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Custard Apple



Synonyms: Sitaphal, sugar apple, sweetsop, noina, ata.

Custard apple, (genus *Annona*), genus of about 160 species of small trees or shrubs of the family [Annonaceae](#), native to the New World tropics. Custard apples are of local importance as traditional medicines, and several species are commercially grown for their edible fruits.

Botanical name: *Annona squamosa*

Family :Annonaceae

The leaves can be leathery or hairy and are generally ovate with smooth margins. The unusual flowers feature six to eight fleshy curved petals in two whorls and numerous stamens and pistils. The fruits are often scaly and succulent and are sometimes segmented. Custard apple (*Annona reticulata*).

Traditional Uses: Traditionally it is used as an insecticidal and antitumor agent, anti-diabetic, antioxidant, anti-lipidemic, and anti-inflammatory agent which may be characterized due to the presence of the cyclic peptides. An infusion with 2 handfuls of fresh leaves in 1 lit of water is prepared to fight against heart failure and palpitations (1 cup after meal). This infusion is also effective for proper digestion and has antispasmodic activities. The seeds are reported to have anti-parasitic activities (against lice). A cream consisting of 3 cl bee wax, 12 cl almond oil, 3 cl coconut oil, 6 cl of water, 6 cl glycerin, and 1 handful of crushed plant's seeds is prepared and heated over a water bath for 3 h before applying to the hair. In India the crushed leaves are applied on ulcers and wounds and a leaf decoction is taken in cases of dysentery.

In Aligarh district of Northern India, villagers used to consume a mixture of 4 - 5 newly grown young leaves of *Annona squamosa* along with black pepper (*Piper nigrum*) for management of diabetes. It is documented that this may ensure up to 80% of the positive results with continued therapy. The bark decoction is given as a tonic and to halt diarrhea. Throughout tropical America, a decoction of the leaves is imbibed either as an emmenagogue, febrifuge, tonic, cold remedy, digestive, or to clarify urine. The leaf decoction is also employed in baths to alleviate rheumatic pain.

It contains significant quantities of Vitamin C, iron, calcium, thiamine, amino acid, potassium, carotene, riboflavin, niacin and ascorbic acid, magnesium and dietary fibres. Despite its high sugar content, the glycemic index of custard apple is low and the glycemic load moderate. Specific chemicals extracted include aliphatic ketones like palmitone. Organic acids like hexanoic and octanoic acid and purines²⁰. GC-MS analysis of leaf oil yielded 59 compounds. Main components were β -caryophyllene (31.4%) (natural bicyclic sesquiterpene) δ -cadinene

(6.7%), α -muurolene (5.5%), α -cadinol (4.3%) and isoquinoline alkaloids. Two acetogenins, annoreticuin and isoannoreticuin isolated from the leaves, were found to be selectively cytotoxic to certain human tumors. The leaves and stems also gave alkaloids dopamine, salsolinol and coclaurine. Others are anonaine, aporphine, coryline, isocorydine, norcorydine, and glaucine ²¹. The alkaloid isolated from the plant was samoquasine, aporphine, benzyloisoquinoline, protoberberine and tetrahydro isoquinoline.