

# Strawberry reduces blood pressure, cholesterol level and prevents heart disease

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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 vitamins.

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.125 to Rs150 per kg in big cities.

Strawberries are globally cultivated for their fruits which are popular for their distinctive succulent nature, bright red colour, juicy texture, and aroma. Strawberries are widely consumed either fresh or used in the preparation of juices, ice-creams, pies, milkshakes or chocolate.

Strawberry belongs to the family Rosaceae, genus *Fragaria*, and is among the most widely consumed fruits throughout the world. Strawberries can slow down age-related loss of memory. It reduces blood pressure, cholesterol levels and inflammatory markers to prevent heart disease.

Strawberries have higher levels of vitamin C, fibre, foliate and potassium than most other fruits like bananas, apples and even oranges. Apart from the obvious health benefits, a study by Dr Gene Spiller, Nutrition and Health

Research Centre, has shown that eating one serving (about 8-10 strawberries) a day can significantly decrease blood pressure, which may reduce the risk of heart disease. Other studies showed additional nutrition benefits: Strawberries are found to reduce risk of cancer, enhance memory function and rheumatoid arthritis.

The roots, fruits and leaves of Alpine strawberry were widely used in these countries to make medicine that were used to cure digestive problems and skin diseases. Over the years strawberries were used for treating skin rashes, sun burn, discoloration of teeth and digestive disorders.

World Strawberries were originally grown in northern parts of Europe. They were also found in different parts of Russia, Chile and United States. Strawberries seem to have been cultivated in ancient Rome in large scale for medicinal purposes. During the 13th century, France also cultivated strawberries for its medicinal purpose. United States is the largest producer of strawberries in the world. Unlike strawberry growers in many other countries, US strawberry growers are production oriented rather than market-oriented. Nearly 100% of the strawberry production is done in the field, using raised-beds fumigated with methyl bromide and covered with plastic mulch.

**Table-1: Leading Producers of Strawberries in the World**

Rank	Country	Production (Tonnes)
1	U.S.A	1,312,960
2	Turkey	302,416
3	Spain	262,730
4	Egypt	240,284
5	Mexico	228,900
6	Russia	184,000
7	Japan	177,300
8	South Korea	171,519
9	Poland	166,159
10	Germany	154,418

In California, strawberries are grown as a perennial crop. It is the No1 producer accounting for 80% of the total US strawberry production. Florida, strawberries are grown as an annual crop and it is the second largest producer of strawberries in the US. Due to the comparatively mild winters, Florida is the largest supplier of fresh strawberries during winter.

According to FAO data, global strawberry production growth has somewhat slowed down in the past few years. Strawberry production stagnated partially due to abnormal weather conditions in Europe, Africa and North America. World leading production countries of strawberry are given in **Table-1**.

Europe and America account for 74% of global strawberry production (37%

**Table-2: Major Strawberry exporting countries in the World**

Rank	Country	Production (000Tonnes)
1	Spain	283
2	U.S.A	134
3	Mexico	92
4	Netherlands	56
5	Belgium	53
6	Belarus	36
7	Egypt	25

**Table 3: Area and Production of Strawberries**

Year	Area (Hectares)	Production (Tonnes)
2009-10	76	270
2010-11	82	284
2011-12	84	292
2012-13	92	274
2013-14	98	295
2014-15	102	300
2015-16	105	310

**Source: Ministry of National Food Security and Research, Government of Pakistan.**

and 38% respectively). Populous Asia covers 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) due to exports to the EU. 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. Spain is the largest world trader. World major strawberry exports countries are given in **Table-2**.

### Production in Pakistan

Pakistan The strawberry fruit is soft and perishable and its quality is affected when it touches the soil. The fruit is commercially consumed both in fresh form and can be preserved for making Jam, Jellies and squashes that can be used in off-season.

