neutral cultivar**, comparable or higher to UCD Valiant and UCD Royal Royce
- ✦ UC Golden Gate is slightly earlier than Monterey, displaying higher yields through the season (+27-41% over Monterey observed in 2020-2022)
- ✦ Compact type plant with long-truss architecture (potential for mechanical harvest)
- ✦ **Resistant to fusarium** and moderately resistant to phytophthora and verticillium

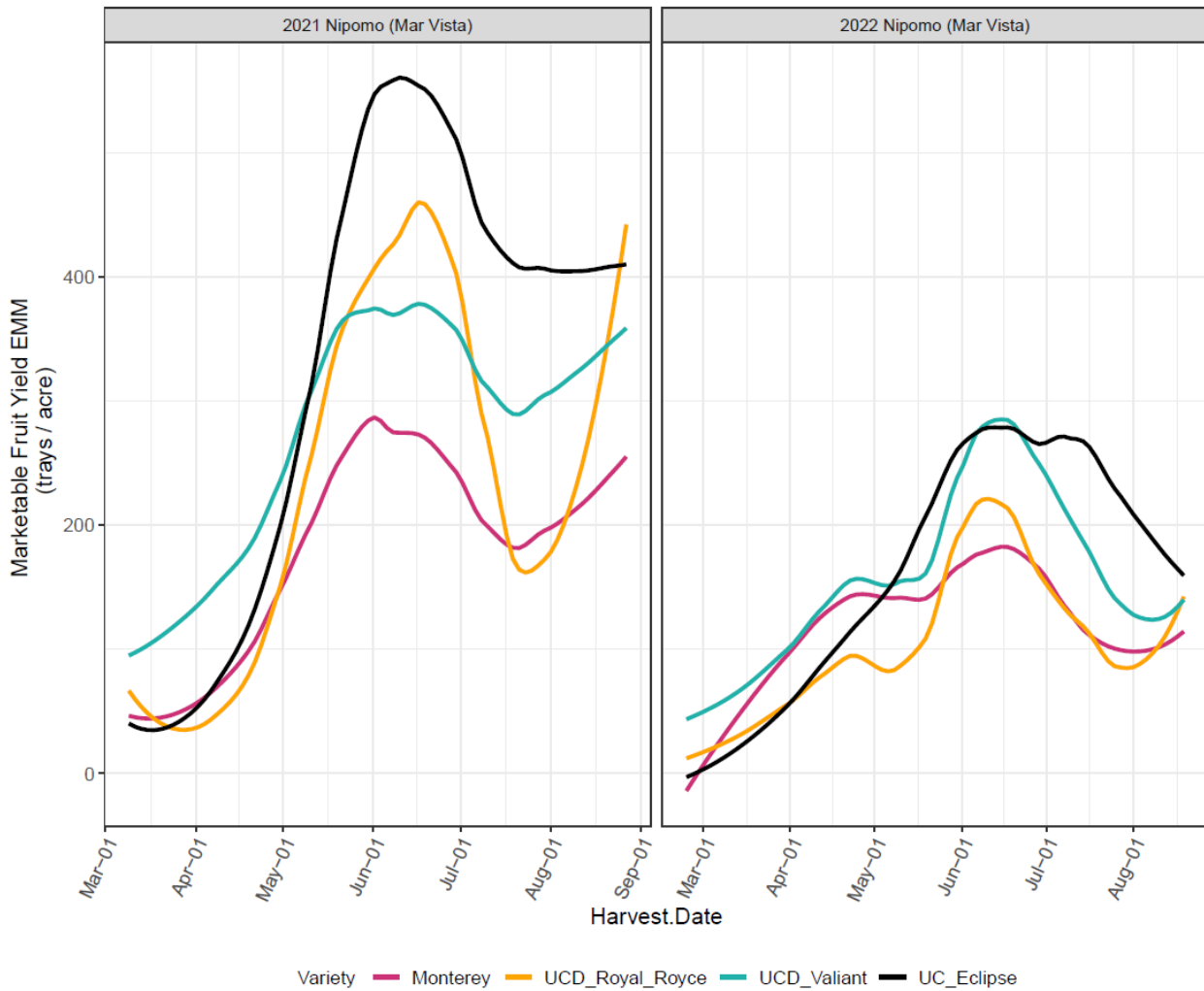
## UC KEYSTONE (17C138P062)



**FIGURE 3.** Marketable yields in trays/acre of UC Keystone compared to Monterey, UCD Royal Royce, UCD Valiant in Nipomo, CA during the fall plant harvest seasons of 2020, 2021 and 2022 (March/April to August).

