

Figs: An ocean of nutrients

Figs have been consumed by humans since ancient times. Figs are eaten in fresh and dried form; however, since fresh figs are highly perishable, they are mainly consumed near production areas. Thus, most figs are consumed in the form of dried fruits, which are a concentrated source of nutrients. They are an excellent source of fibre, potassium, calcium, iron and many other nutrients. A single serving of figs contains 20% of the daily intake of dietary fibre, which makes them a useful snack item for a variety of individuals and aids in digestion. Figs are a rich source of a wide range of phytochemicals with health-promoting properties and also serve as a therapy for a variety of conditions.

THE fig tree (*Ficus carica* L.) is gynodioecious ($2n = 26$) and one of the oldest trees cultivated since ancient times. *Ficus carica* is one of over 800 tropical and sub-tropical plant species in the *Ficus* genus. Due to their high nutritional value and mouthwatering taste, figs are very popular. These are seasonal fruits that can only be found fresh in the summer and early fall depending on the variety, but dried figs can be eaten any time of year. After drying, the amount of nutrients present in the fresh figs increases manifold. Due to their texture, grainy taste, and high price, some people find figs unappetizing. However, those people are unaware of the many health benefits of fig consumption. Vitamins, minerals, and other nutrients found in figs help boost the immune system and protect against a wide range of illnesses.

Origin and history

Figs are believed to have originated in Asia Minor and have been cultivated there since ancient times before spreading to the rest of the world as a result of human migration. It is currently being planted in considerable quantities in the Mediterranean region and other parts of the world for both its fruit and aesthetic value. According to archaeological evidence, figs have been cultivated since at least 5000 BC. In addition, some researchers believe that figs may be one of the first plants to be domesticated by humans. Figs have also been used throughout history as a sign of peace, wealth and fertility. An important component of ancient Greek and Roman society, the fig tree has retained its symbolic significance in religions such as Christianity, Islam, Hinduism, Judaism, and



Dried Figs



Buddhism, with Buddhists believing that the Buddha attained enlightenment while sitting under a fig tree in the middle of the forest. Figs were also given as a reward to athletes competing in the ancient Olympic Games to demonstrate their physical prowess.

Botany and habitat

Fig is a small deciduous tree with a lifespan of up to 100 years and a maximum height of 50 feet. However, it is often found 10 to 30 feet tall. The width of tangled branches of a tree is greater than its height. Figs thrive in hot, dry areas, and the fruit must get a full day sunlight to mature. They can also be grown in cooler regions if suitably protected from frost or if grown in pots and moved indoors. The fig plant has large deeply lobed leaves and soft purple or green fruit with thin skin. The delicious, tender flesh of the fruit is often reddish in colour and contains many crunchy seeds. A fig is formally known as a syconium, which is a type of multiple fruit composed mostly of a small cluster of inverted flowers growing inside a pod. Each fig pod contains hundreds of flowers, and each flower produces a little seed, which is the true fruit of the fig plant. Unlike other cultivars, the common fig has only female blooms and can reproduce without pollination. However, other cultivars require pollination from a different source in order to reproduce.

Nutritional value

Figs are an excellent source of vitamins, minerals and other nutrients. The nutritional index of figs is 11, compared to 9, 8 and 6 for apples, raisins and dates, respectively. Consumed in both fresh and dried form, fresh figs typically contain 79% water, 19% carbohydrates, 1% protein along with other nutrients, and almost no fat. They are a modest source of dietary fibre and provide 74 kcal of food energy per 100 g of food. However, they do not contain appreciable quantities of important micronutrients. Dried fruit accounts for about 80% of the total consumption. When dried to 30% water, figs contain 64% carbohydrate, 3% protein, and 1% fat. A 100 gram intake of dried figs provides 249 kcal of food energy, with moderate amounts of calcium, and is rich in dietary fibre and manganese. Due to their high sugar and calorie content, dried figs should be used sparingly. However, dried figs may be more efficient than fresh figs for relieving constipation and other digestive problems. It is better to soak dried figs overnight and consume them

the next morning. It has the same benefits as almonds and can be consumed with milk. Fig leaves are also very rich in nutrients and versatile in use.

