Oaks and Acorns:

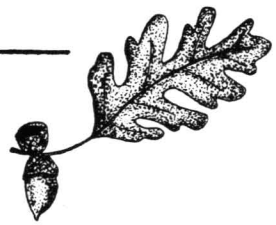
Multipurpose Tree Crops for the Future

by David Bainbridge

The acorns from oaks (Quercus spp.) and tan oaks (Lithocarpus spp.) have been used as food for many thousands of years. They occur in the early town sites in the Zagros Mountains and at Catal Huyuk (6000 BC) and were a staple food for many people until after 1900 AD. Now they are used by only a few groups, most notably the Koreans, who harvest between 1 and 2.5 million liters of acorns a year. "Mook" is available in the U.S. at Korean delis.

Acorns are a perennial "grain" crop that can play an important role in restoring degraded lands and feeding hungry and malnourished people. They provide up to 600 kcal and 8 grams of protein per 100 grams. They offer well-balanced amino acids that are complemented by milk, legumes, or meat, and provide plentiful Vitamin A (180 IU/gram) and Vitamin C (up to 55 mg per 100 grams).

Many oaks will produce 500 liters of acorns per tree when mature. Acorn production of 3500 kg/yr is not uncommon in wild forests. Higher yields could be achieved in oak plantations. In many cultures acorns were once the "grain" of choice. They can be again in sustainable agroforestry systems.



Further study of all the oaks is desperately needed to identify the sweetest, best tasting acorns for food and the oiliest acorns for making acorn oil -- which is very similar to olive oil. Acorns have been used for food in at least 27 countries and are still eaten today--in Korea, Morocco, Iran, the US and elsewhere.

Oak trees also provide: fodder for animals, acorns and leaves; cork for insulation (R-3.5 per inch), bottle corks, and many other purposes; sugar from scale insects, "the manna from heaven" mentioned in the Bible; food for wildlife, especially game species (deer, turkeys, and bears); erosion control; excellent shapes and colors for use in landscaping and for shade; a variety of hardwoods for use in furniture and manufacturing; excellent fuel wood; and food for silkworms. Oaks are also involved in several types of mushroom and fungi production including shiitake and truffles.

They should be used for land reclamation and agroecosystems development in many areas of the world. Different species can tolerate a very wide range of climatic and soil conditions including very hot or cold climates, very saline or alkaline soil, and wet or intermittently flooded ground. «

Further Reading

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The Fig

by Zea Sonnabend

Editors note: Zea describes herself as "One of the top-10 fig enthusiasts in Los Molinos, California" where she and some friends operate Circle I Farm where they have over 25 varieties of figs planted and a great diversity of other tree crops.

The fig (Ficus carica) is my favorite tree fruit. It is appealing because it is easy to propagate, comes in a wonderful array of varieties, grows well with little attention, yields abundantly and, of course, is delicious fresh or dried.

Figs are generally thought to be hardy down to about 15 degrees, although they definitely experience some die-back of above ground portions in the low 20's. They are successfully grown in Georgia and Florida where they die back to the ground every winter but regrow from the roots every year and will grow successfully in the Maritime Pacific Northwest and coastal and valley areas of California. Dedicated Italians have even grown them successfully in Chicago, Philadelphia and Boston by bending the trunk over to the ground and burying it for the winter. They do best in areas with a long, hot growing season.

Figs would like to grow in a well drained soil and do well in soils which may be too sandy or rocky for some other tree crops. Once established, they require very little water and can survive without irrigation in California's Central Valley and coastal areas, although they produce a better crop if they get adequate water in Winter and Spring. They do not benefit from fertilizer and will split open and sour if given too much nitrogen, although like most plants, they do like to grow in a healthy soil.

As with many crops today, there are hundreds of varieties of figs but only a handful are grown commercially. The varieties are of two main types: parthenocarpic, or common, figs, which will develop fruits without pollina-