

Some final data from the Strawberry Variety and Advanced Selection Trial in Faison, NC
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In the June issue of *The Strawberry Grower* newsletter of the NC Strawberry Association, I reported on the top twelve (12) advanced selections and varieties for total and marketable yield (Table 1). We continued to harvest this trial up to June 8th (17th harvest), and the information that appears in Table 2 is our final data for the season.

Table 1. Top twelve (12) advanced selections and varieties for yield, Faison, NC (14 Harvests)

Variety/ Adv. Sel.	Total Yield/pl (g)	Total Yield/A (lbs)	Mkt Yield/pl (g)	Mkt Yield/A (lbs)	Culls (%)	Berry Size (g)
1) LCN-74X4	1,222	40,374	1,081	35,700	11.5	25.0
2) LCN-81X18	1,123	37,104	991	32,742	11.8	21.8
3) LCN-73X41	1,105	36,508	988	32,700	10.5	22.9
4) LCN-86U59	1,070	35,352	957	31,619	10.5	25.5
5) LCN-89T2	1,045	34,526	955	31,552	8.6	29.5
6) Camarosa ^v	1,045	34,526	950	31,387	9.1	18.4
7) Liz (NCSU)	1,034	34,162	910	30,000	12.0	16.8
8) LCN-12X40	1,018	33,634	874	28,876	14.1	18.6
9) Victor (UC)	1,011	33,403	707	23,359	30.0	24.9
10) Camila (LCN)	998	32,973	895	29,570	10.3	25.0
11) LCN-85U40	993	32,808	822	27,158	17.2	24.7
12) Royal Royce (UC)	992	32,775	899	29,703	9.4	28.8

Table 2. Top twelve (12) advanced selections and varieties for yield, Faison, NC (17Harvests)

Variety/ Adv. Sel.	Total Yield/pl (g)	Total Yield/A (lbs)	Mkt Yield/pl (g)	Mkt Yield/A (lbs)	Culls (%)	Berry Size (g)
1) LCN-74X4	1,535	50,700	1,285	42,450	16%	24.8
2) LCN-73X41	1,466	48,450	1,189	39,300	19%	22.4
3) Royal Royce	1,412	46,650	1,171	38,700	17%	28.0
4) Camila (LCN)	1,376	45,650	1,153	38,700	16%	24.7
5) LCN-81X18	1,376	45,450	1,180	39,000	14%	20.7
6) UC Victor	1,321	43,650	885	29,250	33%	24.5
7) LCN-89T2	1,317	43,500	1,126	37,200	14%	28.8
8) LCN-12X40	1,312	43,350	1,044	34,500	20%	17.8
9) LCN-86U59	1,308	43,200	1,112	36,750	15%	25.0
10) Royal Royce	1,303	43,050	1,085	35,850	17%	26.9
11) Camarosa	1,289	42,600	1,117	36,900	13%	19.6
12) Valiant (UC)	1,285	42,450	1,022	33,750	20%	29.1

During the June 11th Virtual Field Day (<https://www.flavorfirst.com/2020-field-day>), which had 108 participants, several questions arose about the new University of California varieties that we tested this season in Faison (Royal Royce, Valiant, Victor, and Warrior), and one participant raised the question about how was it possible for the University of California variety, Royal Royce, to “jump from being in the 12th spot to the 3rd position for total yield (see Table 2)?”

The answer to that particular question is that we harvested another 293 grams (0.64 lb) per plant in the final two harvests on June 3rd and June 8th (for plot No. 43). You will notice that a second plot of Royal Royce (No. 27), also jumped into the top 12 (Table 2), and it had a total yield for the season of 43,050 lbs. per acre compared to the 46,650 lbs. per acre for Royal Royce in plot number 43. Here is the data for all four (4) plots of Royal Royce in our trial.

Table 3. Harvest data for all four (4) plots of Royal Royce , Faison, NC (17 Harvests)

Variety/ Plot No.	Total Yield/pl (g)	Total Yield/A (lbs) ^z	Mkt Yield/pl (g)	Mkt Yield/A (lbs)	Culls (%)	Berry Size (g)
R. Royce (43)	1,412	46,650	1,171	38,700	17%	28.0
R. Royce (27)	1,303	43,050	1,085	35,850	17%	26.9
R. Royce (6)	1,130	37,350	985	38,700	13%	29.0
R. Royce (9)	1,017	33,600	849	28,050	17%	28.0
Plot averages	1,273	42,075	1,072	36,975	16%	27.5

During the harvest season I was able to do some sugar measurements (Brix) for Royal Royce, as well as the other new California varieties. Essentially, I found that Royal Royce tested low for sugars, and my Brix readings were typically around 6.5. By comparison, Ruby June had average Brix readings this season (which was very rainy), in the vicinity of 8 degrees Brix.

As far as flavor goes, Ruby June, consistently scores in the range of 3.0 – 3.5 on flavor. In my flavor scoring system, a score of 4 indicates excellent flavor, 3 indicates good flavor, 2 indicates fair flavor, and 1 indicates poor flavor. Unfortunately, Royal Royce flavor scores were typically down around 1.5. Growers who tested Royal Royce in the Piedmont region of North Carolina reported better flavor for Royal Royce than what we experienced in Faison.

