Guava

Psidium guajava

Code: XIM-T-012 **Location:** XIM University Campus **Local / Vernacular name:** 6ଜିଉ

Description

XIM University campus biodiversity register (2026–27). Recorded individuals: 7; abundance rank: 20.

Botanical Details

Leaf habit: Evergreen Flowers / Fruits: white, multi-stamened flowers; round or pear-shaped fruit with green/yellow skin and white or pink fleshy interior. Native range: Native to Mexico, Central America, Northern South America, and the Caribbean; widely naturalized and cultivated across South Asia, Africa, and all tropical regions.

Uses & Importance

Ecological: Guava trees are ecological workhorses, particularly in tropical and subtropical regions where land degradation is a concern. They possess an extensive and highly effective root system characterized by both a strong taproot and a wide network of lateral roots. These roots are exceptionally valuable for binding loose soil particles together, which prevents erosion and stabilizes slopes in floodprone areas. Beyond mechanical stabilization, these root systems significantly improve soil structure by creating macropores that enhance water infiltration and nutrient retention, preventing the "hardening" of tropical soils. The tree acts as a natural soil reconditioner; as it sheds its leaves and small branches, it creates a thick layer of organic mulch that decomposes to enrich the topsoil with vital minerals and carbon. Furthermore, the guava tree is a significant provider of "ecosystem services," offering a year-round food source for a diverse array of wildlife. Its fragrant flowers attract a multitude of pollinators, including honeybees and butterflies, while its fruit is a staple for birds, bats, and small primates. By thriving in varied soil types—from acidic to slightly alkaline—the guava tree serves as a pioneer species that can help re-establish green cover in over-exploited agricultural lands, fostering a microclimate that supports the return of native flora and fauna.

Medicinal: Widely known as a "superfood" in traditional medicine, every part of the guava tree offers profound therapeutic benefits. The leaves are perhaps the most pharmacologically active part, containing high concentrations of flavonoids, polyphenols, and carotenoids. In many cultures, a decoction of guava leaves is the primary remedy for gastrointestinal distress, including acute diarrhea and dysentery, due to its potent antimicrobial and astringent properties that inhibit the growth of pathogens like Staphylococcus and Salmonella. For respiratory health, infusions of the leaves and bark are used to treat coughs and pulmonary congestion by reducing mucus production. In the management of metabolic health, guava leaf tea has been clinically shown to have hypoglycemic effects, helping to

regulate blood sugar levels in diabetic patients by inhibiting certain digestive enzymes. The fruit itself is an antioxidant powerhouse, containing four times the Vitamin C of an orange, which is essential for boosting immunity and skin health. Additionally, the young shoots are used as a traditional "chew stick" to maintain oral hygiene, as the anti-inflammatory compounds help reduce gum swelling and prevent tooth decay. Modern research is also investigating the tree’s potential in treating various inflammatory skin conditions and its role as a natural hepatoprotective agent, shielding the liver from oxidative damage.

Cultural: The guava tree holds a sentimental and practical place in the daily lives of people across the tropical world. In India and Southeast Asia, it is the quintessential "backyard tree," symbolizing humble abundance and the generosity of nature. Culturally, the tree is associated with childhood and community; the act of sharing fresh guavas from one's garden is a common gesture of hospitality and neighborly bond. In several Latin American cultures, the guava (known as Guayaba) is a central element of culinary heritage, used to create "Dulce de Guayaba," a traditional sweet that represents the comforts of home and ancestral recipes. In the Philippines and parts of the Caribbean, the tree is often used in folk rituals to signify cleansing and protection; for instance, guava leaves are sometimes used in ceremonial baths or to smoke-cleanse rooms. The wood of the guava tree, though relatively small in diameter, is exceptionally hard and durable; it is traditionally used to craft tool handles, walking sticks, and specialized kitchen implements, symbolizing strength and utility. Because the tree is so easy to propagate and grows rapidly, it is often viewed as a symbol of resilience and "selfreliance"—a plant that gives back to the family with very little maintenance. From its role in seasonal folk songs to its presence in the sacred "Panch Pallav" (five leaves) used in certain regional rituals, the guava tree remains an enduring icon of tropical domestic life and natural wellness.

Location

GPS: 20.15860192, 85.76535449

Directions: https://www.google.com/maps/dir/?api=1&travelmode=walking&destination=20.15860192%2C85.76535449