

Certain cultivars consistently produced large sized bulbs (greater than 3 inch diameter). 'Granex 429' and 'Granex 33' were among the top and also produce the largest bulbs. 'Sunre 1502' bulbs were consistently smaller than those of 'Granex 429' or 'Granex 33'.

'Sunre 1506', 'Special 38', 'Texas Grano 1015y', 'Henry's Special', and 'Texas Grano 502 PPR' were evaluated in 3 of the 4 trials. Each of these cultivars performed well in 1 or 2 trials but not in the 3 or 4 trials in which they were entered. Of the cultivars evaluated for only one year, Z-513, Z-218, Z-512, and Savannah Sweet ranked high and should be given further evaluation.

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*Proc. Fla. State Hort. Soc.* 103:98-99. 1990.

## PERFORMANCE OF 'DOVER', 'PAJARO', AND 'SELVA' STRAWBERRY PLANTED IN WEST CENTRAL FLORIDA IN AUGUST, SEPTEMBER, AND OCTOBER

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*Additional index words.* *Fragaria X ananassa*, cultural practices.

**Abstract.** Locally propagated plants of 'Dover', 'Pajaro', and 'Selva' strawberry (*Fragaria X ananassa* Duch.) were set at AREC-Dover on raised beds (annual hill culture) in Aug., Sept., and Oct. 1988. Plants set in Aug. produced the most runners and largest plants. Plants set in Sept. produced plants that were intermediate in size to those set in Aug. and Oct. The influence of planting date on yield varied with cultivar. The results of this study suggest that an Oct. planting date was best for the 2 short day cultivars, Dover and Pajaro, while a Sept. planting date might be preferable for the day-neutral cultivar Selva.

West Central Florida strawberry growers have planted mostly 'Selva' and 'Pajaro' in recent years to satisfy market demands. 'Selva' is prized for its long shelf life and its ability to produce some fruit in Nov. and early Dec. 'Pajaro' is popular because its fruit is generally firm, attractive, and flavorful. 'Pajaro' and 'Selva' were released by the University of California in 1979 and 1983 respectively.

Dover, a cultivar released by the University of Florida in 1979, is highly resistant to anthracnose crown rot (caused by *Colletotrichum* spp.), making it popular among growers who want to propagate their own plants. Dover and Pajaro are short day cultivars; Selva is a day-neutral cultivar.

Plants of 'Pajaro' and 'Selva' have been relatively low yielding when planted in Oct. (the traditional month for

planting strawberries in west central Florida), while 'Dover' has been high yielding (2). Albregts and Howard (1) found that plants of 'Dover' set in Nov. generally had lower early and total fruit yield than plants set in Oct. The effect of Aug. and Sept. planting dates on the performance of 'Dover', 'Pajaro', and 'Selva' in west central Florida has not been investigated. The study reported here was conducted to compare the performance of 'Dover', 'Pajaro', and 'Selva' plants set in Aug. and Sept. with those planted in Oct.

#### Materials and Methods

Runner tips of 'Dover', 'Pajaro', and 'Selva' were collected on 26 July, 17 Aug., and 15 Sept., and rooted in peat pellets under intermittent mist. The earliest rooted plants were set through black polyethylene mulch on standard 2-row raised beds on 25 Aug.; the intermediately rooted plants were set 22 Sept.; and the latest rooted plants were set on 22 Oct. The experimental design was a split plot consisting of 4 replications of each planting date (main plots). The cultivars were assigned randomly to 6-plant subplots within main plots.

Runners were cut and counted 4 times, at monthly intervals. Ripe fruit was harvested, graded, counted, and weighed twice weekly through the end of Jan. On 8 Feb., the fresh weight of 1 representative plant (excluding roots and fruit) from each subplot was determined.

#### Results and Discussion

Plants set in Aug. produced the most runners (Fig. 1) and the largest plant (Fig. 2). Plants set in Sept. produced plants that were intermediate in size to those set in Aug. and Oct. (Fig. 2). These results are likely due to the fact that the plants set early were exposed to longer periods of warm weather than the later set plants (Fig. 3). High temperatures during the summer months are known to promote runner production (4).

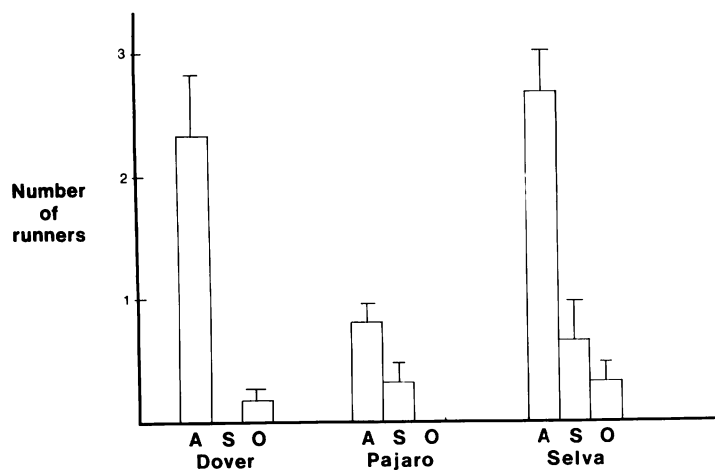


Fig. 1. Mean number of runners produced per plant by 'Dover', 'Pajaro', and 'Selva' strawberry plants set in Aug. (A), Sept. (S), and Oct. (O). Lines on top of the bars show standard error of the mean.