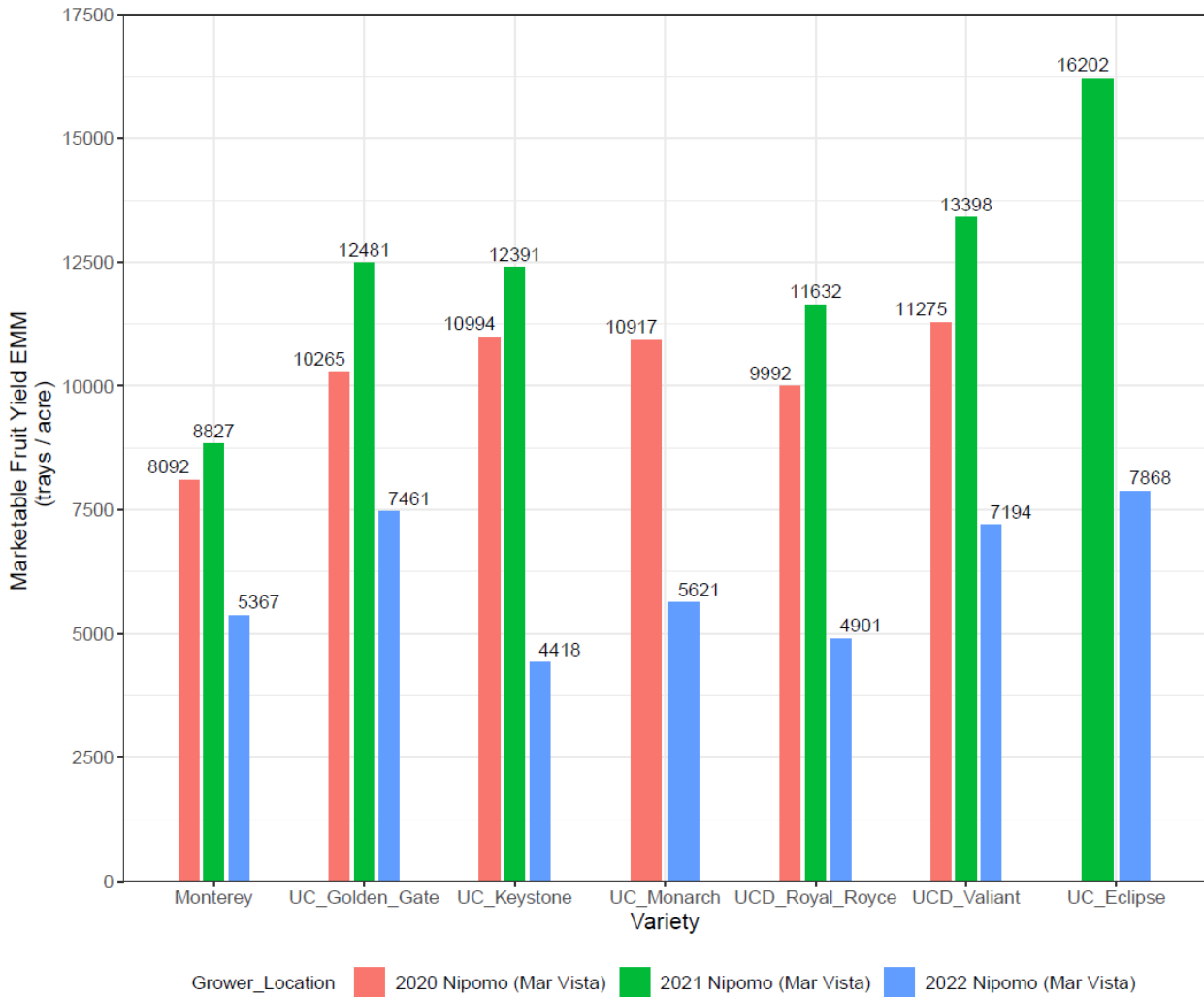
- + **High-yielding day neutral cultivar**, comparable or higher yields to UCD Valiant and UCD Royal Royce. Yield increase up to 40% over Monterey observed in 2020-2022
- + UC Keystone is later yielding like UC Royal Royce, while UC Golden Gate produces more fruit earlier. This enables growers to diversify production.
- + **Resistant to fusarium** and moderately resistant to phytophthora and verticillium