Table 1. Nutritional value per 100 gram

Nutrient	Raw figs	Dried figs
Calories	74 kcal	249 kcal
Protein	0.74 g	3.3 g
Dietary fibre	2.9 g	9.8 g
Sugar	16.3 g	47.9 g
Calcium (Ca)	35 mg	162 mg
Iron	0.4 mg	2.0 mg
Vitamin C	2 mg	1.2 mg
Vitamin K	4.7 µg	15.6 µg

Uses

Figs can be eaten fresh, dried or processed into many items. Dried and processed fruits make up most of the commercial production because fresh, ripe fruits are difficult to transport and store. Many processed products are available, including preserved fruits, dried figs, juices, wines, jams and powders, but the most common are preserved fruits and jams. Fresh, plump and tender figs can also be cooked if there are no bruises or splits. They can also be used in fruit salads or desserts. Overripe figs have an unpleasant odour. To bring out their best flavour and aroma, refrigerate slightly underripe figs at room temperature for 1-2 days before serving. Fig seed oil can also be used to hydrate and condition the skin. When it comes to wrapping food, fig leaves and grape leaves are popular choices as they can be used to wrap rice, pork, or other foods.

Health benefits

The fruits and leaves of figs are nutritionally dense and may provide many health benefits. The fibre present in figs aids in digestion and maintains a healthy digestive system, making it useful in treating stomach disorders such as constipation. Due to the natural sugars in fig fruits, they may help manage blood sugar levels and prevent heart disease by lowering blood pressure and blood fat levels. The potassium content of figs contributes to a healthy lifestyle by lowering blood pressure and hypertension. It promotes weight loss and overall health. It also cures

male infertility and increases sperm count due to the high zinc content in fig fruits, which is essential for testosterone synthesis. In addition to its use in traditional medicine, figs are used today as a therapy for a variety of conditions, including inflammation, gastrointestinal issues, cancer, diabetes, constipation, and Alzheimer's. Figs are strong in phenolics, organic compounds and volatile acids, which are anti-inflammatory and anti-microbial. The antioxidants present in figs protect cells from free radicals and inflammation. In contrast, figs are rich in calcium and polyphenols, which aid in the treatment of osteoporosis, rheumatoid arthritis and periodontal bone loss. Additionally, figs can soothe a sore throat and heal skin problems.

Cautions regarding figs

Figs may also be harmful to the body if consumed in an uncontrolled and irregular manner. Figs contain fibre, so excessive consumption can cause diarrhoea, stomach pain, and bloating. Most people find figs to be a nutritious and delicious snack. However, if you are using a blood thinner, you should limit your intake due to the high vitamin K content of figs, which may interact

with your medication. Also, if you are allergic to latex, you should know that fig trees naturally produce latex, so you should avoid eating their fruit. The enzyme ficin may cause itchy or sensitive tongue in some individuals who consume figs in excess. Therefore, always consume figs in limited quantity.

SUMMARY

Both ripe and dried figs are beneficial for the body. They are a rich source of fibre, minerals and vitamins and can cure various diseases. The laxative and medicinal properties of figs can be used to treat boils and other skin infections as well as to keep the body healthy. However, further human research is needed to confirm their potential health benefits.

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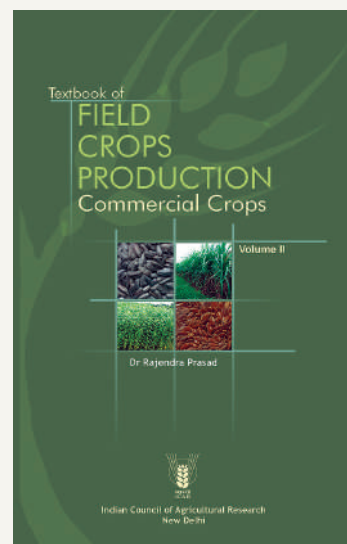
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Textbook of Field Crops Production – Commercial Crops

Availability of high-yielding varieties/hybrids and increased irrigated facilities have resulted in the development of production-intensive cropping systems in several parts of India, and this has catalyzed further agronomic research based on the cropping-system approach. Many changes have also taken place in the crop-production technologies. And this necessitated the revision of the earlier publication brought out in 2002. The revised textbook is in two volumes: First is covering Foodgrains and second is on Commercial Crops.

The discipline of Agronomy has no longer remained mere field trials without application of discoveries emanating from the related disciplines of Genetics, Soil Science and Agricultural Chemistry, Plant Biochemistry, etc. The future Agronomy Landscape will face challenges of climate change, transboundary issues, TRIPS and other trade-related barriers, biotic and abiotic stresses, consequences of biotechnology and genetic engineering and increased market demands in terms of quality assurance, customized food crops, global competition, ecosystem services on land and social equities etc. The Agronomy must measure up to these futuristic challenges with well-defined metrics and methodologies for performance. The advent of hydroponics, precision farming, bio-sensors, fertigation, landscaping, application of ICT, GPS and GIS tools and micro-irrigation is in the horizon. This revised edition in two volumes covers fundamentals of the subject and at the same time will inspire and prepare teachers and students for the emerging frontiers.

(Volume II)



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