

Planting Date Recommendations for Pearl ‘66’, Encore and Ember (Year 2)

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Summary

We evaluated three planting dates (Oct 4, 15, and 21) for three new cultivars, Pearl ‘FL18.52-66’ (Pearl ‘66’), Encore, and Ember, during the 2024–2025 season. Hurricane Milton impacted this trial on Oct 9, 5 days after the first planting date. Delaying planting slowed canopy establishment and reduced early-season yield but increased late-season yield. Average fruit size followed a similar trend. The reduced fruit production rate in the Oct 4 planting was likely due to hurricane damage. Encore exhibited the least negative impact from the hurricane, suggesting greater stress resilience than the other cultivars. Apart from hurricane-related effects, the overall results were consistent with the Year 1 results.

Pearl® ‘FL18.52-66’

‘FL18.52-66’ is a new white strawberry cultivar selection. It has similar appearance to Pearl® but produces berries slightly earlier than Pearl® with fewer small non-marketable berries.

Encore®

Encore® (FL20.34-183) is similar to ‘Florida Brilliance’ in plant structure but slightly more vigorous. It has high early yield and steady fruit production thereafter. It produces red berries that are larger than ‘Florida Brilliance’.

Ember®

Ember® (FL20.80-4) is another red strawberry selection. It has a very similar plant structure to Medallion® but its canopy has slightly higher volume and slightly lower density. It is expected that this new

selection is more adaptable to early planting than the other selections.

Methods

A replicated field experiment was conducted during the 2024–2025 season at the UF/IFAS GCREC in Balm, FL. We tested three planting dates, October 4, 15, and 21, for three strawberry cultivars, Pearl® ‘FL18.52-66’ (Pearl ‘66’), Encore®, and Ember®. Bare-root transplants were obtained from Crown Nursery (Red Bluff, CA). Plant spacing was 16” (16,335 plants/acre). Each treatment had four replicated plots with 16 plants per plot. Harvests were performed 16 times between Nov 14, 2024 and Feb 27, 2025.

Results

Canopy growth (Table 1)

All three cultivars showed similar canopy size and growth rate throughout the growing season. Delaying planting reduced delayed canopy establishment, reducing canopy area by 53% to 61% at 28 days after transplanting (DAT) and 52% to 68% at 46 DAT. At 153 DAT, however, delaying planting increased canopy area by 23% to 31%. The declined canopy growth rate in the Oct 4 planting was due likely to the impact of Hurricane Milton.

Table 1. Canopy growth of three strawberry cultivars as affected by planting dates.

Cultivar	Planting date	Canopy projected area (cm ² /plant)			
		28 DAT	46 DAT	88 DAT	153 DAT
Pearl '66'	Oct 4	210	456	728	896
	Oct 15	93	343	753	1,107
	Oct 21	102	217	689	1,017
		56%↓	52%↓	NS	24%↑
Encore	Oct 4	227	342	827	961
	Oct 15	107	264	700	1,180
	Oct 21	107	163	699	1,077
		53%↓	52%↓	16%↓	23%↑
Ember	Oct 4	210	402	837	877
	Oct 15	96	258	795	1,149
	Oct 21	81	130	723	1,085
		61%↓	68%↓	14%↓	31%↑

Percent changes represent the maximum difference relative to the first planting date (Oct 4).

Yield: Cultivar trends (Table 2)

On average, Encore produced the highest yield, followed by Ember and Pearl '66'. Encore and Ember showed a similar yield distribution pattern with a greater early season yield than Pearl '66'. Nov–Dec yield accounted for 14–34% and 18–33% of the total season yield for Encore and Ember, respectively, compared to 7–28% for Pearl '66'.

Yield: Planting date effects (Table 2)

Delaying planting reduced early-season yield for all three cultivar: reductions in Nov–Dec yield were up to 65% for Pearl '66', 55% for 'Encore', and 35% for Ember. From Jan to Feb, however, delaying planting increased yield by 70–98% for Pearl '66', 31–53% for Encore, and 21–123% for Ember. The reduced fruit production rate in the Oct 4 planting was likely due to hurricane damage. As a result, delaying planting increased total-season yield by up to 40% for Pearl '66', 10% for Encore, and 39% for Ember. Among the tested cultivars, Encore exhibited the least negative impact from the hurricane, suggesting greater stress resilience than the other cultivars.

