



The Review on Kiwi Fruit

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Abstract:

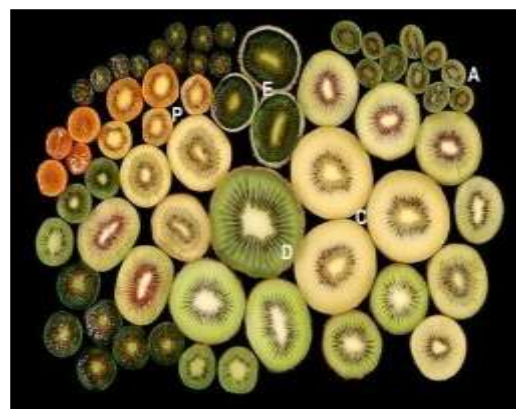
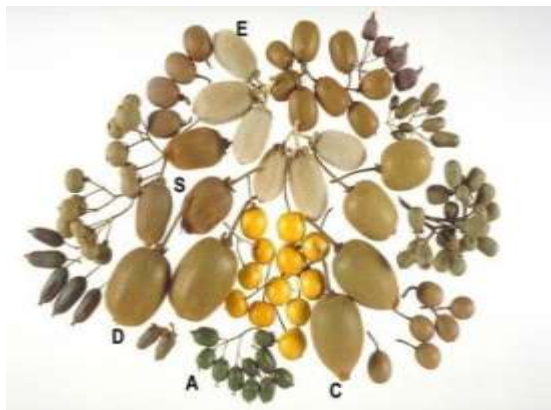
Native to Asia, kiwi is distributed worldwide for its sensory and nutritional qualities. It contains a high percentage of bioactive compounds such as vitamin C, vitamin E, flavonoids, carotenoids and minerals. Describe the nutritional and health properties of kiwifruit and its benefits related to improved nutritional status, improved digestion, a healthy immune system and metabolism. Gastrointestinal Benefits in Gastrointestinal Disorders. Kiwi has become very popular over the past two decades due to its various medicinal properties. Also known as macaque peach, mihotau, and Chinese gooseberry. It is said that it was named Kiwi from the country of New Zealand. Pharmacological properties include anti-diabetic, anti-tumor, anti-inflammatory, anti-ulcer, antioxidant, hypoglycemic and hypolipidemic effects. In addition to this, kiwi is also traditionally used to effectively treat edema, hepatitis, kidney problems, rheumatoid arthritis, and microbial infections.

Keywords: Chinese gooseberry, Macaque peach, Hypolipidemic

INTRODUCTION:

History:

The original fruit is from the Far East, having been grown in what is now modern-day China for many centuries. It was only at the turn of the 20th Century, in 1904, that it arrived on New Zealand shores, when New Zealand school principal Isabel Fraser brought some kiwifruit seeds back from her travels. Being of Chinese origin, kiwifruit originally had a Chinese name, yang tao. But when the fruit was first grown in New Zealand, their sweet/sharp flavour and green colour quickly earned them the nickname 'Chinese Gooseberries.' [1] Gooseberries not being the most popular fruit, in 1959 it was decided to change the name to kiwifruit, after New Zealand's national bird. [2] Not many fruits are named after animals but, setting them side by side, they are both small, brown and fuzzy! Kiwifruit (often shortened to kiwi in North American, British and continental European English) or Chinese gooseberry is the edible berry of several species of woody vines in the genus *Actinidia*. The most common cultivar group of kiwifruit (*Actinidia deliciosa* 'Hayward') is oval, about the size of a large hen's egg: 5–8 centimetres (2–3 inches) in length and 4.5–5.5 cm (1+3/4–2+1/4 in) in diameter. [3] It has a thin, fuzzy, fibrous, tart but edible light brown skin and light green or golden flesh with rows of tiny, black, edible seeds. [4] The fruit has a soft texture with a sweet and unique flavour. Kiwi season requires winter cultivation, but the fruit is very suitable for post-harvest storage and production both the northern and southern hemispheres. This means that kiwifruit is available throughout the year which is important for those interested in regular consumption for its health benefits. [5]



Kiwifruit by species:

