

REPORT OF THE VARIETY COMMITTEE CALIFORNIA AVOCADO ASSOCIATION

PASADENA, MAY 15, 1925

The purpose of the recommended list of varieties is perhaps not understood by many. The recommendations given herewith are based upon observations of different varieties throughout Southern California. They are given to aid growers and prospective growers in drawing their own conclusions and offer suggestions looking toward independent investigation by those interested rather than to be taken as the last word. The grower who succeeds is going to spend considerable of his own time in the study of the different varieties before he makes up his mind. The observations of the Variety Committee are intended to aid him in this.

The present Variety Committee was appointed sometime after the spring meeting of the Association in 1923. The work has been divided into field trips of inspection by the Committee as a whole, several trips by individuals, and considerable correspondence with different members of the Association, combined with consultations with the management of the Avocado Exchange. The field trips of the Committee as a whole were made in Orange and Los Angeles counties. The committee was unable to get into Ventura Santa Barbara and San Diego counties as planned. The experience of this past year has clearly demonstrated that a Committee of three is altogether too small to cover the entire territory thoroughly, and where there are many new seedling trees coming into bearing very few of these have been called to the attention of the committee.

The behavior of the older varieties varies considerably with different districts, as has been pointed out again and again. This causes considerable argument as to relative merits of the varieties. In order to secure and record more complete and reliable data in each avocado district it is recommended that the Variety Committee be expanded to include not less than five members. In addition it is recommended there be local committees in each county to assist the Central Committee by making more frequent observations and by looking out for new seedlings in each of the counties or districts. These Local Committees by reporting to and cooperating with the Central Committee can greatly facilitate and increase the value of the variety work. If the observations and reports of the committee are to be worth anything at all they must be complete. Such a plan or combination will be required if this object is attained.

THE VALUE OF MARKETING DATA

For the first time in the history of the Association the Variety Committee has had the benefit of a year's experience of a marketing organisation. Information has been received upon shipping qualities, trade preference as to season, variety, size, etc. This

new line of information is of prime importance as indicative of what the present demands are and as a basis upon which to forecast possible changes in the future. The trade preferences of the present time, however, are not necessarily those of the future. For example the Challenge variety is now very favorably known and taken in many markets, yet it cannot be recommended for further planting because it will eventually be replaced. The Committee must seek and recommend the very best varieties available, viewed from every consideration, with the idea of giving the buying public the greatest amount of the best fruit for the money they pay.

From one year's observations in marketing it seems apparent that eastern markets will not favor thin-skinned fruit, particularly when this is much smaller than the standard thick-skinned Guatemalan and Florida fruit to which they have been accustomed. This is a point that must be taken into consideration and must be watched. One of the varieties on the present recommended list is a thin-skinned variety and some others are being planted. The coming season will probably give more data than the past as the local market took most of the thin-skinned fruit last fall.

Florida Competition

The effects of competition with Florida varieties have been felt more strongly than ever during the past season not only in New York, but in the local market. At the present time there is less competition from January to April, than during the fall months, but this condition will not hold longer than the time it will take Florida to develop fruit for this market. Florida competition will ultimately extend throughout the year. At the present time the following Florida varieties mature from January to April in the order named: Collinson, Taylor, Wagner, Schmidt. What seems to be needed in California at the present time is a variety or two of the quality of the Fuerte which will fill the rest of the year when the Fuerte is not available. It is the feeling of the Committee that the industry must be considered as a year round activity and that while there will be certain times of the year when the demand is greater, continuous marketing must be anticipated.

The Importance of Seedling Varieties

In connection with the development of new varieties for Southern California, the Committee wishes to call the attention of the Association to the desirability of the establishment of seedlings. The progress in this direction is very apt to be lost sight of. At the present time there are in the new seedling trees of A. R. Rideout, a number of promising fruits that are particularly worthy of observation. The same is true in the plantings of Wm. Hertrich and S. Thompson and others. This work does not require any extensive outlay and can and should be duplicated in many parts of Southern California. The use of seedlings as windbreaks is one way of increasing the number of seedlings for selection purposes. In the opinion of the committee it offers one of the safest ways of securing varieties better adapted to Southern California conditions.

Standardization

The experience of the Exchange during the past year has emphasised more than ever the necessity of standardization. This means as it has in other fruit industries, the growing of a limited number of varieties while the quest for further investigations must continue. The commercial avocado industry must be based upon a few varieties that meet standard conditions and the maintenance of a large number on the part of growers only postpones the day when more satisfactory marketing conditions will obtain.

