

Imported Varieties of the Avocado for California

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In the development of so promising a commercial enterprise as the culture of the avocado has proved to be, naturally the question of the most suitable varieties is paramount. During the past two or three years, there have appeared many varieties, originating locally, some of which lack little of being classed as ideal commercial fruits. However, no matter how well adapted to the demands of the market these varieties may be, there is still room for improvement. The season in which avocados may be secured at a reasonable cost needs to be lengthened; we now have varieties that give us fruits almost continuously throughout the year but the quantity is limited.

The extension of avocado growing into the cooler parts of California depends on the securing of the hardiest types, and this requires the careful exploration of the native avocado districts of the world. But little has been done in this line as yet; we do not know what possibilities lie undiscovered in the highlands of Mexico, Central and South America. Mexico has received the most attention so far. The grower, in the end, will not be satisfied until he has the very best that the world affords. The first steps in this direction have been made for the most part by private concerns, the government having attempted little thus far. The first explorations have greatly increased our number of commercial varieties and have added much to the length of the season in which avocados will be able to be obtained reasonably and plentifully.

It is a recognized fact that the fruit intended to be placed on the eastern market must be of the thick skinned type in order to withstand shipment without great loss. Also, in order to compete on an equal footing with the Florida avocado, this type will have to be adhered to. We can not expect a profitable return unless the California product is equal to or better than that of its competitor. The thin skinned type is admirably suited to the local market and to growing for home use, since it is, as a rule, very prolific and somewhat harder than many of the larger thick skinned fruits in our list at present. Nevertheless, it is not reasonable to conclude that if a choice variety is somewhat more tender than a more inferior variety, the latter should be planted in preference. If it is profitable to protect an orange grove from the ravages of the cold, how much more reasonable to protect fruit yielding far greater returns than the orange.

It is to the highlands of Mexico, Central and South America that we must look for new varieties of the avocado that will be suitable to our climatic conditions. Because a variety is rated as a Mexican or Central or South American variety, it does not follow that it will be adapted to our conditions. All conditions of climate are found in these regions, from those of the torrid tropical lowlands to those at the altitude of perpetual snows. The regions from which the greater majority of our new introductions have come

are the highlands of Mexico ranging from about four thousand five hundred to eight thousand feet in altitude; notably Atlixco, 7000 feet; Queretaro, 6000 feet; Guanajuato, 6800 feet; and Guadalajara, 5400 feet. The climatic conditions of these regions are strikingly similar to those of much of California; in parts the rainfall is even less than that which most of Southern California enjoys. Much, then, is to be expected from fruits of these districts. Practically the whole of Central and South America remains to be explored. Travelers report types and varieties of the avocado at the present time unknown to our horticulture. No one can accurately predict the extent to which this fruit may be cultivated in the future.

The importation of the avocado from these regions south of the United States has been successfully done by three parties in Southern California — Mr. D. E. Glower of Monrovia, Mr. A. R. Rideout of Whittier, and the West India Gardens of Altadena.

One hears and reads of the so-called imported varieties without knowing just what has been accomplished along that line, and it is in order to show the extent of this work, that the following list is presented. It gives as completely as possible those varieties that have been imported up to the present time. Wherever possible the complete pomological description is given, but this is manifestly impossible in all cases, as the material is not available. When all have fruited in this country, there may be some variation from the parent type. However, all conditions are so similar to those of its native home that it is doubtful if there will be much deviation from type or from the time of the fruiting season.

