



## Ethnobotanical Leaflets



### Significance of *Ginkgo Biloba*

By Nicole Young

The ginkgo tree appeared on earth approximately 230 million years ago, which was before dinosaurs evolved. They were referred to as 'living fossils' by Charles Darwin. These trees are so hardy that one of them lived through the atomic blast that destroyed Hiroshima (Anonymous No. 2, 1997). This tree is one of the earth's two oldest trees, The members of the Ginkgoaceae family grew in parts of what are now Australia, the British Isles, Greenland, China, Russia, northern Europe, Japan, South America, Africa, and in the United States during the Mesozoic Era. It later retreated to a small area in eastern China with the changes in the world climate. It is the only surviving tree of the ginkgo family (Corrigan, 1997).

The ginkgo was reintroduced to the United States in 1784. Today, these trees are all over the world again. They can be found in almost every city in the United States. Its species name "biloba" refers to the two-distinct lobes, which is characteristic of the leaves. These trees have survived over millions of years due to their resistance of disease, pests, fires, and air pollution. They can grow in almost any condition, which includes sun, shade, heat, cold, smog, pollution, wind, and humidity (Foster, 1996). The ginkgo tree can grow 75 to 100 feet tall with a trunk up to 8 feet in diameter, They have a distinctive fan-shaped leaf, which are bright green in the spring. Their leaves turn to a dull green in the summer and become a translucent gold in the fall (Corrigan, 1997). The ginkgo tree was used for many purposes, even in the ancient times.

The ginkgo leaf was first mentioned in Lan Mao's *Dian Nan Ben Cao*, published in 1436. Lan Mao notes the external use to treat skin and head sores, as well as freckles. internal use of the leaves was noted the first time in Liu Wen-Tai's *Ben Cao Pin Hui Jing Yao*, a work recorded in 1505. Liu Wen-Tai notes the use of leaves in treating diarrhea (Foster, 1996). In traditional China, the seeds, with fleshy rind removed, are considered to be more beneficial than the leaves. The Chinese used the seeds as an astringent for the lungs, to stop asthma, enuresis, and excessive leucorrhea. It was also used to regulate urinary frequency and to suppress coughing (Foster, 1996). The Chinese have also used the ginkgo tree for promoting life longevity and increasing sexual endurance (Anonymous No. 2, 1997). In the present day, the ginkgo tree has numerous uses.

The ginkgo tree is used for many different things in the present day. The process the leaves go through will be discussed first. The largest ginkgo tree plantation in the world is found in South Carolina. There are approximately 12 million ginkgo trees grown here. The leaves are picked from the trees when it is cooler outside. The leaves then have to be dried within 12 hours or they will begin to rot. These leaves are dried in a massive drum at temperatures up to 1, 260 degrees. More than 2.5 million pounds of dried, baled leaves, enough to fill 65 truck trailers, are shipped from South Carolina to Charleston to Europe (Anonymous No. 1, 1998). These trees are used in many different ways. The Japanese use the nuts to roast and eat at banquets and weddings. They also grind the seeds and use them to season soups, stews, and custards. This seems to be part of their culture. The ginkgo leaves are a traditional art motif in Japan. The fan-shaped leaf is used for jewelry, kimonos, and family crests, and it is also the official emblem of Tokyo University. This tree is a significant part of the Japanese society. A young ginkgo branch appeared on the 25th anniversary emblem of the Ladd Arboretum in Evanston, IL, where the ginkgo was the first tree planted when the arboretum opened (Corrigan, 1997),

The ginkgo is mainly used for medicinal purposes. It has been used more prevalently in Europe until now. Over 300 scientific studies on the pharmacology, chemistry, and clinical effects of the ginkgo leaf have been conducted by researchers in Europe over the last 20 to 30 years (Foster, 1996). Presently, there are ginkgo trees in almost every city in the United States, and the largest ginkgo tree plantation in the world is found in South Carolina. The products are also found on the market in the United States. The sales of ginkgo-based health food products in the United States reached \$270 million last year (Mowrey, 1997). The ginkgo tree is used to treat many different ailments in the United States.

The main substance extracted from the ginkgo leaves, which is used to make the medicine and food products is EGb 761. This substance is what helps keep platelets in the blood from clumping together (Anonymous No. 2, 1997). Therefore, it is the leaf extracts which are used to make herbs and such, rather than the actual leaf material. The standardized extract of the leaves is beneficial in circulation, blood conditions, metabolism, immune function, varicose conditions, post-thrombotic syndrome, cognitive disorders, and memory (Foster, 1996). Ginkgo is used more specifically, to increase brain functionality, which may be beneficial for those who suffer from low concentration and memory loss. It has been used to treat Alzheimer's and dementia. Ginkgo also oxygenates the blood, which increases circulation and strengthens blood vessels, There are anti-inflammatory properties present in ginkgo, which are beneficial in the treatment of asthma. it has been used as a lung-relaxant to suppress coughing and reduce tissue inflammation. *Ginkgo biloba* is used to treat headaches, vertigo, and inflammation of veins. The leaf extracts have been shown to increase vasodilation and peripheral blood flow rate in capillary vessels and end-arteries in various circulatory disorders (Tyler, 1998). New uses for the ginkgo extracts continue to emerge as it is studied more.

*Ginkgo biloba* truly has had a significant impact on human history, society, and civilization. This tree is one of the two oldest trees in the world and has an extensive history, in which it was used medicinally for the most part by the Chinese. The nuts of the tree are eaten by some, and they are also used in celebration ceremonies. This is part of their society and civilization. The leaves are used as symbols for different purposes. They are also used as designs within clothing and jewelry. This is all part of their civilization. The ginkgo is mainly used for numerous ailments, such as Alzheimer's, asthma, vertigo,

coughing, and many more, The *ginkgo biloba* tree is one which has had an impact and continues to have an impact on human history, society, and civilization.

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