The Popenoe Guatemalan Introductions

It is still too early to make general recommendations concerning the varieties introduced from Guatemala by Wilson Popenoe. There is not enough data on the behavior of the young budded trees although considerable information is being collected, some of which has been published in past reports of this Committee. Of the several varieties of this group being tried the Mayapan and Panchoy offer particular promise, the former at least being propagated quite extensively by nurserymen.

By the end of this season it is believed that more definite recommendations can be made. The group as a whole is rather tender and several of them do not make satisfactory large trees.

Ecuador Varieties

Buds from the Ecuador varieties secured in Chota Valley by Wilson Popenoe are reported as growing thriftily. They seem to bud well. It is hoped that some fruit will set this year. Mr. Popenoe was in the Chota Valley again the early part of this year, and according to a recent report of the Department of Agriculture secured five additional varieties of the avocado for trial.

The Recommended List

The committee has no additions or subtractions to suggest at this time to the present list of three. Of these, however, the Fuerte has again demonstrated itself to be the best single variety for Southern California to date. Its fruiting habits are not uniform as yet throughout all districts. Older trees that have failed to bear in the past are now reported as beginning to come in. While climatic factors undoubtedly have something to do with the variation in bearing of the Fuerte, it is felt by the committee that closer observation should be kept on the environmental and cultural conditions as factors favorable to early or late bearing. This season the Fuerte has hung on particularly long; being still on the market the middle of May in considerable quantity. The fruit blown off in early winter proved to be close enough to maturity to sell without any objection. It was the only variety that was in such condition.

The Dickinson—Complaint has been noted of the Dickinson because of discoloration around the seed and bitterness. This seems to be found more in the interior sections

than close to the coast and while observations are not complete, it is believed also to be related to insufficient irrigation and general poor cultural conditions. It is recognised by the Committee that the Dickinson will in all probability be replaced by a variety which has less waste and which is probably higher in oil content. However, it meets with favor on the market at the present time, is a precocious and consistent bearer and no other variety better than the Dickinson has appeared that equals it in all these characters in various districts. It has been tested for a sufficient number of years to give adequate information concerning consistent behavior.

Puebla—According to the manager of the Avocado Growers Exchange, the Puebla as well as other thin-skinned varieties did not seem to be accepted on the eastern markets because of its size. At the present time fruit ripening at the season of the Puebla meets strong competition from Florida. This Florida fruit is larger, thick-skinned, and apparently preferred by eastern buyers. It should be pointed out, however, that they have not been educated at all concerning thin-skinned sorts. If larger fruits of this character is developed it may prove acceptable even though more care is required in its handling. For local consumption and for growing in sections such as the Sierra foothills and the colder parts of Southern California the Puebla will find its best use. It cannot be considered in the same class or the same value as the Fuerte. It does not bear uniformly satisfactorily throughout the avocado growing districts of Southern California.

Promising New Varieties

The Dutton—Reports of this fruit have appeared in reports of this committee before. Young budded trees are bearing early and satisfactory crops. The young trees make a strong and vigorous growth but it is reported by some that there has been some difficulty in propagating it. While there are not sufficient young budded trees in bearing yet to make final recommendations, this variety is one of the strongest contenders for a place on the recommended list for a spring and summer fruit .

The Dorothea—The young trees of the Dorothea are making splendid growth, as are also grafts put in older trees. Some of the latter are setting fruit at the age of one year from insertion. From the tree point of view present indications are that it will be satisfactory. There have been enough young trees planted in the last two years so that the fruiting habits in various parts of Southern California will be known within a reasonably short time. The fruit matures at a very desirable time of year and the tree is hardy. The parent tree is dying back because of apparent root injury when it was blown over and failed to receive proper care following, hence crops data is lacking.

The Anaheim—Descriptions of this fruit have also appeared and need not be repeated. The young trees are making tall, upright growth, similar to the parent tree and it is apparently suited to close planting. The parent tree is carrying a good crop of fruit again

this season; one two and a half year old bud of this variety was observed carrying twelve fruits.

The Prince—Not many young trees of this variety have reached bearing age, but the variety apparently buds readily and makes a strong growth and the few already planted are coming into bearing at two to four years. The fruit is rather large and comes in during the late fall and winter.

The Ward—Crops of this variety are bearing regularly and satisfactorily. There have not been many young trees set out and their bearing habits are not known at this time. There is considerable difference of opinion about the quality of the Ward fruit, some thinking it bitter and others regarding it as highly satisfactory. It will take a closer study to determine whether this bitterness is due to lack of proper cultural care or is due to a seasonal condition and not a quality inherent in the fruit itself. Fruit this season has shown cracking. This variety also comes in at a very desirable season of the year, from January 1 on for two or three months, one of the most desirable times, at least according to present marketing organizations.