Future plans. As far as our future plans go for testing of the new University of California varieties, my colleague, Whit Jones, Farm Manager, Cottle Farms, and I are planning to continue testing of Royal Royce. We feel that this is an extraordinarily productive variety, and I think you will agree that 36,975 lbs. of marketable yield per acre is pretty impressive, as is an average berry size of 27.5 grams, or nearly one (1) ounce! No doubt, the flavor could be better. However, Royal Royce is the most rain tolerant of the four (4) new UC varieties, and the berries have a very attractive red color and nice shape (Figure 1). It is also interesting to note that we planted Royal Royce (and the other UC varieties) almost ten (10) days later than all the other varieties and advanced selections in our 2019-2020 trial. What all this means is that we need to keep testing Royal Royce!



Figure 1. Photo of Plot No. 6 (UC Royal Royce) on April 10, 2020. This particular plot was the third highest yielding of the four (4) Royal Royce plots that had 20 plants per plot. The total yield for the season in Plot 6 was about 2.5 lbs/plant, and the marketable yield was 2.2 lbs/plant, or about 38,700 lbs/acre! Berry size was **tremendous**, and actually exceeded (1) ounce for the whole season in this particular plot (29 grams).

Table 1. Strawberry Variety and Advanced Selection Trial Results, Cottle Farms, Faison, NC (17 harvests).

Spring 2020	CLONE/Plant type	Mkt lbs/plant	Tot lbs/plant	Percent cull	Ave berry weight (g)	⁰ Brix	Flavor ^z
1	74X4 Cutoff ^y	2.83	3.38	16%	24.8	6.8	2.2
2	73X41 Cutoff ^y	2.62	3.23	19%	22.4	6.9	2.0
3	81X18 Cutoff ^y	2.60	3.03	14%	20.7	8.3	1.8
4	89T2 Cutoff ^y	2.48	2.90	14%	28.8	7.3	2.1
5	57U55 Cutoff ^y	2.47	2.79	12%	24.7	6.3	2.0
6	86U59 Cutoff ^y	2.45	2.88	15%	25.0	6.5	1.9
7	Camar. Cutoff (CA)	2.39	2.75	13%	18.4	6.6	2.3
8	Camila Cutoff	2.37	2.83	16%	24.5	7.4	2.2
9	Liz Plug	2.37	2.81	16%	16.9	7.8	2.3
10	12X40 Cutoff ^y	2.30	2.89	20%	17.8	8.5	2.6
11	Camino plug	2.29	2.60	12%	21.1	7.5	1.9
12	UC Royce Cutoff ^x	2.25	2.68	16%	27.9	6.7	1.5
13	152X15 Cutoff ^y	2.23	2.56	13%	26.6	8.5	2.8
14	Ruby J Plug (PEI-1)	2.19	2.43	10%	20.0	8.4	3.3
15	Ruby J Cutoff (CA)	2.17	2.45	12%	20.2	9.2	3.6
16	146T54 Cutoff ^y	2.16	2.36	9%	23.0	7.7	2.5
17	Camar. Plug (PEI)	2.11	2.59	19%	18.5	7.8	1.9
18	85U40 Cutoff ^y	2.08	2.62	21%	24.0	6.9	2.5
19	UC Valiant Cutoff ^x	2.05	2.63	22%	28.6	6.0	1.7
20	84X27 Cutoff ^y	1.96	2.35	17%	21.7	7.6	2.7
21	Ruby J Plug (PEI-2)	1.92	2.17	11%	21.3	8.2	3.2
22	UC Victor Cutoff ^x	1.85	2.73	32%	24.2	5.7	1.8
23	Chand. Plug (PEI)	1.85	2.15	14%	14.5	7.2	2.8
24	Camar. Cutoff (PEI)	1.84	2.16	15%	17.8	7.5	2.2
25	122X8 Cutoff ^y	1.84	2.26	18%	29.2	8.9	2.9
26	Rocco Plug	1.79	2.33	24%	13.4	8.4	2.5
27	Ruby J Cutoff (PEI)	1.73	1.95	12%	21.0	8.8	3.4
28	95X5 Cutoff ^y	1.71	2.18	21%	24.0	8.3	2.7
29	53X53 Cutoff ^y	1.63	1.98	18%	23.3	6.6	1.0
30	Merced Cutoff (CA)	1.61	1.94	17%	23.2	6.0	2.2
31	Chand. Cutoff (PEI)	1.58	1.91	17%	13.0	8.0	2.8
32	Merced Plug (PEI)	1.54	1.87	18%	19.7	6.9	2.6
33	143T35 Cutoff ^y	1.53	1.83	17%	20.9	9.9	4.0
34	UC Warrior Cutoff ^x	1.43	1.97	27%	23.0	6.2	1.7
35	San Andreas Plug	1.35	1.60	16%	18.3	5.9	2.0

^z Flavor rating: 4=excellent flavor; 3=good flavor; 2=fair flavor; and, 1=poor flavor

^y LCN: Lassen Canyon Nursery Advanced Selection

^x UC: University of California