

Avocado Varieties



2013

of Southern California

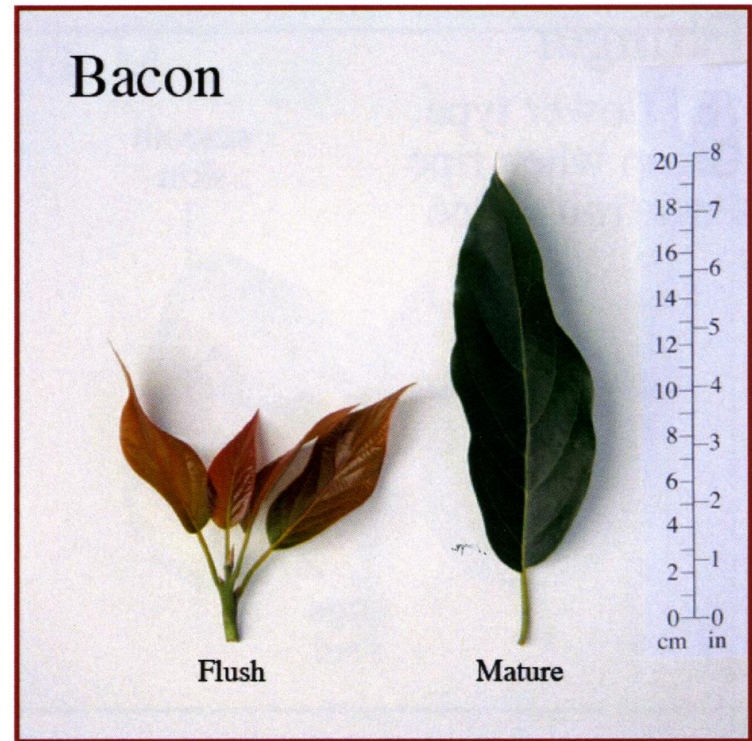
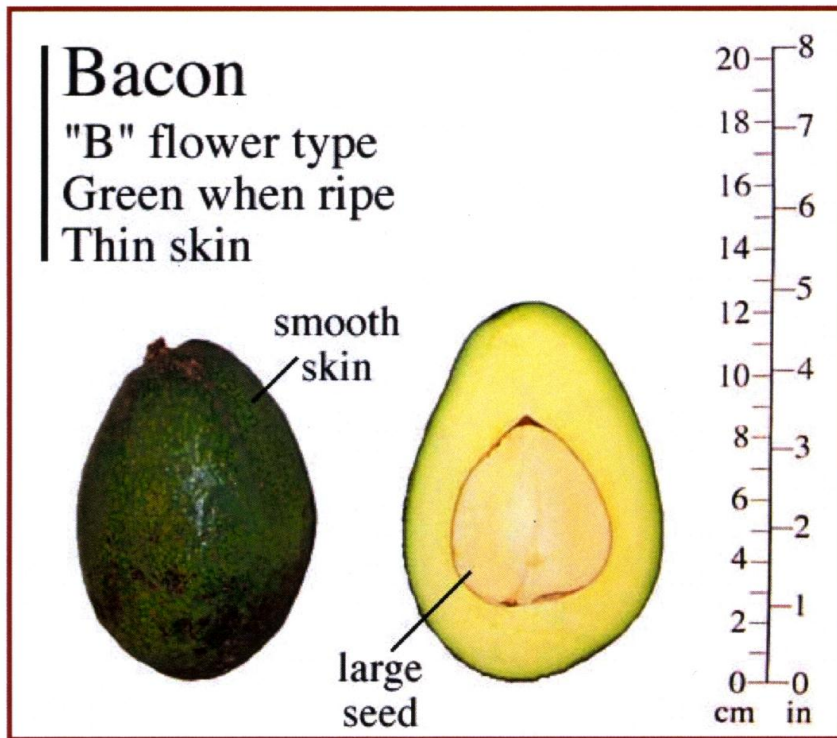
B

BACON

Hardy to 25 F

Ripens

December-March



Bacon ~ Average Fruit Weight oz: 10 to 18

Parentage: Mexican

Skin Texture: Smooth

Skin Color Unripe: Green ~ Ripe: Green

Peels: Not easily

Blossom Type: B

Skin Thickness: Thin

Seed Size: Large

Fruit Shape: Obovate

Originated in Buena Park, California, by James Bacon. Introduced in 1951. Flesh has an unusually pale yellow/green color. Oil content high. Matures Nov. to Jan. in Orange County and Dec. to Mar. in Ventura County, Ca. Consistent, heavy producer; frost tolerance excellent. Bacon has a commercial background. Large trees.

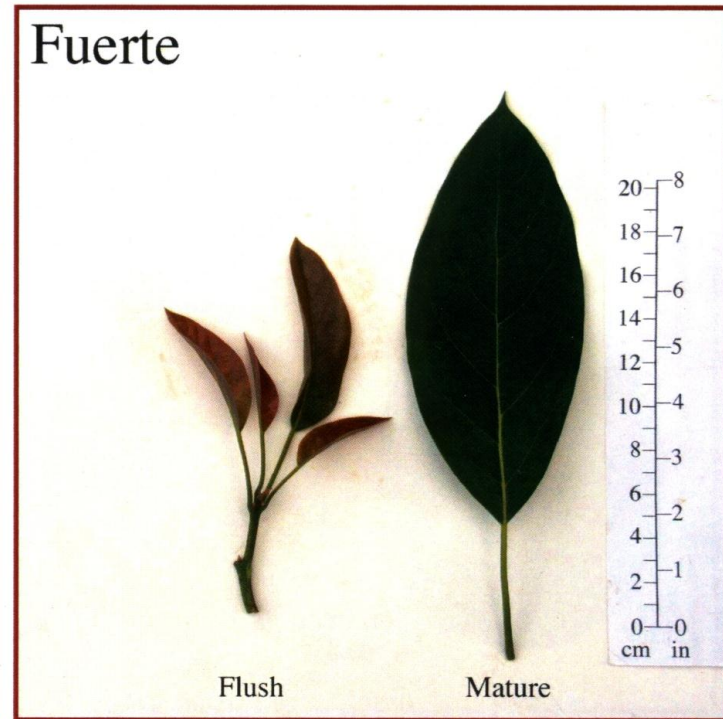
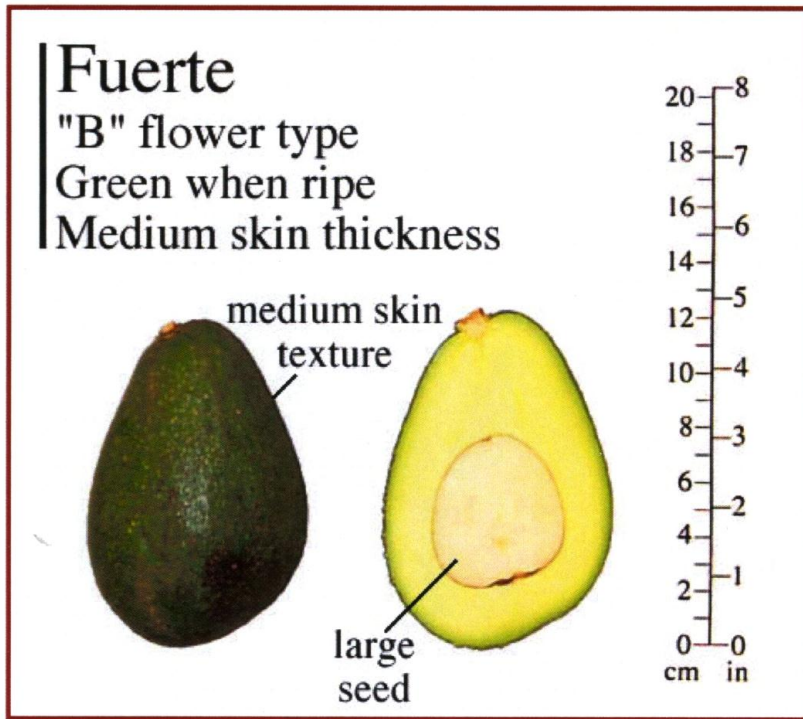
B

FUERTE

Hardy to 26 F

Ripens

January - Summer



Fuerte ~ Average Fruit Weight oz: 9 to 16

Parentage: Hybrid

Skin Texture: Medium

Skin Color Unripe: Green ~ Ripe: Green

Peels: Yes

Blossom Type: B

Skin Thickness: Medium

Seed Size: Large

Fruit Shape: Obovate

Introduced as budwood in 1911 from Atlixco, Puebla, Mexico. A hybrid Mexican variety that is ready to pick in November and is good through March. Hangs on the tree well. A long time California commercial variety valued for its winter season and its B blossom type. Skin thickness is medium thin. Seed size is medium large.