The Dickey "A"—This spring variety has continued to be observed but has shown a tendency to blacken around the seed to some extent. It is being worked over in some districts. A rather wide difference of opinion exists between growers as to the value of this fruit and the Committee feels that it has not sufficient observations either way to make a final recommendation.

While the above mentioned varieties offer considerable promise they cannot be recommended for large plantings at this time. It is recommended, however, that they be tried in plantings of a few trees and as widely throughout Southern California as is possible in order that their behavior in the different avocado sections be learned early. Until such behavior is known the committee cannot be in a position to make final recommendations of a general character. It was not believed necessary to repeat the descriptions and observations already made on these varieties in past Committee reports. These can be found by referring to publications.

New Varieties

A promising seedling was called to the attention of the Committee by G. E. Fairhead, 4137 Hartwick Ave., Eagle Rock. The tree is from a seed brought in from Hawaii about seven years ago. It is now 25 feet high, upright growth, large foliage, produced first crop of about two dozen fruits this season, the fruit ripening during March and April. It takes about a year to mature the bloom appearing in April as well. A description of the fruit is as follows: shape, broad, oval or pyriform; surface fairly smooth; skin medium thin 1-30 inch in thickness; rich dark maroon color; weight 12 to 20 ounces, the average of the crop being 14 ounces; seed 1 3/4 to 2 ounces; flesh greenish-yellow; few streaks of fibrous coloration, quality very good. The specimen studied by the Committee was a

little past maturity, and the fiber streaks mentioned were not reported in the other fruits.

Other Varieties

The Oakley Varieties—Several varieties from the H. C. Oakley place at Brentwood were studied by the Committee, descriptions of which have appeared in past reports. All of these varieties were past maturity and were not in condition to make accurate observations. Those sampled were 2, 8 and 10. Of these the 2 was the best in behavior, which while good, was not up to the Fuerte. The observations made are of little value because of the over-maturity of the fruit. It is recommended that these varieties be studied this summer and fall and samples be secured earlier. The Oakley trees are carrying heavy crops this season.

The Lyon—The Committee continued to make observations on this variety in the different avocado districts. Difficulty continues to be reported by growers in the securing of satisfactory orchard trees. Until more thorough root stock studies have been made the Committee believes that this problem will not be solved. There are a number of Lyon seedlings, however, that have been observed and it is possible that they may not have the same weakness as the parent Lyon. It is too early to draw any conclusions on this point.

The Thompson—The parent tree carried no crop this year but is in heavy bloom at the present time. The variety buds readily and the young trees make a vigorous growth. A number of these have been planted in different avocado districts during the past season, so that the bearing habits of the variety in different districts can be determined within the next two or three years.

The Taft—Trees eight and nine years of age continue to come into bearing for the first time. Up until this year, however, no trees fruiting in as short a period as four years have been reported except on the Murphy Oil Ranch and W. H. Sallmon grove at three years. While the fruit is exceedingly popular on the market, and the trees are bearing satisfactorily in a number of places, unless a strain can be secured which will fruit earlier, the Committee cannot recommend it except to those who are willing to wait the longer period.

The Quaker—Young trees of this variety were observed on the Hamburg Ranch, Whittier. Young trees apparently bear satisfactory crops. None of these have been planted elsewhere it being the desire of the owner to be sure of its behavior on his own place before sending any of them out. Description of the fruit has already appeared.

The Perfecto—The Perfecto has not held up as well as some of the other varieties in eastern shipment. The bearing habits of mature trees are proving to be satisfactory and

the fruit has sold well.

The Verde—The Verde is about in the same position as the Perfecto, except it is probably a better keeper. The number of bearing trees in Southern California is small. No new plantings are being made.

The Caliente—This thin-skinned variety continues to be one of the best of this group, as an early, prolific, bearer particularly adapted to backyard use, and very hardy, even exceeding the Fuerte. It buds readily and is a strong, vigorous grower, is adapted to a wide planting range in Southern California, and in the foothill region of central northern California. While it is doubtful that thin-skinned varieties will play an important part especially where the large thick-skinned Guatemalan varieties can be grown, there is in Southern California, and in the central part of the state, where the thin-skinned varieties can be grown, good local markets. Because of this fact the study and observations of the thin-skinned varieties should be maintained.

Other "Varieties Under Observation

The following varieties are now being grown, the first two from Florida, and the third from Guatemala, are under observation, but it will be at least another year before any information of value can be reported. Apparently they propagate fairly readily. They are the Gottfried Collinson, and the Itzamna.

In conclusion, the Variety Committee wishes to emphasize again the necessity of each member of the Association calling the attention of the Committee to new seedlings in the different localities wherever found. There are many seedlings not covered by this report, concerning which the Committee has no information. Some of these are being propagated commercially. The Committee as pointed out, should be thoroughly informed of all varieties, or it is of little value to the industry. The plantings have become too great to be covered by a small Committee, even aided by local Committees unless each of the growers takes it upon himself to report varieties and observations.