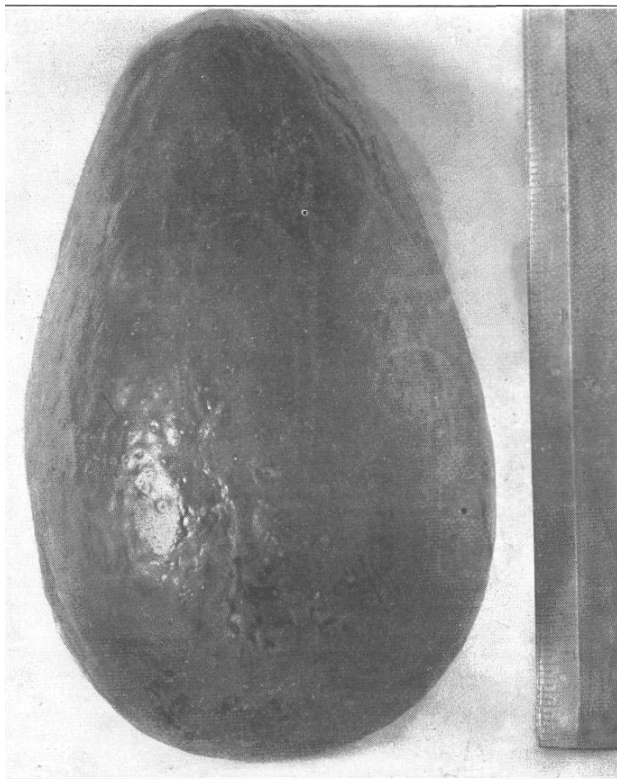


Plate 176. Fruit of Ideal, about seven-eighths natural size.

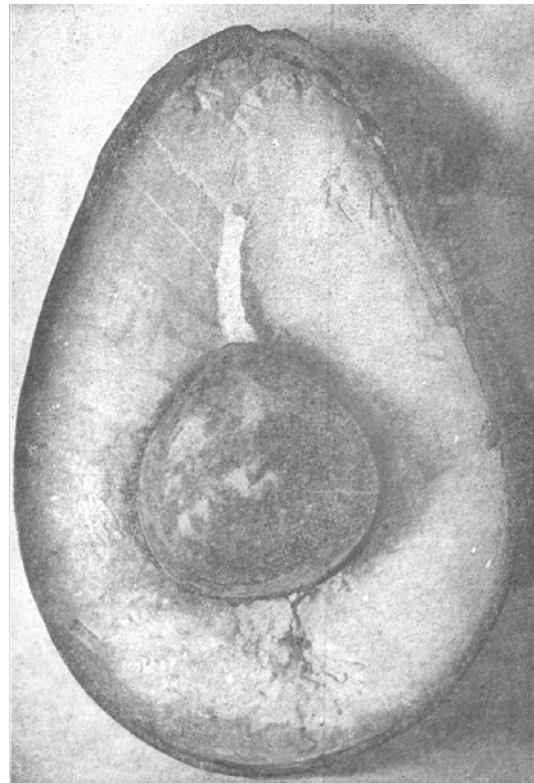


Plate 177. Ideal, in section, about natural size.

Avocadosource editor's note: reduced in size during re-formatting

The following three varieties were introduced by D. B. Glower of Monrovia, California, from Mexico and South America. He has also several other varieties under trial.

IDEAL

Description: Form, pyriform; size, large; dimensions, length, seven, diameter, four and one-half inches; weight, one and one-half pounds; surface, rough; color, green; skin, thick and hard, separating readily from the flesh; flesh, rich, creamy yellow; texture, smooth and oily; fibre, none; flavor, very fine; quality, first; seed, small, tight in cavity; season, March to June. Mexico.

TWO POUND GREEN

Description: Form, pyriform; size, very large; dimensions, length seven and one-half, diameter four and three-quarters inches; weight, two pounds; surface, rough; color, green; skin, thick and tough, separating readily from the flesh; flesh, creamy yellow; texture, very oily; fibre, none; flavor, very rich and pleasant; quality, first; seed, small, tight in cavity; season, March to June. Mexico.

CHILI

Description: Form, pyriform; size, medium; weight, twelve ounces; color, green; skin, thick and tough, separating readily from the flesh; flesh, creamy yellow; texture, smooth and very oily; fibre, none; flavor, rich and nutty; quality, very good; seed, small, tight in cavity; season, June in Chili.

