



# Strawberry a delicious fruit

by Anjuman Murtaza.

“Pakistan is producing a limited quantity of strawberries which are either eaten or used in preparing ice-cream, jam, jelly, pickle, cake or milkshake. The fruit is sold at Rs.100 to Rs120 per kg in big cities”.

The word strawberry comes from the Old English words "strewberie" or "strewbelige". There are a few theories about how they got their name. The "straw" bit could come from the straw that was used to keep the strawberries fresh, or it may have come from "strewed", which means to spread wide.

The Latin name for the famous everyday strawberry is *Fragaria Ananassa*. We'll just stick to plain strawberries for now.

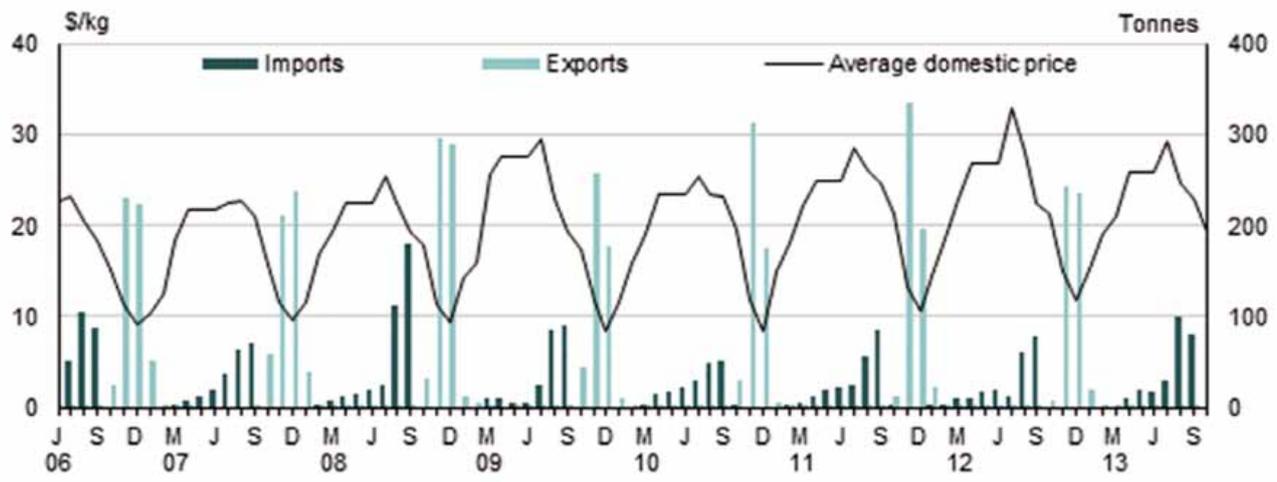
Residents of the scenic valley generate most of their income from tourism and agriculture, with hundreds of orchards that grow the country's best fruits – from apples to peaches. Even though the 2009 military operation and the subsequent year's devastating floods hit the district's economy really hard, growers are slowly picking up the pace.

In Pakistan wholesale price of the fruit comes down to Rs 50 per kg during the second fortnight of March when the crop production touches its peak. The per acre income from strawberry crop is estimated to Rs100, 000 per season.

There are a number of reasons for restricted production, like the climate, size and taste. By overcoming problems related to quality, quantity and perishability of the fruit, Pakistan can also export it to Europe, the United States and Middle Eastern countries. Its saplings can be obtained from nurseries located in Mingora and Madayen (KPK) at a rate of Re1 one per unit.

There is no one variety of strawberry which possesses all the characteristics. In general, the differences in tastes between different varieties are not given as much weight as in case of some other fruits. Some of its superior varieties enjoy colour

**Fig 1: Strawberries by domestic price and import and export quantity Monthly, June 2006-October -2013**



Source: Statistics New Zealand



that is very attractive. Its varieties grown in Pakistan are Chandelier, Corona and Stuff. These are mostly sour and small in size, and very delicious in taste people love strawberry's taste and enjoy it.

The trend of cultivating strawberry is surging among farmers living in the riverine belt of the River Chenab as cultivators are much content with its profit ratio as compared to traditional crops.

The traditional crops of the single-cropping belt located on both banks of the river are wheat and vegetables. Local farmers have been cultivating the two crops since generations, but they have now started cultivating strawberry as an alternative crop for the last few years.

Some eight years ago, farmers hailing from the upper Punjab had started the cultivation of strawberry after acquiring land on lease from locals, but for the last four years, locals have also started to cultivate the crop after calculating the profit margin of traditional crops and the strawberry crop.

**Strawberries show how trade affects price:**

Strawberries offer an illustration of the relationship between international trade and domestic prices. Figure shows the average price of strawberries collected for the CPI and FPI, alongside volumes of imports and exports.

**Note:** Strawberries are in relatively short supply for consumers in May and June and therefore difficult to price. We don't include average retail prices for strawberries in the FPI for these months as fewer than half the outlets we track stock them. Therefore no price movement is shown in the FPI over these months. Also, average retail prices for December are based only on prices collected in the first three weeks of the month, because of the holiday period.

**Global strawberry production**

According to FAO data, global strawberry production growth has somewhat slowed down in the past few years. Global production of these berries has

been increasing averagely by 3.1% annually in 2007-2011.

Furthermore, in the period 2010-2011, strawberry production stagnated partially due to abnormal weather conditions in Europe, Africa and North America in 2010. As a result, global production decreased by 5.2% in 2010 and returned to previous levels in 2011.

