

## Focus on: Poppy



The poppy seed is an oilseed obtained from the pods of the poppy plant (*Papaver somniferum*). The pods contain a large amount of white, grey or bluish seeds. Poppy seeds have been cultivated for over 3,000 years and grow best at cool temperatures between 10 to 15 degrees centigrade. Today, poppy seeds are produced mainly in Central European and Asian countries.

Poppy seeds are less than a millimetre in length, kidney-shaped and have a pitted surface. It takes 3,300 poppy seeds to make up a gram, and between 1 and 2 million seeds to make up a pound.

The seeds can be used as a source of poppy seed oil but are mainly added to foods such as breads, muffins and burger buns as a topping, both for its flavour and crunchy texture. As well as being used as a garnish and spice, poppy seeds are also added to food for their nutritional value and low allergenic risk compared to other oilseeds.

### Harvesting and morphine issues

The poppy plant is used in two different sectors – the seeds are grown for culinary use and the stalks are grown for the production of morphine for the pharmaceutical industry. Poppy seeds are harvested when they are ripe and after the seed pod has dried.

There is awareness in the industry of possible contamination during the harvest process. Where the poppy seed is a bi-product there must be careful management from harvest through to delivery to reduce the level of cross contamination with any sap found in the stalks. The European Union has issued guidelines on this. However, the quantity of poppy seeds that would have to be consumed to have a detrimental effect tends to be self-limiting.

The bakery industry purchase poppy seeds with very low morphine levels and as such these seeds command a significant premium for this reason. Due to the amount of poppy seeds generally used in food products the alkaloid content is insignificant and is diluted further once applied to bakery products.

### Health benefits

Poppy seeds have a high nutritional value and can help to maintain a healthy body. 100 grams of poppy seeds contain roughly 500 calories. Each poppy seed is composed of approximately 6% water, 28% carbohydrates, 42% fat, and 21% protein, and they can be known to help the following health conditions:

- **Aids in the prevention of heart disorders:** Each serving of poppy seed contains a considerable amount of linoleic acid, an omega-6 fatty acid that offers protection against heart disease. However, it should be noted that excessive amounts of omega-6 fatty acids can cause detrimental effects on the body. A healthy balance of omega-3 and omega-6 fatty acids is highly recommended to maintain heart health.
- **Supports bone maintenance and development:** Poppy seeds contain both iron and phosphorus, minerals essential for the maintenance of both muscles and bones.
- **Prevents constipation and other digestive problems:** Poppy seeds have high amounts of dietary fibre, which aids the digestive system in metabolising and smoothly processing ingested food, preventing constipation and other digestive problems.
- **Enhances brain function:** Calcium, iron and magnesium found in poppy seeds are minerals needed by the body to regulate brain activity and the development of neurons. They also aid in the production of neurotransmitters.
- **Assists in red blood cell production:** The abundance of copper and iron in poppy seeds improves red blood cell formation, which helps in the prevention of anaemia and other blood-related conditions.