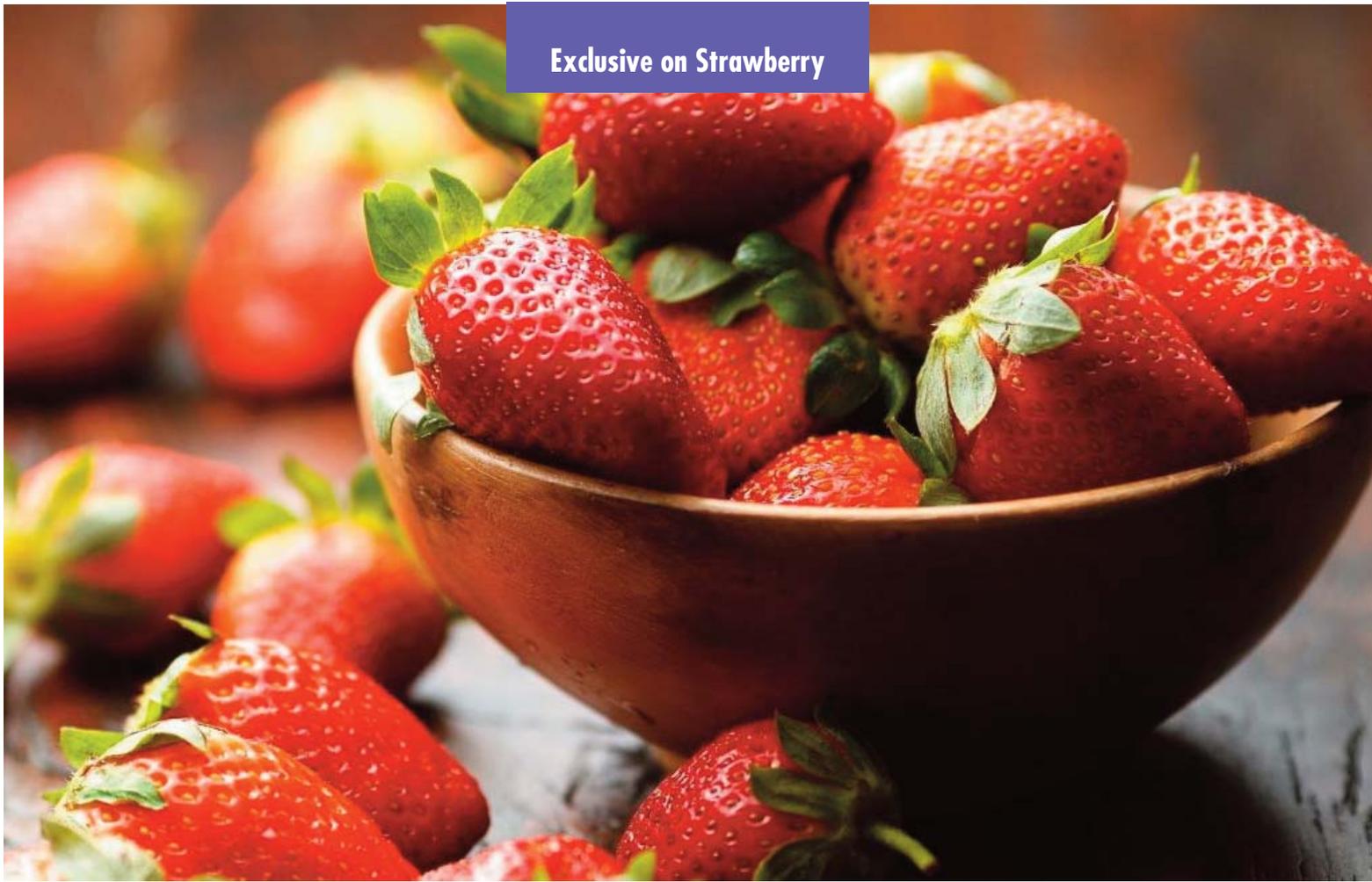
In Pakistan the strawberry is growing in Swat, Abbottabad, Mansehra, Haripur, Mardan, Peshawar, Charsadda, Gujrat, Sialkot, Jhelum, Chakwal, and Karachi. The Katcho areas along the riverbed in Sindh started cultivation of strawberry in October, 2011.

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 for Swat. It is 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

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.



## Exclusive on Strawberry



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.

The fruit is now being supplied to different markets in the country. Strawberry is currently being sent from Dadu, Gharhi Khairpur and Sukkur districts to cities like Karachi, Hyderabad and Quetta.

Strawberry production increased from 270 tonnes in 2009-10 to 310 tonnes in 2015-16; out of total production only 3 tonnes were exported. Production of strawberries in Pakistan are given in **Table-3**

**Exports:** Pakistan exported fresh strawberry mainly to Afghanistan and Middle East countries. Export of strawberry decreased from 400 kg worth Rs 129,000 in 2015-16 to 463 kg worth Rs. 62,000 in 2016- 17. Country-wise export of strawberries is given in **Table-4**.

### Future Prospects

The agricultural business development specialists are of the opinion that devel-

Table 4: Exports of Fresh Strawberry				
Quantity: Kg.				
Value: Rs. 000				
Country	2016-17		2015-16	
	Quantity	Value	Quantity	Value
Afghanistan	445	60	--	--
Oman	18	2	--	--
Saudi Arabia	--	--	400	129
<b>Total</b>	<b>463</b>	<b>62</b>	<b>400</b>	<b>129</b>

**Source: Pakistan Bureau of Statistics**

opment of infrastructure, skills in farming and introduction of modern technology will gradually increase its strawberry output benefiting the growers in future. Sindh is suitable for strawberry crop.

There is need of proper guidance to growers which could be given by the agriculture department experts. According to Sindh Abadgar Board General Secretary, Syed Mehmood Nawaz Shah, climate of Sindh was suitable for strawberry crop; only there was need of proper guidance to growers which could be imparted by the agriculture department experts. This fruit was in demand worldwide and could be exported worldwide.

With better agronomic practices, Pakistan can increase its strawberry pro-

duction from the current 300-400 kilograms per acre. Experts are informing strawberry growers of proper agricultural practices to help them increase their yields.

Climate of Sindh also was suitable for strawberry crop; only there was need of proper guidance to growers which could be imparted by the agriculture department experts.

### References

1. Ministry of National Food Security and Research, Government of Pakistan
2. Pakistan Bureau of Statistics
3. Pakistan Economic Survey-2016-17
4. Trade Development Authority of Pakistan. ◆