Custard Apple

Annona squamosa

Code: XIM-T-013 **Location:** XIM University Campus **Local / Vernacular name:** ଆତ / ଦନଉଆ

Description

XIM University campus biodiversity register (2026–27). Recorded individuals: 2; abundance rank: 38.

Botanical Details

Leaf habit: Deciduous or semi-evergreen, Flowers / Fruits: nodding, fragrant, greenish-yellow flowers with three fleshy petals; fruit is heartshaped or round with a thick, "knobby" or "scaled" green rind and creamy, white, segmented pulp. Native range: Native to tropical America, introduced widely worldwide

Uses & Importance

Ecological: Annona squamosa is a hardy, drought-tolerant species that plays a significant role in enhancing biodiversity in semi-arid and tropical landscapes. The tree is heavily dependent on specific nitidulid beetles and other small insects for pollination, making it a vital part of specialized insect-plant networks. Its root system, while not as deep as larger forest trees, is highly effective at improving soil structure by increasing aeration and organic matter through consistent leaf fall. In degraded or rocky terrains where other fruit trees struggle, the Custard Apple serves as an excellent tool for erosion control and land reclamation, helping to stabilize the topsoil. Beyond its structural benefits, it is a key food supplier for wildlife; its sweet, aromatic fruits are a preferred food source for various birds, squirrels, and fruit-eating bats, who play a critical role in seed dispersal. By providing a dense, shrub-like canopy, it also offers shelter and nesting sites for small birds and reptiles, contributing to a more resilient and diverse local ecosystem, especially in areas transitioning from wild scrubland to cultivated agroforestry.

Medicinal: In traditional medicine across the globe, the Custard Apple is recognized for its potent bioactive properties, including antibacterial, antidiabetic, and anti-tumor activities. The leaves are particularly prized for their hepatoprotective and anti-malarial effects; in many cultures, leaf decoctions are used to manage fever and regulate blood sugar levels in diabetic patients. The roots and bark contain alkaloids and acetogenins that are traditionally applied to treat skin ailments, stubborn ulcers, and wounds. One of the most unique traditional uses is the application of crushed leaves or seed paste as a natural vermicide to treat head lice and external parasites, owing to the plant's natural insecticidal compounds. Modern research has taken a keen interest in the tree's anti-tumor potential, specifically looking at how its chemical constituents can inhibit the growth of malignant cells. Additionally, the fruit is a rich source of Vitamin C, magnesium, and potassium, aiding in cardiovascular health and immunity. Whether used as a

topical anti-inflammatory agent or an internal tonic for digestive health, every part of the tree contributes to a diverse pharmacological profile that supports holistic wellness and disease prevention.

Cultural: In India, the tree is most famously known as "Sitaphal," a name deeply rooted in Hindu mythology and the epic Ramayana. Legend suggests the fruit is named after Goddess Sita, signifying her purity and resilience during her time in the forest, and as such, the fruit is frequently offered to deities during religious rituals and festivals, particularly during Ram Navami. Culturally, the tree symbolizes sweetness, devotion, and the abundance of the earth. In many rural households, planting a Sitaphal tree is considered auspicious, as it is believed to bring peace and prosperity to the home. Beyond India, in its native tropical America and parts of Southeast Asia, the tree is celebrated for its unique "beaded" appearance, often featuring in local art and textiles as a symbol of intricate beauty. The wood, though lightweight, is occasionally used in traditional crafts and as highquality fuel. The seasonal arrival of the fruit marks a time of festivity in local markets, where the sharing of the creamy pulp is a communal experience. This blend of mythological reverence and everyday culinary joy has ensured the Custard Apple's status as a beloved heritage tree, bridging the gap between ancient spiritual stories and modern tropical living.

Location

GPS: 20.15860192, 85.76535449

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