

Report From the Variety/Nursery Section

Each year, I report on a multitude of numbered varieties, and I can imagine it must be somewhat confusing to recount details from my assorted codes. The confusion is compounded by the fact that as a new variety surfaces and proves interesting, it receives my special mention and then goes "underground" as further testing is done. This second-phase testing requires two to three years or more.

Therefore, I have consolidated my "special mention" variety list into a simplified description that should assist those who have been at least mildly interested in our program. (See *Table 1.*)

Any serious update of our program requires that special recognition go to Dr. Bob Bergh, who continues to serve as project leader in a nonsalaried emeritus position at UC/Riverside. His contributions continue to be invaluable.

New Avocado Varieties (listed in order of discovery)				
I.D.	Flower Type	Productivity (cf. Hass)	Season (approximate)	Description (looks like)
122 Lamb/Hass	A	Hass+	late-Hass (5 months)	Hass
Regal R	A	Hass	Hass (5 months)	Black Fuerte
OA 184	B	Hass	late-Hass (3 months)	Hass
BL 1058	B	Hass	Reed (3 months)	Hass
RT 5176	B	Hass++	mid-Hass (3 months)	Small black Reed
5-552	B	Hass+	late-Hass (4 months)	Small Reed
BL 516	B	Hass+	late-Hass (4 months)	Small Hass
BL 667	B	Hass	mid-Hass (4 months)	Hass
4-18-15	B	Hass	mid-Fuerte (3 months)	Black Fuerte
BL 312	A	Hass+	late-Hass (4 months)	Small black Reed
3-29-5	A	Hass+	late-Hass (4 months)	Smooth Hass
Harvest	?	Hass++	Hass (5 months)	Hass

BL122 (Lamb/Hass)

Early production data for BL122 continue to show production values 50% above Hass trees of similar age and in similar growing conditions, although there are several equally important factors that may contribute to the ultimate success or failure of this variety.

On the positive side, this variety has a tenacious capacity to hold very late in the season. The 1993 crop at South Coast Research and Extension Center (Irvine) held

well beyond November. The crop held late in spite of fierce north winds that helped to spawn the Laguna Beach fire. In contrast, the last of the comparable-age Hass trees dropped their crop by mid-September.

The negative factors of BL122 are unique and perplexing. At several different locations, the crop matures as much as three months in advance of anticipated maturity times. This "early" fruit is slightly different in appearance from the more common later-maturing fruit. The size is larger, and the skin smoother. It is possible the crop is entirely off-bloom. This advancement in maturity brings the season more closely in line with that of Hass. According to Dr. Mary Lu Arpaia's preliminary postharvest data, the overall early-maturing BL122 rates slightly below the quality of the Hass standards. I speculate that the "dual maturity" factor is connected with tree juvenility; and that after several seasons of production, trees will "settle down."

In spite of the unknowns, both the C. A. S. board of directors and the C. A. S. Nursery and Variety Section have written to Dr. Bergh encouraging him to proceed with the process of patenting the variety.

In what may be a surprising response to these requests, it is now likely that the University of California will proceed with the patenting of several other varieties as well, both to protect the interests of the university and to provide growers with a choice of varieties.

Hass-like B-flower Varieties

The topic of pollination is complicated by environmental as well as genetic factors. We hope that, with new research plots like the one recently established at the Newman Ranch in Oxnard and availability of the genetic identification tools of Dr. Dean Clegg's program at Riverside, more definitive data can be determined.

OA184

This selection has always had the obvious advantage as a pollinator variety because of its Hass-like appearance. Peak bloom appears to be later than Hass. My major concerns are with both fruit maturity dates and on-tree fruit storage. From limited experience with the variety, it appears that the period of acceptable fruit quality is relatively short when compared with Hass. It may be commercially acceptable for only as short a period as 10-12 weeks.

BL667

This selection may replace OA184 as a mid-season B-flower variety. It, too, is Hass-like. Like OA184, it may exhibit shortened maturity dates, but early mother-free records indicate very good flesh quality characteristics.

BL516

This variety is unique in my selection process because the overall fruit size is relatively small (6 1/2 to 8 ounces), but maturity is best relatively late in the season when small size fruit is frequently scarce. Bloom of BL516 is heavy and regular, and flesh quality is excellent.

4-18-15

This is one of my personal favorites because of its early season size and maturity. Skin thickness is similar to that of Fuerte, although its texture is pebbly. Peeling is good. Fruit quality is excellent. Because of its obvious genetic Mexican-race influence, some cold tolerance is predictable.

Miscellaneous Research

There are several related research topics our work encompasses. Our tree training program is very exciting. The research began as a method for standardizing tree shape for more accurate comparisons between our varieties. For me it has evolved into a regular tree management program and has forced me to apply the principles to commercial conditions.

Apparently, the concept of avocado tree management is viewed with some disdain or distrust. Much of my communication difficulty on the topic of tree training lies in the fact that most of my research plots are arranged very differently than commercial conditions. I have several breeding cooperators following my recommendations, and their results will be reported as they come in.

Other research projects include an extensive new variety collection in Riverside at a site susceptible to cold injury in years when low temperatures occur. Rootstock breeding continues under the supervision of Dr. John Menge, of UCR. The program is showing much promise. Fine tuning is ongoing.

Gray Martín, *Chairman, Variety/Nursery Section*