Table 2. Monthly and total-season marketable yields of three strawberry cultivars as affected by planting dates.

Cultivar	Planting date	Marketable yield (8-lb flat #/acre)			
		Nov–Dec	Jan	Feb	Total
Pearl '66'	Oct 4	351	231	678	1,260
	Oct 15	224	457	1,089	1,770
	Oct 21	122	427	1,156	1,704
		65%↓	98%↑	70%↑	40%↑
Encore	Oct 4	625	503	684	1,812
	Oct 15	406	646	874	1,926
	Oct 21	282	661	1,045	1,988
		55%↓	31%↑	53%↑	10%↑
Ember	Oct 4	499	504	516	1,518
	Oct 15	357	608	1,150	2,115
	Oct 21	325	531	950	1,806
		35%↓	21%↑	123%↑	39%↑

Percent changes represent the maximum difference relative to the first planting date (Oct 4).

Fruit size (Table 3)

The average berry size was similar for Encore and Ember throughout the growing season, but both produced larger berries than Pearl '66'. In Jan and Feb, the average berry size was significantly greater in the later two planting dates than in the October 4 planting, likely due to the long-term negative impact of Hurricane Milton.

Table 3. Average fruit size of three strawberry cultivars as affected by planting dates.

Cultivar	Planting date	Fruit size (g/berry)			
		Nov–Dec	Jan	Feb	Total
Pearl '66'	Oct 4	16.5	21.1	21.2	20.0
	Oct 15	15.4	24.9	26.8	24.0
	Oct 21	13.8	29.1	29.7	27.3
		16%↓	38%↑	40%↑	37%↑
Encore	Oct 4	23.1	29.4	26.2	25.9
	Oct 15	19.9	37.1	34.4	30.5
	Oct 21	20.0	37.0	35.3	32.3
		14%↓	26%↑	35%↑	25%↑
Ember	Oct 4	19.8	29.4	27.4	24.9
	Oct 15	22.6	36.6	36.1	32.9
	Oct 21	24.3	30.6	35.8	31.5
		22%↑	25%↑	32%↑	32%↑

Percent changes represent the maximum difference relative to the first planting date (Oct 4).

Fruit Brix – Cultivar effects (Table 4)

Based on quality assessment performed on Jan 14, 2025, Pearl '66' and Encore had similar Brix values, ranging from 9.33 to 9.75, which were slightly higher than Ember (8.20 to 9.70). Delaying planting had no significant effect on Brix of Pearl '66' and Ember but reduced Brix of Encore by 18%.

Table 4. Total soluble solids content (Brix) of three strawberry cultivars as affected by planting dates.

Cultivar	Planting date	Soluble solids content (°Brix)
Pearl '66'	Oct 4	9.53
	Oct 15	9.75
	Oct 21	9.48
		NS
Encore	Oct 4	8.20
	Oct 15	8.58
	Oct 21	9.70
		18%↑
Ember	Oct 4	9.48
	Oct 15	9.33
	Oct 21	9.70
		NS

Measurements were performed on Jan 14, 2025.

Percent changes represent the maximum difference relative to the first planting date (Oct 4).

Takeaways

- In Nov–Dec, yield loss was 65%, 55%, and 35% for Pearl '66', Encore, and Ember, respectively.
- Delaying planting increased Jan–Feb yield. The reduced fruit production rate in the Oct 4 planting was likely due to hurricane damage
- Encore exhibited the least negative impact from the hurricane, suggesting greater stress resilience than the other cultivars.
- Based on the results of this study and the previous season, all three new cultivars, Pearl '66', Encore, and Ember, are well-adapted to early planting and should be planted by Oct 10 to avoid potential yield loss.

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