## UC ECLIPSE (17C242P023)



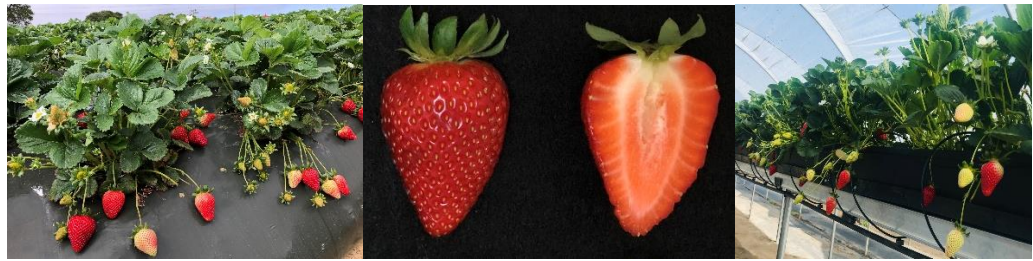
**FIGURE 4.** Marketable yields in trays/acre of UC Eclipse compared to Monterey, UCD Royal Royce, UCD Valiant in Nipomo, CA during the fall plant harvest seasons of 2021 and 2022 (March to August).

- ✚ **High-yielding extreme day-neutral cultivar** that adapts and performs very well in both, fall and summer plant production
- ✚ In 2021 and 2022 fall plant seasons UC Eclipse had a yield increase of 47-84% over Monterey, 40-60% increase over UC Royal Royce and 10-20% increase over UCD Valiant
- ✚ Fruit size and firmness stay consistent throughout the growing season
- ✚ **Resistant to fusarium** and moderately resistant to phytophthora and verticillium



**FIGURE 5.** End of season cumulative yield (trays/acre) of UC Golden Gate, UC Keystone, UC Monarch and UC Eclipse compared to Monterey, UCD Valiant, UCD Royal Royce tested in Nipomo, CA during the harvesting season March-August of 2020-2022.

**UC MONARCH**



**UC GOLDEN GATE**



**UC KEYSTONE**



**UC ECLIPSE**



Cultivar	Fusarium Resistance	Verticillium Resistance	Phytophthora Resistance	Macrophomina Resistance	Firm. (gf)	Brix (%)	Brix/Acid	Fruit Size (g)
UC Keystone	1	2	2	3	294	8.2	11.5	27
UC Golden Gate	1	2	2	3	333	8.0	9.1	27
UC Eclipse	1	2	2	4	333	7.7	9.3	33
UC Monarch	1	2	2	3	332	7.7	10.7	23
Monterey	4	3	3	4	280	8.8	11.4	28
UCD Royal Royce	4	3	2	3	401	7.5	9.3	27
UCD Valiant	4	2	2	3	340	7.1	8.3	30

For additional information about UC released cultivars visit: <https://www.calstrawberry.com/en-us/>

**TABLE 2.** Disease resistance scores were collected from annual disease trials performed at the Cal Poly Strawberry Center and UC Davis. Fruit quality traits were measured in the 2020-2022 harvest seasons in Nipomo, CA. Evaluations were made in peak (May-June) and late (July-August) seasons.