

Olea europaea L.

Standardized Common Name: Olive

Family: Oleaceae

Taxonomy: *Olea* includes about 30 species native to warm climates in the Old World. *Olea europaea*, the only species that occurs in Europe, is the most widely distributed and the most variable, with six subspecies recognized in the latest treatment. Its taxonomy is complicated; *O. europaea* subsp. *europaea* alone has dozens of species-level synonyms, plus subspecific and varietal names. Within subsp. *europaea*, which produces the largest and oiliest fruits, *O. europaea* var. *europaea* refers to cultivated olives and var. *sylvestris* to their closest wild or feral relatives, which are often naturalized following escape from cultivation. *O. europaea* subsp. *cuspidata* is widespread in Africa and South-west Asia; the four remaining subspecies are of limited range and little economic value.

Description: Evergreen shrub or tree to 15 m tall. Trunk short, to 1 m thick, the surface conspicuously irregular with large ridges and pits; crown spreading, rounded; bark silvery gray; twigs often 4-angled, silvery, covered with scales. Leaves opposite, subsessile, narrowly elliptic to elliptic, (1–)3–9 cm long, leathery, with dense covering of peltate scales; base cuneate; apex apiculate to mucronulate; margins entire, often slightly revolute. Inflorescences axillary, racemose. Flowers small; calyx fused below, with 4 triangular lobes; corolla yellowish white, with short tube below, 4-lobed, with lobes reflexed at flowering; stamens 2. Fruit a drupe, oval, 2–4 cm long in cultivated plants, usually <1 cm in wild plants; unripe fruits green, ripe fruits usually black; mesocarp fleshy, oily; endocarp large, stony.

Parts in Commerce: Leaves

Identification: The key feature of olive leaf is the presence of peltate scales (with a short narrow stalk and a broad flat top, rather like an umbrella), which are so numerous on the underside that they may overlap. The leaf scales of other species of olive are fewer and often sunken, and few other plants possess similar scales. (The presence of numerous peltate scales therefore is used for microscopic identification of powdered olive leaf.) These scales are easily knocked off by handling, so perfect coats of scales should not be expected in material that has been harvested and packaged.

- Narrowly elliptic to elliptic
- (1–)3–8(–9) cm long, 0.5–2(–3) cm broad
- Margins entire, slightly revolute

- Apex apiculate to mucronulate
- Base cuneate; petiole absent or very short
- Texture thick, leathery
- Lower surface silvery (or reddish in some Asian material of subsp. *cuspidata*), densely covered with a layer of peltate scales, but without filamentous hairs
- Upper surface grayish-green to dark green
- Taste bitter

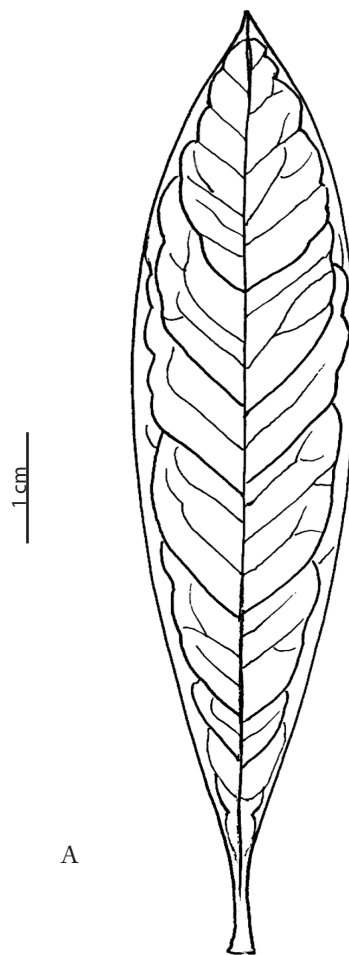


Figure 49: a, *Olea europaea* leaf.

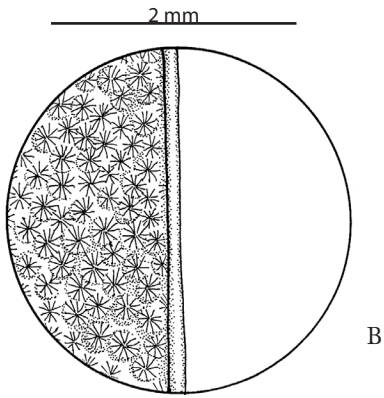


Figure 49: b, *O. europaea* close-up of lower surface of leaf at margin.

References:

do Amaral Franco J, da Rocha Afonso ML. *Olea*. In: Tutin TG, Heywood VH, Burges NA, et al., eds. *Flora Europaea*. Vol. 3. Cambridge: Cambridge University Press; 1972:55.

Green PS. A revision of *Olea* L. (*Oleaceae*). *Kew Bull.* 2002;57:91–140.

Green PS, Wickens GE. The *Olea europaea* complex. In: Tan K, ed. *The Davis & Hedge Festschrift*. Edinburgh: Edinburgh University Press; 1989:287–299.

Rushforth K. *Collins Guide to the Trees of Britain and Europe*. London: HarperCollins; 1999.