



Ethnobotanical Leaflets



Black Mustard (*Brassica nigra*)

By Sarah Ewing

The mustard plant has often been mentioned in the Bible, and most of us are familiar with Jesus' parable of the mustard seed. However, there is great debate as to what the "mustard" plant of Jesus' parable really was. Most modern commentators agree that it was the ordinary black mustard, *Brassica nigra*, but there are still a few who disagree. These others suggested that the mustard in the Bible could have been *Salvadora persica*, a shrub found in thickets around the Dead Sea, but authorities say that this plant did not grow where Jesus spoke his parables. Also *Phytolacca decandra*, the pokeberry, was theorized to be the "mustard tree". That too was discounted because it is now regarded as an American plant.

One major argument against *Brassica* for the "mustard" of the Bible is based on the Biblical statements concerning its becoming a "tree", and "the fowls of the air lodged in the branches of it". Supporters of this argument claim that the mustard plant never becomes a great tree, and it would not be sturdy enough for birds to nest. In rebuttal, it has been pointed out that we must realize that much of the language in the Bible is figurative, and that indeed small sparrow-like birds perched temporarily on the branches of the mature mustard plant to feed on its seeds. Even today birds are very fond of mustard seed. Guatama Buddha also told a parable about the mustard seed, and in India, mustard is the symbol of reproductive generation.

Mustard is a very interesting plant with a lot of history and many uses. It has both medicinal and culinary value useful to man in the past and present. Its many relatives are ever present in our daily lives as well.

Black mustard is scientifically known as *Brassica nigra*. It is of the family Cruciferae. The plant is native of Europe and Asia; it has become naturalized in this country and has escaped from cultivation, so that it is often a troublesome weed. Therefore, it is often found on the roadside, in vacant lots, and especially in grain fields. There has been some success in the use of chemical herbicides in ridding grain fields of mustard. These include iron sulfate and sulfuric acid in the form of a spray. All grasses are resistant to this spray, but the young mustards are killed by it. Conversely, in Europe and Asia black mustard is cultivated for its young leaves, which are used as a salad and pot herb.

The plant itself is an erect, branched plant, usually from one to three feet high. The stem is bristly near the base and smooth above. Leaves on the lower stems are egg shaped and bristly; leaves on the upper stems are smooth, narrow, and much larger. Yellow flowers are borne at the end of the stems from late June through August.

A typical mustard flower is four-petaled and complete, possessing four sets of modified leaves. The calyx, the outer floral envelope, is green, and it prevents the developing parts within the flower bud from drying out. Within the calyx is the corolla of petals. The petals, yellow in color, attract the insects. Mustard is annual and readily reproduces from seeds.

The seed pod resembles a miniature pea pod. It is smooth, has a tiny "beak" at its tip, and hugs the stalk. When ripe, the seeds are dark red-brown or black, hence the name. The seeds are capable of remaining viable for at least five years.

Mustard is widely distributed in the plains area of the United States and Canada. Mustard seeds are imported from Italy, Ethiopia, England, Denmark, and the Orient. Gourmet stores throughout the country stock prepared mustards from England, France, Germany, and Sweden.

Mustard greens may be gathered for eating as well. They are a good source of vitamins A and C. One can grow mustard in a garden or simply gather the mustard that grows wild in the city.

Within the family Cruciferae black mustard has many relatives. Among its closest relatives are a number of other mustards. White mustard, *Brassica alba*, has yellow seeds, and they are ground with the seeds of *B. nigra* and starch to produce table mustard.

Field mustard, *B. campestris*, produces an oil used for cooking in India. Indian mustard, *B. juncea*, is also an important oil seed in India. It is called "rai", and it is the most pungent of the cultivated mustards.

Other plants of this family include many of the vegetables that we eat daily: cabbage, broccoli, cauliflower, rutabaga, Brussels sprouts, turnips, and radishes. All of these are of considerable nutritional value, especially broccoli and Brussels sprouts.

Various diseases and pests attack these crops in the tropics. Of the most serious diseases are blackleg, black rot, downy mildew, and club root. The diamond back moth, snails, and slugs can cause damage to the plants as well.

Mustard is the most widely used spice in the United States aside from black pepper. It is not known when it was first used as a condiment, but the Roman were known to have blended the crushed mustard seeds with must to make a sauce. "Mustard" is an old name, coming from the Latin *mustem ardens*. *Mustem* means "must" (fermenting grape juice that has not yet become wine), and *ardens* means "burning", alluding to the pungent hotness of the seeds.

For centuries, mustard was considered everyone's favorite cure-all. The Romans introduced it to Britain, and by the tenth century it had become an important medicinal plant. At that time it was a popular headache remedy. Bronchial congestion was also relieved by a combination of mustard, vinegar, water, and honey.

Black mustard contains two chemical compounds, myrosin and sinigrin. They are responsible for the strong odor. They react with each other in the presence of water to form a volatile oil of mustard. One drop of this oil can cause severe blistering. Mustard oil damages capillary walls, causing "mustard burns" that heal very slowly. However, when carefully controlled, this oil had important medicinal uses. Volatile oil of mustard used to be an ingredient that, when taken internally, was reported highly successful in promoting the absorption of scar tissue. Compound liniment of mustard is a blend of mustard oil, alcohol, and other ingredients. This has been used by athletes for the relief of strained, aching muscles. Mustard is also a powerful germicide; surgeons used to disinfect their hands with a paste of mustard seeds and water.

A home remedy for pulmonary congestion called a mustard plaster was first described and recommended by the Greek physician Dioscorides almost two thousand years ago. It is still employed today. Powdered mustard is mixed with flour, water is added, and the paste is spread between two pieces of cotton sheet, wrapped in flannel, and laid on the patients' chest. It is kept there long enough to give therapeutic warmth to the chest, but has to be removed before it irritates the skin. Presently, powdered black mustard is available in the drugstores.

Most of the old herbalists mention mustard as a great benefit to singers. "Crush the seeds and mix them with honey. Make into little balls, swallow one every morning, and in a short time one will have a clear voice to sing with."

Most importantly, mustard has become one of world's favorite condiments. Whether it is used in cooking or for medicinal purposes, mustard has had numerous benefits for man. Some like it sweet and mild, some like it hot, and some like it on their chest. Whatever the preference, mustard is an integral part of man's daily life. Besides, where would the hotdog be without it?

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