

#### FROM FIELD TO STORE GOING BANANAS



#### The Journey of Bananas

So many bananas are grown in Latin America that many people believe they originated there, but that's not the case. In fact, America's favorite fruit, the banana, originated in the rainforests of Southeast Asia where they were cultivated as long ago as 1000 B.C. Indian traders brought the fruit home with them to India where Arab traders further brought them to the Middle East and East Africa. By 1482 Portuguese explorers found bananas growing as a staple food along the west coast of Africa in what is now Gambia, Sierra Leone and Liberia. Portuguese traders transplanted them to the Canary Islands and the Spanish are credited with bringing them to the new world following Columbus' voyages. There are sixty-seven species and more than two hundred varieties of bananas. It's scientific 'genus' name is *Musa* (possibly from *Muz*, Arabic for Banana). The botanical name of the type of banana familiar in our grocery store is *Musa sapientum* which means "fruit of the wise men." The first usage of the English word 'banana' was in the 1600s.

Bananas do not grow on trees! In fact the banana 'tree' is a huge herbaceous plant that grows to a height of between fifteen to thirty feet. It is perhaps the largest plant on earth that does not have a woody stem (trunk) above the ground. This can make banana plants vulnerable to wind storm damage.

It takes at least eighteen months for the banana plant to grow from a shoot to produce a mature bunch of fruit. The plant also needs from 14 to 23 consecutive months of frost-free, sunny weather. When the fruit does appear, it grows on a single stalk with seven to ten bunches, each bunch holding twelve to fourteen individual bananas. Bunches are known as "hands" and the individual bananas are called "fingers."



Each plant fruits only once; when the plant has produced its fruit, it is cut down and left to decay to form a humus that will support another shoot growing from the same stem.



The Next Generation

Although they can be grown in places such as Florida, Louisiana, Texas and even parts of California, bananas are not viable as a commercial crop in the continental United States as a much warmer climate is needed and much more rainfall. Even Cuba is too far north to produce the very best results. Nonetheless, Bananas are far and away American's most popular fruit. Sales peak every year in September and dip every Spring, can you guess why?

Bananas are harvested while still green even in the tropics. If allowed to ripen on the plant they tend to toughen, sour, and split open attracting insects. Once cut from the plant the banana stalks are hung on large hooks connected to long wires that stretch throughout the plantation. The large stalks weighing up to one-

hundred pounds can then be more easily pushed or pulled along to a packing house where they are cut into smaller 'hands' before being washed, graded and boxed for shipment.

#### PACKAGING PROCESS



Pulling Bananas to the Packing House



Arriving at the Packing House



Bananas are boxed and palletized at the Packing House

# SHIPPING PROCESS

From the Packing House, bananas are taken by truck to a port for loading onto a ship that is bound for the Port of Hueneme.



Bananas being loaded onto ships



The ocean voyage is not always smooth



After arriving at the port of Hueneme the bananas are unloaded by Longshoremen using cranes.

# **GREEN BANANAS**

Harvesting the bananas while they are still green allows time for the bananas to be:

- 1. Cleaned and boxed.
- 2. Transported from the plantation to a nearby port for loading.
- 3. Transported by sea to the Port of Hueneme.
- 4. Transported to the ripening facilities.
- 5. Transported to your supermarket.

As you can see TRANSPORTATION is very important to the Fresh Produce industry. The process of obtaining, maintaining and transporting products is called Logistics. There are many good paying jobs in today's logistics industry.

Unripe (or green) bananas have not yet developed the sugars needed in order to be eaten. Green bananas are mostly made up of starch, much like a potato. During the ripening process, the starch in the banana changes into a sugar making it ready to eat. Green or unripe bananas, if stored at a temperature of 57 degrees F can be safely, 'put to sleep' meaning that the ripening process can be delayed without harming the fruit's quality.

Once bananas arrive at the port of Hueneme they are taken by truck to ripening warehouses where the boxes are unloaded and placed in a temperature controlled room. Once inside the ripening warehouse the temperature is raised and a small amount of ethylene gas is introduced mimicking the natural conditions in the tropics. This process 'awakens' the bananas. Typically it will take from three to five days for the bananas to begin ripening. Once the bananas are 'awakened' they cannot be put back 'to sleep', not even by lowering the temperature and removing the ethylene gas.

Once this ripening process begins the bananas are then removed from the ripening warehouse and transported by truck to your local supermarket.



A typical ship arriving at the Port of Hueneme can carry as many as 250,000 boxes of bananas on approximately 5,000 pallets. Each box holds approximately 100 bananas and weighs almost 40 lbs. That equals 10,000,000 lbs (5,000 tons) of bananas.

After arrival at the Port of Hueneme bananas are randomly inspected for quality. The pallets are then loaded into trucks bound for ripening warehouses throughout the region.

Companies currently importing bananas through the port of Hueneme include: Chiquita & Del Monte.

Bananas contain three natural sugars - sucrose, fructose and glucose combined with fiber.

A banana gives an instant, sustained and substantial boost of energy. Research has proven that just two bananas provide enough energy for a strenuous 90-minute workout.

No wonder the banana is the number one fruit with the world's leading athletes. So, a banana really is a natural remedy for many ills.



When you compare it to an apple, it has four times the protein, twice the carbohydrates, three times the phosphorus and five times the vitamin A and iron.

It is also rich in potassium and is one of the best value foods around. So maybe its time to change that wellknown phrase so that we say, "A banana a day keeps the doctor away!"



### BANANA QUIZ

1.	Most of the World's bananas grow in
	A. Latin America B. China C. Europe D. Russia
2.	Bananas arriving at the Port of Hueneme are not yellow, they are
3.	A typical Refrigerated ship can carry as much as , boxes of bananas.
4.	A box of bananas weighs about pounds and has approximately bananas inside.
5.	Once bananas arrive at the port of Hueneme they are taken byto ripening warehouses.
6.	What temperature do bananas travel at?
	A. 57 degrees F B. 44 degrees F C. 33 degrees F D. 85 degrees F
7.	are Americas' most popular fruit.
8.	As a banana ripens, it turns from green to
9.	Banana ripening is a chemical process whereby a starch turns into a The longer a banana ripens the sweeter it gets.

10. Bananas do not grow on \_\_\_\_\_!