UCD Moxie 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 11C141P001 was made. It was subsequently tested as 16DN012 from 2016-2018. This cultivar is a full-season day neutral variety excelling as the season goes on with excellent post harvest qualities.

Moxie 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. Because of the ability of the cultivar to yield late into November/December under this culture system, it may fill a product niche as a competitor to Portola, which is grown in a summer plant system. One critical advantage to Moxie 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.

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

Nursery productivity for Moxie is equal to that of San Andreas a well known day neutral cultivar as comparison.

Performance of Moxie 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 Moxie	1,815	1,460	1,627	2,580	2,033	87-89%	32.1
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 Moxie 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 Moxie	10,707	8,512	18,944	16,310	11,814	13,257	27.2
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 Moxie	DN	2	3	1	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 Moxie	7.6	425
Cabrillo	8	360
Monterey	8.7	294