

## *Pomegranate*

In scripture, we see that the Pomegranate was a very important part of the Israeli culture and became a powerful symbol of royalty and fruitfulness. We see in Exodus that images of pomegranates were commanded to be woven on the high priests robe. In Numbers that it was part of the fruit that the spies brought back after spying out the land. Solomon depicted on the capitals of the two pillars which stood in front of the temple that he built and it's even said that Solomon designed his coronet based on the pomegranate's crown. It's even believed that the first miracle that Yahshua did turning the water into wine could have been pomegranate wine.

Jewish tradition teaches that the pomegranate is a symbol for righteousness because it is said to have 613 seeds which correspond with the 613 mitzvot or commandments of the Torah. This is one of the reasons many Jews eat pomegranates on Rosh Hashanah, Sukkot and Tu B'Shvat. However the actual number of seeds varies with individual fruits. It's one of the few images which appear on ancient Judean coins as a holy symbol and today many Torah scrolls are stored while not in use with a pair of decorative hollow silver pomegranates placed over the two upper scroll handles. Some Jewish scholars even believe that it was the pomegranate that was the forbidden fruit in the Garden of Eden, but I personally don't see that fitting.

The name pomegranate in English is derived from the Latin terms pomum (meaning apple) and granatus (meaning seeded) thus giving us seeded apple. In Hebrew the word is Rimon or Rimoneem and it comes from the root word ramam meaning to be exalted or to be lifted up.

The tree itself is a fruit-bearing deciduous shrub or small tree growing between five and eight meters tall or 20- 30 feet, with typically 3-5 trunks if the tree is healthy. They love the summer heat and can withstand very dry weather, but it can also survive winter temperatures as low as 10 degrees Fahrenheit. Even though the tree can manage with very little water, it's best if you want the most flavorful and delicious fruit to continue to water during the summer months.

The tree has bright green, glossy, leathery, short-stemmed, oblong **leaves** that are anywhere from 3 to 7 centimeters long and about 2 centimeters broad. The flowers of the tree are called Balaustines and are bright red or orange with 3-

7 petals. The flowers are approximately 3 centimeters in diameter. They grow on the tips of the branches singly or in clusters of up to 5.

They can live between 100-150 years in the wild and up to 300 years or more in cultivated gardens. They're native to the modern day regions of Iran/Iraq but can be found all over the Mediterranean region and can even be found as far as California. Believe or not California is one of the largest producers of pomegranates in the world. Today there's about 1 million pomegranate bushes growing wild today in Eurasia, from the Balkans to the Himalayas and about 100,000 are on the territory of the former Soviet Union.

Although there are at least fourteen varieties of pomegranate, there are maybe four or five that are commonly available through pomegranate farms or pomegranate nurseries. The most common ones are:

- Wonderful pomegranate
- Angel red pomegranate
- Dwarf pomegranate
- Grenada or Greneda pomegranate
- Sweet pomegranate

In Israel the most common pomegranates grown are 'Wonderful' and 'Red Loufani'.

Pomegranate season is from September to February in the Northern Hemisphere, thus given the nickname "the jewel of the winter" and only from March to May in the Southern Hemisphere. The tree starts bearing fruit in their second or third year of growing and can produce 440-660 pounds of fruit annually. The tree is self-pollinated and also cross-pollinated by insects. The fruit itself is actually considered a berry and except for the crown-like structure at the top or bottom of the pomegranate, called the calyx, it looks similar to an apple on the outside, thus giving it the name "seeded apple" in Latin. The peel or skin on the outside is called the rind and commonly comes in a reddish color, can come in other colors such as yellow, pink, orange, or green. It typically contains around 600 juicy seeds depending on the size of the pomegranate and these seeds are encased inside a juicy sac called arils and the fleshy white pith that they are surrounded by is called albedo. The fruit itself has the benefit of not spoiling as fast as other fruits. Because the edible seeds are protected, they stay fresh as long as the outer covering is not split open. Also Once a pomegranate is picked, it won't ripen anymore.

Pomegranate yields many benefits to the person consuming it and is considered a super fruit because of its nutritional properties. It is a rich source for potassium. A single fruit is said to contain as much as 400 milligrams of potassium, much more than any type of orange or other fruits offer to a person. Apart from potassium, the pomegranate is a good food source of two essential nutrients, vitamins C and K. A 1/2-cup serving of seeds/juice sacs offers approximately 9mg vitamin C, or nearly 15 percent of the recommended daily value (DV) and a little more than 14mcg vitamin K, or about 18 percent of the DV. Vitamin C is important for a strong immune system, healthy gums and collagen production. Vitamin K is essential for blood clotting and plays a role in building bone. It also contains a good source of fiber content in it

The juice extracted from Pomegranates contains ellagic acid as well as anthocyanins – both having antioxidant properties boosting immune system. It has been found in research of this wonderful fruit that the antioxidant capacity in the form of ellagic acid and anthocyanins in one cup of pomegranate juice is two to three times more than the capacity one can derive by consuming a cup of green tea or red wine. In fact they contain more antioxidants than any other natural food.