Fuerte

A

GWEN

Hardy to 30 F

Ripens

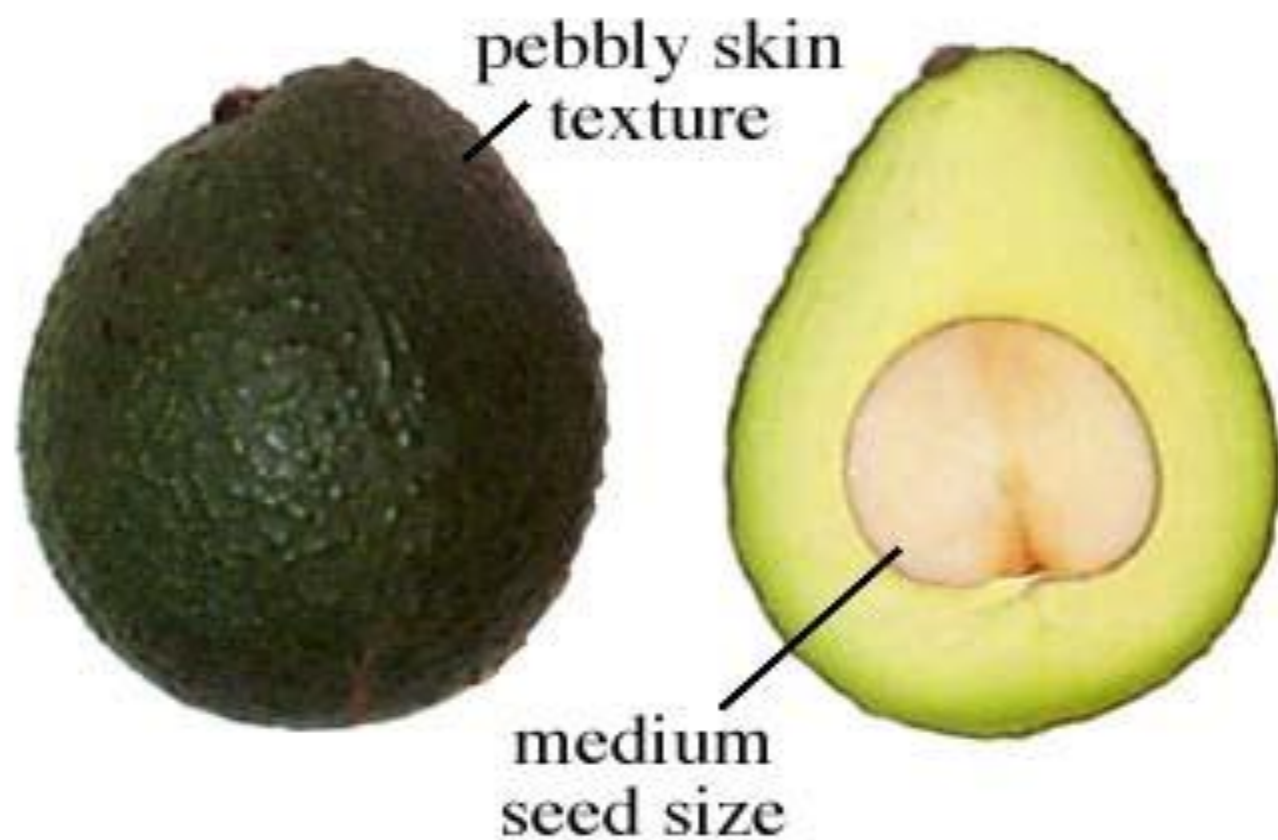
February to October

Gwen

A flower type

Green when ripe

Ovate fruit shape



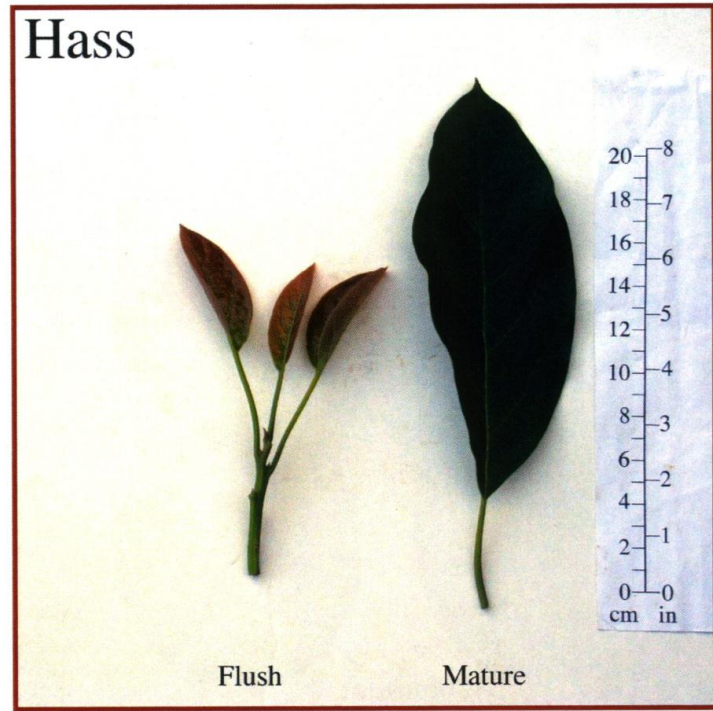
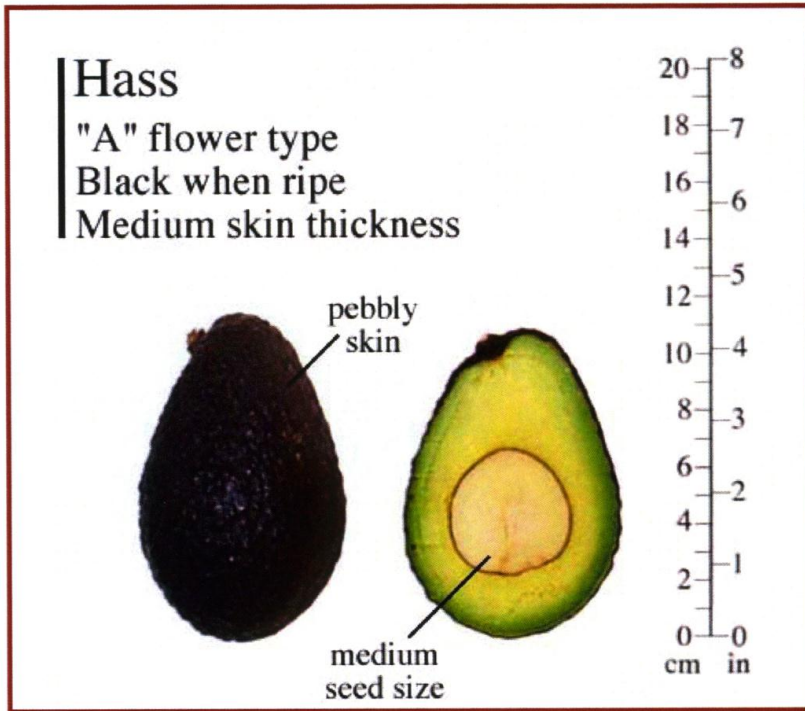
A

Hass

Hardy to 26 F

Ripens

July



Hass ~ Average Fruit Weight oz: 6 to 14

Parentage: Hybrid

Skin Texture: Pebbly

Skin Color Unripe: Green ~ Ripe: Black

Peels: Yes

Blossom Type: A

Thickness: Medium

Seed Size: Medium

Fruit Shape: Narrowly obovate to obovate

Originated in La Habra, Heights, California, by Rudolph Hass. Introduced in 1936. Oval/pear shaped fruit. The leading commercial variety in California. One of the longest harvest seasons usually beginning in February in Orange County, Ca. Excellent flavor and shipping qualities. Hass is often used as a control in field testing of other varieties.



