

REPORT OF THE COMMITTEE ON REGISTRATION AND CLASSIFICATION OF VARIETIES

Numerous requests have reached the committee to mention a variety of the Mexican race of Avocados, equally hardy with the orange, that would be satisfactory for home use in door yard planting in places where it would be too cold to raise the Guatemalan varieties. The Ganter has stood this test well for a number of years. The tree is vigorous, precocious and productive. The fruit is one of the largest of the Mexican type, averaging half a pound in weight, of a green color and in quality and flavor extremely good. Its defect, a frequent cracking or decay spot at the blossom end, does not interfere with its home use and can be largely prevented if the fruit is not allowed to remain on the tree after it reaches maturity.

There has been expressed a desire for the discovery of a good Mexican fruit larger than those with which we are familiar in California. Such a one came into bearing last Fall, producing a handsome fruit weighing a pound, black in color and of very fine flavor. It is growing in a frost free location, so we can only assume, until tested elsewhere, that it will be exceptionally hardy, like the other Mexican kinds. It is believed to be identical with the Gottfreid introduced by the U. S. Government into Florida some years ago. This tree is growing on Mr. Spink's place, where he has also under observation a Mexican seedling, which he has named the "Mission" and which produces a fruit nearly as large, of equally fine flavor, pyriform in shape, black in color, with a moderately small seed that is tight in the seed cavity, clear yellow flesh and no fiber. Some of the fruit comes late enough to be exhibited at this meeting.

It is a surprise and pleasure to learn in how many places and to what extent Guatemalan seedlings are being grown with the hope of finding fruit of value to the industry. There are three separate places, in each of which, over a hundred such trees are under care and observation, and numerous other places having trees under similar care. We are getting good results, as our report will show. In addition we have a sure gain to the industry from the fruiting this year in California of twelve out of twenty-four Wilson Popenoe introductions through the U. S. Government from Guatemala.

On the invitation of Mr. Spinks, the Varieties Committee, by its three active members assisted him on April 24th in picking and verifying the identity of these varieties, preparatory to his exhibiting them and cutting them at this meeting. All were sufficiently advanced to show they correspond superficially to the government description, although only one, the Kanola, has matured and been tested. The others are named as follows: Nimlioh, Benik, Mayapan, Cab-nal, Ishim, Manik, Lamat, Cantel, Pankay, Ishkal, Tertoh. The Kanola is a heavy bearer of a round deep purple fruit, six to ten ounces in weight, with a very thick rough skin, a small seed and yellow flesh of rich flavor. A sample of this fruit from Mr. Shedden's place, submitted to Messrs. Chace and Church on March 24th for analysis, gave the following result:

Total weight of fruit, 220 grams—approx. 7¾oz.

% of pulp or edible matter	63.60
% seed	12.30
% skin	23.70
% water	70.22
% fat	21.92
% protein	0.96
% total sugars	0.49
% ash	1.32

Of the seedlings that have come into bearing on the Spinks place five are considered especially promising, all having fruit from a pound to a pound and a half in weight. The one considered the most interesting has been named the "Alexandria." This fruit proved very fine in quality and flavor with a very small seed and the tree is a strong grower.

Among a good many on the Huntington Estate, No. 46 is the most interesting, having very rich fruit.

On the Oakley place at Brentwood Park are a number of fine flavored Mexicans; Nos. 1, 2, 3 and 4 being the more prominent among his Guatemalans.

On the Stephens place at Montebello, his Nos. 1 and 2 test out well. At his place and also at La Habra and Whittier the No. 1 5 introduction of Stephens and Rideout has been on trial for several years, producing a fruit of extra fine, rich, nutty flavor, but too many of the fruits have the undesirable crooked, curved neck and the tree is too long in coming into bearing. The value of their introduction No. 2 is still undetermined.

We have examined interesting trees and fruit on the properties of Willard Smith, Villa Park, Mrs. Ida Shaffer, Pasadena, Dr. Miles, Alhambra, Mrs. Titus Phillips, Alhambra, C. F. Wagner, Hollywood, and others.

Some good fruit measure up so well otherwise to the desirable qualities required in a good avocado, that we regret when we find them disqualified for general use by the presence of a seed much too big and out of all proportion to the size of the fruit. Such fine fruits are the California grown by Milo Baker at Hollywood and the Cady by L. D. Cady, Los Angeles.

Two of the original West India Garden introductions have come into bearing with fine fruit maturing in the Spring. The Montezuma, a green fruit with a thick granular skin, dull yellow flesh, free from fiber, or with only a very slight discoloration, flavor of the best, good and rich, weight of one sample, 18 oz., seed 3 oz.; and the other fruit, the Schmidt, with a green color, thick skin, deep, clear yellow flesh, free from fiber and the flavor smooth and rich; weight of one sample 20 oz., seed 2 oz.

