

**Editorial**

## **Olive: its medicinal qualities, some religious connotations and its commercial benefits**

**Dr. Azhar Masud Bhatti**

**A. Director Health Services, EPI Punjab, Lahore**

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Editor in Chief**

There is a thick growth of Olive trees on the hilly side of the road leading to Murree from Islamabad. However, these trees are wild and only give fruit after 50 years. Considering the beneficial value of the Olive oil for the massage of hair, body and aching joints, it was a pleasant surprise to learn that the Government of Pakistan, in collaboration with the Embassy of Italy in Islamabad, has initiated a project to harness the wild Olive and make them productive.

The increasing demand for edible oils in Pakistan has made the Government realize that it has to increase and support their national production from traditional crops – such as canola, sunflower and soybean – as well as explore the possibility of ensuring a sustainable production of their other kind from palm, coconut and olive.

Unfortunately, large part of these national forests of wild olives were systematically destroyed over the last 20-30 years, and the wood was sold in the local markets as fuel.

Pakistan can earn about \$10bn by bringing its cultivable potential waste lands under olive cultivation besides converting eight million wild olive trees, present in different regions, into productive trees through grafting. Over 800,000 hectares of land, in 28 districts of Balochistan and Khyber-Pakhtunkhwa, has already been identified, after completion of a one-year project (Promotion, production and Commercialization of olive oil in Pakistan) with the Italian government's help for growing olive. If exploited, olive can considerably reduce the country's import bill for edible oils. The new plantation, according to experts, may earn for the nation \$9bn annually whereas the grafting of wild olive groves can yield an income of \$1bn annually.

The secret of the olive tree is in two things: its fruit – the olive itself and its over 20 feet massive underground root system, which enables the tree to withstand droughts.

An integral part of diet in the Mediterranean region, olive is believed to be one of the earliest trees cultivated by man. Native to Asia, olive belongs to oleaceae family and comprises 30 genera with 600 species. Olive oil is widely used in countries where fats are scarce. In South Asia, wild olive (*olea Cuspida*) is found within the northwest Himalayas and other adjoining hills, but

cultivated olive (*olea Europea*) is not grown anywhere on commercial scale. In Pakistan, olive is known as Zytoon in Urdu, Showan in Pushtu, Khat in Brahavi and Kow in Punjabi, Sindhi and Saraiki.

Mentioned seven times in the Holy Quran, the health benefits of olive have been propounded in Tibb-e-Nabvi (The Holy Prophet's system of medicine). According to Hazrat Abu Hurairah, the Holy Prophet Muhammad (PBUH) said, "Eat olive oil and apply it (locally), since there is cure for 70 diseases in it, one of them is leprosy." Hazrat Alqama Bin Amir quotes the Holy Prophet (PBUH), as saying "There is olive oil for you, eat it, massage over your body, since it is effective in Hemorrhoids (Piles)."

The Vitamin E contained in olives is the body's primary fat soluble antioxidant, which helps to strengthen the digestion and body's immune system, reducing cholesterol level, severity of asthma, cancer, osteoarthritis, rheumatoid arthritis, and premature ageing as well as delaying the effects of ageing, including wrinkles.

Olives contain compounds called polyphenols that appear to have significant anti-inflammatory properties. Used as balm, olive fortifies limbs and hair, keeping the later shiny and dandruff free. When applied to body, it fortifies and moisturizes the skin, softening it, combating inflammation and dry skin. It combats against acne, aches and pains from tired muscles.

Tea prepared from olive leaves helps against high blood pressure, while decoction of olive leaves in water is effective against mouth and lip ulcers and allergic dermatitis. The concentrated aqueous extract of olive leaves and fruits is effective against dental cavities and its application shows good effects on leukoplakia in mouth. When this solution is applied with vinegar on alopecia, it grows the hair and removes alopecia. Local application of this extract removes scabs of small pox and boils.

The oil procured by burning of olive wood is effective against fungal infections. The application of olive oil in eyes relieves inflammation, while its massage tones up the body muscles / organs and relieves muscular pains. Some physicians also advocate olive oil massage for epilepsy.