The parent tree of this variety is growing at an altitude in Chili where twelve inches of snow is said to fall, showing it to be one of the hardiest of varieties. The leaves possess the anise odor peculiar almost exclusively to the small, thin-skinned Mexican varieties. The commercial qualities of this fruit are said to be such that it commands a price on the Chilean market that would be considered very high even in this country, despite the fact that the common small, thin-skinned varieties are selling on the same market at three for five cents. The season in Chili is just the reverse of ours so that it will probably ripen its fruit in June in this country.

WEST INDIA GARDENS IMPORTATIONS

NUMBER SEVEN

One of the trees that proved to be most hardy in the California freeze of 1912-13 is that known as Number Seven, it being untouched even in its exposed position in the open ground with a temperature of 16 degrees. It was introduced from San Sebastian, Queretaro, Mexico, at an altitude of between five and six thousand feet. The fruit is of an excellent quality.

Description: Form, oval; size, medium to large; dimensions, length six, diameter, two and one-half inches; weight, three quarters to one pound; skin, thick, separating readily from the flesh; color, black; flesh, yellow shading to green near the skin; flavor and quality, very good; seed, medium, tight in cavity; season, March at San Sebastian, Queretaro.

NUMBER NINE

Description: Form, oval to pyriform; size, large; color, black; skin, thick, separating from the flesh; flesh, medium yellow, tinged greenish near the skin; seed, medium, tight in cavity; season, July and August at Canada, Queretaro.

QUERETARO (NUMBER ELEVEN)

The Queretaro is one of the very prolific varieties, and the young trees now growing here seem to flourish well.

Description: Form, oval; size, medium large; dimensions, length, five, diameter, three inches; surface, rough; color, black; skin, thick and tough; flesh, medium yellow, separating readily from the skin; flavor, extra fine; quality, good to very good; seed, medium small, tight in cavity; season, August to October at Canada, Queretaro.

PUEBLA (NUMBER THIRTEEN)

Description: Form, pyriform, not necked; size, medium; dimensions, length, four, diameter, three inches; surface, smooth; color, purple; skin, thick and tough, separating readily from the flesh; flesh, yellow, greenish towards skin; flavor, fine; quality, good; seed, small, tight in cavity; season, September and October at Atlixco, Mexico.

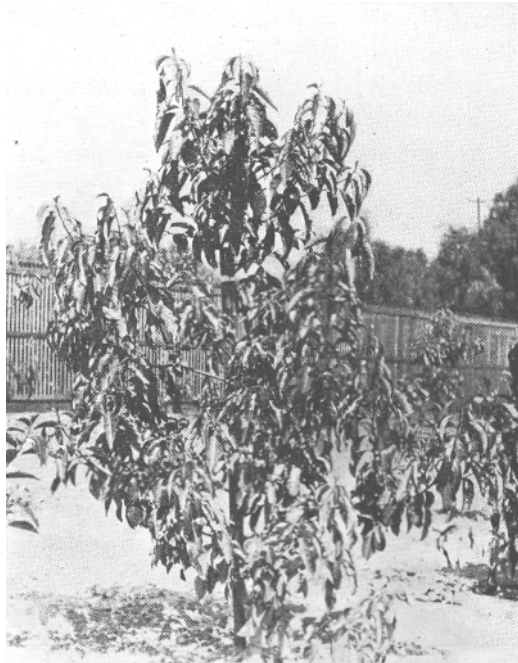


Plate 178. No. 7. Budded trees 1 year 10 months from bud; 1 year old stock.

NUMBER FIFTEEN

Young trees of this variety are doing well at the present time in California, and it promises to be one of the best medium sized fruits in a commercial way. It is of good shape for packing and shipping and of extra fine quality.

Description: Form, oval; size, medium; dimensions, length, four, diameter, three inches; surface, somewhat rough; color, green; skin, thick, separating readily from the flesh; flesh, yellow, smooth and buttery; flavor, rich; quality, 'very good; seed, small, tight in cavity; season, October and November at Atlixco, Puebla.