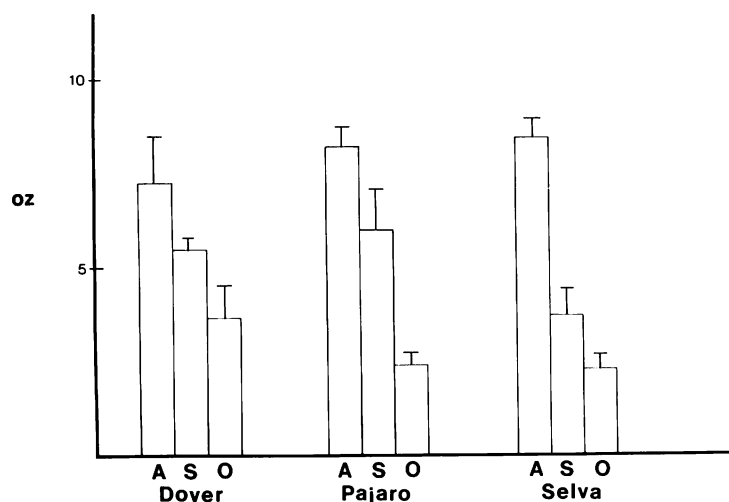


Fig. 2. Mean fresh weight (excluding roots and fruit) of 'Dover', 'Pajaro', and 'Selva' strawberry plants set in Aug. (A), Sept. (S), and Oct. (O). Lines on top of the bars show standard error of the mean.

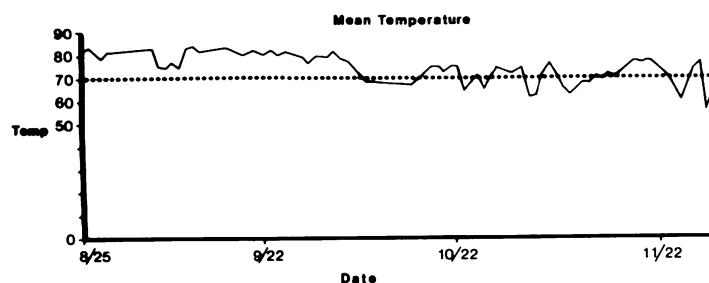


Fig. 3. Mean daily air temperatures (degrees F) at the Agricultural Research and Education Center, Dover, FL from 25 Aug. 1988 through 22 Nov. 88. A horizontal dotted line was added to allow for easier interpretation of the temperature line.

Soil temperatures under the black polyethylene mulch can be very high during Aug. and Sept. Temperatures measured approximately 1 inch below the mulch during sunny afternoons in mid Sept. 1989 ranged from 100 to

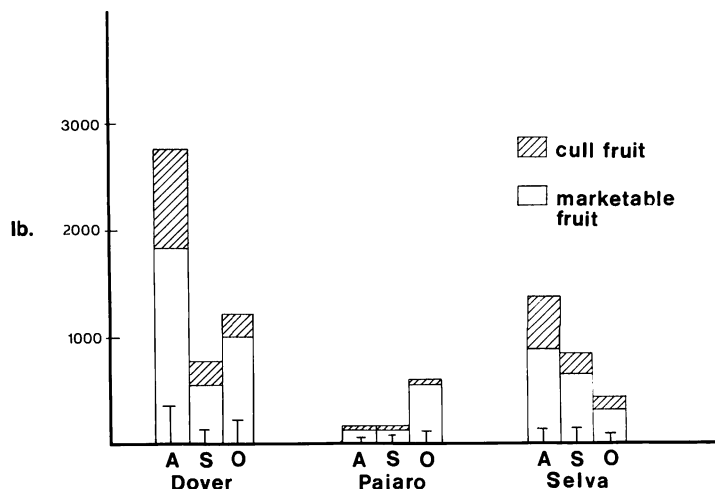


Fig. 4. Mean fruit yield per acre of 'Dover', 'Pajaro', and 'Selva' strawberry plants set in Aug. (A), Sept. (S), and Oct. (O). Lines inside the clear bars show standard error of the mean for marketable yield.

114 F (C.K. Chandler, unpublished data). Temperatures under black polyethylene covered with a white latex paint were 16 to 22 F lower. Had white-on-black polyethylene been used in the planting date study, the results may have been different, especially on the short day cultivars Dover and Pajaro. Durner et al. (3) found that the short day cultivars used in their study were more sensitive to temperature than the day-neutral cultivars.

Planting date had no significant effect on average fruit weight (data not presented), but it did influence fruit yield (Fig. 4). 'Dover' plants set in Aug. had the highest yield of marketable fruit. Unfortunately, Aug. set 'Dover' also had the highest yield of unmarketable (cull) fruit. 'Pajaro' plants set in Oct. were more productive than 'Pajaro' plants set in Aug. and Sept., while for 'Selva' the plants set in Aug. and Sept. were more productive than plants set in Oct.

The results of this trial support the standard practice of planting short day cultivars during Oct. in west central Florida. 'Dover' and 'Pajaro' set in Oct. produced plants that were not excessively large (large plants are difficult to harvest and spray), had few, if any, runners, and the highest percentage of marketable fruit. A Sept. planting date might be preferable for 'Selva'. 'Selva' plants set in Sept. produced plants of moderate size, had relatively few runners, and produced fruit yields intermediate to those obtained with Aug. and Oct. planting dates.

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