Hass

A

LAMB HASS

Hardy to 28 F

Ripens

September-November

Lamb Hass

"A" flower type

Black when ripe

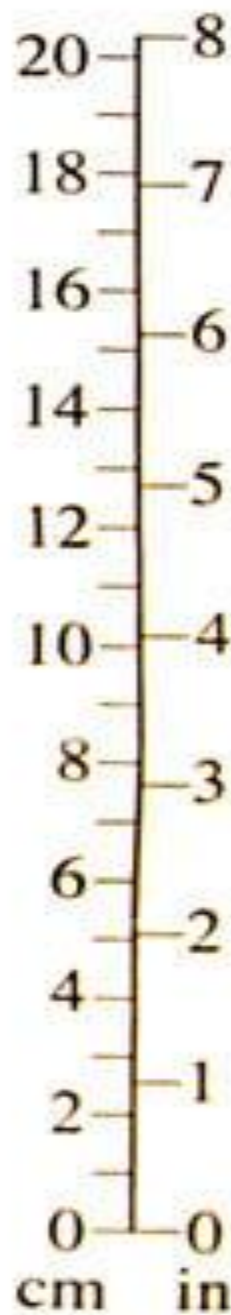
Medium skin texture



flat
shoulder



medium
seed



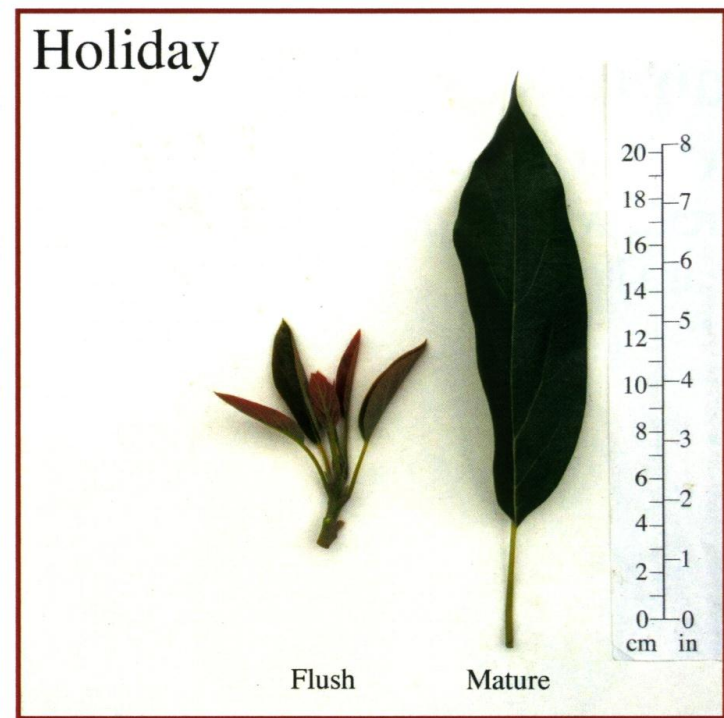
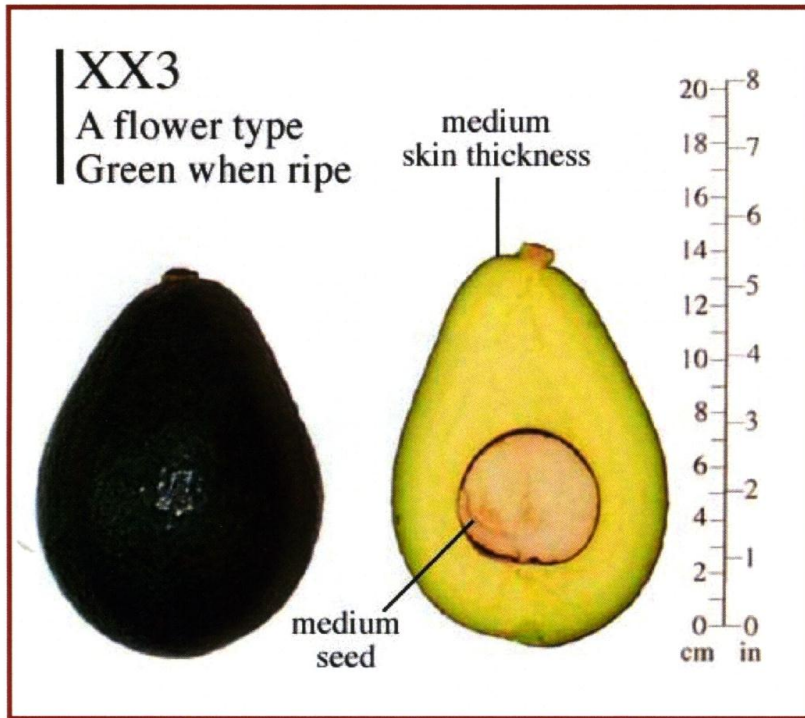
A

HOLIDAY

Hardy to 30F

Ripens

Late Fall - Winter



XX3 ('Holiday') ~ Average Fruit Weight oz: 18 to 24

Parentage: Guatemalan

Skin Texture: Medium

Skin Color Unripe: Green ~ Ripe: Green

Peels: Yes

Blossom Type: A

Skin Thickness: Medium

Seed Size: Medium

Fruit Shape: Obovate

Dwarf tree has very large fruit. Beautiful tree with spreading, umbrella shape that skirts the ground. Not extremely small, but certainly not a towering tree. Tree is smaller than Wertz. Fruit are attractive and have good flavor. Released from the breeding program for nursery propagation in 2001. Marketed by one nursery as the 'Holiday' avocado.