REDONDO (NUMBER SIXTEEN)

Several round varieties have been imported among the other types and these have a special advantage over the others in that they are able to be packed better and grade much more uniformly. When shipped for any great distance they are much less liable to injury in transit. The tree from which this variety was derived is over a hundred years old and is forty feet high.



Plate 179. Redondo No. 16.

Description: Form, round; size, medium; dimensions, length, three and one-quarter, diameter, three and one-quarter inches; weight, three-quarters of a pound; apex, slightly flattened; base, round; surface, somewhat rough; color, dark green with fairly numerous, small, yellowish, irregular, sub-cutaneous dots; skin, very thick, hard and tough, separating readily from the flesh; flesh, cream color, shading to greenish near the skin; texture, smooth and buttery; fibre, none; flavor, rich, nutty and delicious; quality, very excellent; seed, small, round-conical, tight in cavity; season, November and December at Atlixco, Puebla.

CALIFORNIA TRAPP (NUMBER SEVENTEEN)

The variety known as the Trapp is the leading Florida fruit in the "eastern markets. It is an extremely popular fruit and comes at a season when it can command the fanciest prices, i. e., from October first to January first. In California, however, this variety has failed to thrive thus far, though many attempts have been made to establish it here. From Atlixco now comes a variety that very closely resembles the Florida fruit in size, shape, and season and it is of the first quality. It is well suited for extensive orchard plantings and is well adapted to the climate of this state.

Description: Form, roundish, slightly oblique, cross section, very slightly scalloped; size, large; dimensions, length, five and one-quarter, width, four and three-quarters inches; weight, twenty-two ounces; base, very slightly tapering, insertion slightly one-sided; apex, flattened slightly; stem, stout; surface, fairly smooth; color, medium green with few, small to large irregular raised russet dots; skin, very thick, tough and hard,

separating readily from the flesh; flesh, cream color, greenish near skin; texture, smooth and buttery; fibre, almost none; flavor, mild, rich and nutty; quality, first; seed, medium, oblate, tight in cavity; season, December and January at Atlixco, Puebla.

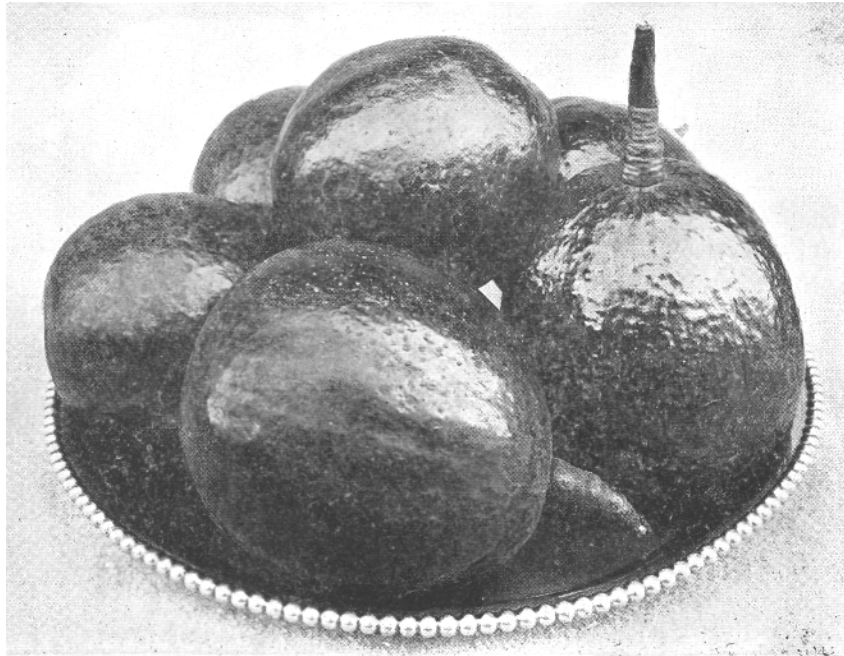


Plate 180. California Trapp No. 17.

