**2. A Slice of Avocado History**

* **Native to the tropics of Central America, the avocado tree originated in southern Mexico and Columbia around 5,000 B.C.E.**
* Upon their arrival in Central America, **Spanish conquistadors were presented with avocados by the Aztecs and Incas in the 16th century.**
* By the early 1800s, the avocado had spread throughout southern Europe, the Hawaiian Islands, Africa and Southeast Asia.
* The avocado tree was first introduced to the United States in 1833 by Judge Henry Perrine who sent trees from Mexico to Florida.
* Dr. Thomas White of the California State Agricultural Society imported the first California avocado tree from Nicaragua to Los Angeles in 1856.
* The California avocado industry was founded in the early 1870s when trees in Santa Barbara (imported from Mexico) begin to bear fruit.
* Avocado grower Rudolph Hass developed the Hass variety in 1932 by grafting seedlings onto existing trees that originally produced the Lyon variety. Forty years later, the Hass variety became the dominant variety in California and throughout most of the world.
* The most popular California avocado is the Hass (frequently mispronounced and misspelled as Haas), which weighs about half a pound and has a pebbly black skin when ripe. Hass avocadoes are unique because they are the only avocado variety that is produced year-round. (See the end of this document for a detailed history of the Hass avocado.)

**What’s in a name?**

Avocado is an evergreen fruit tree of the flowering plant family Lauraceae. Originally called ahuacatl [aː'wakat͡ɬ], by the Aztecs of ancient Mexico, the fruit later became

known as aguacate [ähttp://img.tfd.com/hm/GIF/lprime.gifgwhttp://img.tfd.com/hm/GIF/schwa.gif-kähttp://img.tfd.com/hm/GIF/prime.gifthttp://img.tfd.com/hm/GIF/emacr.gif]by the Spanish in the 16th century and nicknamed the “alligator pear” by English colonists who mistakenly substituted “alligator” for aguacate and added “pear” for the fruit’s shape. The term aguacate eventually evolved into avocado by Americans who could not pronounce the Spanish.

**3. How do avocados grow?**

* **The avocado tree is an evergreen tree that can reach 80 feet in height.**
* When planting avocados the seeds can be planted, however, it can take 8-20 years for seeded plants to bear fruit. Most farmers graft seedlings from trees and then the tree will have fruit usually within 1-2 years.
* The leaves of the tree stay on the tree for 2-3 years then they will fall off in the spring time. The leaves of the tree are high in fat, so when they fall off of the tree it takes them a long time to degrade.
* **During January through March the tree will produce 200-300 little green-yellow flowers that will produce fruit.** These flowers are both male and female. **Bees and hoverflies pollinate the plants. Each little flower will produce 1-3 avocados.**

**4. What season do we pick Avocados?**

* Avocados are harvested all year long because there are so many different varieties that can be grown. **The peak season is from March to August.**

**Is it a fruit or a vegetable?**

* **While chefs consider avocados to be green vegetables, botanists consider them to be fruit because there is a seed inside.** There are more than eighty different varieties grown in California, but the Hass avocado is the most common. The skin of Hass avocados turn a dark purple-black when ripe. Other California varieties are known as “greenskins” because their skins do not change color as they ripen. These include Fuerte, Zutano, Bacon, Pinkerton, Reed and Gwen.

**5. Why should we eat Avocados?**

* One serving of avocado provides:
  + A source of **fiber, Vitamin K** and **folate.**
  + A source of antioxidants, including Vitamin E.
  + A source of many essential minerals including potassium, thiamin, iron, riboflavin,

niacin, magnesium and manganese.

* + A source of monounsaturated fat and omega-3 fatty acids.

Monounsaturated fat is a fatty acid that helps lower LDL (bad) cholesterol and boosts HDL (good) cholesterol.\* Research suggests that the fat in avocados also increases the body’s ability to absorb and use antioxidants.

Omega-3 fatty acids are essential fatty acids that may prevent heart disease.

