

LOCAL NAMES

English (boz-pirnal oak)

BOTANIC DESCRIPTION

Quercus aucheri is an evergreen shrub growing to 5 m tall by 4 m wide at a slow rate. Leaves, lobed or toothed leaf edges alternately arranged on twigs. Inflorescence, catkins made up of small, yellowish-green flowers. The flowers are monoecious. Fruit, acorns typically brown, tan, yellow, light green, deep green or grayish green.

BIOLOGY

Oak trees start producing acorns at 20-50 years old; at 70-80 years the tree produces thousands of acorns after the female flowers are fertilized in spring. The acorns take two years to ripen. *Q. aucheri* hybridizes freely with other members of the genus and is wind pollinated.

ECOLOGY

Woodland, Sunny Edge, Dappled Shade, Shady Edge. Associated species include Pterocarya fraxinifolia, Taxus baccata, Cornus mas, C. sanguinea ssp. australis, Lapsana communis, Dorycnium graecum and Rubus canascens. Plants are lime tolerant. The plant can tolerate strong winds but not maritime exposure. It can grow in semi-shade (light woodland) or no shade.

BIOPHYSICAL LIMITS

Altitude: 400-2500 m

Temperature:

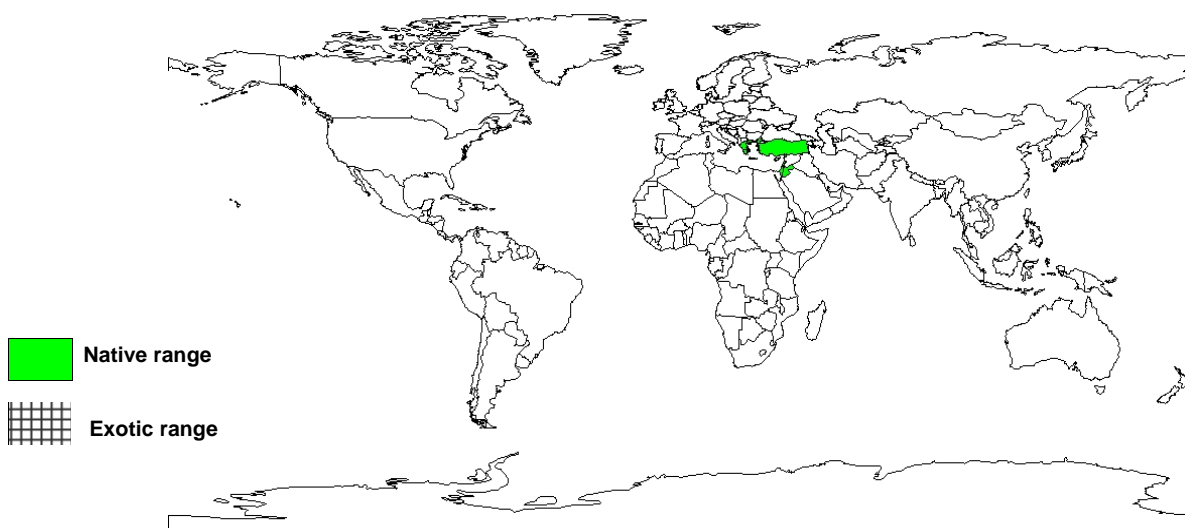
Rainfall: 400-1,250 mm

Soil type: The plant prefers a deep loam to heavy clay soil; acid, neutral and basic (alkaline) soils which are dry or moist.

DOCUMENTED SPECIES DISTRIBUTION

Native: Greece, Israel, Jordan, Lebanon, Syrian Arab Republic, Turkey

Exotic: United Kingdom



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS

Food: the seed is edible raw or cooked, with a sweet flavour; low in tannin and needs little if any leaching. The traditional method of preparing the seed was to bury it in boggy ground overwinter. The germinating seed was dug up in the spring when it would have lost most of its astringency. The seed can be roasted and then eaten; its taste is something like a cross between sunflower seeds and popcorn. The roasted seed is a coffee substitute.

Medicine: Galls produced on the tree are strongly astringent and can be used in the treatment of haemorrhages, chronic diarrhoea, dysentery etc.

Tannin or dyestuff: The bark is rich in tannin. A black dye can be obtained from the bark and also from the seeds.

Other products: A mulch of the leaves repels slugs, grubs etc, though fresh leaves should not be used as these can inhibit plant growth.

TREE MANAGEMENT

Boz-pirnal oak is intolerant of root disturbance, trees should be planted in their permanent positions whilst young, preferably seedlings should not be left in nursery bed for more than two growing seasons; seeds sown in situ produce the best trees.

GERMPLASM MANAGEMENT

Seeds don't store well and quickly loses viability if allowed to dry out. Stored acorns require cold stratification to stimulate sprouting.

PESTS AND DISEASES

Oaks are generally pest free. Galls, or round protrusions on leaves or stems caused by larvae of different insects, are unsightly but do not harm the trees. The species is notably resistant to honey fungus.

FURTHER READING

Bean W. 1981. Trees and Shrubs Hardy in Great Britain. Vol 1 - 4 and Supplement. Murray

Brickell C. 1990. The RHS Gardener's Encyclopedia of Plants and Flowers. Dorling Kindersley Publishers Ltd. London.

Chittendon F. 1951. RHS Dictionary of Plants plus Supplement. 1956 Oxford University Press.

Davis PH. 1971. Distribution patterns in Anatolia with particular reference to endemism. In Davis PH, Harper PC & Hedge IC (eds.). Plant Life of South-West Asia. Botanical Society of Edinburgh.

Facciola S. 1990. Cornucopia - A Source Book of Edible Plants. Kampong Publications. Vista, CA.

Grieve 1984. A Modern Herbal. Penguin.

<http://permaculture.info/cgi-bin/eden?plant=5453>

http://www.ibiblio.org/pfaf/cgi-bin/arr_html?Quercus+aucheri

<http://www.pfaf.org/database/plants.php?Quercus+aucheri>

Huxley A. 1992. The New RHS Dictionary of Gardening. 1992. MacMillan Press. London.

Niebuhr AD. 1970. Herbs of Greece. Herb Society of America.

Polunin O & Huxley A. 1987. Flowers of the Mediterranean. Hogarth Press

Riotte L. 1978. Companion Planting for Successful Gardening. Garden Way, Vermont, USA.

SUGGESTED CITATION

Orwa C, Mutua A, Kindt R, Jamnadass R, Simons A. 2009. Agroforestry Database: a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/af/treedb/>)