

February Plant Highlights: Medicines from Plants

**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.

Gardenia



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

We can find the gardenia in the Children's Garden. The Children's Garden is filled with plants that kids find exciting and/or can easily relate to through their senses. The gardenia flower has a delicious smell that kids can appreciate!

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

The gardenia reproduces through seeds and flowers. The gardenia's flowers are extremely fragrant, which serves to attract pollinators. The flowers are also a striking white color, which is attractive to the plant's primary pollinator: moths.

How do humans use it or interact with it?

We use the sweet fragrance of the gardenia flower to make perfumes, lotions, soaps, candles, and other scented products. These flowers can also be ornamental and used in bouquets or as boutonnieres. Different species of gardenias all around the world are also used medicinally.

How do we use it as medicine?

In Africa, native peoples use the roots of a particular species of gardenia to treat skin diseases, lesions from leprosy, syphilis, and more. They use the rootbark to treat gall bladder problems. Traditional Chinese medicine uses the gardenia fruit for its calming and cooling properties. The gardenia also plays a spiritual, superstitious role in certain societies. In Karanga traditional medicine, the gardenia is believed to protect against witchcraft and members of the Johane Mosawe Apostolic Church carve crosses out of the gardenia's wood to ward off evil spirits!

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Guanabana



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

We can find the guanabana in Sugar from the Sun because it likes warm, humid, tropical conditions, just like most of the plants in this room!

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

The guanabana reproduces through flowers and seeds from its fruit, the soursop. The soursop can grow anywhere on the trunk or branches of the tree, depending on where the flowers grow; the fruit grows from the flowers. This is unusual because usually, the flowers of a tree only bloom at the ends of twigs or branches. With the guanabana, the flowers can grow anywhere along the branches or trunk!

How do humans use it or interact with it?

Soursop is said to taste like a combination of a strawberry and pineapple with both sour and coconut undertones...a little bit of everything! It is no surprise, then, that people use the soursop for all types of edible products, such as smoothies, drinks, candies, sorbets, and ice cream flavorings. People also can eat the soursop raw. Soursop is also touted for its many medical benefits; in addition to being praised as a treatment or cure for certain types of cancers, the oil from soursop seeds can get rid of lice!

How do we use it as medicine?

While there has been no official consensus from the medical community, soursop has been purported to be effective in treating certain types of cancer. In the laboratory, soursop extracts can kill certain types of liver and breast cancer cells that are immune to ordinary chemotherapy, though there have been no large scale studies in humans to confirm these results. A man was actually arrested for trying to treat cancer with soursop!

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Noni



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

We can find the noni in Sugar from the Sun. It grows in warm, shady forests, as well as on open rocky or sandy shores. The noni therefore likes the warmth in Sugar from the Sun! Sugar from the Sun also has many plants that we can use for food and people eat noni fruit.

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

The noni reproduces through flowers and seeds from its fruit, the noni fruit. It also emits a powerful, malodorous stench that attracts its pollinator, a particular species of fruit fly, the *Drosophila sechellia*. Weaver ants live in the noni tree and protect the tree from parasitic insects. In return for guaranteeing the safe growth of the tree, the ants get a home and also use noni leaves for building their nests!

How do humans use it or interact with it?

Noni fruit smells so bad that it is sometimes called the cheese fruit or vomit fruit...yuck! Despite its terrible smell, noni fruit is edible and is a staple in the diets of Indigenous Pacific Islanders. The fruit is also known as the famine fruit because many Southeast Asians and Australian Aboriginals will only eat noni fruit if there is no other food to eat. People can use the bark and roots of the tree to make dyes for batik and cloth, too. Lastly, a variety of parts of the noni have been traditionally used as medicine.

How do we use it as medicine?

The effectiveness of noni has not been officially proven, though many indigenous peoples use the plant for a variety of medicinal purposes. Noni can be used topically as a moisturizer or ingested to combat ailments including (but not limited to!) colic, menstrual pain, diabetes, kidney disease, cataracts, fever, ulcers, stroke, liver disease, convulsions, and constipation. The high levels of potassium and other important nutrients in the noni are said to aid in the repairing of damaged cells and activation of the immune system. The National Center for Complementary and Alternative Medicine is currently conducting a study on the medical benefits of noni; noni is not currently FDA approved to treat medical issues.