* LDL: low-density lipoproteins HDL: high-density lipoprotein.
* Omega-3 and omega-6 fats are considered “essential” to the diet because the human body cannot make them on its own.
* These fats are helpful in preventing coronary artery disease and hypertension.
* Increasing consumption of omega-3 and omega-6 has been shown to increase HDL (“good”) cholesterol levels and decrease LDL (“bad”) cholesterol levels.
* Eating more omega-3 fats can reduce the body’s inflammatory responses, beneficial to maintaining an healthy immune system.
* Omega-3 and omega-6 fats also help maintain cell membranes and healthy skin.
* Sources include pumpkin seeds, trout, salmon, wheat germ, walnuts, avocados.

**6. How do you pick a good Avocado?**

* **Pick avocados that are firm but give to gentle pressure**. **Hass** avocados **turn dark green or black when ripe**. Other varieties remain green.
* Place unripe avocados in a paper bag for two to three days at room temperature.
* Store ripe avocados in refrigerator up to one week.
* To serve, cut lengthwise around the seed, twist halves open and remove seed. Scoop out fruit or slice.
* Rub lemon or lime juice onto cut fruit to avoid browning.

**Just the Facts**

* Avocado trees can grow as tall as 80 feet and produce as many as 400 fruits annually.
* The United States provides 6 percent of the world’s crop, ranking third behind Mexico and Chile.
* Forty-three percent of American households purchase avocados. Consumers love the rich, creamy texture of the Hass avocado and growers favor it for its disease-resistance and year-round growing cycle.
* Mature avocado trees grow to an average of 65 feet tall and, if grown from seed, will produce fruit any time after five to 20 years. It is biennial-bearing and may produce heavy crops one year followed by poor yields in the next. Intolerable to freezing temperatures, this evergreen tree can only grow in subtropical and tropical climates.
* The grafted cuttings produce fruit within one to two years, commercial avocado orchards are planted using grafted trees and rootstocks. The species is unable to self-pollinate and most cultivars today are clonally propagated (without seed reproduction).
* The avocado fruit does not ripen on the tree but will fall off and ripen on the ground. Commercial avocados are picked unripe and shipped to ripen on the store shelf.

**Serving Ideas**

* + Use avocados to make guacamole and salsa dips. Serve with baked tortilla chips, potatoes or on salads.
  + Add sliced avocados to green salads or vegetable soups.
  + Try mashed avocados as a spread on sandwiches in place of mayonnaise or butter.
  + Top scrambled eggs with diced avocados instead of cheese.

**Did you know?**

* Avocados are sodium and cholesterol-free and have only five grams of fat per serving, most of it monounsaturated.
* Avocados were once a luxury food reserved for the tables of royalty, but now California Avocados are enjoyed around the world by people from all walks of life.
* Brazilians add avocados to ice cream.
* Filipinos puree avocados with sugar and milk for a dessert drink.
* **California produces about 90 percent of the nation's avocado crop.** San Diego County is the Avocado Capital of the U.S., producing 60 percent of all the avocados grown in California. There are about 6,000 avocado growers in California; the average grove size is around 10 acres.
* **A single California Avocado tree can produce about 500 avocados** (or 200 pounds of fruit) a year although usually average about 60 pounds from 150 fruit
* There are seven varieties of avocados grown commercially in California, but the Hass is the most popular, accounting for approximately 95 percent of the total crop volume.
* California Avocados grow year-round, and about 43 percent of all U.S. households buy avocados.