Pomegranates and pomegranate juice are rich in phytochemicals, which are compounds found in plant foods that fight disease and promote health. They are usually related to the color of the fruit/ vegetable. Pomegranates contain a high amount of a group of phytochemicals known as polyphenols. The most abundant polyphenols in pomegranates are tannins, quercetin and anthocyanins which offer anti-cancer and heart health benefits. The fruit also helps in keeping skin healthier and aids in the body's production of energy.

Several recent studies have shown significant potential health benefits from drinking pomegranate juice. Here are eleven:

The juice of wild pomegranates yields citric acid and sodium citrate for pharmaceutical purposes. Pomegranate juice enters into preparations for treating dyspepsia and is considered beneficial in leprosy

### **Fights Breast Cancer**

Studies in Israel show that pomegranate juice destroys breast cancer cells while leaving healthy cells alone. It may also prevent breast cancer cells from forming.

### **Lung Cancer Prevention**

Studies in mice show that pomegranate juice may inhibit the development of lung cancer.

### **Slows Prostate Cancer**

It slowed the growth of prostate cancer in mice.

### **Keeps PSA Levels Stable**

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### **Protects the Neonatal Brain**

Studies show that maternal consumption of pomegranate juice may protect the neonatal brain from damage after injury.

### **Prevention of Osteoarthritis**

Several studies indicate that pomegranate juice may prevent cartilage deterioration.

### **Protects the Arteries**

It prevents plaque from building up in the arteries and may reverse previous plaque buildup.

**Alzheimer's Disease Prevention** It may prevent and slow Alzheimer's disease. In one study, mice bred to develop Alzheimer's disease were given pomegranate juice. They accumulated significantly less amyloid plaque than control mice and they performed mental tasks better.

### **Lowers Cholesterol**

It lowers LDL (bad cholesterol) and raises HDL (good cholesterol).

### **Lowers Blood Pressure**

One study showed that drinking 1.7 ounces of pomegranate juice per day lowered systolic blood pressure by as much as 5 percent.

## Dental Protection

Research suggests that drinking pomegranate juice may be a natural way to prevent dental plaque.

## Heart Health

In preliminary laboratory and human pilot studies, pomegranate extract has been shown to be effective in reducing heart disease risk factors. According to an article published in the "European Journal of Pharmacology" in 2004, evidence suggests that polyphenol-rich plant foods trigger mechanisms on a cellular level that keep the arteries flexible, enhance blood flow and prevent LDL (bad) cholesterol from oxidizing and forming plaque on artery walls. Not only are these phytochemicals beneficial for the prevention of heart attack but they also lower blood pressure and reduce the risk of stroke.

## Other Uses

The bark of the stem and root contains several alkaloids including *isopelletierine* which is active against tapeworms. Either a decoction of the bark, which is very bitter, or the safer, insoluble Pelletierine Tannate may be employed. Overdoses are emetic and purgative, produce dilation of pupila, dimness of sight, muscular weakness and paralysis.

Because of their tannin content, extracts of the bark, leaves, immature fruit and fruit rind have been given as astringents to halt diarrhea, dysentery and hemorrhages. Dried, pulverized flower buds are employed as a remedy for bronchitis. In Mexico, a decoction of the flowers is gargled to relieve oral and throat inflammation. Leaves, seeds, roots and bark have displayed hypotensive, antispasmodic and anthelmintic activity in bioassay.

All parts of the tree have been utilized as sources of tannin for curing leather. The **trunk bark** contains 10 to 25% tannin and was formerly important in the production of Morocco leather. The **root bark** has a 28% tannin content, the leaves, 11%, and the fruit rind as much as 26%. The latter is a by-product of the "anardana" industry. Both the **rind** and the **flowers** yield dyes for textiles. Ink can be made by steeping the **leaves** in vinegar. In Japan, an insecticide is derived from the bark. The pale-yellow **wood** is very hard and, while available only in small dimensions, is used for walking-sticks and in woodcrafts.

Some random facts of the pomegranate tree:

The French used the word grenade (from the word for pomegranate) for an explosive device, the explosion of which resembles the scattering of pomegranate seeds!

Ripe pomegranates on the tree can crack and split open after rain.

Pomegranates are used in Middle Eastern cooking.

King Tut and other Egyptians were buried with pomegranates, which gave hope of rebirth.

The pomegranate is one of the oldest known fruits.

The juice of a pomegranate will stain anything!

California pomegranate production was begun by a Jewish couple who then created the Pom Wonderful company.

Pomegranate trees are cultivated as ornamentals as well as for their fruit.

There is a dwarf variety of the pomegranate that is often used as a Bonsai tree or a patio plant.

The city of Granada, Spain is named after the Spanish word for pomegranate, "granada." The city's heraldic device is the pomegranate.

Pomegranate juice is used for natural dyeing of non-synthetic fabrics.

500 kg of pomegranates produce a mere 1 kg of oil.