

The Hass Avocado

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There is a growing group within the California Avocado industry who believe that the Hass avocado is now our number two variety and that in tonnage it is destined to eventually exceed all other varieties excepting only the Fuerte. This group points out that the Hass season compliments the Fuerte season making possible a two variety coverage of the year as in the orange industry. Its paramount appeal to the grower is its heavy and precocious production. This fact coupled with its excellent eating and shipping quality, long season and medium size make it a profitable fruit for the entire industry.

The Fuerte is the only old variety that continues to grow in importance. Of the others only the Nabal and Anaheim have continued to be planted in a limited amount for certain special areas. Many new varieties have been experimented with in the past ten years but of these only the Hass and the MacArthur are now gaining in favor.

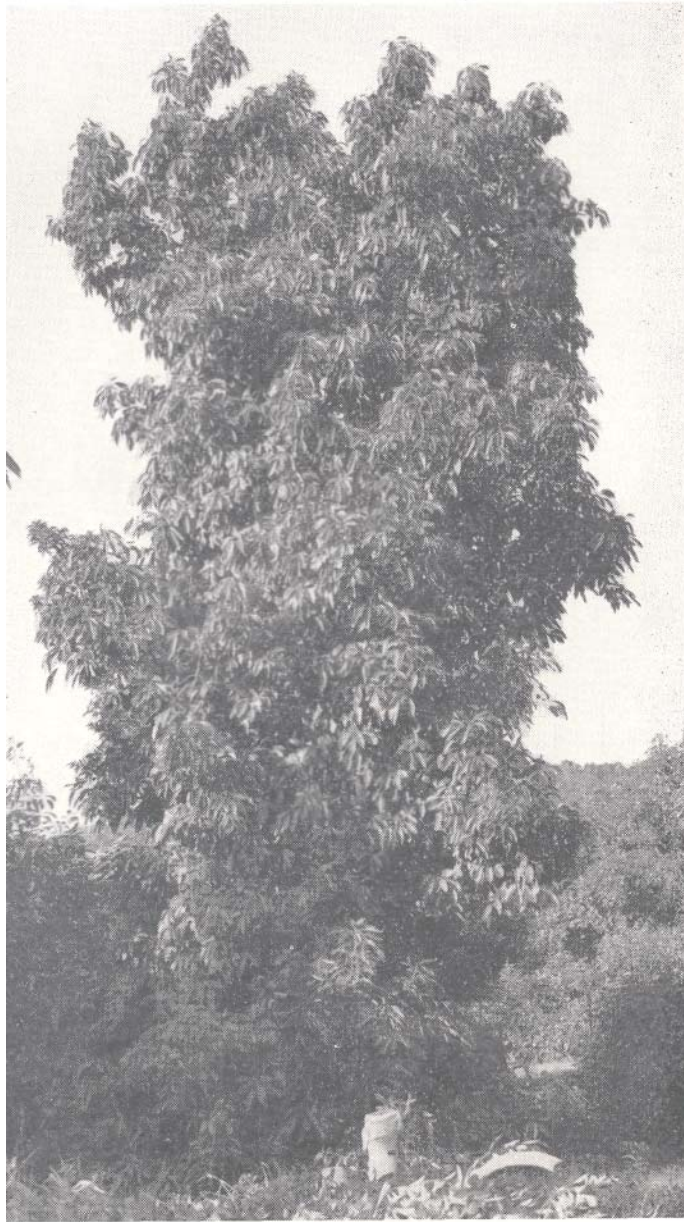
The Hass is gaining acceptance in a wide area, possibly being suited to all avocado districts. This makes the Hass the "runner up" to the Fuerte for top rating and unless some new yet undeveloped variety makes a spectacular rise the Hass will eventually command the second largest tonnage in the California avocado industry.

The parent Hass tree, a Guatemalan seedling, is on the R. G. Hass place at 430 West Road, La Habra Heights. It was one of three hundred sprouted seeds obtained from A. R. Rideout of Whittier and planted in 1926.

The parent tree, now nineteen years old, is markedly upright in growth being about thirty-five feet high and twelve feet in spread with a trunk circumference of forty-one inches at one foot above the ground. It is healthy and vigorous with a very heavy crop at this time (Nov. 1945) carrying at least five hundred pounds of fruit. It is growing on deep alluvial soil well drained with no evidence of avocado decline in the vicinity. Being situated in a valley among towering hills it is climatically on the cool side for avocados. Fuertes in this location though vigorous and healthy are rather poor producers. In the 1937 freeze with temperatures at 22 degrees the Hass suffered little more than the Fuertes losing only its leaves and the small wood.