A

MEXICOLA

Hardy to 20 F

Ripens

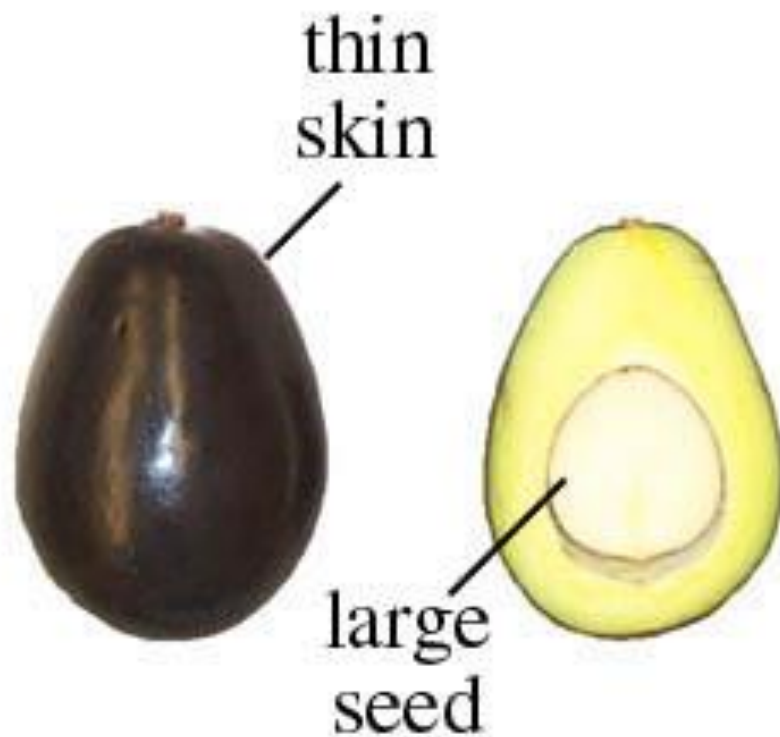
September

Mexicola

"A" flower type

Black when ripe

Smooth skin



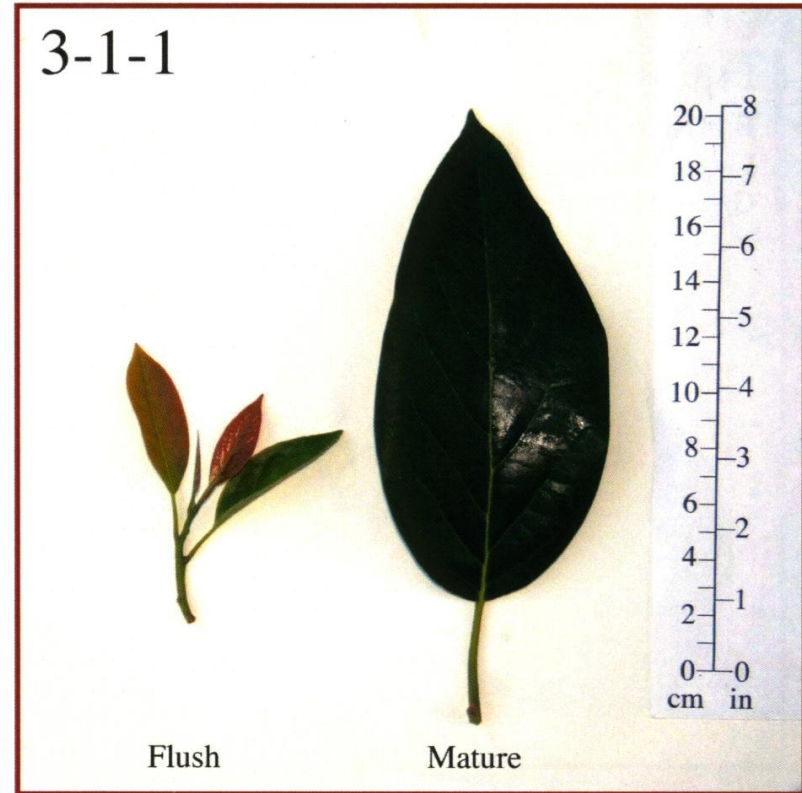
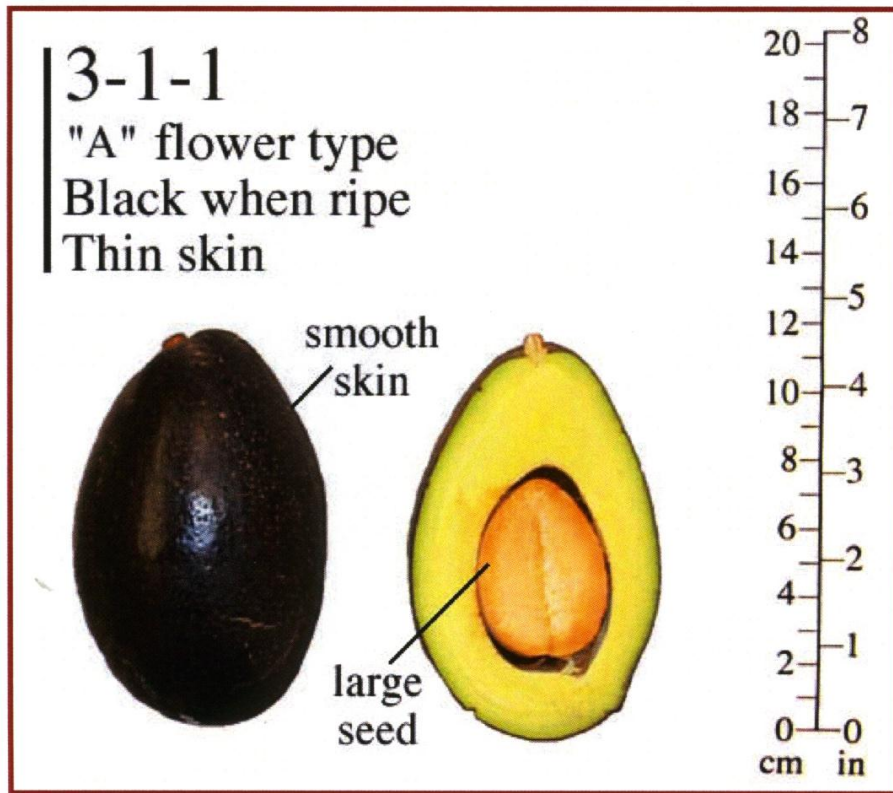
A

MEXICOLA GRANDE

Hardy to 18 F

Ripens

November - March



3-1-1 ("Mexicola Grande") ~ Average Fruit Weight oz: 6 to 7

Parentage: Mexican

Skin Texture: Smooth

Skin Color Unripe: Black ~ Ripe: Black

Peels: No

Blossom Type: A

Skin Thickness: Thin

Seed Size: Large

Fruit Shape: Obovate

Shape of fruit is round bottomed obovate to ellipsoid. Sold by one nursery as "Mexicola Grande."

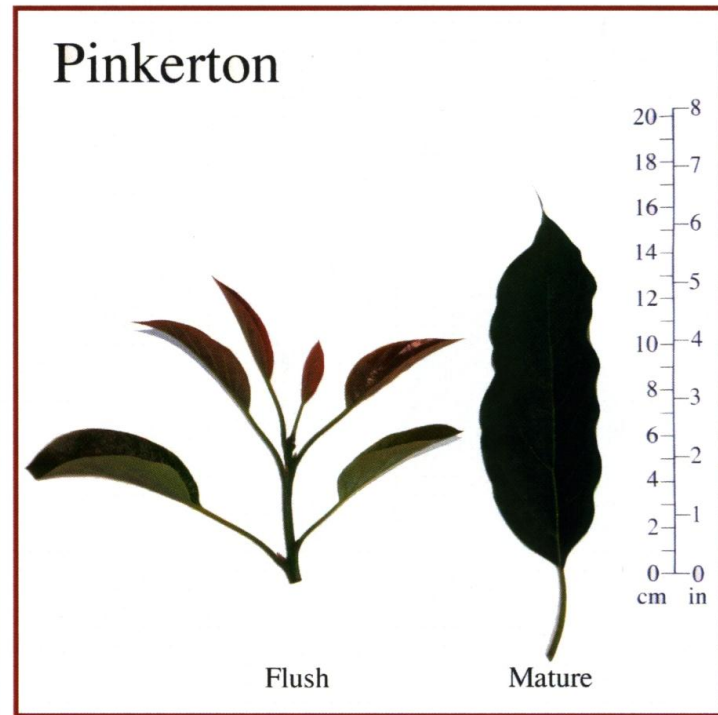
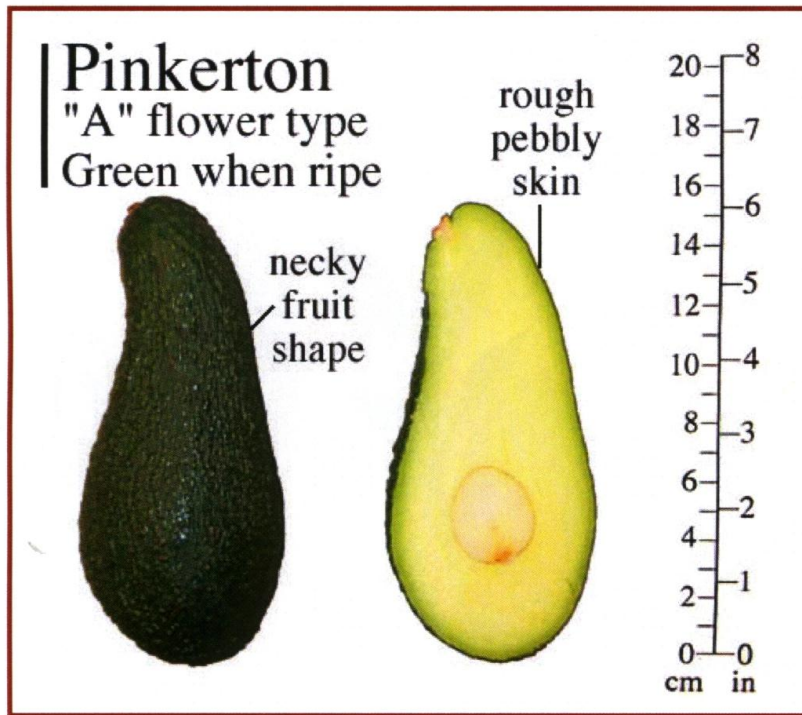
A

PINKERTON

Hardy to 30 F

Ripens

January -March



Pinkerton ~ Average Fruit Weight oz: 9 to 18

Parentage: Hybrid

Skin Texture: Rough-pebbly

Skin Color Unripe: Green ~ Ripe: Green

Peels: Yes

Blossom Type: A

Skin Thickness: Medium

Seed Size: Small

Fruit Shape: Pyriform

Commercial variety. Harvest begins in January in some commercial areas. High oil content. Medium slightly spreading tree. Hardy to 30 degrees.

Pinkerton



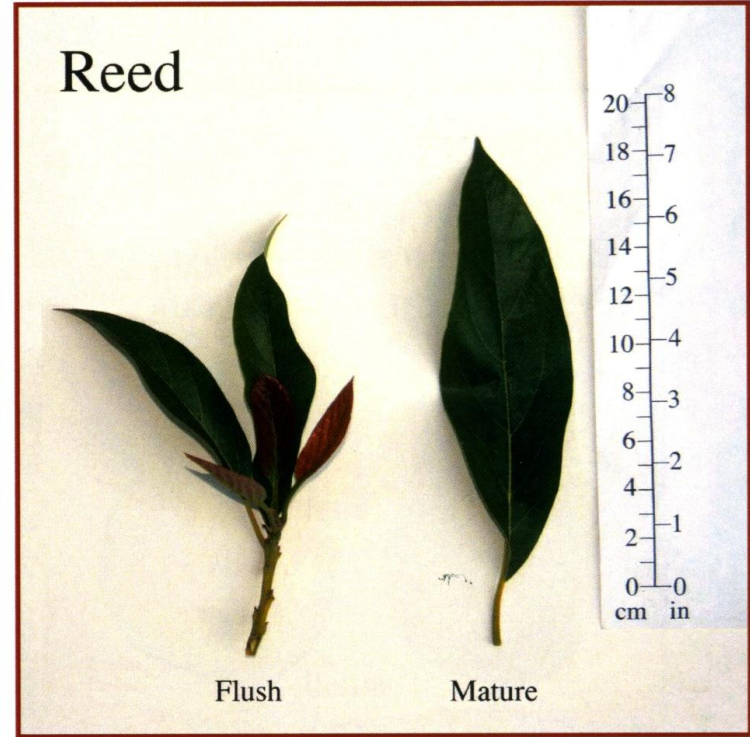
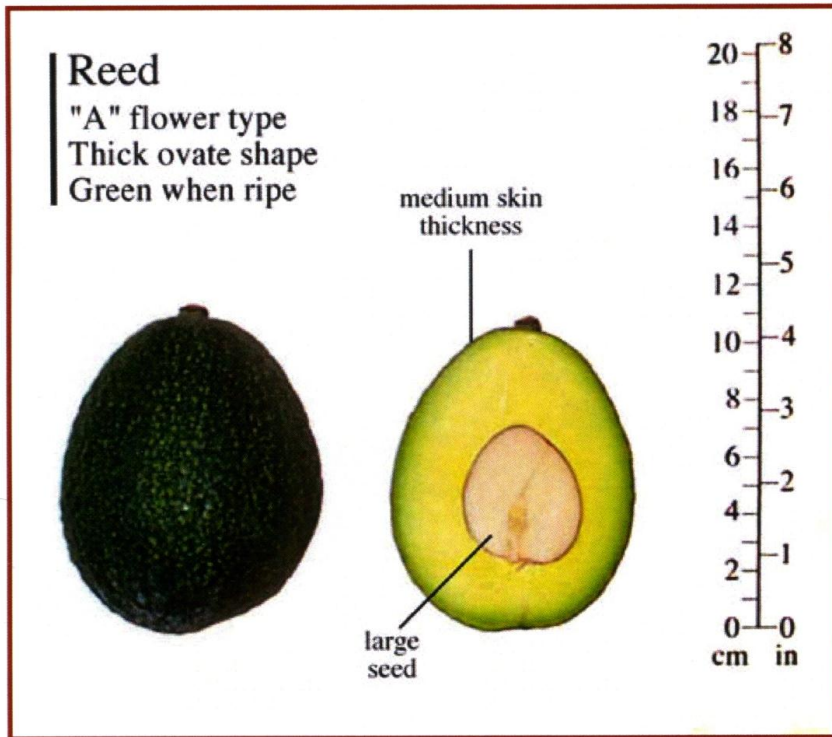
A