NUMBER EIGHTEEN

Description: Form, long pyriform, sometimes slightly curved; size, medium large; dimensions, length, six and one-quarter, diameter, three and one-half inches; weight, about one pound; base, tapering, rather narrow; apex, rounded; stem, stout; surface, somewhat rough; color, purple with fairly numerous, rounded, small, yellowish dots; skin, thick, tough and hard, separating readily from the flesh; flesh, light cream, tinged green near skin; texture, smooth; fibre, none; flavor, mild, nutty and delicious; quality, first; seed, medium, slender, conical, tight in cavity; season, December and January at Atlixco, Puebla.

NUMBER NINETEEN

Few varieties can equal this one in the unusually high proportion of meat to seed. It ranks among the very first of all discovered thus far. It is very large and has a tough skin, making it a good shipper. It should prove a prime favorite for hotel trade, one fruit making a salad sufficient for six persons.

Description: Form, slender pyriform; size, very large; dimensions, length, seven, diameter, four and one-quarter inches; weight, one and three-quarters pounds; base, broad, tapering somewhat; apex, round; surface, undulating, slightly rough; color, dark green with a number of medium sized, irregular, indented russet dots; skin, thick, hard and tough, separating readily from the flesh; flesh, cream, slightly greenish near skin; texture, smooth and buttery; fibre, none; flavor, rich, buttery and delicious; quality, extra good; seed, small to medium, conical, tight in cavity; season, January at Atlixco, Queretaro.

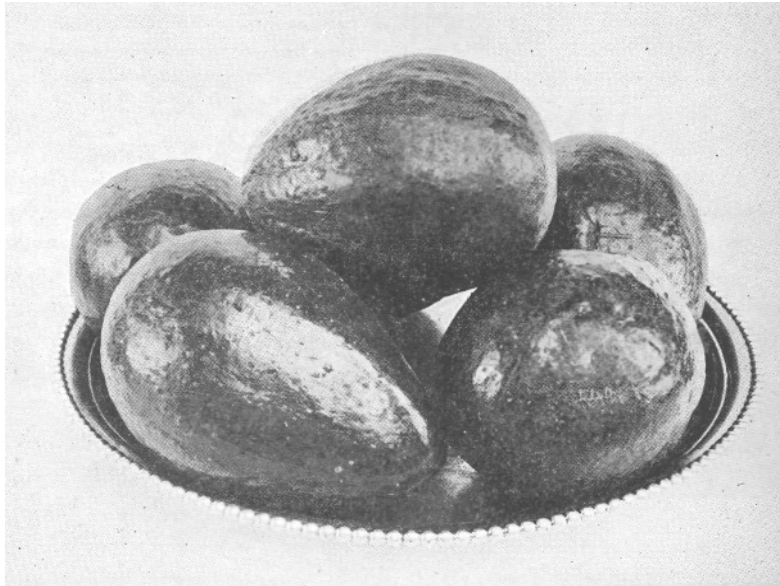


Plate 181. No. 19.

(avocadosource editor's note: notes on original copy indicates that this photo is really No. 33. (Montezuma)

NUMBER TWENTY-FIVE

Description: Form, round to pyriform; size, medium to large; dimensions, length, five, diameter, three and one-half inches; weight, one pound; apex, slightly oblique, flattened; stem, stout; surface, slightly roughened; color, yellowish green with numerous, medium sized, irregular, subcutaneous, yellowish dots; skin, thick, tough and hard, separating readily from the flesh; flesh, cream, tinged green near skin; texture, very smooth and buttery; fibre, none; flavor, mild and very pleasant; quality, excellent; seed, very small, conical, tight in cavity; season, January at Atlixco, Queretaro.

NUMBER TWENTY-EIGHT

Description: Form, round-oval to pyriform; size, large; dimensions, length, six and one-half, diameter, four inches; weight, one and one-quarter pounds; base, tapering somewhat; apex, slightly flattened or depressed; stem, stout; surface, rough, slightly undulating; color, deep dark green with • numerous small to medium sized irregular, subcutaneous, greenish yellow dots; skin, thick, hard and tough, separating readily from the flesh; flesh, deep creamy yellow, turning green near skin; texture, smooth and buttery; fibre, none; flavor, rich, mild and nutty; quality, very good; seed, small, conical, and tight in cavity; season, November to January at Atlixco, Puebla.

