UCD Royal Royce Cultivar (2019 release)

This is a new day neutral cultivar released from the UC Davis Strawberry breeding program. The initial breeding cross originated in 2008 and the selection 08C123P001 was made. It was subsequently tested as 16DN009 from 2016-2018. This cultivar is a early to mid-season day neutral variety with excellent post harvest qualities.

Royal Royce 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. One critical advantage to Royal Royce is a significant reduction of runners during the berry growing season which results in a significant reduction in field production costs for growers who need to cut runners to manage for higher fruit yields. Fruit is firmer than the check commercial cultivars, which supports better post harvest keeping qualities.

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

Nursery productivity for Royal Royce is equal or superior to that of San Andreas a well known day neutral cultivar as comparison.

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

	Santa Maria		Prunedale				
Cultivar	2015-16	2016-17	2015-16	2016-17	Across Locations & Years	% Marketable Fruit	Across Location Fruit Size (g/fruit)
UCD Royal Royce	2,016	2,329	1,750	2,632	2,183	87-88%	29.7
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 Royal Royce in strip trials in 5 locations in 2018
(Yield in cartons per acre harvested through November)

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 Royal Royce	11,042	8,729	16,837	15,069	10,603	12,456	27.6
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 Royal Royce in trials at UC Davis and Cal-Poly SLO 2016-2018

Variety	Type	Verticillium Resistance	Phytophthora Resistance	Fusarium Resistance	Macrophomina Resistance
UCD Royal Royce	DN	2	3	4	3
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 Royal Royce	7.9	430
Cabrillo	8	360
Monterey	8.7	294