REED

Hardy to 30 F

Ripens

August in the north



Reed ~ Average Fruit Weight oz: 17 to 24

Parentage: Guatemalan

Skin Texture: Medium

Skin Color Unripe: Green ~ Ripe: Green

Peels: Yes

Blossom Type: A

Skin Thickness: Medium

Seed Size: Large

Fruit Shape: Spheroid

Originated in Carlsbad, California, by James Reed. Introduced in 1960 from a chance seedling planted in 1948. Fruits ripe May to September according to most literature. At South Coast Field Station (Orange County, Ca) we found it to be better later in the year. Sets fruit yearly. Fruit may remain on tree for a relatively long time after reaching maturity. Resistant to salt burn. Cold tender.



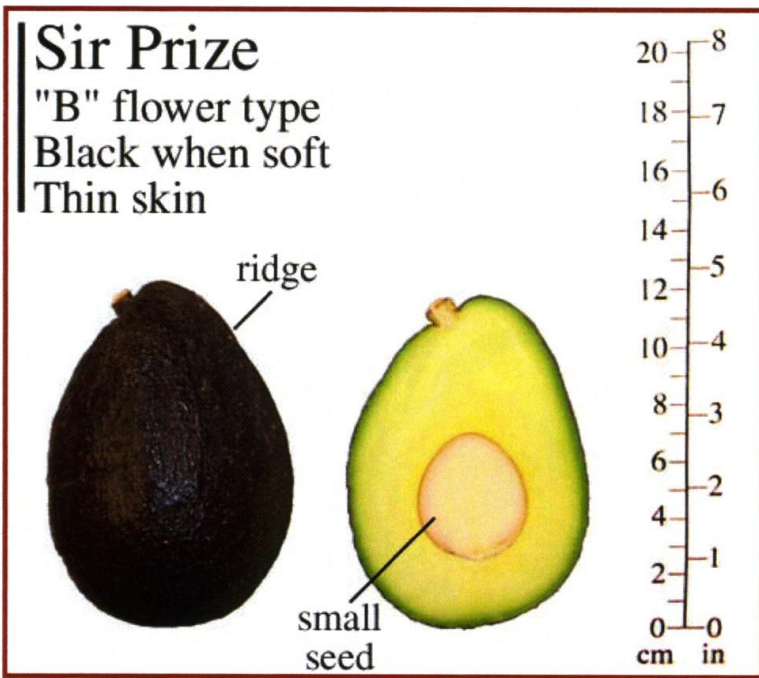
Reed

B

SIR PRIZE

Hardy to 28 F

Ripens
June/July



Sir Prize ~ Average Fruit Weight oz: 10-20

Parentage: Mexican hybrid

Skin Texture: Medium

Skin Color Unripe: Green ~ Ripe: Black

Peels: Yes

Blossom Type: B

Skin Thickness: Thin

Seed Size: Small

Fruit Shape: Obovate

Season of maturity averages 6-8 weeks earlier than Hass. Mexican-race type avocados are typically more cold resistant than 'Hass' so this tree is being tried in inland valleys and other regions unsuitable for Hass. Early results do not indicate it is any more cold tolerant than Hass. Fruit shape is pear with distinctive ridge along one side. Skin texture is not truly pebbled like 'Hass' but does have tiny islands of varying yellowish shades giving the illusion of 'Hass'-like pebbles. 'Sir Prize' is upright in tree form. Peak bloom period is earlier than 'Hass' by several weeks.