ATLIXCO (NUMBER TWENTY-NINE)

Description: Form, oblong to obliquely pyriform; size, medium large; dimensions, length, five, diameter, three and three-quarters inches; weight, one pound; base, oblique, flattened slightly; stem cavity, very shallow, narrow, flaring and plaited; apex, flattened, slightly concave; stem, stout; surface, slightly rough; color, greenish purple with numerous, small, irregular, subcutaneous yellowish dots; skin, thick, tough, not brittle, separating fairly readily from the flesh; flesh, light cream, tinged green near skin; texture, smooth, fine; fiber, none; flavor, good, nutty, mild; quality, good; seed, medium to large, oblong-conical, tight in cavity; season, December at Atlixco, Puebla.



Plate 182. Montezuma Tree No. 33.

NUMBER THIRTY-TWO

Description: Form, slender pyriform; size, medium large; dimensions, length, six and one-half, diameter, three and one-half inches; weight, one and one-eighth pounds; base, tapering, broadly blunt; stem cavity, medium in width, shallow, flaring and creased with russet markings; apex, slightly flattened, point indistinguishable; stem, stout; surface, undulating, slightly warty in spots; color, glossy green with small, irregular, raised, russet dots often in patches; skin, very thick, hard and granular, separating readily from the flesh; flesh, deep cream, greenish near skin; texture, smooth; fiber, none; flavor, mild and pleasant; quality, good; seed, very small, conical, tight in cavity; season, December to February at Atlixco, Puebla.

MONTEZUMA (NUMBER THIRTY-THREE)

Description: Form, broad pyriform, almost egg-shaped; size, medium large; dimensions, length, four and one-half, diameter, three and one-half inches; weight, fourteen ounces to one pound; base, tapering slightly to stem; apex, very slightly depressed; surface,

slightly undulating; color, deep green with few, round, raised, irregular, russet dots, sometimes in the form of patches; skin, thick, granular and hard, separating readily from the flesh; flesh, deep cream; texture, smooth; fiber, none; flavor, mild and pleasant; quality, good; seed, medium, oblate-conical, tight in cavity; season, December to February at Atlixco, Puebla.

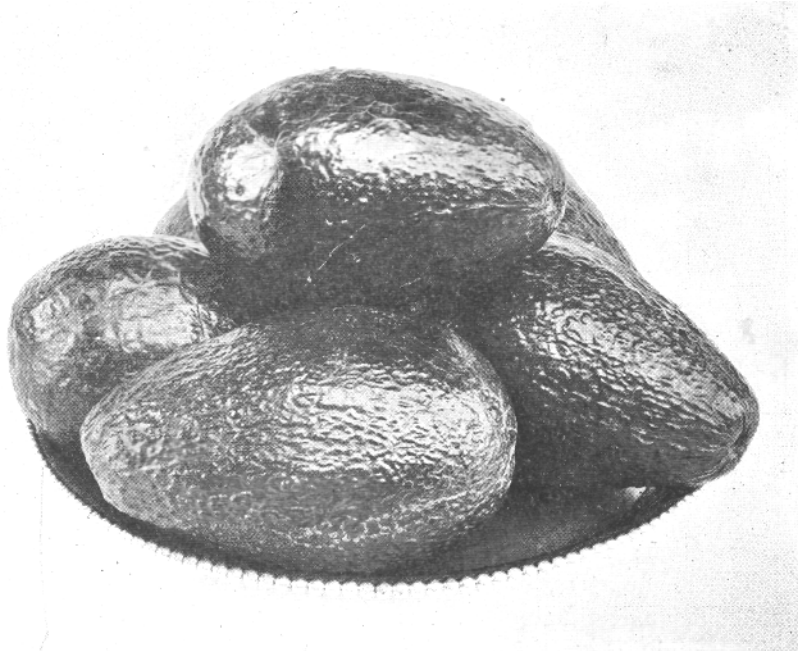


Plate 183. Montezuma Fruit No. 33.

