

Southern California Strawberry Cultivar Updates 2013-14

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UC Davis/UC South Coast REC

New short-day cultivar Merced



Merced = C229

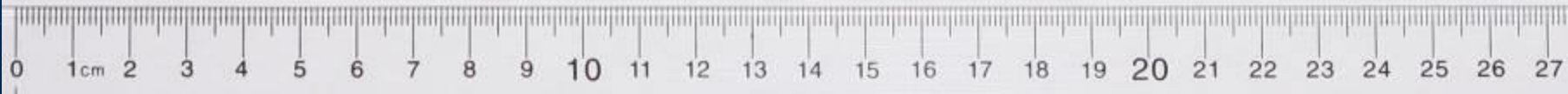


Fruiting plant of Merced in Irvine, CA

Merced



Merced



New Cultivar Merced

Short-day cultivar

Compact plant

Early planting for So. California

Excellent fruit quality (flavor, color, firmness)

Weather tolerant

Fresh-dug plants (use 12-13" in-row spacing)

High productivity with frigo plants (CA Central Valley,
Turkey, Colombia, N. Europe)

Performance of Albion, S. Andreas & Camino Real with Merced in traditional late-summer plantings at the Watsonville Research Facility in 2010-12

Item	Yield (C/acre)	App Score (5=best)	Fruit size (g/fruit)	Firmness
Albion	7,047	4.1	33.6	12.8
S. Andreas	6,908	4.0	30.6	12.5
C. Real	5,053	3.0	25.6	11.5
Merced	9,148	4.2	34.2	12.1

WEO plants harvested in January, stored at -2°C, and planted Aug. 26 – Sept. 9

Performance of Merced and three comparison cultivars evaluated at the South Coast REC in 2011-12

Item	Early Yld (C/A)	App Yield (C/A)	Fruit Score (5=best)	Fruit Size (g/fruit)	Fruit Firmness
Camarosa	2307	5331	2.3	28.0	3.3
Ventana	2825	5847	3.0	30.7	3.3
Benicia	3172	6469	3.2	33.4	3.6
Merced	1684	5078	3.6	33.7	3.5

Macdoel plants harvested September 28, planted October 2
64" 4-row beds, 16" in-row plant spacing, 24,475 plants/acre

Advanced Short-day U.C. Selections



Petaluma

Grenada



Fronteras



Petaluma (C231)





Petaluma

Grenada (C232)



Grenada



Fronteras (C235)



Fronteras



Performance of Advanced SD Selections at the U.C. So. Coast R.E.C. – Irvine, CA in 2011-13

Genotype	C#	Yld to 4/1	Total Yld	App (1-5)	Fruit size (g)	Firm (1-5)
Merced	C229	2484	7097	3.7	34.7	3.7
Petaluma	C231	3519	7866	3.6	35.7	3.7
Grenada	C232	3852	10616	3.9	36.2	3.8
Fronteras	C235	4397	9761	3.5	35.9	3.6

Non-certified Macdoel plants dug Sept. 28, planted Oct. 1, 2011-13
4-row beds, 64" wide, 24500 plants per acre, clear polyethylene mulch

New Day-neutral Strawberry Cultivar 'CN236'

First fruited in 2009 at the UC Wolfskill Experimental Orchard near UC Davis

Selected as Cal 8.181-1

Following selection and testing the plant was designated as 'CN236'

Asexual propagules (runners) from the original source have been tested at the Watsonville Strawberry Research Facility, at SCREC (Irvine), and to a limited extent in grower fields in 2010-14.

'CN236'

The original source is maintained by the UC strawberry breeding program; clean stock is available as managed through FPS and release of this stock is anticipated in spring of 2015.