Sir Prize

A

STEWART

Hardy to 20 F

Ripens

August - October

Stewart

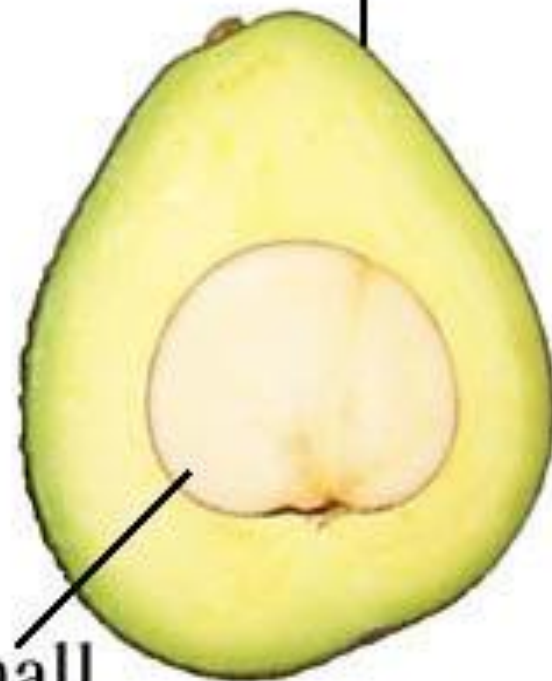
"A" flower type

Black when ripe

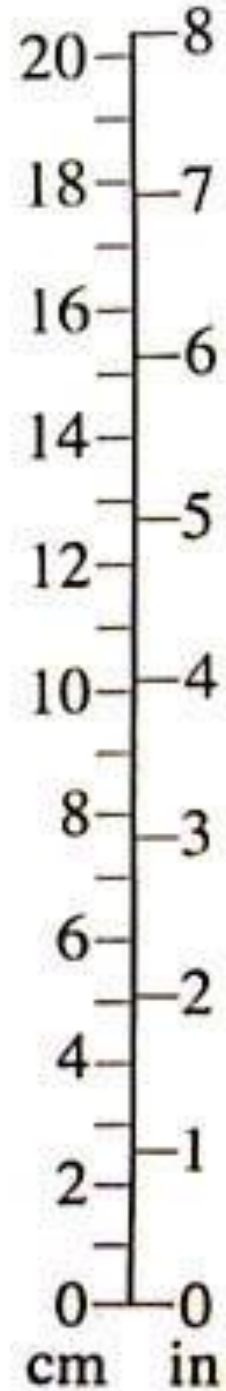
Smooth skin



thin
skin



small
seed





Holiday

B

ZUTANO

Hardy to 26 F

Ripens

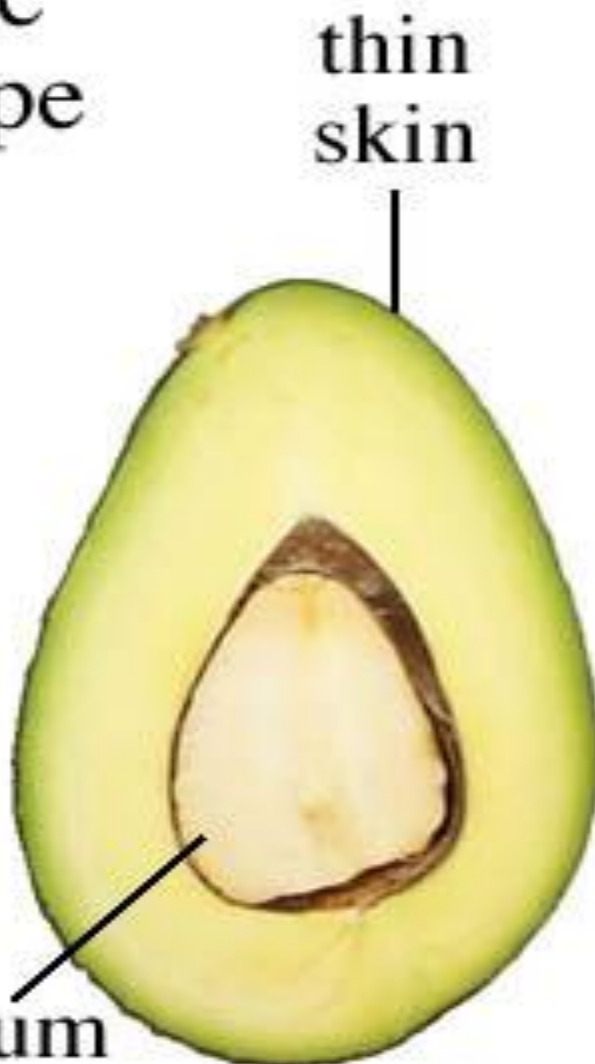
November

Zutano

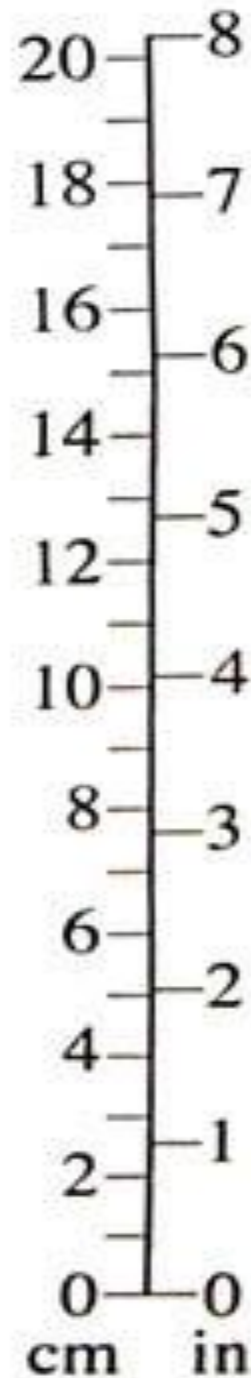
"B" flower type
Green when ripe
Smooth skin



medium
seed



thin
skin

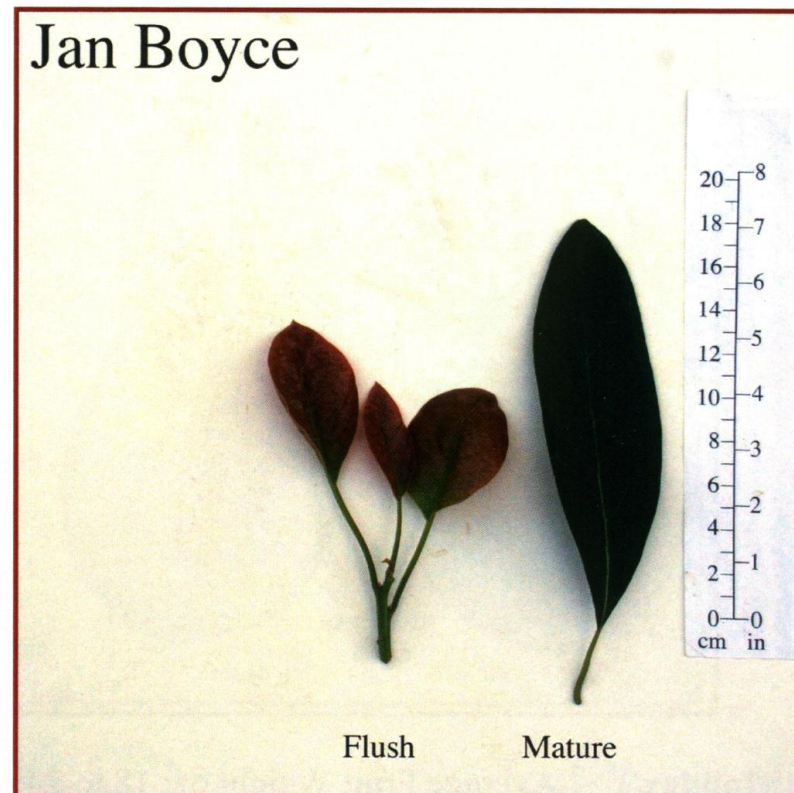
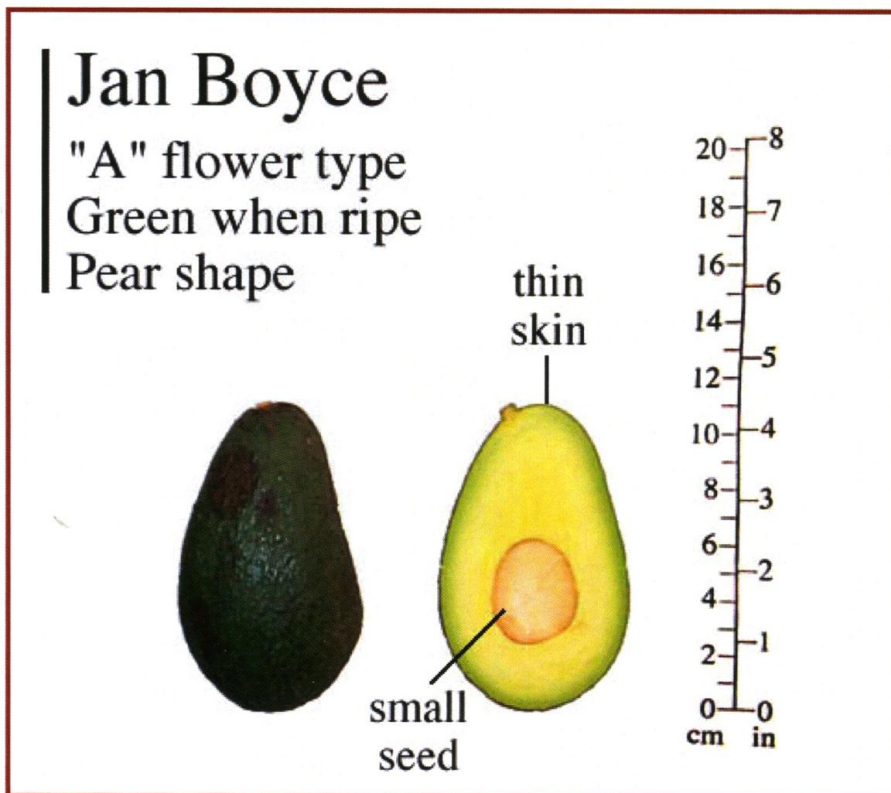




Zutano

A close-up photograph of a single, ripe green avocado resting on a white lace doily. The avocado is the central focus, with its smooth, bumpy skin showing a vibrant green color. The doily has a delicate, repeating pattern of small floral or geometric motifs. The background is a soft, out-of-focus brown, likely a wooden surface.