At our Fall meeting many fine fruits of the No. 1 Seedling, cut and tested by H. Hamburg, were exhibited. It is a variety which he has now decided to call the "Quaker."

The strong growing tree, ten years of age and thirty feet in height, with spread of twenty-five feet, comes from a seed sent him from Guatemala. It had a crop of a few the previous year and fifty in 1920. Buds taken from it and put into other stock have taken well and made strong healthy growth. The fruit is large, green in color, up to a pound and a half in weight, with seed of medium to small size, thick skin, clear cream colored flesh and excellent flavor and quality, a slight bitterness showing in one test.

The Anaheim, from a tree grown by E. C. Dutton at West Anaheim, on property now owned by Otto Keup, was exhibited at the last annual meeting, and five fruit were afterward tested by the Committee. They ranged in weight from 24 to 18 oz., and the seed from 3¾ to 2¼ oz. The fruit was light green in color, with a thick skin and attractive appearance, clear yellow flesh with a very small amount of fiber discoloration and good rich flavor in three specimens. The other two were not so good and were thought to be immature.

The Hoff, grown by J. E. Hoff at Hollywood, is a large strong tree from a seed planted in 1911. It had a few fruit in 1916 and 1917, in 1918 it had 35 fruit, in 1919 fifty, in 1920 100. The fruit is pear shaped, green in color, with a thick skin, weight 12 to 20 oz. with a small seed. It matures in the Fall, but remains on the tree without dropping. The fruit tested was picked January 14th, sampled January 20th, and found to be in excellent condition. It weighed 16 oz., seed 2 ½ oz. The color of the flesh was a clear bright yellow, with no fiber and the flavor and quality extremely good. The following is an analysis of this fruit made by Mr. Chace.

	Date	Sp.Gr. of fruit	Seeds	Pulp	Skin	Water	Ash	Protein	Fat
No.	1920		%	%	%	%	%	%	%
142	11-15	1.0013	17.46	76.17	6.28	71.13	1.51	2.23	18.47

The Billingsly. A large tree on the property of Ray Billingsly, Villa Park, Orange County. A spring fruit weighing 10 to 16 oz. Weight of three fruits sampled 10 1-2, 13 and 16 oz., weight of seed 1 5-8, 1 3-4 and 1 3-4; fruit pear shape to oval, color light yellowish green, turning partially brown; flesh clear, bright yellow with merely a trace of fiber, quality excellent, with a good, rich and agreeably distinctive flavor.

The Butternut from a budded tree on the Ferguson place, North Whittier Heights, and introduced by Edwin G. Hart from Southern Mexico, tested March 6th, 1921; weight 12 oz. Seed 2 oz. Shape round oval, skin thick, granular inside, leathery outside, color dark red, smooth and glossy with a finely webbed appearance; attractive looking; flavor and texture good.

The Monroe on the place of B. H. Sharpless at Santa Ana is a green pear shaped fruit of fine appearance and good flavor and quality, weighing 14 to 18 oz., a moderate sized seed and clear yellow flesh. The tree is a good bearer.

The Knight variety has come into bearing with another fine fruit added to the credit of the introducer of the Queen and Linda. It is a very promising round green fruit. The fruit as well as the tree have excellent appearance and as to quality it is still under

observation.

The Queen and Linda have been so widely planted that we are now receiving valuable information concerning them from a large number of growers. We find that differences of opinion exist as to the merits of these fruits.

The Sherman Seedling No. 1, grown by E. Goodell Sherman, Hollywood, comes from a seed brought from Honduras and planted in 1910, according to an old diary of Mr. Habersham. Eight fruit, maturing this Spring, form its first crop. They are very large and handsome, weighing from 20 to 30 oz., with seed from 3½ to 4½ oz., of an elongated pyriform shape and smooth yellowish green leathery skin. The seed in some of the fruits is slightly loose in the cavity, and the flesh is yellow with a very little fiber discoloration, not enough to be objectionable, remarkably smooth in quality and the flavor very fine and agreeably rich. The character of the wood growth in young trees is now on trial in several orchards.

