

Grape Progenies of Self-Pollinated Vinifera Varieties

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GRAPE progenies of 38 self-pollinated vinifera varieties have been grown for fruit readings at Fresno, California. While these progenies were raised mainly to study the value of the parent variety in our grape breeding program, some seedlings appear to have inherent value. Special attention was given to the vine character, type of stamens, color, quality, and maturity of the fruit.

In most cases the seedling vines resembled the parent variety in vigor and foliage characteristics. While a direct comparison between the vigor of the parents and their progenies was not possible, the progenies in general did not show any apparent loss in vigor. If the parent variety had any outstanding foliage character, it was maintained in the foliage of the progeny. This is well illustrated in Fig. 1 which shows the close similarity of a leaf of the Chasselas Cioutat and a leaf of one of its seedling progeny. Seventy-five per cent of the Chasselas Cioutat progeny had the typical parent-type foliage. In fact the parentage of most of the seedling progeny could be identified by their foliage characters.

Condensed data are given in Table I concerning the progenies of a selected number of vinifera grape varieties. All of the vinifera parent varieties have upright stamens. A record of the seedling progenies

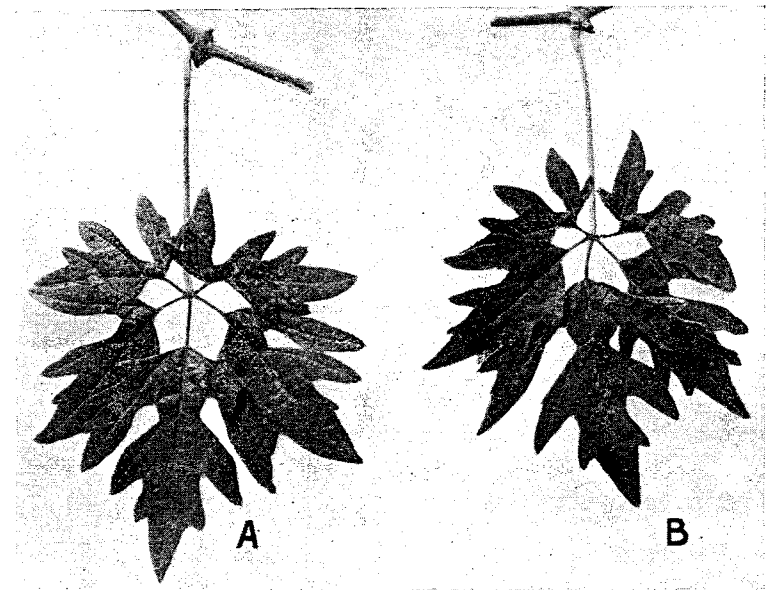


FIG. 1. Chasselas Cioutat leaf (A), progeny leaf (B).

TABLE I—CONDENSED DATA OF THE PROGENY OF SELFED-VINIFERA VARIETIES

Characters of Parent Variety			Characters of the Seedling Progenies										
Variety	Fruit Color	Season of Maturity	Number Fruiting	Stamens		Fruit Color			Season of Maturity				
				Upright	Reflex	White	Red	Black	Early	Early-medium	Medium	Medium-late	Late
Agadia	White	Late	21	18	3	21	—	—	1	1	2	4	13
Malaga	White	Medium	85	61	24	85	—	—	5	17	31	22	10
Syvaner	White	Early	15	13	2	15	—	—	3	8	3	1	—
Castiza (Red Malaga)	Red	Medium	20	17	3	5	14	1	1	1	10	6	3
Chasselas Rose de Palleaux	Red	Early	29	25	4	12	17	—	11	11	6	1	—
Emperor	Red	Late	12	11	1	1	11	—	—	—	—	3	9
Mission	Black	Late	39	37	2	8	—	31	—	3	6	15	15
Mondeuse	Black	Medium	39	34	5	6	—	33	6	7	22	4	—
Petit Syrah	Black	Medium-late	124	118	6	—	—	124	3	10	29	53	29
Zinfandel	Black	Medium	14	12	2	7	—	7	1	6	4	3	—

indicates that 86.9 per cent have upright stamens while 13.1 per cent have reflex stamens. All of the vinifera varieties from which a number of self-seedlings have been grown, have produced some seedlings with reflex stamens. Most of these seedlings with reflex stamens have given a poor set of fruit.

In color, the white-fruited parents produced all white-fruited seedling progenies. The red-fruited parents produced white and red fruited progenies with an occasional black fruited type. The seedlings of the black-fruited parents usually segregated into a few white fruited seedlings, an occasional dark red, but mostly black-fruited seedlings. The Petit Syrah with 124 seedlings fruiting has produced only black-fruited seedlings. The development of different colored seedlings may be of value in the selection of varieties for wine purposes. A white Mission type or a white Zinfandel type which was produced by self-pollination as indicated in Table I may have commercial value.

A decided variation was noted in the season of fruit maturity of the seedling progenies. While the majority of the seedlings ripened near the season of the parent variety, sufficient variation in time of color development and fruit ripening was noted in some seedlings to make some selections of value. In the case of Malaga and Castiza, some of the progenies showed much earlier maturity than the parent varieties.

In general, the similarity of the vine and fruit characters of the seedling progenies to the vinifera parent has been outstanding. The variation noted in color and season of maturity offers possibilities in developing new varieties.