Lentil

Family: Fabaceae
Subfamily: Faboideae
Genus & Species: Lens culinaris
Common name: lentil

Biogeography:

Lentils are native to southwest Asia and perhaps northern Syria. A wild subspecies, Lens culinaris orientalis, is found in the Middle East and central Asia. They are probably the oldest cultivated legume, although it is impossible to be certain exactly when domestication began. Small lentil seeds, dating from around 10,000 BP (before present), have been found in archaeological excavations of pre-agricultural sites in Syria, but these may have been wild seeds that were gathered rather than domesticated. However, there is abundant archaeological evidence for early domestication, including a large store of lentils found in northern Israel that dates to around 8,800 BP.

Lentils were introduced into South America by early Spanish and Portuguese explorers, but they did not make it to North America until the advent of World War I. Lentils are now cultivated in most subtropical regions of the globe, as well as in Canada and the Pacific Northwest. According to the United Nations Food and Agriculture Organization (FAO), Canada was the world’s largest exporter of lentils in 2003.

Botanical features:

*Lens culinaris* is an annual bushy herb that grows to 75 cm in height. It has slightly hairy compound leaves with 10 to 16 leaflets arranged in pairs. The upper leaves have tendrils, which are thin, coiling thread-like extensions that are used for climbing.

Flowering starts on the lowest branches and gradually moves up the plant. The small flowers range in colour from white or pink to pale blue and lilac. Each flower produces a single smooth pod up to 1.3 cm long, containing one or two small lens-shaped round seeds. There are two main types of commercial lentils. Macrosperma (‘large seed’) is grown mostly in the Mediterranean region and North America, and has seeds that are 6-9 mm in diameter. Microsperma (‘small seed’) has seeds from 2-6 mm in diameter and is produced in India, Africa and Asia. Seed colours range from pinkish orange to grey-green.

Lentil does not respond well to high temperatures (above 27°C), so it is grown as a winter crop in the semi-arid tropics. The plant is somewhat drought resistant, but lack of adequate precipitation will result in lower yields. It will grow in most soil types as long as they are well drained, but does not tolerate water-logging and does not do well in the humid tropics.

General:

Lentils take their name from the Latin word ‘lens,’ referring to their lens-shaped seeds.

In ancient Greece, lentils were considered food for the poor. To say that someone ‘doesn’t like lentils any more’ meant that the person had recently become wealthy.
Lentils are mentioned in the Bible (Genesis 25:34) where Esau sold his birthright for a ‘mess of pottage’ - a porridge made of lentils.

During the Middle Ages, lentils were an important food in European monasteries during the fasting period of Lent.

**Uses:**

Lentils, especially the orange or Egyptian variety, are a common food in India, the Middle East and Eastern Europe. They are usually dried, hulled and split, and are often cooked until very soft and then puréed.

Lentils are also used in soups, stews, casseroles and salads. They are sometimes fried, seasoned and eaten as a snack food. Lentil flour is used as a thickener in soups and stews, and added to wheat flour in breads and cakes.

Lentil residues (husks from seeds, stalks, leaves, etc.) are used for livestock feed.

The plants are ploughed back into the soil as *green manure*, a natural fertiliser. In common with most other grain legumes, lentils ‘fix’ atmospheric nitrogen, making it available to other plants.

Lentil seeds provide a source of starch for textiles and printing.

**Human health benefits & concerns:**

Lentils are low fat and high in protein (~25%). They are a good source of B-complex vitamins, especially folate, and provide significant amounts of iron and potassium. They are also lower than most legumes in lectins and trypsin inhibitors, compounds that can interfere with digestion.

Lentils are an extremely good source of dietary fibre, especially if they are unhulled. One cup of boiled unhulled lentils provides about 15 grams of fibre (50% of the unofficial recommended daily intake).

**References:**


http://encyclopedia.thefreedictionary.com/Lentil


‘Growing lentils in the wheatbelt: varieties.’

http://www.hort.purdue.edu/newcrop/cropfactsheets/lentil.html


© ARC Centre of Excellence for Integrated Legume Research

You are permitted to copy this information and make copies for educational purposes which are not part of a commercial activity. You should ensure that the authorship of these materials is properly attributed at all times. This information has been compiled using personal knowledge, research findings and general wisdom and whilst every effort has been made to cite sources where these are known, it is often difficult to establish original sources and no assurances can be provided in this regard.

Disclaimer: No warranty or assurance is offered that this information is correct or harmless. The information is provided as an aid for further investigation and without knowledge of the particular requirements of the user or the purposes for which it is to be used. It is the responsibility of the user to exercise their own discretion in making use of this information.