

Annona muricata

Annona muricata is a species of the genus *Annona* of the custard apple tree family, *Annonaceae*, known mostly for its edible fruit. The fruit is usually called **soursop** due to its slightly acidic taste when ripe. *A. muricata* is native to the **Caribbean** and **Central America** but is now widely cultivated – and in some areas, becoming **invasive** – in tropical climates throughout the world.

1 Description

Habit *Annona muricata* is a small, upright, **evergreen** tree that can grow to about 4 metres (13 ft) tall.^{[4][5]}

Stems and leaves The young branches are hairy.^[5]

Leaves are oblong to oval, 8 centimetres (3.1 in) to 16 centimetres (6.3 in) long and 3 centimetres (1.2 in) to 7 centimetres (2.8 in) wide. Glossy dark green with no hairs above, paler and minutely hairy to no hairs below.^[5]

The leaf stalks are 4 millimetres (0.16 in) to 13 millimetres (0.51 in) long and without hairs.^[5]

Flowers Flower stalks (peduncles) are 2 millimetres (0.079 in) to 5 millimetres (0.20 in) long and woody. They appear opposite from the leaves or as an extra from near the leaf stalk, each with one or two flowers, occasionally a third.^[5]

Stalks for the individual flowers (pedicels) are stout and woody, minutely hairy to hairless and 15 millimetres (0.59 in) to 20 millimetres (0.79 in) with small bractlets nearer to the base which are densely hairy.^[5]

Petals are thick and yellowish. Outer petals meet at the edges without overlapping and are broadly ovate, 2.8 centimetres (1.1 in) to 3.3 centimetres (1.3 in) by 2.1 centimetres (0.83 in) to 2.5 centimetres (0.98 in), tapering to a point with a heart shaped base. Evenly thick, covered with long, slender, soft hairs externally and matted finely with soft hairs within. Inner petals are oval shaped and overlap. 2.5 centimetres (0.98 in) to 2.8 centimetres (1.1 in) by 2 centimetres (0.79 in). Sharply angled and tapering at the base. Margins are comparatively thin, with fine matted soft hairs

on both sides. The receptacle is conical and hairy. Stamens 4.5 millimetres (0.18 in) long and narrowly wedge-shaped. The connective-tip terminate abruptly and anther hollows are unequal. Sepals are quite thick and do not overlap. Carpels are linear and basally growing from one base. The ovaries are covered with dense reddish brown hairs, 1-ovuled, style short and stigma truncate.^[5]

Fruits and reproduction Dark green, prickly (or bristled) fruits are egg-shaped and can be up to 30 centimetres (12 in) long,^[5] with a moderately firm texture.^[6] Flesh is juicy, acid, whitish^[6] and aromatic.^[5]

Abundant seeds^[6] the average weight of 1000 fresh seeds is 470 grams (17 oz) and had an average oil content of 24%.^[7] When dried for 3 days in 60 °C (140 °F) the average seed weight was 322 grams (11.4 oz) and were tolerant of the moisture extraction; showing no problems for long-term storage under reasonable conditions.^[8]

2 Distribution

Annona muricata is tolerant of poor soil^[6] and prefers lowland areas between the altitudes of 0 metres (0 ft) to 1,200 metres (3,900 ft). It cannot stand frost.^{[4][5]}

Native Neotropic:

Caribbean: Cuba, Jamaica, Trinidad and Tobago, Dominican Republic, Haiti, Puerto Rico, Barbados

North America: México

Central America: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Belize

South America: Bolivia, Brasil, Peru, Colombia, Venezuela, Ecuador

Africa: Republic of Congo, Ghana, Madagascar, Liberia

3 Medicinal use

An extract from the leaves has been reportedly successful in lowering elevated blood pressure by its decreasing peripheral vascular resistance.^[9]

4 Toxicology

See also: Soursop – properties

The compound annonacin, which is contained in the seeds of soursop, is a neurotoxin associated with neurodegenerative disease.^[10]

5 Subspecies which are synonyms

- *Annona muricata* var. *borinquensis*^[3]

6 References

- [1] Germplasm Resources Information Network (GRIN) (1997-07-11). "Taxon: *Annona muricata* L.". *Taxonomy for Plants*. USDA, ARS, National Genetic Resources Program, National Germplasm Resources Laboratory, Beltsville, Maryland. Retrieved 2008-04-18.
- [2] International Organization for Plant Information (IOPI). "Plant Name Details Annonaceae *Aluguntugui* L.". *International Plant Names Index*. Retrieved 2008-04-18.
- [3] W3TROPICOS. "*Annona muricata* L.". Missouri Botanical Garden Press. Retrieved 2008-04-18.
- [4] EEB Greenhouse Staff, University of Connecticut (2008-04-10). "*Annona muricata* L.". *Ecology & Evolutionary Biology Greenhouses*. Ecology & Evolutionary Biology Greenhouses. Retrieved 2008-04-18. crfg
- [5] Flora of North America. "*Annona muricata* L.". *Flora of Pakistan* **20**. Retrieved 2008-04-18.
- [6] Pacific Island Ecosystems at Risk (PIER) (2008-01-05). "Result set for: Annonaceae *Annona muricata*". *PIER species lists*. United States Geological Survey & United States Forest Service. Archived from the original on 12 May 2008. Retrieved 2008-04-18. Stone, Benjamin C. 1970. The flora of Guam. *Micronesica* 6:1–659
- [7] Royal Botanic Gardens, Kew (1994) [1984]. "Seed Information Database Search Results". *Seed Information Database*. Board of Trustees of the Royal Botanic Gardens, Kew. Retrieved 2008-04-18.
- [8] Royal Botanic Gardens, Kew (2005). "Seed Information Database Search Results". *Seed Information Database*. Board of Trustees of the Royal Botanic Gardens, Kew. Retrieved 2008-04-18.
- [9] National Center for Biotechnology Information Naturally occurring medicinal plants, herbs having hypotensive/antihypertensive potential
- [10] Le Ven, J.; Schmitz-Afonso, I.; Touboul, D.; Buisson, D.; Akagah, B.; Cresteil, T.; Lewin, G.; Champy, P. (2011). "Annonaceae fruits and parkinsonism risk: Metabolisation study of annonacin, a model neurotoxin; evaluation of human exposure". *Toxicology Letters* **205**: S50. doi:10.1016/j.toxlet.2011.05.197.

7 External links

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- "*Annona muricata* L.". Integrated Taxonomic Information System. Retrieved 18 March 2008.
- Robson, N. K. B. (1960). "Annonaceae by N. K. B. Robson". *Flora Zambesiaca* (Royal Botanic Gardens, Kew) **1**. Retrieved 2008-04-18.
- UBC Botanical Garden and Centre for Plant Research (2007-04-13). "*Annona muricata*". *Botany Photo of the Day*. University of British Columbia. Retrieved 2008-04-18.

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