

## BLUMEA BALSAMIFERA (Linn.) DC.

## SAMBONG

*Conya balsamifera* Linn.

Local names: *Alibum* (P. Bis.); *alimon* (P. Bis.); *ayoba* (Bis.); *bukadkad* (S. L. Bis.); *dalapot* (C. Bis.); *gabuen* (Bis.); *gintin-gintin* (Bis.); *halimbon* (Bis.); *kaliban* (Tagb.); *kalibura* (Tagb.); *labulan* (sub.); *lakanbulan* (Bis., Sul.); *lalakdan* (Bis.); *sambunin* (Tag., Pamp.); *sob-sob* (Ilk.); *sobosob* (Ig.); *subusub* (Ilk.); *takamain* (Bag.); *Ngai camphor plant*, *Blumea camphor* (Engl.).

Sambong is found from northern Luzon to Palawan and Mindanao, in all or most island and provinces. It is usually common in open grasslands at low and medium altitudes. It is also reported from India to southern China and through Malaya to the Moluccas.

This plant is a course, tall, erect, halfwoody, strongly aromatic herb which is densely and softly hairy and 1.5 to 3 meters in height. The stems grow up to 2.5 centimeters in diameter. The leaves are elliptic- to oblong-lanceolate, 7 to 20 centimeters long, toothed at the margins, pointed blunt at the tip, and narrowed to the short petiole, which is often auricled or appendaged. The flowering heads are stalked, yellow, numerous 6 to 7 millimeters long, and borne on branches of a large terminal, spreading or pyramidal, leafy panicle. The involucre bracts are green, narrow, and hairy. The achenes are 10-ribbed and silky.

Sambong would be worth cultivating in the Philippines as a source of camphor. Experiments in Indo-China as cited by Bacon show that it is possible to obtain 50,000 kilos of leaves per hectare per year, which would give a possible borneol yield of from 50 to 200 kilos per hectare. He says that l-borneol is easily oxidized to camphor.

Filipinos drink an infusion of the leaves as a substitute for tea. Burkill quotes Boorsma [Teysmannia 29 (1981) 329], who states that the leaves are sometimes smoked in Sumatra in place of Indian hemp but are not narcotic.

Wehmer records that the leaves and stem contain a volatile oil (Ngai camphor oil) which consists of l-borneol 25 per cent, l-camphor 75 per cent, a little cineol, limonene, sesquiterpene, alcohol, and phenol phloracetophenone-dimethyl ether. Bacon, after studying Philippine material, reports that the leaves contain from 0.1 to 0.4 per cent of a yellow oil with a camphorlike odor. He states that the oil is an almost pure form of l-borneol.

The leaves are official in the Dutch (4) Pharmacopoeia.

Sanyal and Ghose report that the drug causes contraction of muscular fibers, mucous membranes, and other tissues.

According to Father Clain the juice of the leaves of the powdered leaves are used as a vulnerary. Guerrero reports that the roots are used locally as a cure for colds. The leaves are applied to the forehead to relieve headache. An infusion is used as a bath for women in childbirth. A tea made from the leaves is used for stomach pains. A decoction of the leaves as an antidiarrhetic and antigastralgic. The decoction is used also for aromatic baths in rheumatism.

The Pharmacopoeia of India record that the plant possesses a strong camphoraceous odor and a pungent taste. It quotes Horsfield [As. Journ., vol. 8, p. 272], who says that a warm infusion of the plant acts as a powerful sudorific; it is in very general use among the Javanese and Chinese, as an expectorant. Several European medical men, practicing at Sumarang, assured Horsfield that they had repeatedly employed it in catarrhal affections. Loureiro mentions the use of the leaves in Indo-China as a stomachic, antispasmodic, and emmenagogue. Caius says that in Cambodia they are used externally in scabies. Nadkarni reports that the fresh juice of the leaves is dropped into the eyes for chronic, purulent discharges. Internally, the decoction is both astringent and anthelmintic. It is given for worms and also in dysentery and chronic uterine discharges. The powder of the leaves is used as snuff. Burkill reports that the Malays value sambong very highly as a sudorific, stomachic, and anthelmintic, and menorrhagia. In the case of fever a decoction of the leaves is often given, or a decoction of the leaves and roots together. The leaves are also used for beriberi. The leaves are crushed and applied externally as a styptic on wounds. A lotion made from boiled leaves is used for lumbago and rheumatism, for bathing women after childbirth, and for soothing the skin of children.