HONORABLE MENTIONS



Jan Boyce ~ Average Fruit Weight oz: 7 to 11

Parentage: Hybrid

Skin Texture: Medium

Skin Color Unripe: Green ~ Ripe: Green

Peels: No

Blossom Type: A

Skin Thickness: Thin

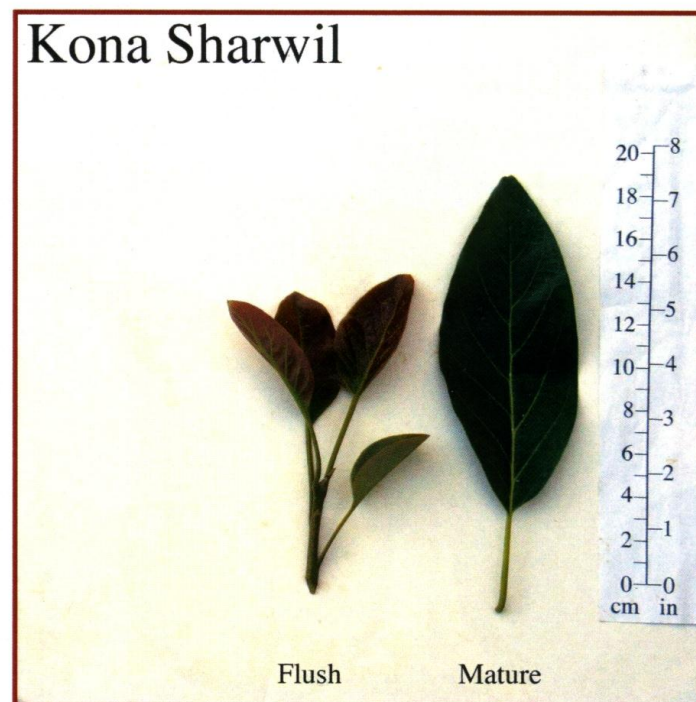
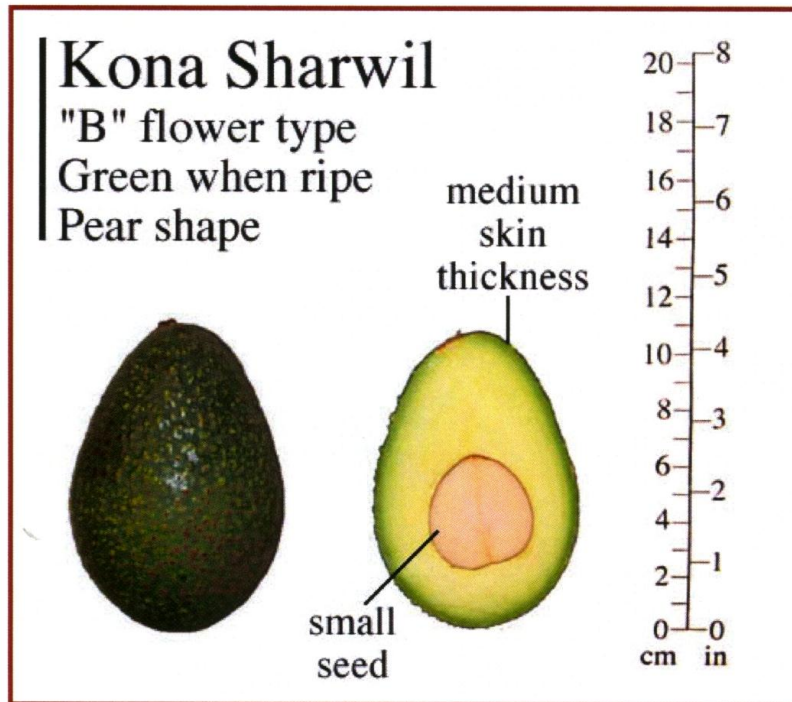
Seed Size: Small

Fruit Shape: Obovate

A pretty oval/pear shaped fruit. It does not peel well, is handsome looking and has excellent flavor in April. Considered by some to be a gourmet avocado.



Janboyce



Kona Sharwil ~ Average Fruit Weight oz: 8 to 16

Parentage: Hybrid

Skin Texture: Medium

Skin Color Unripe: Green ~ Ripe: Green

Peels: Yes

Blossom Type: B

Skin Thickness: Medium

Seed Size: Small

Fruit Shape: Narrowly obovate

A Guatemalan x Mexican cross from Australia. Commercially grown in Hawaii. Has a well centered stem. Fruit shape is oval/pear shape. Very easy to tell when it is soft and ready to use. At South Coast Field Station, Orange County, Ca. the old fruit can remain on the tree till the new crop is ready to begin picking. Fruit stores well.



Sharwil

AVOCADO VARIETY CHART

Variety	Flower Type	Taste (subjective)	Fruit Size (oz)	Fruit Color	Fruit Shape	Skin	Oil %	Fruit Season (Irvine)	Tree Size	Remarks
Anaheim	A ***	good	18-32	green	ovoid	medium thin peels easily	10-12	Jun - Aug	small to avg upright	excellent yield, big seed
Bacon *	B	fair	8-12	green	ovoid	medium thin	18	Jan - Mar	medium upright	very cold hardy, good pollinizer, big seed
Daily 11	?	fair to good	48-64	green	pear to bag shape	thick		July - Sept	tree size shape varies	perhaps the largest avocado grown in CA, a seedling of Queen developed in Ventura County
Edranol	B	XLNT	9-18	green	pear	medium thin		Mar - Aug	small	alternate bearing peels easily
Ettinger	B	Good	9-20	green	pear	thin		Feb - Jun	medium	big seed, fiber free, soft, melting
Fuerte * Top 6	B **	XLNT	9-16	green	pear	medium thin	18	Jan - Jul	large spreading	very good pollinizer of "A" flowers
Gwen	A	XLNT	6-15	green	thick ovoid	medium	18	Mar - Sep	small-med. upright	consistent heavy crop, frost hardy
Hass * Top 6	A	XLNT	6-14	green, later black	short pear	medium rough	18	Feb - Aug	med-spreading	good backyard variety
Hellen	B ** ***	XLNT	15-28	green	pear	light to med pebbly	20	Jul - Oct	large spreading	excellent peeling quality
Holiday "XX3" *	A ***	XLNT	18-30	green	pear	medium		Jul - Nov	small, 10' - 15' tall, spreading	great for small back yards, can be hard to grow.
Irving	B	Good	8-13	green	pear	smooth, thin		Jan - Mar	medium weeping	difficult peel, small seed, erratic bearer
Janboyce (JB) Top 6	A	XLNT best tasting of all	7-11	green	ovoid	medium to thin		Mar - Jul	tall leggy	does not peel easily, very small seed - 11-15 months after flowering.
Jim	B	Fair	6-16	green	necky pear	thin	18-20	Nov - Jan	medium upright	regular producer
Sharwil Top 6 (aka Kona Sharwil)	B ** ***	XLNT	8-16	green	ovoid	medium, peels easily		Apr - Jan +	small	holds mature fruit up to 11 months, small seed, not always a strong regular producer
Lamb/Hass *	A ***	XLNT	10-18	black	pear	pebbly		Jun - Dec	medium upright	holds well, small seed ~ <i>CRFG can't sell</i>

MacArthur	?	XLNT	15-25	green	pear	medium		Sep - Dec	medium spreading	excellent backyard
Mexicola	A	Good	4-8	black	short pear	thin	high	Nov - Dec	medium	most frost resistant, high quality fruit
Nabal Top 6	B ***	XLNT	16-30	green	round	medium thick	16	Jul - Dec	large upright	alternate bearer, high quality
Nimlih	B ***	XLNT	24-34	black	round	thick pebbly		Aug -Dec	tall upright	best overall of huge avocados, medium seed
Nowels	B ***	XLNT	7-15	green	pear	medium		Feb - Jun	medium	
Pinkerton *	A	XLNT	9-18	green	pear	med-pebbly, peels easily	18-20	Feb - Jun	small to medium & spreading	excellent for backyards, slow to ripen after picking, 15 days
Queen	B ***	XLNT	48-64	dull purple	pear	rough, very thick	14	Jun - Aug	large spreading	huge avocado with small seed, introduced 1914
Reed Top 6 *	A ***	XLNT	12-18	green	round	medium thick	19-20	Sep - Dec	tall/narrow, prune short	excellent backyard
Sir Prize	B	XLNT		green/hard black/soft	pear	medium thin		Mar - Jul	upright	alternate bearer
Stewart	B	XLNT	6-13	black	pear	smooth thin		Oct - Dec	tall upright	best Mexican variety, excellent flesh, cold tolerate
Stearns	A ?	XLNT	9-16	green with ring at base	pear	medium thin	varies, 24% in Feb	Oct - Feb	large spreading	tree and fruit are similar to Fuerte, tolerates lower temperature
Whitsell	B ***	Fair -	10-12	green	pear	thick and hard	18	Mar - Sep	small compact	heavy producer
Wurtz Littlecado Minicado	A ?	Good	10-12	green	pear	medium thin	18	May - Sep	very small compact	dwarf backyard, planter box
Zutano *	B	Fair +	11-14	green	pear	medium thin	16	Jan - Apr	large upright	very cold, big seed, good root stock & pollinizer

* Often available in local nurseries and Home Depot. Some other avocado varieties may be special ordered at reputable nurseries like Armstrong.

** **B type** tree known to produce reasonably well coastally, "within 3 miles of the ocean."

*** Takes approximately 12 - 16 months for fruit to mature -- there will be two crops on the tree part of the time.

AVOCADO VARIETY CHART & SCHEDULE

Approximate time avocados are ready to pick in Orange County, California

Variety	Flower Type (1, 2)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Ardith	A						█	█	█	█	█		
Fuerte (3, 4)	B	█	█	█	█	█	█	█					
Gwen	A			█	█	█	█	█	█	█			
Hass	A		█	█	█	█	█	█	█				
Hellen	B							█	█	█	█		
Holiday (XX3)	A							█	█	█	█	█	
Janboyce / JB (4)	A			█	█	█	█	█					
Sharwil (4)	B			█	█	█	█	█	█	█	█	█	█
Lamb/Hass (4)	A						█	█	█	█	█	█	█
MacArthur	unk									█	█	█	█
Nabal (4)	B							█	█	█	█	█	█
Nimlioh	B								█	█	█	█	█
Nowels	B			█	█	█	█	█					
Pinkerton	A	█	█	█	█	█	█						
Queen	B						█	█	█	█			
Reed (4)	A									█	█	█	█
Sir Prize	B			█	█	█	█	█					
Stewart	B										█	█	█
Stearns	A	█	█									█	█

- 1) A and B are types of flowers -- determined by when in the day the flower is male or female -- mixing types is thought to increase pollination results and therefore increase the yield.
- 2) Many B flowering trees do not produce well along Coastal areas but do well in warmer, inland climates. In the greater LA area, more than 3 miles in from the ocean seems best.
- 3) The **Fuerte**, a large spreading tree, is generally the best pollinator of **Type A** avocado trees. Fuerte is in the **Top 5** best tasting of all avocados and produces well along the coast.
- 4) The **six best tasting avocados**, considered by some, to be **Janboyce** (JB, best overall), **Hass**, **Fuerte**, **Nabal**, **Reed**, and **Kona Sharwil**.

