

UCD Valiant Cultivar (2019 release)

This is a new day neutral cultivar released from the UC Davis Strawberry breeding program. The initial breeding cross originated in 2011 and the selection 11C103P001 was made. It was subsequently tested as 16DN011 from 2016-2018. This cultivar is an early season day neutral variety that excels in the southernmost day neutral growing regions of California and in organic and lower input growing environments.

Valiant produces significantly higher yields and % marketable fruit relative to UC's three main commercial day neutral cultivars (Cabrillo, Monterey and San Andreas). It performs best in fall planted production systems, but performs equally well when harvested with 400-600 chilling hours from high elevation nurseries and planted directly with no post harvest chill versus plants given 10-17 days post harvest chill. The plant is more vigorous in growth habit and the plant performs better in lower input growing environments producing larger fruit size. Fruit is firmer than the check commercial cultivars, which supports better post harvest keeping qualities.

Valiant is moderately resistant to Verticillium wilt (*Verticillium dahlia*), moderate susceptibility to Phytophthora crown rot (*Phytophthora cactorum*), and susceptible to Fusarium wilt (*Fusarium oxysporum*), and Charcoal rot (*Macrophomina phaseolina*).

Nursery productivity for Valiant is superior to that of San Andreas, a well known day neutral cultivar, as comparison.

Performance of Valiant in advanced trials in Santa Maria and Prunedale 2015-2017 (Yield in cartons per acre harvested through early September)

Cultivar	Santa Maria		Prunedale		Across Locations & Years	% Marketable Fruit	Across Location Fruit Size (g/fruit)
	2015-16	2016-17	2015-16	2016-17			
UCD Valiant	1,984	2,380	1,460	2,482	2,078	84-86%	35.3
Cabrillo	1,617	2,073	1,362	2,299	1,838	86-87%	30
Monterey	1,115	1,324	1,077	1,722	1,310	79-82%	28.4
San Andreas	1,229	1,096	1,048	1,569	1,236	76-84%	26.7

Performance of Valiant in strip trials in 5 locations in 2018
(Yield in cartons per acre harvested through November)

(Yield in

Cultivar	Santa Maria Organic	Salinas Reduced Inputs	Santa Maria Conv	Prundale Conv	Moss Landing Conv	Across Location Yields	Across Location Fruit Size (g/fruit)
UCD Valiant	11,490	11,241	16,155	16,135	8,878	12,780	31.5
Cabrillo	6,892	5,201	17,569	14,057	9,465	10,637	27.5
Monterey	7,891	NA	14,731	11,940	10,257	10,274	27.8

Disease Reaction of Valiant in trials at UC Davis and Cal-Poly SLO 2016-2018

Variety	Type	Verticillium Resistance	Phytophthora Resistance	Fusarium Resistance	Macrophomina Resistance
UCD Valiant	DN	2	3	4	4
Cabrillo	DN	2	3	4	4
Monterey	DN	3	3	4	4
San Andreas	DN	2	3	1	4

Legend Acronym	Legend	Resistance Numerical Category
R	Resistant	1
MR	Moderate Resistance	2
MS	Moderate Susceptibility	3
S	Susceptible	4

Fruit Quality Assessments in 5 locations in 2018

Cultivar	BRIX %	Firmness (g force)
UCD Valiant	7.6	377
Cabrillo	8	360
Monterey	8.7	294