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Roselle Hibiscus (*Hibiscus sabdariffa*)

Common names: Rosella; Florida cranberry; Indian sorrel; red sorrell; Jamaican tea; Maple-leaf hibiscus; October hibiscus; Roselle; Pitwa (India-Hindi), Pulicha keerai (India-Tamil), Gongura India-Telugu

Other notable species in *Hibiscus.*

H. rosa-sinensis (tropical hibiscus), *H. coccineus* (Texas star hibiscus), *H. mutabulis* (Confederate rose), *H. syriacus* (althea; rose of Sharon)

Family: Malvaceae "the mallows"

Other notable members of Malvaceae.

Okra, cotton, and cacao

Background and description.

Believed to be native to West Africa and cultivated throughout Southern Asia (Sudan, Eastern Taiwan, and Thailand) and the Caribbean. This makes it a semi-tropical plant.

In its native range roselle is considered a perennial herb. However, when grown in temperate climates it is treated as an annual due to issues with cold weather. The plant can reach about 6 feet tall at maturity. Lower leaves tend to be ovate while upper leaves display 3 to 5 lobes, palmate in form. Flowers resemble other members of the hibiscus family (stamens branch off directly from the pistil) with white petals and with a reddish throat. After pollination and fertilization, the ovaries develop into seeds and calyxes enlarge, turning bright red and fleshy.

There are two common types of roselle, green stem and red stem. You will find regional variations in its native range. Some variations produce more foliage, whereas others produce much more fruit. A common variety found in the U.S. is referred to as 'Thai red'

Uses.

All parts of the plant are used in various ways. Sepals are the most popular plant part consumed in the United States. Calyces and seed pods are harvested from the plant where the seed pod is further separated, leaving individual sepals. These sepals or "fruits" are used to prepare hot and cold foodstuffs such as syrup, tea, wine, jam, and food coloring. Calyces can be used in most ways that cranberries and rhubarb are used in cooking and baking.

Leaves and flowers are edible, often dried and consumed as tea.

Leaves can be dried and cooked in oil and spices to flavor stews or to make chutney.

Leaves can be eaten fresh in salads to add a zesty tart flavor.

“Roselle hemp” is fiber extracted from the stems and made into cord, twine, and sacks.

General cultivation.

Roselle hibiscus is tolerant of a wide range of environmental conditions. They can be grown on rooftops, large planters, high tunnels, greenhouses, in rows, and in the yard.

The plant is traditionally propagated by saving and sowing the seed of a previous year’s crop. However, new plants can be generated through cuttings. Allow a few calyces to fully enlarge and ripen when saving seeds. A mature seed pod will be tan or brown and will have started the drying process. When harvested too early, the seeds themselves may not have had enough time to fully develop, resulting in poor germination. Seeds can be sown outdoors in mid-spring, once the fear of frost has passed. Maximize the growing season by starting seeds indoors during February so that starter plants can be transplanted outdoors after fear of frost.

Roselle requires full sun to be productive so look for the sunniest area in the landscape. Add a layer of composted material above the native soil and mix. If mass planting, aim for 3 to 6 feet between plants. Make sure the top of the root ball sits slightly above the soil grade. Roselle can be grown in containers with ease. Look for a container with a diameter of at least 16 to 18 inches so that the plant can establish a proper root system.

Apply a complete fertilizer (conventional or organic) to the area directly surrounding the root ball, add a 2-4 inch layer of mulch to help retain soil water and prevent weeds, and then water everything in when finished. Nitrogen can be side-dressed during the growing season as needed to maintain vigor and production. The Covington Community Garden (CCG) uses Espoma Gardentone and Plantone fertilizers because they offer complete nutrition and are produced through organic practices. For side-dress applications of nitrogen, CCG uses blood meal.

Irrigate roselle when the weather turns dry. Water is essential to the photosynthesis reaction and inconsistencies in irrigation water have a direct effect on plant growth. Water for long periods and allow the soil to completely dry out before watering again. When growing in containers, irrigate long enough so that water flows from the drainage holes.

Like with all plants, roselle can get certain pests and diseases. In most situations, healthy plants do a good job of maintaining vigor and still producing a usable amount of harvestable material. Rainfall and humidity will affect fruit quality and quantity. Powdery mildew and other fungi can infect from time to time. Root-knot nematodes can be problematic. Aphids, white flies, scales, leaf beetles, and spider mites have been known to feed on roselle. There aren’t any pesticide products with roselle hibiscus specifically stated on the product label. Horticultural oil sprays, neem oil, and insecticide soap should control most of the insect issues that pop up over time. Focus efforts on growing a healthy plant through proper sunlight, nutrition, and irrigation and you will greatly reduce the need to spray.

Harvest.

Roselle plants will start producing most of their flowers after the summer solstice. This is because it is described as a short-day plant. Short-day plants use the decreasing sunlight hours to trigger flower and seed production. Blooming typically begins around August in South Louisiana. Fruit is ready to start harvesting in October. Hence, the common name is October hibiscus.

The calyces can be harvested as soon as they develop, but high-quality calyces will look very succulent and ready to burst open. You might even be able to see the seed pod starting to dry out and turn tan in color. Use hand pruners to remove calyces from the plant to prevent damage to the stem. Seed pods will then need to be separated from the seed pod and set aside. Simply pluck each sepal of each calyx and collect them in a bowl. A special tool can be used to "pop out" the seed pod, leaving the sepals connected (calyx). Fresh sepals can then be used right away or dried as a way to preserve.

References

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Ramu, S. 2012. Ethnic Herbs and Greens Production Manual. Rutgers University. https://njaes.rutgers.edu/ultra-niche-crops/roselle/Ethnic-Herbs-and-Greens-Crop-Production-Manual-v3.1.pdf

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For more information on growing Roselle Hibiscus in St Tammany Parish contact Will Afton, LSU AgCenter County Agent, St Tammany Parish at wafton@agcenter.lsu.edu