



## Zion Farmers Market Veg-u-cation

### Razzle Dazzle



You've doubtless eaten them, popped them into your weekly shop and even considered growing them, but how much do you know about the delicate little raspberry?

Also known as *Rubus idaeus*, the raspberry belongs to the same botanical family as the rose and the blackberry. But the fun facts don't stop there - it turns out there's far more to the brilliant berry than first meets the eye.



How many of these raspberry-related facts did you know?

#### ***They're actually really good for you***

Raspberries contain more vitamin C than oranges, are super high in fibre, low in calories and supply you with a good dose of folic acid.

Further to that, they are high in potassium, vitamin A and calcium. Who would have thought that you could find so much goodness in one humble berry?

#### ***They are thought to help pregnant women***

It has been suggested that drinking raspberry leaf tea shortens the second stage of labor.

### ***Scotland is an unlikely raspberry haven***

It's famous for its raspberry growing. In the late 1950s, raspberries were brought down from Scotland to London on a steam train known as the Raspberry Special.

### ***Raspberries are ancient***

They are thought to have been eaten since prehistoric times, but only began to be cultivated in England and France in about the 1600s.

### ***There are over 200 species of raspberries***

That's a bit more than your standard pink berries in a box, isn't it?

### ***They come in all sorts of colours***

Not all at once, but raspberries can be red, purple, gold or black in color. The gold ones are the sweetest variety, and very tasty.

### ***They are really involved in the berry family tree***

To form new species, raspberries have been crossed with other berries.

The loganberry is a cross between raspberries and blackberries; the boysenberry is a cross between red raspberries, blackberries and loganberries; the nessberry is a cross between a dewberry, raspberry and a blackberry.

It's all gone a bit meta-berry.

### ***They aggregate***

Not like the football scores, no. Aggregate fruits have flowers with multiple ovaries and each produces drupelets around a core.

Those drupelets are the delicate little bead-like pockets of goodness in each raspberry, and each one could be considered a separate fruit on its own.

### ***The raspberry is super seedy***

In a nice way, though: an average raspberry has 100 to 120 seeds.

### ***Raspberries are deeply symbolic***

No, you wouldn't have thought it, would you. In some kinds of Christian art, the raspberry is the symbol for kindness. The red juice was thought of as the blood running through the heart, where kindness originates.

In the Philippines, if you hang a raspberry cane from the outside of your house, evil spirits are supposed to be deterred.

In Germany, too, raspberry canes would be tied to the horse's body in the belief that it would calm them down. So much power in one gentle cane!

### ***They were once thought to be curative too***

In the past they have been used to clean the teeth, and as a cure for sore eyes.

***They don't continue to ripen when picked***

Unlike many fruits, unripe raspberries do not ripen after they have been picked. There's no softening up in the fruit bowl for the raspberry - once it's picked, that's your lot.



**What's New and Beneficial About Raspberries**

- One of the most fascinating new areas of raspberry research involves the potential for raspberries to improve management of obesity. Although this research is in its early stages, scientists now know that metabolism in our fat cells can be increased by phytonutrients found in raspberries, especially rheosmin (also called raspberry ketone). By increasing enzyme activity, oxygen consumption, and heat production in certain types of fat cells, raspberry phytonutrients like rheosmin may be able to decrease risk of obesity as well as risk of fatty liver. In addition to these benefits, rheosmin can decrease activity of a fat-digesting enzyme released by our pancreas called pancreatic lipase. This decrease in enzyme activity may result in less digestion and absorption of fat.
- Recent research on organic raspberries has now shown organic raspberries to be significantly higher in total antioxidant capacity than non-organic raspberries. Raspberries in the study were grown on farms in Maryland that had been previously certified as organic by the U.S. Department of Agriculture. A series of tests involving free radical scavenging all provided the same results: organic raspberries outperformed their non-organic counterparts in terms of their antioxidant activity. This greater antioxidant capacity was associated with the greater levels of total phenols and total anthocyanins found in organic versus non-organic raspberries. While there are many good reasons to purchase organic versus non-organic foods of all kinds, this study makes it clear that these reasons specifically hold true for raspberries in a profound way.
- You'll get significantly more antioxidant support by purchasing raspberries that are fully ripe. Recent studies have measured the total phenolic content, total flavonoid content, and anthocyanin content of raspberries harvested at varying stages of ripeness (from 50% to 100% maturity) and greatest overall antioxidant benefits were associated with full ripeness of the berries. Although it's possible for raspberries to ripen after harvest, this fruit can be highly perishable and can mold quite easily at room temperature. So your most risk-free approach for getting optimal antioxidant benefits from raspberries is to purchase them at full maturity, keep them refrigerated at all times at temperatures between 35-39°F (2°-4°C), and consume them very quickly (within 1 to 2 days after purchase).
- Anti-cancer benefits of raspberries have long been attributed to their antioxidant and anti-inflammatory phytonutrients. In animal studies involving breast, cervical, colon,

esophageal, and prostate cancers, raspberry phytonutrients have been shown to play an important role in lowering oxidative stress, reducing inflammation, and thereby altering the development or reproduction of cancer cells. But new research in this area has shown that the anti-cancer benefits of raspberries may extend beyond their basic antioxidant and anti-inflammatory aspects. Phytonutrients in raspberries may also be able to change the signals that are sent to potential or existing cancer cells. In the case of existing cancer cells, phytonutrients like ellagitannins in raspberries may be able to decrease cancer cell numbers by sending signals that encourage the cancer cells to begin a cycle of programmed cell death (apoptosis). In the case of potentially but not yet cancerous cells, phytonutrients in raspberries may be able to trigger signals that encourage the non-cancerous cells to remain non-cancerous.