PLANT FACT SHEET

Lansium parasiticum (Osbeck) K. C. Sahni & Bennet

GENUS *Lansium* **FAMILY** Meliaceae

COMMON NAMES Langsat, Duku

EDIBLE PARTS AND USES

Edible parts: Fruit

Fruit is eaten fresh after they fall. They can also be candied, preserved in syrup, or made into wine.
Seedless fruit can be bottled in syrup.
NOTE The stickiness of the juice of the fruit can be removed by dipping it in boiling water.

DESCRIPTION

An upright slender tree to 12-20 m high. It has sticky sap. The leaves are alternate and simple. Leaves are up to 40 cm long and made up of 5-7 large leaflets. The flowers are yellow in spikes from old wood mostly on the branches. The flowers have 5 petals which join to form a tube. The flowers have a sweet smell. The fruit is 3-5 cm across and divided into 5 segments with 1-2 large seeds. The fruit is borne in long drooping clusters. There can be 25 fruit in a cluster. The fruit is pale yellow when ripe. It develops a brown scurf on the surface as it ripens. The seeds are green and bitter and are not eaten. There is some confusion over this name.
Langsats have thin skin, milky juice and are oval and 3.7 cm across. Dukus have thick skin, are round, do not have milky juice and are 5 cm across. They are also sweeter than Langsat.

HABITAT

A tropical plant. It suits the hot, wet tropical lowlands. It is native to Malaysia. It occurs in coastal areas and probably up to 700 m altitude in the tropics. A rich deep well drained soil is needed. It suits humid places and is not suited to places with a distinct dry season. It cannot tolerate drought. It can grow with an annual rainfall of less than 1,500 mm. It does well in part shade. It can tolerate lower temperature, rainfall and humidity than rambutan. A temperature between 25°-30°C is best. It grows between 17°N - 17°S. A pH between 5.0-6.0 is best.

PRODUCTION

Cultivation

Trees are mostly grown by seed. Seeds remain viable for about 5 weeks if kept moist. Seeds should be washed and cleaned before planting. Seeds are planted 1 cm deep in a nursery. Germination takes 1- 3 weeks. When seedlings are 15 cm tall they are put into nursery beds for 1-2 years before being planted out in the field. Seedlings do not come into bearing for 12-20 years. They can be grown by budding. Buds should be put onto 4 year old rootstocks of the same species. Buds dry out quickly so should be inserted immediately. Propagation by grafting, marcottage and cuttings is difficult. A spacing of 8-10 m is suitable. Seedlings dry out quickly, so need to be transplanted carefully. Shade is normally provided for the first few years.

Harvesting and Seed Production

Trees are slow growing. Fruit production is seasonal. The season tends to be from December to March. Often trees have large crops every second year. Trees start to produce after 5-8 years but can take 15 years to bear fruit. Fruit will only last about 4 days at normal temperatures. They can be stored at low temperatures for several weeks.

NOTES

There are about 3 Lansium species.
Fruit are reasonably high in folates 16µg/100.
There is some confusion over this name.

PICTURES



Credit: Food Plants International (Bruce French)

REFERENCES

References Langsat

AAK, 1980, Bertanam Pohon Buah-buahan. Penerbitan Yayasan Kanisius, Jogyakarta. p 63 (As Lansium domesticum)

Agroforest. Today 6:12. (As Lansium domesticum)

Alexander, D.M., Scholefield, P.B., Frodsham, A., 1982, Some tree fruits for tropical Australia. CSIRO, Australia. p 29 (As Lansium domesticum)

Ambasta, S.P. (Ed.), 2000, The Useful Plants of India. CSIR India. p 315 (As Lansium domesticum)

Ann. Mus. Hist. Nat. Paris 10:157, t. 10, fig. 1. 1807 (As Lansium domesticum)

Argent, G et al, nd, Manual of the Larger and More important non Dipterocarp Trees of Central Kalimantan Indonesia. Volume 2 Forest Research Institute, Samarinda, Indonesia. p 420 (As Lansium domesticum)

Arora, R. K., 2014, Diversity in Underutilized Plant Species - An Asia-Pacific Perspective. Bioversity International. p 74, 105 (As Lansium domesticum)

Barwick, M., 2004, Tropical and Subtropical Trees. A Worldwide Encyclopedic Guide. Thames and Hudson p 243 (As Lansium domesticum)

Blench, R., 2004, Fruits and Arboriculture in the Indo-Pacific Region. Indo-Pacific Prehistory Association Bulletin 24. (Taipei Papers Volume 2) p 38 (As Lansium domesticum)