Respectfully submitted,

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REPORT ON THE SEEDLINGS SUBMITTED FOR PRIZE

The Committee had a difficult time in handling the question of prize for the best seedling. In the first place, while realizing the spirit behind the gift and the effort to aid the industry, the awarding of such a prize to a seedling at the meeting might be misinterpreted and the parent tree exploited before anything is known of its quality. The Committee has presumed to set its own rules subject to ratification by the Association.

The Committee feels that it should have the following observations made before making an award:

- (1) That the parent tree should be visited and its history learned;
- (2) That there should be at least a hundred budded trees a year old to learn something of the budding habits of the tree and its behavior in the nursery, and
- (3) That time should be had to study all of the fruit submitted, some of which is not yet of sufficient maturity to render any decision. On the other hand a number of varieties submitted were too ripe to make any proper selection.

The following notes are filed for future use of the committee:

None of the seedlings shown compare in flavor or quality with fruits of the present recommended list. The object of the prize, however, is to bring out new seedlings and not necessarily to take the best recognized sorts as standard other than for comparison. As to flavor the varieties set at the top of the list in the following order: Maag, Carlsbad, Elliott; for size Elliott and Maag were larger than the Carlsbad. The specimens of seedlings submitted by Mr. Fairhead of Eagle Rock were too far past maturity to give a fair presentation of it. However, a specimen of this fruit was sampled a month earlier by the Committee. In size shape, and color it is one of the most promising yet called to the attention of the Committee. The fact that the crop matured in March and the specimen held on until May meeting speaks well for its keeping qualities. It is especially worthy of notice.

Pollock—Shape, long pear, weight 15 oz. skin less than 1/16" thick, green in color, smooth, no blemish noticed. Color of flesh, lemon yellow, good flavor, some fiber at blossom end, oil contents not known. Seed 3 3/4 oz., tight in cavity. Shipping and keeping quality not known.

Ruf—Pear shaped, weight 14 oz., skin 1/16" thick, smooth, no blemish, color purple black. Flesh dark yellow color, good flavor, apparently not rich in oil (oil contents not known). Seed weighs 3 3/4 oz., cavity tight. Keeping and shipping quality not known.

Seedling from J. M. Elliot's place—Pear shaped long neck, weight 15 oz., Skin 1/16" thick, dark purple in color, no blemish noticed. Color of flesh is light yellow green along rind with good flavor, no fiber, oil contents not known. Seed 3 oz., tight in cavity. Keeping and shipping quality not known.

E. Maag—Pear shaped fruit, weight 15 oz., Smooth skin 1/16" thick, no blemish, color of skin is maroon with russet spots. Color of flesh light yellow, green near rind, of very good flavor, slightly fibrous at blossom end, not objectionable, oil contents not known. Seed 2 oz., tight in cavity. Keeping and shipping quality not known.

Taft Seedling—Not considered for competition. Sample of poor quality.

Manz—Pear shaped fruit, 14 oz. Smooth skin, 1/8" thick, green in color, no blemish. Flesh yellow, with good flavor, dark colored soft fiber. Oil contents not known. Seed 2 1/2 oz., tight in cavity. Shipping and keeping quality not known.

Carlsbad—Pear shaped fruit, weight about 16 oz., with a smooth skin 1/16" thick, mahogany purple in color, free of blemish. Flesh lemon yellow, of fair flavor, no fiber noticed in sample, oil contents not known. The seed rather large (3 1/2 oz.), tight in cavity. Shipping and keeping quality not known.

Grtilupe—This sample of fruit was considered not good enough for competition.

Garcia—Pear shaped fruit, weight about 15 oz. Skin smooth, dark purple 3/16" thick, free of blemish. Flesh yellow (very attractive). Flavor could not be determined on account of fruit being immature, no fiber present. Seed 3 1/4 oz., tight in cavity. Keeping and shipping quality not known.

Zak—This fruit was not considered for competition on account of poor quality of sample.

Fairhead—Pear-shaped, weight 16 oz. Smooth skin 1/16th inch thick, mahogany purple; no blemish. Flesh light yellow; flavor fair; no fiber; oil contents not known. Seed 3 1/2 oz., tight in cavity. Keeping and shipping quality not known.

Wagner—Egg shape, weight 15 oz. Skin smooth, 3/16th inch thick, green with red spots; no blemish. Color of flesh, yellow; flavor good; no fiber; oil contents not known. Seed 2 1/2 oz, tight in cavity. Keeping and shipping quality not known.