



European oak/Sessile oak

Latin name : Quercus Robur/Quercus Petrae | **Family :** Fagaceae **Genus :** Quercus

RECOGNIZING OAK

Oak is recognized by:

- > Its smooth trunk
- > Its acorns
- > Its serrated leaves

WE DISTINGUISH BETWEEN THE EUROPEAN OAK AND THE SESSILE OR 'DURMAST' OAK.

European oak	Sessile or 'durmast' oak
Its serrated leaves with their short stem, found in clusters	Its leaves with their flat surface and long stem; its open foliage
Its conical trunk	Its cylindrical trunk
Smooth, thick gray bark, with deep crevasses along it.	Smooth greenish and later gray bark, shallow cracks lengthways.

Its acorns that hang from a stalk.
European oak

Its clusters of acorns with no stalk.
Sessile or 'durmast' oak

SITES FAVORED BY THESE SPECIES

	European oak	Sessile or 'durmast' oak
Temperature	Average annual of 8-13°C Does not tolerate severe summer drought The European oak loves light (heliophilous species). It is quite demanding in terms of water and adapts best in cool areas.	Average annual of 8-13°C Does better in dry conditions than European oak. Does not require bright light (semi-shade species).
Rainfall	Average annual of 600-1,400 mm per year. Requires a useful reserve of soil exceeding 120 mm. The European oak is found at low altitudes and prefers flat land to slopes.	Average annual of 600-1,400 mm. The Sessile or durmast oak tolerates higher altitudes than the European oak. It doesn't mind drought conditions but does not appreciate too much water.
Soil	The European oak likes deep, water-rich, well-drained soils. It likes alkaline to very acidic soils. It also likes clayey-marly soils.	The sessile oak can adapt to poor soils, but grows best on thick, porous soils such as sandy or silty soils. Sessile oak is less demanding than the European oak.

ROOT DEVELOPMENT OF THE OAK

- > Deep taproot system.

GROWTH AND PRODUCTION OF OAK

- > Both species: at age 60, the oak produces half as much as at the age of 15.
- > European oak: 2-8 m³/ha/year.
- > Sessile oak: 2-8 m³/ha/year.

OAK PLANTATION

Species	Density	Spacing	Benefits and drawbacks
European oak	1,300-1,500 plants/hectare	2.5 × 3.5 m or 3.5 × 2 m	Short production cycle (production time <120 years). Frequent intervention required.

Sessile oak

Density
1,600-2,000 plants/hectare

Spacing
2 x 3,5 m or 3,5 x 2m

Benefits and drawbacks
Short production cycle (production time <120 years). Frequent intervention required.

Final density: 80 to 100 stems per hectare

Coppice with standards:

This is a mixture of at least two age groups with a lower storey treated as coppice and an upper storey of standards treated as high forest. The coppice is the result of regeneration through new shoots or suckers from stumps.

This system helps maintain a sustainable forest. As the trees are of different ages, we can choose which ones to fell as the forest grows, so renewal is more durable.

OAK WOOD

- > Light brown heart and distinct sapwood
- > Easy sawing, slow drying with risk of deformation
- > Very durable heartwood.
- > Excellent wood for carpentry, joinery and cabinetwork.
- > Also used for parquet flooring, cooperage and moldings.
- > Trade name: oak.

HEALTH

Oak is not affected by any major disease but you should keep an eye out for powdery mildew.

Economic view

Oak occupies a valuable market segment in the French forest/timber sector. It has many qualities and is used for various applications, meaning it is much sought-after.

It is used for staves (cooperage) and luxury veneer; only 10% of the oak lumber volumes harvested has the qualities required for these applications.

However, the remaining 90% is of good quality and used in cabinetwork and parquet flooring.

Oak is also the only species that produces cork in its bark which is why its market remains so buoyant

The wood is therefore highly sought-after for a range of applications.

The species is widely appreciated among foresters and forest lovers for its beauty, long lifespan and qualities, but also for its history, clearly apparent in the forest of Tronçais or the Colbert oak woods.

The European oak is found all over France, while the sessile oak is less common due to its climate and soil requirements.