

Comparing Apples to Oranges

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Oranges of the Past

The origin of the orange is uncertain, however the best theory is that the orange originated in Asia. To be more specific, some botanists believe it originated in India or China around the eighth or ninth century B.C. Around 1000 A.D., Oranges were generally used for their medical, aesthetic and aromatic purposes instead of as a food source. However, sweet oranges were sometimes used as flavoring in wine or tea.

Like the origin of the orange in Asia, how the Roman's acquired

the orange is also a mystery. Alfred Andrews, however, speculated that the Romans acquired their oranges from the Egyptians. The Romans orchards burned, and it wasn't until the crusades that the orange returned to spread through Europe from Arabic lands.

Later in the sixteenth century the Spanish brought over the orange to the Americas, to be more specific, Florida and Brazil. There the citrus thrived and spread as far even as California. Soon in the 1880's, Florida and

California's orange trade began to grow, taking over the market and turning it into what we see today in the United States.

Also the color orange was named after the fruit. There weren't many things that were the color of oranges and so they became a reference point for the color.



The Age of Apples

The apple, like the orange, originated in Asia. It began to be transported to Europe by way of the Silk Road. Animals also helped with the westward



migration of the apple by way of the seeds transported by, and left behind in the animal's droppings.

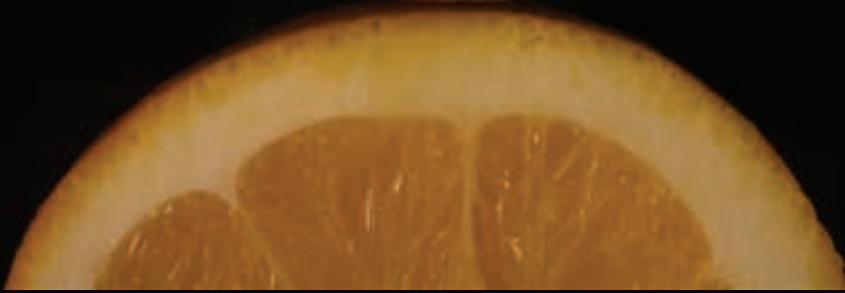
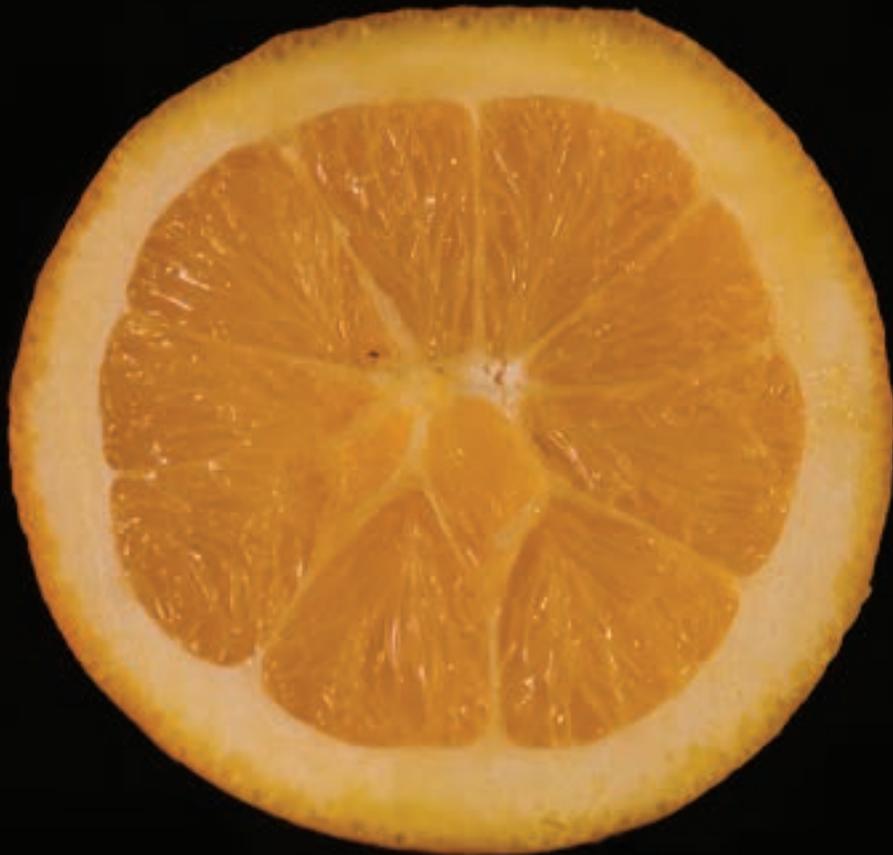
In the fifteenth century, apples began growing in popularity for use as nourishment and in cider making. Later, in the seventeenth century, the crab apple was discovered in North America. They are the only apples that are native to the United States.