(avocadosource editor's note: notes on original copy indicates that this photo is really No. 39. (Grande))

SINALOA (NUMBER THIRTY-SEVEN)

This variety is not to be confused with the one described under the same name in this publication, Vol. 1, No. 1, February 1911, page 16, by F. W. Popenoe. This latter variety is no longer existing and the name has been transferred to the variety described below. This variety is one of the very desirable commercial introductions, being a large fruit of excellent flavor and smooth texture, and coming into maturity at the most favorable season of the year.

Description: Form, oval to pyriform; size, medium large; dimensions, length, seven, diameter, five inches; weight, one and one-half to two pounds; base, slightly tapering; apex, rounded; stem, stout; surface, rough; color, green with numerous, medium sized, raised, irregular, yellowish dots; skin, thick and tough, separating readily from the flesh; flesh, deep cream, tinged green near skin; texture, smooth and buttery; fiber, none; flavor, rich and pleasing; quality, excellent; seed, medium, round-conical, tight in cavity; season, December to March at Atlixco, Puebla.

NUMBER THIRTY-EIGHT

Description: Form, pyriform; size, medium large; dimensions, length, five and three-quarters, diameter, three and three-quarters inches; weight, one and one-quarter to one and one-half pounds; base, slightly flattened; insertion, slightly one-sided; apex, rounded, slightly depressed; surface, rough; color, dark green with rather numerous,

irregular, medium sized yellowish dots; skin, thick and tough, separating readily from the flesh; flesh, deep cream, turning to greenish near the skin; texture, smooth; fiber, none; flavor, mild and rich; quality, very good; seed, medium, round-conical, tight in cavity; season, December at Atlixco, Puebla.



Plate 184. Sinaloa No. 37. A fine large fruit from Atlixco, Mexico.



Plate 185. No. 38. A fine fruit of medium size.

NUMBER THIRTY-NINE

This is one of the large types of the finest quality, a royal fruit where this type is desired, especially suited for hotel and similar trade.

Description: Form, pyriform; size, large; dimensions, length, six, diameter, four inches; weight, two pounds; base, slightly flattened; insertion, usually somewhat one-sided; apex, rounded; stem, stout; surface, rough; color, dark green with fairly numerous, small to medium, irregular yellow dots; skin, thick and tough, separating readily from the flesh; flesh, cream to deep cream, turning to green close to the skin; texture, very smooth;

fiber, none; flavor, rich, nutty and delicious; quality, excellent, of the best; seed, medium, round-conic, tight in cavity; season, December at Atlixco, Puebla.