A = *A. arguta*, C = *A. chinensis*,

D = *A. deliciosa*, E = *A. eriantha*

I = *A. indochinensis*, P = *A. polugama*, S = *A. setosa*[6]

Physical Description:

Kiwi vines are dioecious, meaning that the male and female flowers come from separate individuals. Generally, one male plant facilitates pollination of her 3-8 female plants. Oval kiwi. His fruit is a true berry with a shaggy brownish-green skin. The firm, translucent green flesh contains numerous edible purple-black seeds around a white center. The broadleaf tree grows alternately on long petioles (petioles) and the young leaves are reddish. covered with fringed hairs. Many other species are also grown for aerial crops. Golden kiwi, also known as *Actinidia chinensis*, has less hair than *A. deliciosa* and has yellow, sweet flesh that is grown commercially in some areas. [9] other kiwis are two hardy species (*A. arguta* and *A. kolomikta*), Chinese he gooseberry (*A. coriacea*). Red kiwi (*A. melanandra*), silver vine (*A. polygama*), purple kiwi (*A. purpurea*)

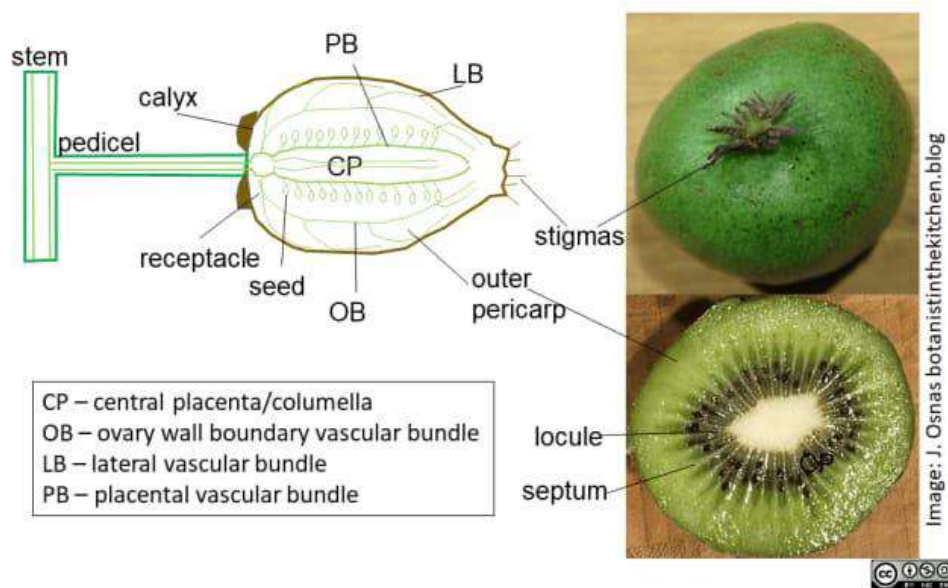
Characteristics of Kiwi Plant :

Stems: Woody below, delicate and intertwined above, whose tendrils help hook to supports.

Leaves: Leaves are elliptic and alternate on long stems.

Flowers : Female flowers are white at first, then yellow.

Fruits: Fruits are berries that are gathered in clusters. It has a hairy brown skin, is oval in shape, has green flesh, and small black seeds arranged in a circle around the center.

**Cultivation Of Kiwi Fruits**

Kiwi is mostly grown in the mild hills of Himachal Pradesh, Uttar Pradesh, J & k Sikkim Meghalaya, arunachal Pradesh and Kerala. having been very newly introduced have not yet become aviliable. [13] Cultivation of kiwi fruit in the world : Now days kiwi fruits are grown intensively in southern Europe and the USA(California). Other major producers are france ,Italy, Russia, Australia, Chile, England, Egypt and Spain. In Spain, it can be found in Galicia, with almost half of Spanish production ,and Andalusia.[14]

Varieties Of Kiwifruits :

The main varieties of kiwifruits come from the three primitive species :

Two from New Zealand = *Actinidia chinensis* and *Actinidia deliciosa*.

