

## Report of Committee on Varieties

Read before Annual Meeting of Association, May 6, 1933, by Dr. J. Eliot Coit.

### VARIETY LISTS

List No. 1—**Commercial Varieties:** FUERTE.

List No. 2—**Varieties of proved merit. Candidates for commercial rating:**

NABAL (For Coast and Foothill planting).

BENIK (For Coast planting)

List No. 3—**Other Varieties of value, suggested for Amateur Collections and Experimental Plantings, listed according to apparent climatic adaptation:**

Coast	Foothill	Interior
ANAHEIM	ANAHEIM	BENEDICT
CARLSBAD	CARLSBAD	DUKE
DICKINSON	CHOICE (Stephens)	MATNEY
DICKEY A	DUKE	MAYAPAN
ITZAMNA	ISHIM	TOPA TOPA
MARION	LINDA	
MAYAPAN	MARION	
TAFT	MAYAPAN	
	PUEBLA	
	QUEEN	
	SHARPLESS	

List No. 4—**Varieties most hardy to cold suggested for Amateur Growers:**

BENEDICT, DUKE, FUERTE, PUEBLA.

List No. 5.—**Registered Seedlings worthy of widespread trial:**

EDRANOL, ESCONDIDO, LINBETH, VISTA, HAZZARD.

**Edranol:** At Vista,, by E. R. Mullen of Arcadia—Guatemalan; 11 oz.; olive green; oil tests 22.61%, Sept. 8, 1931 and 22.22%, March 24, 1932; flavor good plus; skin thin for Guatemalan; seed % oz., tight.

**Escondido:** At Escondido, by Geo. Bjornson. Guatemalan; 15 oz.; light green; oil test 20.1%, Dec. 24, 1931; flavor good plus; skin thin; seed 3% oz., tight.

**Hazzard:** At Vista, by A. G. Hazzard. Guatemalan; 11 oz.; green; oil test 27.3%, April 4, 1932; flavor good minus; skin thin for a Guatemalan; seed large, 3 oz., tight.

**Linbeth:** At Fallbrook, by Dr. Lincoln Rogers. Hybrid; 9% oz., light green; oil test 23.96%, July 7, 1932; flavor excellent minus; skin like Fuerte; seed 1% oz., loose.

**Vista:** At Delpy tract, Vista, by W. L. Crowell, Vista. Hybrid; 17 oz.; olive green; oil test 22.16%, Aug. 1, 1932; flavor good; skin thin; seed 1% oz., tight.

But few minor changes have been made in four of the recommended lists as published last year. List No. 5 has been changed to a list of the more promising of the registered seedlings.

The Fuerte represented more than half of all fruit delivered to Calavo Growers during the past year, and as young plantings, which are largely Fuerte, come into bearing a further increase in the percentage of Fuertes is expected during the next few years.

The difficulty with the Puebla (cutting dark) in the fall of 1931, as reported last year, did not recur in serious degree in 1932, the crop being harvested in a normal condition. The theory advanced in 1931 that the trouble with the Puebla was due to peculiar weather conditions occurring at that time now appears to be correct. While the total volume of Puebla amounts to only 9 per cent of the crop, it is still the third best market variety and is also favored by growers in certain Foothill locations, particularly La Habra and North Whittier Heights.

The registration of seedlings pending the time when the best of them acquire varietal standing, as inaugurated by this Association last year is working well and many highly promising new forms have been brought to light. It is especially desired that seedlings bearing small green Guatemalan fruit maturing from July 1st to November 1st should be registered.

One of the results of the financial depression has been a sharp reduction in commercial planting. Many avocado nurserymen have gone out of business, and there is a tendency on the part of those still in business to limit propagation to Fuerte and a few other varieties for which there is a known demand. Propagation and sale of trees of a new and unknown variety (however promising) involves considerable financial hazard at this time. Moreover the number of amateur avocado growers actively interested in new and better varieties is greatly reduced compared with ten or twelve years ago. From the standpoint of improvement and progress of the industry this is unfortunate.

The California avocado industry has always been in urgent need of a plot of ground under suitable climatic conditions where variety studies might be carried on under control of some appropriate public agency. At the University Farm and Experiment Station at Davis, climatic conditions are entirely unsuited to avocado culture. At the Citrus Experiment Station at Riverside, avocados are grown to a small extent chiefly to provide material for pathological, physiological, and entomological investigations. The climatic conditions there are not at all suited to variety studies.

In 1929 the California Botanic Garden was established in Mandeville Canyon, Santa Monica, and here at last excellent facilities were offered for avocado variety studies. This Association held a field meeting there in October, 1929, general congratulations and optimism being freely indulged in. Very sad to relate, however, the financial set-up of the Botanic Garden was soon involved in complex and long continued litigation. The director resigned and departed. The garden was closed, and is now fast reverting to its

original feral condition.

In January, 1933, the Division of Sub-Tropical Horticulture of the University of California, headed by Professor Robert W. Hodgson, was transferred from Berkeley to the Southern Branch of the University at Westwood near Santa Monica, where the climatic and soil conditions are excellent for avocado culture. A small tract of ten acres on the campus was set aside for growing plant material for instruction purposes and laboratory uses. This tract is already packed full of such material including a collection of some thirty varieties of avocados selected with reference to the needs of student instruction. Professor Hodgson and Professor Condit, now also resident at Westwood, have always been most sympathetic toward the needs of the avocado industry, have made notable contributions in the past, and have frequently stated that they looked forward to the time when they would be in a position to initiate and cooperate in variety studies under conditions favorable for good results.

It is the opinion of this committee that the opportunity at Westwood is indeed propitious. What is needed is a small tract of five or six acres of land either on the campus or within easy reach of the campus where variety studies may be carried on under the complete control of the University and in cooperation with the Variety Committee of this Association and the Variety Committees of the several Farm Bureaus.

A collection of all varieties now available as budded trees should be planted for uses of comparison. It is suggested that the rest of the land be planted to carefully selected seeds of known parentage and allowed to come into bearing. All seedlings producing worthless fruits would then be available for grafting to seedlings registered by this Association or any other promising seedlings. The best would be preserved for study and those proving inferior cut off, the stumps being used over and over again for the testing of hundreds of newer seedlings.

The most promising seedlings after several years observation on bearing habit, after having been approved by the University staff members, by the Association and Farm Bureau variety committees, and by the packing-house and market men of Calavo Growers should be freely exhibited at the Avocado Shows. It is our opinion that such exhibits, backed by the above recommendations would create sufficient demand to warrant nurserymen in securing authentic bud-wood and propagating a sufficient amount of nursery stock to provide for a general test by growers under the varying climatic conditions of different localities. In this way the results of the work would become effective in improving the industry.

Some persons hesitate to let budwood of a promising new seedling get out of their exclusive control because they hope for a large financial return in the event it should turn out to be particularly desirable. Those familiar with the nursery business realize that there is very small chance for this, because the heavy expense of publicity necessary to create a demand can seldom be regained in the short time they can retain control after distribution is once started. It is probable that when scions from a registered seedling are furnished to the University for trial in the test plot that a special arrangement might be made whereby any applications for scions of that variety would be referred to the owner of the original tree. The owner might even take out a patent for the variety under the new plant patent law whereby he would retain the exclusive right of propagation and

sale for a term of years.

Such a variety test plot as described above would greatly stimulate the observation of meritorious seedlings, provide for their thorough and adequate test, and provide a means for translating the benefits into progress of the industry. The early consummation of this or some similar plan is earnestly hoped for. To that end, this Variety Committee will cooperate to the fullest degree.