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VITICULTURE & ENOLOGY
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Title: **"Yield components and fruit composition of six 'Cabernet Sauvignon' grapevine selections in the Central San Joaquin Valley, California"**

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• The authors evaluate the viticultural characteristics of 6 Cabernet Sauvignon clones available from Foundation Plant Services (FPS): FPS2, FPS8, FPS10, FPS21, FPS22 and FPS24. Their trial design is a randomized complete block, with 10 single-vine replicates. The experiment ran for four years (2000-2003) in Parlier, near Fresno, California (Region V climate), on Hanford fine sandy loam (1.5 m rooting depth). The vines, planted in 1997, were own-rooted, 2.3m x 3m-spaced, bilateral cordon trained with a single catch wire, and spur-pruned to 16-18 two-node spurs. All clones were harvested on the same day within each year.

• **Yield components.** Yield was more than 15% higher in FPS8, 21, and 22 (21-23 kg/vine) compared to the remaining clones (17-19 kg/vine). In general, the highest-yielding selections had larger clusters (225-245 g compared to 205-215 g). Clusters had similar numbers of berries across clones, so cluster weight differences were mainly due to differences in individual berry weight. Clone FPS2 had the smallest berries, followed by FPS24.

• **Fruit composition.** Differences in Brix (soluble solids) among clones were small. FPS22 and FPS24 had the highest Brix in most years, so they could be considered the selections with the earliest maturity. Conversely, FPS2 was the last to mature. FPS22 was the clone with the lowest TA and the highest pH, even though the differences were small.

• **Anthocyanins.** The authors removed skin discs from berries belonging to each of the clones and performed a methanol extraction followed by absorbance readings at 520nm to determine whether clones differed in the amount of skin anthocyanins. Anthocyanin levels were similar for all clones.

• As the authors discuss, these results are in agreement with those of a study in northern San Joaquin Valley (Wolpert, 1995), in which FPS8 and FPS21 were also higher-yielding than FPS2. Also in agreement, the latter study found differences in yield to be due mainly to differences in cluster weights, rather than cluster numbers. In contrast, an earlier study attributed the high yield of FPS8 to greater number of clusters (Bowen and Kliewer, 1990). Finally, Wolpert (1995) found that the lowest-yielding clones tended to mature the earliest, even though the current authors did not find that.
In summary, clone FPS22 stood out for its high yield and early maturity. FPS8, which is currently the most widely planted clone in California, also showed good yields, but its fruit matured later than FPS22.

	Origin	Berry weight (g)	Yield (kg/vine)	Brix	Yield/Pruning weight
FPS 2	California (Oakville)	205 c	17.4 b	22.8 b	0.31
FPS 8	California (Concannon)	226 abc	21.2 a	23.0 b	0.30
FPS 10	Germany (Neustadt)	215 bc	19.3 b	22.9 b	0.34
FPS 21	Chile (Cachapoal)	244 a	21.7 a	22.8 b	0.30
FPS 22	California (Battuello Vyd., Napa)	232 ab	23.0 a	23.3 a	0.31
FPS 24	California (Laurel Glen Vyd., Sonoma)	210 bc	19.1 b	23.1 ab	0.31

Only a few parameters measured by the authors presented here.
Values which share a letter are practically the same (with probability of 5 in 100 of that not being true, or $p<0.05$)

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