The Lyon. The description of the Lyon given in the last annual report of the Committee applies equally today. The report is absolutely correct, fair and impartial and can easily explain how the extreme difference of view arises as to the value of the Lyon. It has none to those who have lost quantities of weak young trees and find shriveled fruit under those that remain. On the other hand the remarkably large crops it produces, per tree and per acre, cause others to believe these troubles can be conquered and the variety become the poor man's friend, as a Monrovia grower calls it. Mr. Rideout has found that a sport or a bud variation has produced for him a selected tree, different from the others, maturing its fruit earlier and in tests to date giving healthy young trees. A fruit picked from this tree in January, 1920, was sampled by some of the Committee the first week in February and the flavor found to be good.

The Dickey A is on the market, attractive in appearance and confirming its previous reputation of the possession of a fine rich flavor and a very small seed.

Three varieties claim consideration as winter maturing Avocados: the Dutton, the Tiger and the Dorothea.

The Dutton, grown by E. C. Dutton at West Anaheim on the place now owned by Otto Keup. Tree vigorous and productive, with the crop off the tree before the following season's blossoms appear. Crop matured from January onward last year, February onward this year. Fruit large, a pound or over, shape pyriform, color purple, skin thick and granular, seed medium to large. Two fruits sampled in March, 1920, weighed 15 oz. each, seed 3 oz. and 2¾ oz. They doubtless were over-ripe, as the flesh was dull yellow with discolorations around the seed, some fiber and flavor only fair. No samples were available this year, the fruit not being obtainable at proper maturity. Two other tests, made in March, 1920, from fruits picked in February, bring different and very favorable reports. Mr. Kinman writes he found the fruit submitted to him exceedingly palatable and first-class in every way, seed a little large but not excessively so, and a little fiber at the blossom end. Dr. Coit writes he took the samples to Prof. Jaffa for analysis and testing and they found the fruit of "good size, texture and quality, and it in every way gave us a favorable impression. I was particularly pleased with the flavor. I think you are warranted in feeling proud of the fruit." The analysis showed 16.2 per cent of fat.

The Tiger, grown by Clair Bishop at Highland. Tree an upright grower and heavy bearer of fruit, weighing from 10 to 16 oz., and maturing from January onward. A sample fruit picked February 20, weighed 10 ½ oz., seed 2 oz. We find the seed ranges from 2 to 4 oz. It is a fine looking pear shaped fruit, with a rough thick skin, purple in color, flesh clear light yellow, of an average Avocado flavor. Some fruit showed considerable brown fiber. This tree was produced from a seed received in 1914 from J. H. Walker of Hollywood and had a crop of 200 fruit the present season. It has originated further inland than any other variety of which we know and stands the hot dry air of the interior valleys admirably, much better than other Guatemalan varieties growing near it.

The Dorothea, grown by W. A. Miller, Hollywood, from a seed of the well known Miller tree is believed to be a cross with one of the Mexican race. The tree is vigorous and productive. Crop 1918, 16 fruit; 1919, 30; 1920, 250. It blooms January and February, ripens mainly in December and January. Three samples, picked and tested in January weighed 12 oz., 8¼ oz. and 8 oz., the seeds respectively 1 oz., 1 oz., 1¼ oz. Color light green with many yellow spots, skin leathery,, flesh clear, attractive yellow, of good texture, no fiber and excellent flavor.

The Committee report is based not alone on our own judgment, but also on the different Avocado growers covering all parts of Southern California.

Letters for the Committee or samples by parcels post for testing should be sent to the Chairman at Upland.

CHAS. D. ADAMS, Chairman.

T. U. BARBER,

WM. HERTRICH,

C. F. KINMAN,

L. B. SCOTT.

The Board of Directors recommend that the members give the five varieties of the standard list recommended by the Committee careful consideration in their planting, as there is a possible chance at the present time of over planting some of the new promising varieties, none of which have been in bearing under various conditions long enough to justify recommending them with safety on the standard list. Most of these varieties mature their fruits during spring and summer. We wish to advise to plant cautiously along this line because it will lead to an over crowded market condition at a time when prices are somewhat lower than late fall and winter.

LIST OF RECOMMENDED AVOCADO VARIETIES WITH BRIEF DESCRIPTIONS

Varieties	Season Dates, Inclusive	Wt. of Fruit in Oz.	Wt. of Seed in Oz.	Shape of Fruit	Color of Mature Fruits
Fuerte.....	Jan. to April	14 to 20	1½ to 2½	Obovate to pyriform	Dull Green
Spinks.....	March to Oct.	16 to 20	2 to 3½	Obovate to pyriform	Purp. Black
Dickinson.....	May to Sept.	10 to 16	1½ to 3	Pyriform	Dark Purple
Sharpless.....	Sept. to Jan.	16 to 20	2 to 3	Pyriform	Dark Purple
Puebla.....	Nov. to Jan.	6 to 14	1½ to 2½	Pyriform	Dark Purple