GARFIELD PARK CONSERVATORY ALLIANCE

April Plant Highlights: Globalization

**Please note: due to the ever-changing and growing nature of the Conservatory, plants may move locations and flowers and fruit may not always be visible.

Sugarcane

Where do we find it in the Conservatory and why do we find it here?
You can find the sugarcane in Sugar from the Sun. Sugar from the Sun showcases the idea that plants create sugar using energy from the sun and also displays plants that we commonly use in our everyday lives—what better place for sugarcane to grow than in Sugar from the Sun?

How does it grow or reproduce and what is special about it?
Sugarcane grows in clumps of strong stems and reproduces through rhizomes. The rhizomes grow underneath the soil and send up new sugarcane stems near the parent plant. Even though sugarcane reproduces through rhizomes, it still flowers and grows its flowers at the very top of its stem. We harvest sugarcane before the stems flower, however, because once the sugar cane produces flowers, there is less sugar in the stem for us to use—it gets diverted up to the flowers. Additionally, humans propagate sugarcane through stem cuttings, which ensures consistent quality and is faster than waiting for rhizomes to produce new stems.

How do humans use it or interact with it?
We use sugarcane for more than simply its sugar! We use sugarcane for molasses and syrup. When sugarcane was originally discovered, people would simply chew on the stem for the sweet sugar, which is found in the node regions of the stem. Sugarcane is also sometimes used in traditional medicine.

What is its globalization story?
The spread of sugarcane began with Arab traders who first introduced sugarcane from Southeast Asia to North Africa, Mediterranean regions, and Mesopotamia; it quickly became widely used. Christopher Columbus brought sugarcane to the Caribbean and the Americas on his famous journey. Other Spanish and Portuguese explorers brought sugarcane over to the New World, as well. Sugarcane thrived in these areas and became a driving force behind the Triangular Trade and thus the slave trade. Molasses produced from the sugarcane would be sent from the New World back to Europe where it was sold for manufactured goods. These goods would then be shipped to Africa where they would be bartered for slaves. The slaves were then taken to the New World, from the Caribbean to the southern states of the U.S., where they worked on the sugar plantations in deplorable conditions. While sugarcane is only native to certain areas of Southeast Asia and Polynesia, it is now grown in tropical and subtropical regions all over the world, including the United States. In fact, sugarcane is the world's largest crop!

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Black Pepper

Where do we find it in the Conservatory and why do we find it here?

You can find black pepper in Sugar from the Sun, as it is a plant that we use all the time!

How does it grow or reproduce and what is special about it?

Black pepper is a flowering vine. The fruit of the black pepper vine looks like tiny bunches of grapes! When dried, the fruit is what we know as peppercorns. Humans cultivate black pepper through stem cuttings, which is a fast, efficient way of growing lots of high quality black pepper vines. This is important since black pepper is so popular—we need to use a method to grow lots of it quickly!

What is its globalization story?

Spices were the first globally traded product; there was very high demand for spices like pepper, as spices improved food flavor and could sometimes even act as a food preservative (though pepper does not have this function). This demand for pepper and other spices helped fuel European colonialism. For many years, high demand and low supply (Europeans had to figure out how to cultivate pepper and other spices) kept spice prices high. With pepper, specifically, those in power were able to maintain high prices by perpetuating the myth that pepper grew on trees guarded by serpents that would attack anyone who tried to harvest the fruit; the only way to harvest peppercorns, according to the myth, was to burn the trees—an inefficient way to harvest! This myth helped peppercorns become highly prized and peppercorns were sometimes viewed as currency. Today, black pepper is one of the most common spices used around the world.

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Banana Plant

Where do we find it in the Conservatory and why do we find it here?

We have banana plants growing all over the Conservatory! You can find banana plants in the Palm House, Sugar from the Sun, and Horticulture Hall. Banana plants enjoy tropical temperatures, which is why you will find them in the Palm House. Banana plants are also actually a member of the ginger family; all of the plants in Horticulture Hall are from the ginger family. Finally, we love to eat bananas—that is why we grow banana plants in Sugar from the Sun!

How does it grow or reproduce and what is special about it?

Banana plants grow through rhizomes. When a plant produces bananas, that plant will shoot out a rhizome (a modified stem) from which a baby banana plant will grow. Therefore, whenever you see a banana plant with fruit, look nearby to find a new banana plant. Baby banana plants are genetically identical to their parents, which unfortunately makes them rather susceptible to disease.

How do humans use it or interact with it?

Of course, we mainly use bananas for food! However, banana plants are useful to us for more than just their delicious fruit. People use the big leaves for shelter, cooking, and food storage. In addition to the bananas themselves, we can eat other parts of the banana plant, like its flower and the tender core of the trunk. We can make paper from the fibers of the trunk, as well. Finally, the banana plays a role in culture, inspiring the age-old "slipping on a banana peel" act, the Bananas in Pajamas TV show, and more!

What is its globalization story?

There are over three hundred different types of bananas! Despite this tremendous variety, however, we usually eat only one type of banana—a hybrid we have bred from the Cavendish variety of banana. In the 1960's, people actually ate a different kind of banana, though this type of banana went extinct due to over-harvesting and disease. The global banana trade is still fraught with concerns regarding exploitation of Latin American farmers by wealthy nations, companies, and supermarkets. While fair trade helps some banana growers, they are often still subject to low wages, long hours, poor working conditions, and discrimination.