Brown, W.H., 1951-1957., Useful plants of the Philippines. Department of Agriculture and Natural Resources. Technical Bulletin 10. 3, Volumes. Manila. 1610 pp. (As Lansium domesticum)

Burkill, I.H., 1935, A Dictionary of the Economic Products of the Malay Peninsula. p 1335-1337 (As Lansium domesticum)

Call, C. A., et al, 2004, Participatory Rural Appraisal in the Upland Ecosystem of Mt Malindang, Misamis Occidental, Philippines. Biodiversity Research Programme for Development in Mindanao. p 53 (As Lansium domesticum)

Chai, P. P. K. (Ed), et al, 2000, A checklist of Flora, Fauna, Food and Medicinal Plants. Lanjak Entimau Wildlife Sanctuary, Sarawak. Forestry Malaysia & ITTO. p 168 (As Lansium domesticum)

Chandrashekara, U. M., 2009, Tree species yielding edible fruit in the coffee-based homegardens of Kerala, India: their diversity, uses and management. Food Sec. 1:361-370 (As Lansium domesticum)

Chin, H.F., & Yong, H.S., 1996, Malaysian Fruits in Colour. Tropical press, Kuala Lumpur p 30 (As Lansium domesticum)

Corner, E. J. H., 1940, Wayside Trees of Malaya. p 463 (As Lansium domesticum)

Coronel, R.E., 1982, Fruit Collections in the Philippines. IBPGR Newsletter p 7 (As Lansium domesticum)

Darley, J.J., 1993, Know and Enjoy Tropical Fruit. P & S Publishers. p 41 (As Lansium domesticum)

Engel, D.H., & Phummai, S., 2000, A Field Guide to Tropical Plants of Asia. Timber Press. p 104 (As Lansium domesticum)

Facciola, S., 1998, Cornucopia 2: a Source Book of Edible Plants. Kampong Publications, p 149 (As Lansium domesticum)

French, B.R., 1986, Food Plants of Papua New Guinea. A Compendium. Papua New Guinea Biological Society. p 279. (As Lansium domesticum)

Garner, R.J., and Chaudhri, S.A., (Ed.) 1976, The Propagation of Tropical fruit Trees. FAO/CAB. p 376-385 (As Lansium domesticum)

Hackett, C., & J. Carolane. Edible Horticultural Crops. Academic Press, 1982. (As Lansium domesticum)

Hedrick, U.P., 1919, (Ed.), Sturtevant's edible plants of the world. p 370 (As Lansium domesticum)

Hu, Shiu-ying, 2005, Food Plants of China. The Chinese University Press. p 507

INFOODS:FAO/INFOODS Databases (As Lansium domesticum)

International Seed Testing Association. 1988. International Seed Testing Association list of stabilized plant names. (As Lansium domesticum)

John, L., & Stevenson, V., 1979, The Complete Book of Fruit. Angus & Robertson p 287 (As Lansium domesticum)

Kanehira, R., 1931, An enumaration of the woody plants collected in Micronesia, Japanese Mandate (in 1929 and 1930). The Botany Magazine. Vol. XLV, No. 53 p 288 (As Lansium domesticum)

Kiple, K.F. & Ornelas, K.C., (eds), 2000, The Cambridge World History of Food. CUP p 1798 (As Lansium domesticum)

Kumar, S. A., Manus, D. & Mallika, M., 2018, Impact of non-timber forest products on Forest and in Livelihood Economy of the People of Adjoining Areas of Jalpaiguri Forest Division, West Bengal, India. Int. J. of Life Sciences, 2018; 6 (2):365-385

Kunkel, G., Plants for human consumption (As Lansium domesticum)

Lembaga Biologi Nasional, 1977, Buah-Buahan, Balai Pustaka, Jakarta. p 32 (As Lansium domesticum)

Mabberley, D. J., 1985. Blumea 31:140. (As Lansium domesticum)

Macmillan, H.F. (Revised Barlow, H.S., et al) 1991, Tropical Planting and Gardening. Sixth edition. Malayan Nature Society. Kuala Lumpur. p 302 (As Lansium domesticum)

Martin, F. W., et al, 1987, Perennial Edible Fruits of the Tropics. USDA Handbook 642 p 36 (As Lansium domesticum)

McMakin, P.D., 2000, Flowering Plants of Thailand. A Field Guide. White Lotus. p 107 (As Lansium domesticum)

Miguel, E., et al, 1989, A checklist of the cultivated plants of Cuba. Kulturpflanze 37. 1989, 211-357 (As Aglaia domestica)

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