Avocado Advice

If I had a small space in my yard for only a single, small avocado tree, I would buy either a Holiday avocado (easy to find) or a Kona Sharwill (longest hang time). The Holiday has a very large fruit, ripens off-season from locally grown quality avocados, has a good hang time on the tree (you have avocados for about 4 months from July - Nov), and most important, the fruit tastes excellent! Purchase at Festival of Fruit, Green Scene, Lowe's, Armstrong, or Home Depot. Larger older trees are available and worth the price -- it takes about 17 months from flower to mature, ready to pick fruit -- so you end up with two generations of fruit on the tree at one time. It is easy to tell the difference of mature fruit based on size and shine of fruit. Most people want to pick the fruit early -- avoid this temptation.

Other great small avocado trees to consider are Gwen and Pinkerton. A manager of a good nursery should be able to find these trees for you. One last thing: buyers beware some nurseries sell their own "graft" trees and the fruit is not good tasting.

Things that usually kill avocado trees:

- Not enough drainage. These trees need plenty of water with lots of drainage.
- Too much water for the drainage especially in clay soil. If you dig a hole in clay, the hole may act like a bowl and allow standing water - standing water will kill an avocado tree.
- Too much or too strong a fertilizer - give them very little, less than suggested, but apply more frequently. Do not fertilize when transplanting.
- Sunburn - avocado wood burns easily. Prevent this by painting the exposed bark with white water based paint, mixed with 50% water. This is especially important on young trees from the nursery.
- Don't prune in the heat of the summer since that will expose the wood to direct sunshine - unless you paint the bark. Pruning in November through February is best, but any time of the year is OK.
- Transplant shock - root vitamins may help.
- Planting with fresh "hot" mulch. The trees do need a lot of aged mulch but too much fresh green mulch will heat up and burn the "top feeding" roots. Top feeding means they feed on decaying mulch just under the surface. These sensitive roots do burn easily in "hot" mulch and dry out easily too.
- Not leaving mulch beneath the tree. Do not scrape the area around the tree clean - avocados need to keep their fallen leaves and branches as mulch.
- Digging under the tree will kill these feeder roots too. Keep the digging to a minimum.
- Remaining a few years in a pot. Because these trees have top feeding roots, they need a large area to grow properly and cannot be grown in pots for very long.
- Planting in a climate that gets too cold at times. See varieties chart for trees that do well in colder climates - about 30 degrees. Many need above 35 degrees at all times. Remember, avocados come from the warm jungles of Mexico, Guatemala, and the West Indies.
- Try not to plant the tree in the hottest time of the year. Transplanting disturbs the root's ability to take in water so planting the tree in a heat wave may cause it to dry out and die.
- Trees can be killed by raising the soil around them or transplanting them too deep. It is believed this stops the air exchange at the crown provided by the bark of the tree.

PLANTING INSTRUCTIONS -- what an avocado needs:

- Select the right location for the tree. Don't buy an avocado tree if you don't have the right spot for it to grow in.
 - Direct sun at least half the day. Young trees can take a lot of shade, producing trees need sun.
 - Non-freezing/frost location all the year. Some are frost hardy.
 - Soil with good drainage or plant on top of the ground in a raised garden.
 - Don't dig a hole in clay-based soil - this will make a bowl of standing water that will drown the roots.
 - An area where plenty of mulch (2" - 4" thick) can be put down once a year and the leaves from the tree can be left for mulch.
 - An area with little foot traffic.
- Select the right size and type of tree for the location you have or be prepared to trim the tree often.
- Don't sink the tree deep in a hole - plant it at or above the soil line. It is best to plant the trees in an elevated garden or on a hill slope.
- Make the hole at least twice the size of the pot and plant the tree with plenty of good top-soil mixed with a little mulch - save most of the mulch for top dressing around the tree.
- If the tree has exposed bark, paint the bark with a white water based paint mixed with 50% water. This will prevent sunburn which can kill the branch or tree.
- Water young trees 2-3 times a week and older trees 1-2 times a week.

Lead author is Julie Frink and assistant author is Doug Van Mullem

Other worthy mentions not shown in photographs:

Nabal: The Nabal is the seed parent of Reed but the tree grows entirely differently. Nabal is a large and spreading tree with leaves that are much wider; fruiting is very alternating from year to year. The flower type is 'B'. Literature says Nabal can be harvested from June through September -- my experience is they seldom mature before Labor Day. As I am writing this, we have cut open a Nabal and a Reed. The Nabal seed is a bit flatter and the flesh has a bit more fiber (you really have to look to notice) -- neither seed is particularly large nor looks germinated. It would appear from these two examples the season is just beginning. Both are the same shape but the yellow speckles on the green skin seem fewer in number on Reed and it is shinier. Though this year's crop is the largest in 15 years, the production of the Nabal has usually been very light (a fellow in San Diego told me that his Nabal produces heavily every year). I think of Nabal as being a bit sweeter than the more buttery Reed. They both are fantastic avocados. If you have the room, it would be good to have a Nabal in that canyon behind your house in inland Orange County. If you have a slim slice of land closer to the beach, you'll need a Reed.

Queen: Queen avocados are very large. They are shaped like, and closely resemble, a football ("Go deep and I'll heave a Hail Queen!"). The skin is thick and black. The parent tree in Guatemala was a huge tree, 80' feet across, but my tree will remain under five foot because of its youth and my loppers. In 1914 this tree was introduced to California by E.E. Knight of Yorba Linda. The flower is a 'B' type, leading to lots of cukes (imperfectly pollinated fruits with no seeds) about the size of deli pickles with good flavor. Initially I thought this was a Guatemalan avocado but since it seems to mature at this time of the year my suspicion is that there may be a bit of West Indian in the genetics. (Guatemalan avocados take about 18 months from fruitlet to maturity while West Indian varieties require just six months, but are very large and lack oil.) In July, my grandson took two days to prove that he could eat an entire Queen "football" avocado all by himself -- he claims it had a pretty good flavor! If you have a Queen tree you will amaze your friends with a most interesting fruit.

Stewart: Stewart, in many people's opinion, is the best Mexican avocado. It is nice sized and has beautiful internal coloring, yellow to green. The seed is small for a Mexican avocado. The tree has dark green leaves and can be picked out of a group of avocado trees by this trait. The Stewart is a reliable producer, partially because, during flowering season, there are both male and female flowers present so the tree is more self-pollinating than most avocado varieties. The tree flowers in spring and the fruit is usually, depending on location and weather, ready to harvest in November. This pear shaped, smooth skinned avocado is green until picking time when it begins to turn black. After it is picked and softened, it becomes very black. Since the fruit does not winter over it is considered more cold-hardy than Guatemalan avocados or varieties with similar genetics.

Other avocado ramblings:

To those new to avocado land -- avocados do not soften on the tree. If you know your variety you can find out what its maturity season is; if you don't know the variety and your avocados are as shiny as a shellacked surface you may want to wait until the avocado looks a little less shiny and like it may be ready to pick. Then pick one. Put it on your kitchen table but not in the sunlight. When it yields to strong finger pressure at both the top and bottom of the fruit, try it or refrigerate it to try as soon as possible. If it is really tasty make a notation on your calendar so you will know for next year. If it seems watery and the seed is very light colored, wait a month and try again. When the seed is dark and your avocado tastes like it has a good flavor and high oil content then you know you can start picking. Plan to pick 7 to 10 days earlier than the event you need avocados for. Softening time depends both on fruit maturity and variety. The Pinkerton can take 15 days to soften and the J.B. often needs only 4 days. One of these is better for home use and one for commercial. Guess which! I am writing this because last week a person rather new to California moved into a house with an avocado tree and did not know that avocados do not soften on the tree.

Julie Frink ~ Avocado Specialist

Other Credits: South Coast Research and Extension Center (SCREC)

Avocado Germplasm Collection

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Mature trees, trimmed and painted against sunburn