The ointments prepared from olive oil are good healing agents, which quickly heal sinus and fistula. A conventional regimen, comprising of olive oil and herbal rugs, dissolves and expels gallbladder stones.

A chance testing at a scientific meeting in Sicily has led to another reason for including olive oil in your diet.

The pungent liquid turns out to contain a compound that has the same molecular action as ibuprofen, the widely used painkiller, researchers at the Monell Chemical Senses Center in Philadelphia report in the Sep. 1 issue of *Nature*.

And that similarity means that olive oil may offer the same health benefits as low-dose use of anti-inflammatory drugs such as ibuprofen, said research leader Paul A. S. Breslin. Those benefits include a reduced risk of heart attack, stroke, some cancers and Alzheimer's disease.

The research effort had its beginning at a meeting on molecular gastronomy, where Gary Beauchamp, director of Monell, was offered some newly pressed extra virgin olive oil.

"He tested it and it stung in his throat the same way as ibuprofen, a distinct sensation," Breslin said, "He brought that virgin olive oil back to us. We isolated a compound from it, synthesized it and tested it for activity."

The newly discovered compound has been named oleocanthal by the Monell researchers. Tests show that it inhibits cox-1 and cox-2, molecules associated with pain and inflammation, just as ibuprofen does.

But the action of oleocanthal is much weaker than that of ibuprofen. It would take 500 grams of olive oil to get the effect of the ibuprofen dose recommended for adult pain relief.

Breslin certainly is not recommending that high a daily dose of olive oil. But he did say the new finding offers another reason for Americans to adopt the Mediterranean diet, which is rich in fish, unsaturated fat, fresh vegetables and olive oil.

"You could take a baby aspirin every day, but the Mediterranean diet offers the same health benefits," he said.

Olive oil can be substituted for some of the fat-rich products that abound in the current American diet, Breslin said. "You can put butter on your toast or dip it in olive oil, he said. "It's a no-brainer."

The health benefits of olive oil already have official federal approval. Last November, the U.S. Food and Drug Administration authorized advertisements saying that olive oil helps reduce the risk of coronary disease.

The best olive production and fruit quality occurs in areas having mild winter and long warm dry summer. Olive trees can be planted during spring and fall. However, fall is best if there is no likelihood of frost during winter. Although olive is a hardy tree, it requires timely irrigation during the early two years. If it does

not rain, trees should be irrigated twice or thrice in a year, preferably before flowering, after flowering and 30-45 days before fruit maturing.

Currently Pakistan meets some 73 percent of its edible oil requirements of around 2.8 million tons from imports entailing an annual expenditure of US \$ 1.7 to 2.2 billion. To lessen dependence on edible oil imports, the government launched a programme, in 2001, envisaging increasing domestic production of sunflower, oil palm, canola and extra-virgin olive oil.

Adopting a two-pronged approach of grafting and new plantation, the government has converted most of the olive trees into oil-bearing species of the European type olive at a cost of about Rs.186.370 million.

Under new plantation, olive orchards have already been established over 955 acres of land in Khyber-Pakhtunkhwa (at Tarnab-Peshawar, Sangbhatti, Khawoo, Kandare and Toru Kas in Mardan district and Pirsabak in Nowshera district), Punjab (Potohar) and Balochistan launched in 2005, the project, which envisaged an expenditure of Rs.39.185 million, aimed at cultivating over 300,000 olive saplings in Khyber-Pakhtunkhwa, Punjab and Balochistan.

Now, the government is mulling a Rs.382 million project – "Commercialization and Promotion of olive and olive products for economic development and poverty alleviation" – with Italy's help and assistance, aimed at utilizing culturable wastelands, forest lands and sub-mountainous areas for massive cultivation of olive. According to experts, one ton of oil can be extracted from olive trees spreading over one hectare of land.

The Italians have also provided training to 1,500 workers in olive cultivation/harvesting and provided an oil extraction plant, having a capacity of 400 kilogram per hour; under the earlier agreement. Meanwhile, the government has itself purchased four oil extraction units having a capacity of 50 kilogram per hour.

A time may not be far when the dream of using local olives as an edible oil becomes a reality