Contrary to what most United States children were told, Johnny Appleseed's real name is John Chapman who dispersed seeds on his trips through Illinois, Indiana, and Ohio. From the trees, the

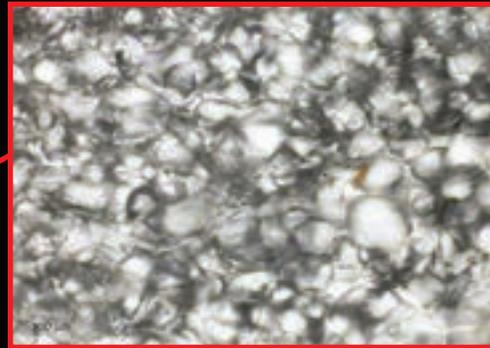
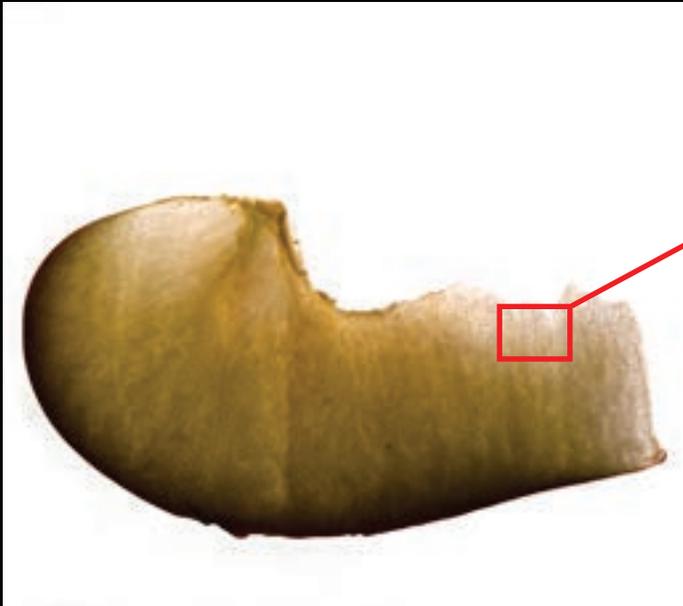
apples created were turned into cider and applejack. Unfortunately, most of these trees were burned because of temperance activists who despised the apples due to their use in the production of alcohol.

The story of Adam and Eve is usually depicted with two people, a snake, and an apple tree. However, in the bible, the "forbidden fruit" is never mentioned. It wasn't until the twelfth century that apples began to appear in paintings, mosaics and other artworks depicted as the forbidden fruit.

A Side-by-Side Comparison

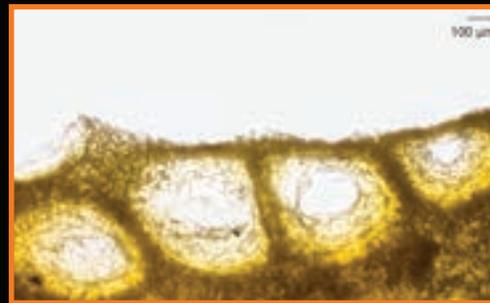


A Microscopic Comparison



Scientific name: *Malus domestica*
Specimen Breed: Red Delicious
Magnification: 10X

Scientific name: *Citrus sinensis*
Specimen Breed: Sweet Orange
Magnification: 10X



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About Me

Teresa Kugler is a third year in the Scientific Photography Major at Rochester Institute of Technology. She helped create the Virtual Microscopy Lab over the summer of 2016. She has experiences in both high magnification and the technology side of science photography.

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