**History of Hass Avocados**

* According to the California Avocado Commission: The tree began life as a mistake - a lucky-chance seedling planted by A.R. Rideout of Whittier. Rideout, an innovator and pioneer in avocados, was always searching for new varieties and tended to plant whatever seeds he could find, often along streets or in neighbors' yards. In the late 1920s, Mr. Rudolph Hass, a postman, purchased the seedling tree from Rideout, and planted it in his yard.
* According to Paul Wilkes, son-in-law of Rudolph Hass, the California Avocado Commission's statement is misleading: "Rudolph Hass did buy the avocado seeds from Mr Rideout, but he planted them himself. Rudy had used all of the money he had to buy the land for his grove. He was only earning 25 cents an hour working as a postman so he couldn't afford trees. Mr. Rideout was noted for using any seeds he could get his hands on, including the garbage from restaurants. His selection process occurred when the seedlings were ready to graft. He would then destroy any weak seedlings. Rudolph Hass knew nothing about raising trees, but Mr. Rideout was very helpful to him and instructed him to plant three seeds in a cluster where ever he wanted a tree, and then pull up the two weakest seedlings and graft the strongest. For this reason, no one knows what kind of seed produced the Hass tree."
* Following are excerpts from 2004 article, How The Hass Avocado Came To Be, by Cindy Miller, granddaughter of Rudolph Hass: “My mom, Faith (Hass) Wilkes knows how the Hass avocado came to be, so I will share it with you . . . After reading a magazine article illustrated with an Avocado Tree with dollar bills hanging from it, Grandpa bought a small 1 1/2 acre grove in La Habra Heights in 1925. There were a few Fuerte avocado trees. He planted the rest of the grove on 12 foot centers with three seeds in each hole. He hired a professional grafter named Mr. Caulkins, to graft cuttings from the existing Fuerte trees onto the strongest of the three trees from each hole. All but three "took". The next year Mr. Caulkins re-grafted those three trees. The following year Mr. Caulkins re-grafted the one tree that had rejected the graft again. Again it didn't take. Grandpa was ready to give up and chop the tree down, but Mr. Caulkins said it was a good strong tree. He advised Grandpa to just let it grow and see what happens. So he did. The Hass avocado happened. Grandpa Hass only planted the seed, Mr. Caulkins did the grafting, and God gave the increase.
* Grandpa patented the Hass Avocado in 1935 but, since it was the first patent ever issued on a tree, it got no respect. Growers would buy one tree from Mr. Brokaw who had the exclusive right to produce the nursery trees. They would then re-graft their whole grove with the bud wood from that one tree. For that reason Rudolph Hass made only $5,000 royalties on his patent. However, he was the first to have a producing grove of Hass Avocados, all be it a very small grove. He found a ready market for the fruit at the Model Grocery Store in Pasadena where the chefs for wealthy people who lived on South Orange Grove Street shopped. Once they sampled the Hass variety, they insisted on it. My mom, her sister, and three brothers worked with Grandma and Grandpa harvesting and also sold avocados from a roadside stand by the grove in La Habra, California.
* Every Hass avocado tree today is descended from that original tree. There is a plaque commemorating the location of the parent tree but the tree died of root rot and was cut down on 9/11/2002 at the ripe old age of 76. (It was planted in 1926.) That is very old for an avocado tree. The wood from the tree is stored at the nursery run by Mr. Brokaw's nephew. Some of the wood has been made into jewelry, gifts, and keepsakes by Mr. Hass's Nephew, Richard Stewart. He gave them to members of the Hass family and some members of the Avocado Growers Association.
* Grandpa expanded to Fallbrook with an 80 acre orchard which bore its' first crop in 1952 just as Grandpa Hass died of heart failure in the Fallbrook Hospital. However, Grandma Hass lived to the ripe old age of 98 after a lifetime of eating a half piece of wheat toast with avocado slices on it with breakfast just about every morning.
* Patents expire after 17 years. When Grandpa filed for his patent in 1935 he prayed and asked the Lord to let him live as long as the patent was good. As a young man he had been rejected from service in WWI because of a congenital heart condition. He knew his ticker was not too good, yet he worked hauling those heavy mail sacks all those years. He passed away in 1952 a few months after his 17 year patent on the Hass avocado expired. Grandma Hass lived the rest of her life on the pension from Grandpa's mailman job. Others saw the profit potential in the Hass avocado and have developed it into the industry it is today. Now we all enjoy its fruit.

**A serving of avocados is one-quarter cup sliced avocado. This is about one-fifth of a medium avocado.**