This tree has produced a great tonnage of fruit over the years. Before 1937 it bore increasing crops each year but the freeze threw it into an alternate bearing cycle of very heavy crops followed by light crops the next year. Mr. Hass became impressed with the quality and production of this seedling and offered it for test and registration, April 18, 1932, under the then newly instituted registration program of the California Avocado Association. The variety committee did not take particular note of this seedling however until 1935 when this writer called it to the attention of the committee. The 1935 variety report devoted a paragraph to the Hass recommending widespread trial. Every year since, the Hass continued to be listed with growing interest and in the 1944 report was

given status as a recommended commercial variety.



Original Hass Avocado
Tree at La Habra, Calif.
Photo 1945

On August 27, 1935, Mr. Hass was issued plant patent 139 by the United States Patent Office. He then entered into an exclusive contract with the H. H. Brokaw nursery of Whittier to propagate and distribute nursery trees and grafting wood. Mr. Brokaw reports the sale of 16,250 nursery trees in the last ten years distributed in the following years:

1936	-	150 trees	1941	-	800 trees
1937	-	300	1942	-	3000
1938	-	1200	1943	-	3000
1939	-	800	1944	-	3000
1940	-	1000	1945	-	3000

In addition to these nursery trees many others have been top worked. In excess of 6000 such have been authorized under the patent. The present demand for trees is far greater than Mr. Brokaw can supply and undoubtedly arrangements will have to be made for a greater production of nursery stock.

Hass trees are vigorous growers and easy to propagate. Trees top worked are usually very upright in growth like the parent tree but nursery trees range from moderately upright to spreading with most of them forming a rather well balanced head. Close planting of the Hass has produced rather slender trees and some growers have considered this variety an upright tree to be planted as close as fifteen feet apart. This procedure has produced very heavy tonnage per acre at a surprising early age but it is undoubtedly true that these groves will have to be thinned. On deep soils at least thirty feet spacing would seem to be required for mature trees.

The Hass is very precocious, top worked trees usually bearing the second year and nursery trees by the third year. It is quite impressive to produce so much fruit so soon and it is understandable the great grower interest that is developing around this variety. In some districts growers are turning from the Fuerte to the Hass because of its much greater production in their localities.

Although some Hass trees bear regularly there is a marked tendency with most trees to over bear one year and recuperate the next with a light crop. Unlike the old Lyon variety these trees will not kill themselves by continued over production. This alternation of production is usually a simple one of very heavy crops every other year. To the degree that the Hass overbears one year it will under bear the next. Occasionally trees will bear a terrific crop and will not even bloom the next year.

The Hass bloom is usually moderate in amount and comes later than the Fuerte with shorter duration. Unlike the Fuerte a healthy Hass tree limits the crop by the amount of the bloom. The flowers seem to all set and after a normal thinning retain a good crop commensurate with the amount of bloom.

It has been determined that the mean temperature in the spring has a direct bearing on the set of Fuerte avocados. In years with cool springs the Fuerte crop is reduced. The Hass however is not so critical, either because it blooms later or because the bloom is hardier, and there is usually normal setting of Hass in our years of cool springs. The average Hass grove any year has trees both in the "on crop phase" and in the "off crop phase" so it is usual to expect good production per grove every year though not from

the same trees.

Although the Hass is resistant to cool weather as regards setting of its fruit it is more susceptible to frost injury than the Fuerte. Frozen stems of fruit and damaged leaves will occur at from one to two degrees higher minimum temperatures. Hass should not be planted on low ground without orchard heaters. Damage is likely to occur at or below 28 degrees.

The Hass has been tried on a limited scale in all our avocado districts apparently having a wide adaptability. However those interested in trying this variety should investigate experimental trees in their district before plunging too heavy. So far the most extensive plantings are in the La Habra Heights, Whittier and Rivera districts where it is now a recognized successful commercial variety. The following listed districts have a Hass planting of at least an acre or more:

