# Laurus nobilis L. Lauraceae

## Morphological description

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The sweet bay is a tree 3-7 m. high that is aromatic, glabrous, green, very bushy and with erect branches. The leaves are dark green, evergreen, alternate, simple, elliptical-lanceolated, tapering to a short petiole, entire and with slightly wavy edges. The flowers are dioecious, in groups of 4-6 in little axillary umbels. The perigone is yellowish, petaloid, caducous, with 4 obovate divisions. The male flowers have 8-12 stamens set in two ranks, anthers that open by valves and filaments with 2 glands. The female flowers have 4 tripartite staminodes and a carpel with a short style and a capitate stigma. The fruit is an elliptical blackish drupe, the size of a small olive, and contains a single seed.

# Geographical distribution

**Local:** In the wild state it is found in the Kroumirie (Ain Draham), Le Kef and Cap Bon. *Laurus nobilis* L. is also planted in gardens as a culinary plant.

Regional: North Africa.

**Global:** The Mediterranean (Corsica, Italy, Greece, Turkey, North Africa and probably naturalised in France and Spain).

### Ecology

The sweet bay is a tree that grows wild in Tunisia at

Laurus nobilis L., Sp. Pl.: 369. 1753

Arabic: Rand

French: Laurier sauce, laurier noble, laurier

d'Apollon

English: Laurel, sweet bay

the sides of *oueds* and mountain streams and among damp rocks. It can tolerate cold up to 10°C. It adapts to different types of soil, except soil that is too acid.

## Status, conservation, culture

The sweet bay is much used in Tunisia to flavour dishes in both town and countryside. The dried, conserved leaves are used. They are well marketed in the big towns.

Multiplication is easily done from cuttings or suckers taken from around the mother plant, or sowing. Cuttings are available in nurseries and some companies that sell ornamental plants.

A research programme on the sweet bay is under way. It is being developed by the Forestry Commission; its aim is to master the technique of propagating and growing the sweet bay. This project will enable farmers' demand for the plant to be satisfied; it can then be used not only as a culinary plant but by extracting its essential oil.

# Part used Leaves and berries.

# Constituents

The leaves contain an essential oil (1-3%) that is rich in cineol, linalol and eugenol; sesquiterpenic lactones, especially costunalid and desacetyl-laurenobiolid; isoquinoleic alkaloids whose structure resembles that of aporphinoids. The fruit, a berry, contains an oil which solidifies at ordinary temperature (laurel paste) and represents 24-55% of the fruit.

# Pharmacological action and toxicity

The sesquiterpenic lactones of the laurel leaves provoke allergic reactions and dermatitis.

The leaves have digestive properties (for epigastric bloating, slow digestion, eructation, flatulence). They are not poisonous.

The leaves are a greatly appreciated spice for cooking.

The fruit, a blackish berry, contains a fixed oil that is solid at ambient temperature (laurel paste).

### Use in herbal medicine

The essential oil of the leaves is one element in Fioravanti's balm, used for neuralgia and rheumatic pain.

The berries' fixed oil is no longer used in therapeutics because of the allergic reactions it provokes. Other uses: the aroma of the leaves is used in the industrial manufacture of liqueurs.

# ■ Pharmaceutical production Dried leaves and essential oil.

### Traditional medicine

**History:** The sweet bay was called Apollo's laurel because it was dedicated to the god Apollo, or poets' laurel, since they (and generals or emperors) were crowned with laurel wreaths. The custom continued down the ages, from classical Rome to the Middle Ages, when scholars were given wreaths: young doctors would receive a crown garnished with laurel berries (bacca laurea) from which we get the word baccalaureate. The sweet bay should not be confused with the oleander (Nerium oleander L.), which has long leaves arranged in 2s and 3s, or with the cherry laurel (Prunus laurocerasus L.) with brilliant green toothed leaves which give off a smell of bitter almonds when crushed. Both these are extremely poisonous.

### References

Sickness: An infusion and decoction of the leaves should be taken by mouth for atonic dyspepsia, flatulence, and chronic infectious bronchitis. In external use, the decoction is a mouthwash for sore throats and buccal-pharyngitis.

In Tunisia, the leaves are usually used as a spice for cooking.

Al-Souyouti Jalel Ad-Dine, Xvème Siècle : La phytothérapie dans Kitab Al-Rahma, El Gharbi H.O. Médecine Arabe Traditionnelle. Centre de



Recherche et de Formation Pédagogique133 p. Bruneton J., 1999: Pharmacognosie, Phytochimie, Plantes médicinales. 3ème édit. Tech. Doc, Paris, France. 553p.

Centre National d'Etude Industrielle, 1974 : Aspect de l'écoulement et de la transformation des plantes à parfums. Journées d'information sur les plantes à parfums. Tunis.

Greuter W., M. H. Burdet et G. Long, 1984. Med-Cheklist. Volume 4 : Dicotylédones (Lauraceae-Rhamnaceae). p.:2.

Le Floc'h E. 1983 : Contribution à une étude ethnobotanique de la flore tunisienne. Programme Flore et Végétation tunisienne. Min. de l'En. Sup. et de la Rech. Sci. 387 p.

Lovell C. R., 1993: Plants and the skin. Blackwell scientific publications, Oxford: 202-203.

Maghami P., 1979 : Culture et cueillette des plantes médicinales.Hachette.224p.

Mezghani S. 1992 : L'exploitation traditionnelle du maquis au nord de la Tunisie. Possibilités d'une meilleure utilisation. Office de l'Elevage et du Pâturage (OEP)- GTZ.177 p.

Pottier Alapetite G., 1979 : Flore de la Tunisie. Angiospermes- dicotylédones, Apétales -Dialypétales. Programme flore et végétation tunisiennes. 655 p.

Richard H., 1992: Epices et aromates. Collection sciences et Techniques. Agroalimentaires. Edition Lavoisier.

Souayeh N., 2002: Les principaux résultats de la recherche dans le secteur des cultures aromatiques et médicinales et les techniques de production. Séminaire sur la promotion de l'investissement dans le secteur des plantes aromatiques et médicinales. Communication SIAT, 2- 5 Octobre. 2002, Tunis.

Valnet J. 2001: Phytothérapie. Se soigner par les plantes. Maloine S. A. Editeur. 639 p.