'CN236'

Has moderate to strong expression of day-neutrality

Is stronger in flowering response than 'San Andreas' and 'Albion'; is somewhat less so than 'Portola' or 'Irvine'

Will be of interest for winter plantings and in summer plantings where 'Albion', 'San Andreas' and 'Portola' have been successful

'CN236'

Moderate resistance to powdery mildew,
Verticillium, Phytophthora crown rot and common
leaf spot

Moderately susceptible to anthracnose crown rot

With proper treatment, is tolerant to two-spotted
spider mites equal to that of the comparison
cultivars

Is tolerant to strawberry viruses encountered in
California

'CN236'

Fruit size is equal or larger than comparison cultivars

Produces greater individual-plant yield than any of the comparison cultivars

Production pattern is similar to 'Albion', but better adapted to winter and spring plantings

Commercial appearance ratings for 'CN236' are similar or better than the comparison cultivars

Fruit for 'CN236' is as firm or firmer than fruit from comparison cultivars

Subjectively, 'CN236' has outstanding flavor

Yield performance of 'CN236' and three comparison cultivars evaluated at the Watsonville Research Facility in 2012-13

Item	Yield (g/plt)	App Score (5=best)	Fruit size (g/fruit)	Firmness
Albion	2632	4.1	32.6	12.2
San Andreas	3090	4.3	32.0	12.2
Portola	2900	3.4	31.7	11.4
CN236	3669	4.3	32.0	12.2

All plants for these trials were harvested from a commercial nursery near Macdoel, CA on Oct. 15-16 and transplanted with 18-21 days of supplemental storage. Fruit harvest was initiated in early April and continued through the first week of October.

'CN236'



'CN236'



Plug plants



Performance of non-chilled plug plants in So. Calif.

<u>Item</u>	<u>Yield (grams/plant) in:</u>							<u>Total g/plt</u>	<u>Fruit</u>		
	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>April</u>	<u>May</u>	<u>June</u>		<u>Size (g)</u>	<u>App (1-5)</u>	<u>Firm (1-5)</u>
Mojave	30	117	150	371	760	646	175	2248	36.8	3.7	3.2
7.18-601	17	58	174	472	984	555	257	2517 <i>(2012)</i>	31.0	3.6	3.3
7.39-601	24	81	162	355	664	468	256	2010 <i>(2109)</i>	34.0	3.5	3.8
7.104-603	20	65	152	299	833	729	166	2264 <i>(1689)</i>	31.5	3.7	3.4
7.164-6	3	28	181	523	819	537	306	2397 <i>(1964)</i>	39.1	3.3	3.3
8.67-608	7	81	135	409	672	431	283	2018 <i>(2144)</i>	37.3	3.4	3.4
								1778			

Plug plants propagated in Irvine on Sept. 10 and planted Oct. 15, 2011

Table 1. Disease Resistance Scores for UC Cultivars, 2008-12

Genotype	<u>P.</u> <u>cactorum</u>	<u>V.</u> <u>dahliae</u>	<u>C.</u> <u>acutatum</u>	<u>F.</u> <u>oxysporum</u>	<u>M.</u> <u>phaseolina</u>
Camarosa	3.2	3.3	2.8	2.9	3.2
Ventana	2.5	3.1	3.0	4.6	3.2
Albion	4.5	3.9	3.1	2.3	1.9
Monterey	3.9	4.2	2.9	3.5	2.8
S. Andreas	4.1	4.1	2.8	5.0	1.6
Portola	4.1	3.8	2.2	5.0	1.9
Palomar	3.3	3.9	3.1	3.4	3.2
Benicia	3.7	2.2	2.7	3.0	3.1

“1” indicates high susceptibility to disease;
“5” indicates strong disease resistance

Table 2. Disease Resistance Scores for UC Cultivars, 2011-12

Genotype	<i>P.</i> <u>cactorum</u>	<i>V.</i> <u>dahliae</u>	<i>C.</i> <u>acutatum</u>	<i>F.</i> <u>oxysporum</u>	<i>M.</i> <u>phaseolina</u>
Ventana	2.5	3.1	3.2	4.3	3.7
Benicia	3.8	1.6	2.7	2.6	3.3
Merced	4.6	2.8	2.3	3.5	2.4

“1” indicates high susceptibility to disease;
“5” indicates strong disease resistance

Thank You!

