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FLOWERING BEHAVIOR AND YIELDS OF SOME AVOCADO VARIETIES AT RIVERSIDE

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A large number of avocado varieties are under trial in the variety orchard of the University of California Citrus Experiment Station, 3¹/₂ miles east of Riverside. The oldest trees in the orchard are now 12 years of age.

During the years of 1951, 1952, and 1953, records were made of the date of first and last bloom, amount of bloom, and a rating of the crop produced.

FLOWERING BEHAVIOR AND YIELDS AT RIVERSIDE									
Year	Variety	Flowerin 1st Open Bloom	ng Dates Last Ope Bloom	n Amt of Bloom	Yield Rating				
1951	Duke Zutano Irving Emerald Halsted Hass Ryan Clifton Regina Fuerte	Feb. 3 Mar. 27 Apr. 8 Apr. 8 Apr. 18 Apr. 15 Apr. 10 Apr. 6 Apr. 17 Mar. 27	Apr. 6 May 28 May 7 May 25 May 23 May 26 May 23 May 8 May 30 May 25	Heavy Heavy Few Medium Light Medium Heavy Medium Medium	Heavy Heavy A few fruits Medium Light Light A few fruits A few fruits Light Medium for 6 trees, others a few fruits to light crop				
1952	Duke Zutano Irving	Mar. 26 Apr. 4 Mar. 26	Apr. 26 May 20 May 7	Heavy Medium Heavy	Light Light Heavy				

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	Emerald Halsted Hass	Apr. 8 Apr. 12 Apr. 4	May 22 May 22 May 24	Heavy Medium Medium	Heavy Heavy Medium
	Ryan	Apr. 3	May 16	Heavy	Heavy
	Clifton	Mar. 26	May 14	Heavy	Heavy
	Regina	Apr. 14	May 23	Medium	Heavy
	Fuerte	Apr. 2	May 16	Medium to Heavy	Heavy 3 trees,
					others a tew fruits to light crop
1953	Duke	Feb. 15	Apr. 1	Heavy	Medium to Heavy
	Zutano	Mar. 9	May 18	Heavy	Heavy
	Irving	Feb. 24	Apr. 20	Heavy	A few fruits
	Emerald	Mar. 25	May 26	Medium	Medium
	Halsted	Mar. 24	May 20	Light to Medium	Light to Heavy
	Hass	Mar. 26	May 2	Light to None	Light to None
	Ryan	Mar. 26	May 18	Light	A few fruits
	Clifton	Mar. 9	May 5	Medium	Light crop
	Regina	Mar. 24	May 24	Light	None
	Fuerte	Mar. 9	May 10	Medium to Heavy	Medium 2 trees, others a few fruits to light crop

Note: Both bloom and yield are arbitrarily rated light, medium and heavy, and represent the best judgment of the person making the survey, and are approximate.

There are 26 bearing Fuerte trees representing 16 strains.

DISCUSSION

This table includes only a limited number of varieties.

The average flowering period for most varieties is approximately 6-8 weeks. In 1954, some varieties were in bloom as long as 12 weeks. The flowering period *is* considered to be from the time the first open flowers are seen until the last ones are present.

No attempt was made to separate varieties into early and late flowering classes. The Duke is an early flowering variety. The others listed show some variation in the date of the appearance of the first flowers. The weather has an important influence on flowering, but no attempt has been made to correlate temperatures, amount of fog and clouds, and wind, with the time of flowering or their effect on pollination. Bees are an important factor in obtaining adequate pollination. Weather affects bee activity.

In both 1951 and 1952, flowering dates for the same variety were quite similar. In 1953, they were generally much earlier than in the two previous years. There does not appear to be a consistent correlation in the amount of bloom with yield, except that a medium to heavy bloom is needed to produce a medium to heavy crop.

The MacArthur and Edranol (not listed in table), bloom early and heavily each year but produce only a few fruits. A heavy bloom does not necessarily result in a crop with some varieties. For example, the Campbell, Encanada, and Taft (not listed in table) bloom heavily some years, but produce few or no fruits those years or any other.

While the table includes but three years of yield data, records have been kept on yields for seven years on many varieties. The most promising producers of those mentioned in the table are Zutano, Duke, Emerald, Hass and Ryan. The Hass and Ryan are the only two summer varieties that show some promise, based on behavior for a period of years. A few others show considerable promise based on short-time yield records.

The Zutano, Duke, and Emerald have had the best yield record of the fall and winter varieties under test.

The yield performance of all of the Fuerte strains has been disappointing. The yield data given in the table for the Fuerte is typical for the seven years that production ratings have been made. No strain has shown superiority over the others.