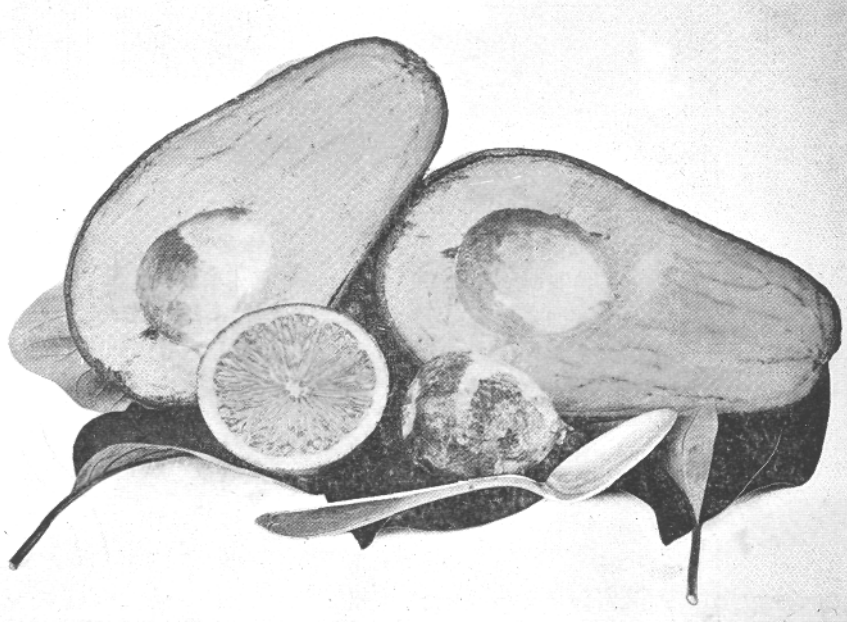


Plate 186. No. 39

(avocadosource editor's note: notes on original copy indicates that this photo is really No. 19. (Perfecto))

NUMBER FORTY

Description: Form, pyriform; size, large; dimensions, length, five and one-half, diameter, three and three-quarters inches; weight, one to one and one-half pounds; base, slightly flattened; apex, rounded, frequently slightly depressed; surface, rough; color, deep green with rather numerous, small to medium sized, irregular yellowish dots; skin, thick, separating readily from the flesh; flesh, cream, turning to green near the skin; texture, smooth and buttery; fiber, none; flavor, rich and pleasant; quality, very good; seed, medium, round-conic, tight in cavity; season, December at Atlixco, Puebla.

NUMBER FORTY-ONE

Description: Form, round-oval to broad pyriform; size, medium large; dimensions, length, four and one-half, diameter, three and three-quarters inches; weight, fourteen ounces to one pound; base, tapering very slightly to stem; apex, rounded, sometimes flattened; surface, slightly undulating; color, deep green with rather few irregular, round, raised russet dots, frequently in patches; skin, thick, hard and granular, separating readily from the flesh; flesh, deep cream to yellow; texture, smooth; fiber, none; flavor, mild and pleasant; quality, good; seed, medium, oblate-conical, tight in cavity, season, December at Atlixco, Puebla.

MODESTO

A large fruited black variety with a small seed, from Atlixco. It ripens in December and bears an enormous crop. Complete description not available at the present time.

Of all the many different varieties of the avocado sent out to California for trial by the Bureau of Plant Industry, only a few survived the winter of 1912-13. Two of these were

from Mexico, and withstood the low temperature without injury. They deserve mention. No. 19206, a green-fruited variety from Coahuila, and No. 19167, a variety from Queretaro. No other descriptions were given.

VARIETIES UNDER TRIAL BY THE WEST INDIA GARDENS

FURNIVAL NO. 1 (*avocadosource editor's note: notes on original copy indicates that this is a selection later named Amecca*)

This fruit comes from the Ameca Valley, not far from the town of Jalisco, at an altitude of 4350 feet. The fruit is said to be the finest in the Ameca Valley and is described as being as large as a Cocomut, weighing about two pounds, black in color. The flesh is abundant and of the finest flavor and quality. The seed is medium large and tight in the cavity.

POPOCATEPETL

A large black fruit, slender oval to pyriform, of the thick-skinned type. The quality and flavor are very good. The tree is abundantly productive with off years. From Atlixco, Mexico.

ITZIA (*avocadosource editor's note: notes on original copy indicates that this is a synonym of Volcan*)

A large oval to pyriform fruit, black in color, with a thick, hard shell. The flavor and quality are of the very best, the seed small and tight in the cavity. Season, December and January.

JOHNSON NO. 5 AND NO. 6 (*avocadosource editor's note: notes on original copy indicates that Johnson No. 5 was later named Colima and No. 6 was named Johnson*)

Large hard-shelled fruits of the first quality, from near Colima, Mexico. The young trees growing at the present time in Altadena, show a remarkably vigorous habit. Their leaves are longer than any other variety now growing in Southern California, frequently reaching a length of a foot and a half.

This list brings the imported varieties up to date with the exception of those introduced by Mr. Hideout of Whittier. The descriptions of his fruits are unavailable at the time of writing.