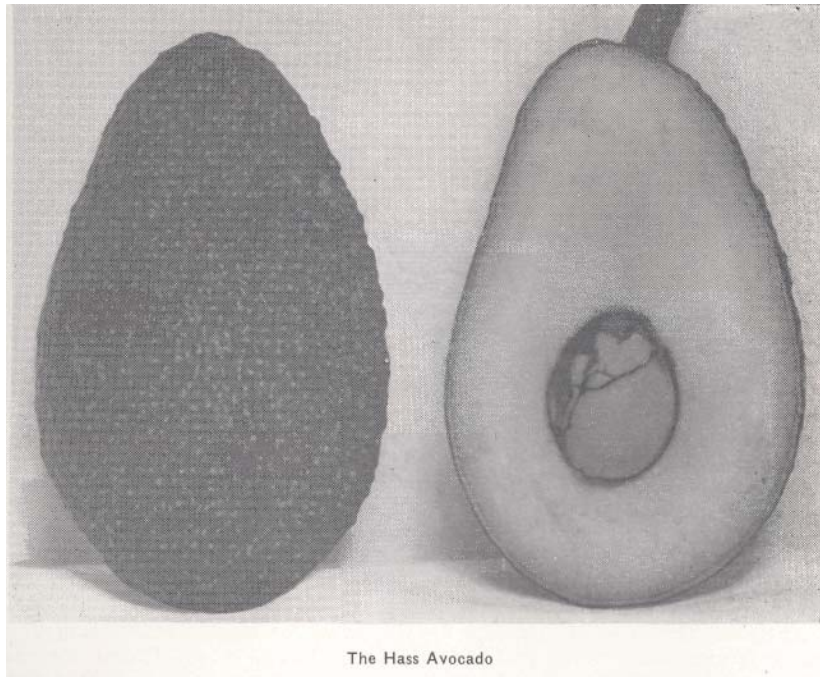
Anaheim	Los Nietos
Azusa	Montebello
Brea	Placentia
Covina	Puente
Charter Oak	Pico
Downey	Pasadena
Encinitas	Roscoe
El Modena	San Gabriel
Glendora	Santa Ana
La Habra Hts.	Whittier
Fallbrook	Yorba Linda
Long Beach	

It is reported to be doing equally well in all these localities. The industry should soon know the limits of its commercial adaptability. In areas where it has not yet been tried it should have an immediate trial. It is reported to be promising on limited test in Ventura County where it may extend the season commercially into the fall.

Although a black fruit the Hass is usually picked while still entirely green in color. If left to hang on the tree until late maturity it gradually turns black. There is little danger of picking immature fruit as there is no advantage in marketing Hass until the Fuerte season is about over. Hass fruits always test over eight percent oil at this time.

The Hass is always a black fruit when soft. Its leathery skin is pebbled taut thin for a Guatemalan. Its shape is pyriform and runs from 7 to 12 ounces with usually a small seed. Oil tests have run from 18 to 22 percent. The flavor is excellent with yellow flesh and little fibre.

The Hass has the longest season of any known avocado and has been demonstrated to be edible throughout most of the year. As a back yard tree its season is probably from March to November but commercially from May to October at La Habra. At present it fills the gap between the Fuerte and the other principal summer varieties bringing high prices at this time. When it is in greater supply its commercial limits will have to be determined. Perhaps it will extend successfully through the fall until the new crop Fuertes are ready.



From the market standpoint the Hass would appear to have everything. Excellent quality, popular size, small seed, good shipper, its leathery skin and long season complimenting the Fuerte. Its single disadvantage is its black color which has been associated in the minds of the public with poor quality fruits. Experience is indicating however that when properly handled this color handicap can be overcome. The Hass variety gives satisfaction and repeat business follows.

This variety has been put on the Calavo list and Jack Shepherd of Calavo reports a high regard for it. United Avocado Growers (formerly La Habra Heights Avocado Association) has numbered among its members the pioneer growers of this variety and have had more experience with marketing it to date. They report that it has consistently returned more than any other spring-summer avocado except the Ryan (in limited supply) which retails as a late Fuerte. Its small size is very popular and as it comes on the market early for a summer fruit it beats competition to a great extent. United Avocado Growers report that several car loads sent east returned good prices.

The following gives production of Hass avocados by United Avocado Growers members:

1941	-	40,089 lbs.	1944	-	156,224
1942	-	98,420	1945	-	82,263
1943	-	70,471	1946	-	2,000,000 estimated crop

The great quantity of spring and summer varieties as contrasted with the single winter variety is a distinct liability to the avocado industry. They come all sizes, shapes, colors and qualities producing confusion and uncertainty in the market. Many dealers will not handle avocados at this time of the year because of the losses involved in handling

diverse varieties. It is high time that the industry standardize on a relatively few varieties and eliminate the others as undesirable. When this is accomplished a greater tonnage of avocados can be moved profitably during this summer period. The Hass avocado is making a bid to accomplish this great advantage for the industry.