Europe and America account for 74% of global strawberry production (37% and 38% respectively). Populous Asia cover just 16% of global production. At the same time, the fastest growth rates in strawberry production are observed in the African countries (primarily in the North African ones) thanks to exports to the EU. This region's annual production growth rates reach 11%. Growth rates in Europe and Asia are significantly more modest: 2% and 1% per year respectively. In America and Oceania, strawberry production increases averagely by 4% annually.

**List Notes:** Strawberry production is in metric tons (m/t) for the year 2011 (latest year for which statistics are available as of Jan 2014). This top 5 list may include official, semi-official or estimated data gathered by the Food and Agriculture Organization of the United Nations.

**Important note:** As of January 2014, China does not report strawberry production in its official annual agricultural statistical publication, "China's Agriculture

**The Top 5 Strawberry Producing Countries**

| Country | Strawberry Production 2012 (Metric tons) | % of World Total |
|---------|--|------------------|
| U.S.A.  | 1,312,960                                | 30.4 %           |
| Turkey  | 302,416                                  | 7.0 %            |
| Spain   | 262,730                                  | 6.0 %            |
| Egypt   | 240,284                                  | 5.5 %            |
| Mexico  | 228,900                                  | 5.3 %            |

Sources: FAOSTAT data, 2014 (last accessed by Top 5 of Anything, January 2014).

## Exclusive on Strawberry

Yearbook" so the exact size of China's strawberry industry is unknown. However as reported by the Department of China's Ministry of Agriculture, China's strawberry production may have reached 1,541,227 metric tons over the 2001-2003 time period which means that China could rank on the Top 5 of Anything list as one of the world's largest producers of Strawberries. However since at the moment official reliable data is not available, it has been not been included in our list of the Top 5 strawberry producers.

### Strawberry in Pakistan

Strawberry is well-known as the most appetizing and very nutritive fruit. According to agricultural experts, it has enormous dietetic value and one of the potential sources of protein, carbohydrates, fats and vitamin. In Pakistan, it is consumed in fresh form as well as in processed form for making squashes, jams and jellies which may be used throughout the year. Main varieties of strawberry which are cultivated in Pakistan are Douglas and Toro appropriate for southern areas of Pakistan whereas Chandler, Cruz Pocahontas and Tufts are suitable for Islamabad and Honeyo, Chandler, Gorella and Corona are recommended for Swat. However, it is

| Strawberries ( <i>Fragaria X ananassa</i> ),<br>ORAC Value 3577,<br>Nutrition Value per 100 g. |                |                   |
|--|----------------|-------------------|
| Principle  | Nutrient Value | Percentage of RDA |
| Energy   | 32 Kcal        | 1.5 %             |
| Carbohydrates  | 7.7 g          | 6 %               |
| Protein  | 0.67 g         | 0.1 %             |
| Total Fat  | 0.30 g         | 1 %               |
| Cholesterol  | 0 mg           | 0 %               |
| Dietary Fiber  | 2.0 g          | 5 %               |
| <b>Vitamins</b>  |                |                   |
| Folates  | 24 µg          | 6 %               |
| Niacin   | 0.386 mg       | 2.5 %             |
| Pantothenic acid   | 0.125 mg       | 2.5 %             |
| Pyridoxine   | 0.047 mg       | 3.5 %             |
| Riboflavin   | 0.022 mg       | 2 %               |
| Vitamin A  | 12 IU          | 0.5 %             |
| Vitamin C  | 58.8 mg        | 98 %              |
| Vitamin E  | 0.29 mg        | 2 %               |
| Vitamin K  | 2.2 µg         | 2 %               |
| <b>Electrolytes</b>  |                |                   |
| Sodium   | 1 mg           | 0 %               |
| Potassium  | 153 mg         | 3 %               |
| <b>Minerals</b>  |                |                   |
| Calcium  | 16 mg          | 1.6 %             |
| Iron   | 0.41 mg        | 5 %               |
| Magnesium  | 13 mg          | 3 %               |
| Manganese  | 0.386 mg       | 17 %              |
| Zinc   | 0.14 mg        | 1 %               |
| <b>Phyto-nutrients</b>   |                |                   |
| Carotene-β   | 7 µg           | --                |
| Lutein-zeaxanthin  | 26 µg          | --                |
| Sources: USDA National Nutrient data base  |                |                   |

mainly growing in northern areas of the country like Swat, Charsadda, Mansehra, Haripur, Abbottabad, Mardan, Peshawar and some parts of central and south Pakistan like Gujrat, Sialkot, Jhelum, Chakwal, Multan and Karachi.

Almost total cost of production of this fruit crop more than or near about is Rs. 100,000 per acre and revenue is Rs. 200,000 per acre. It is grown on an area of around 78 hectares with annual production of about 274 tones. The average per acre yield of this fruit crop is very low as compared to other strawberry growing countries of the world due to defective agronomic practices, lack of appropriate research work and lack of economic and market value of strawberry cultivation among the strawberry cultivators.

Now a days, retail prices of this fruit are in the range of Rs. 140 to 180 per kg. The strawberry supply commences at the end of January and continues until the end of May each year in the country. Mostly, the buyers of this fruit are rich citizens, foreigners, hotels, milkshake shops and processors etc. In Pakistan, it has a vast potential due to the varied climatic conditions that are favorable to its growth.

### References

Statistics New Zealand (January 2010). Seasonal price fluctuations for fresh fruit and vegetables. Available from [www.stats.govt.nz](http://www.stats.govt.nz). ♦