One from Taiwan = *Actinidia setosa*. [15]



• *Soil Requirements and Climate :*

Kiwi can be grown in warm and humid environments. Rich yellow to brown loamy soils that are well-drained and fertile are ideal for growing kiwis. Once planted, nitrogen (200 kg/ha), potassium (150 kg/ha) and phosphorus (55 kg/ha) levels should be monitored regularly. However, providing shelter from the wind is very important. This is because the wind can harm the kiwi plant, its small flowers and immature fruits. [17]

• *Land Preparation :*

The steep land is delineated with terraces for planting vines. Columns should be aligned in a north-south direction to achieve maximum solar radiation. Thorough soil preparation is essential to the success of his vineyard[18].

• *Plantation :*

Kiwi can be propagated by seeds, seedlings and grafting. And planting is usually carried out in January. The planting uses arbor and pergola scaffolding at 6m intervals. Also, plant pollination maintains a male to female ratio of 1:5 [19].

• *Frost Protection :*

Frost fans are used to protect orchards from frost by transferring heat from the warm air above the orchard in an inversion layer and forcing it into cooler air closer to the ground and vines. This increases the temperature of the canopy and protects the kiwi fruit [20].

• *Fertilizer Requirements :*

Nitrogen is always needed in early spring when the plants sprout again. Ammonium nitrate and urea are recommended for nitrogen addition. A universal 10-10-10 fertilizer is also recommended. Granular or liquid fertilizers can be used, but be careful not to burn the plants.

• *Kiwi Pruning and Training :*

Nitrogen is always needed in early spring when the plants sprout again. Ammonium Nitrate and Urea Kiwifruit pruning and training begins when the vine is planted. In the first year, the emphasis should be on straight growth and a strong skeleton rather than how the kiwi is pruned. Loosely tie the vine to the stake and extend straight up. Do not rotate around the post. [22] Remove all side branches until the vine reaches the top of the post. Cut the top of the vine a few inches (8 cm) below the top of the post to encourage side branches to grow laterally along the wire [23].

• *Irrigation :*

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• *Harvesting :*

Hardy kiwis take about 150 days to ripen, reach full size in midsummer, and are considered fully ripe by the end of summer. Kiwis continue to ripen after harvest, so pick a few full-sized fruits and leave them on the counter for a few days

• **Storage :**

Kiwi has an excellent shelf life. The fruit will keep well in a cool place without refrigeration for up to 8 weeks. It will keep in the refrigerator at -0.60 to 00 C for 4 to 6 months.

• **Packing :**

There is no standard package for kiwi fruits. Cardboard boxes of 3-4 kg. capacity are generally used for packing. Polythene liners in storage cases are very effective in maintaining high humidity and can be used to maintain fruits in good condition for a longer period.[25]

Health Benefits of Kiwi:

Vitamins, fiber and antioxidants provide great health benefits. Meat is rich in vitamins that boost immunity and reduce the risk of disease. Kiwi helps stimulate regular, healthy digestion. Kiwi may offer other health benefits such as: This sour fruit may support heart, digestive, and immune system health.[25]

Immunity :

Dietary components can positively modulate the immune response (immunonutrition), and some of these components are found in kiwi. Kiwi contains vitamin C, carotenoids, polyphenols, fiber, All of these can be beneficial to the immune system

Heart Health :

By maintaining healthy blood pressure and increasing vitamin C, kiwi may reduce the risk of stroke and heart disease. In addition, kiwi contains a lot of dietary fiber. Dietary fiber may reduce risk factors for heart disease by lowering LDL (bad) cholesterol.

Digestive Health:

Kiwis are rich in fiber, which helps improve digestion. In addition to its fiber content, kiwi also contains active enzymes that can effectively break down proteins in the gut. Kiwi also has a mild laxative effect, which can help with a slow digestive system. 26]

Conclusion:

Kiwis are not only delicious in fruit salads, smoothies and snacks, they are also rich in vitamins, minerals, enzymes, antioxidants and fiber. All of these nutrients are essential for our health and optimal functioning of the body. Kiwi is very high in vitamin C. Compare with orange. For this reason, kiwi is effective in supporting the immune system, regulating blood pressure, and may also help with conditions such as asthma and macular degeneration.

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