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Value Addition in Olive

Turn Potential Into Profit

Small and Medium Enterprises Development Authority
(SMEDA) Ministry of Industries and
Production (MoI&P)
Government of Pakistan

4th Floor Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore

www.smeda.org.pk

Phone: (+92 42) 111 111 456

1. Introduction

Globally, olive is mainly used to extract olive oil or processed into other value-added products. Olives are rich in vitamin E and other various antioxidants that make it an ideal component of a healthy diet. Since olive fruit is not edible in its raw form due to its bitter taste, the fruit is either converted into oil which is mostly used for cooking purposes or processed into table olives, pickles, salads and other delicacies.

Most commonly grown global varieties of olive include: Amfissa, Alfonso, Beldi Castelvetrano, Cerignola, Gaeta, Gordal, Kalamata, Liguria, Manzanilla, Mission, Nicoise, Nyon and Picholine. Spain, Italy, Turkey, Greece and Morocco are the top producers of olives in the world. Spain is the largest producer of olive with a production of 9.8 million tons per year, followed by Italy and Morocco producing 1.87 and 1.56 million tons, respectively every year.

2. Olive Cultivation Potential in Pakistan

It is important to mention that Pakistan's farm area suitable for olive cultivation is greater than that of Spain - a nation which is supplying over 75 percent of the global olive oil. The most commonly produced and consumed olive oil is the virgin olive oil. It is extracted from the olive fruit that has not undergone any treatment other than washing, decantation, centrifugation and filtration. Virgin olive oil is extracted using mechanical or other physical means under specific thermal conditions that do not lead to alterations in the chemical properties of oil, hence maintaining quality.

3. Olive & Olive Oil

There are three types of virgin olive oil namely: extra virgin olive oil, virgin olive oil and ordinary olive oil. Their characteristics are provided below, as defined by the International Olive Council (IOC):

i. Extra Virgin Olive Oil: Virgin olive oil which has a free acidity, expressed as oleic acid, of not more than 0.8 grams per 100 grams,
ii. Virgin Olive Oil: Virgin olive oil which has a free acidity, expressed as oleic acid, of not more than 2 grams per 100 grams
iii. Ordinary Virgin Olive Oil: Virgin olive oil which has a free acidity, expressed as oleic acid, of not more than 3.3 grams per 100 grams

It is important to note that pomace oil, which is commonly sold as a type of olive oil, does not fall into the category of olive oil as per the definition by the IOC[1]. It has a free acidity of not more than 1 gram per 100 grams and is not as healthy as virgin olive oil.

4. Market for Olive and its Value-Added Products

The global market of olive is primarily growing due to the health benefits associated with the consumption of olive oil, an increasing popularity of Mediterranean cuisines and usage in pharmaceutical products. The drivers of growth are discussed in detail below.

i. Rising Awareness of Health Benefits

There is an increase in demand for vegetable oils that have a high Omega-3, Monounsaturated Fatty Acids (MUFA) and Vitamin E content due to their associated health benefits. Olive oil contains the aforementioned nutrients and is also high in antioxidants that support healthy functioning of the heart. Various clinical studies have endorsed the use of olive oil and rapidly growing electronic media and social media platforms have raised awareness regarding the associated health benefits of consuming olive oil among the public.

ii. Increased Popularity of Mediterranean Cuisine

Increased popularity of the Mediterranean cuisines across the globe is another factor influencing growth of the olive market. Greek, Italian, Spanish and Middle Eastern cuisines have olive oil as an integral ingredient. Increasing travel, tourism and growing interest in various cuisines have supported the growth of olive oil market across the world.

[1] *IOC defines olive oil as 'the oil obtained solely from the fruit of the olive tree, to the exclusion of oil obtained using solvents or re-esterification processes'*

iii. Increasing Population

Increasing population in the world has also led to an increase in the consumption of olive oil. Increase in the number of health conscious consumers is another driver of growth in the demand for olive oil.

iv. Increased Usage in Pharmaceuticals and Beauty Products in Recent Years

Olive oil extracts are used as a raw material in manufacturing dietary supplements and various other pharmaceutical products. Olive oil extracts, the leaves and branches of olive plant have a number of traditional and contemporary uses in medicine for hypertension, diabetic treatments, preparation of anti-biotic, anti-inflammatory tonics, and anticancer and gastro-protective medicines. Additionally, the use of olive oil extracts in cosmetic industry is on the rise. Olive oil is used in skin care products and beauty treatments due to its antioxidant properties.

5. By-products of Olive Processing

Despite economic and dietetic benefits of olive oil, huge amounts of wastes are generated either in the cultivation fields from pruning or in the olive mills during olive oil processing. Therefore, it is important to consider all potential pathways for circular economy in the olive oil supply chain.

Fig 1: Main components of olive byproducts

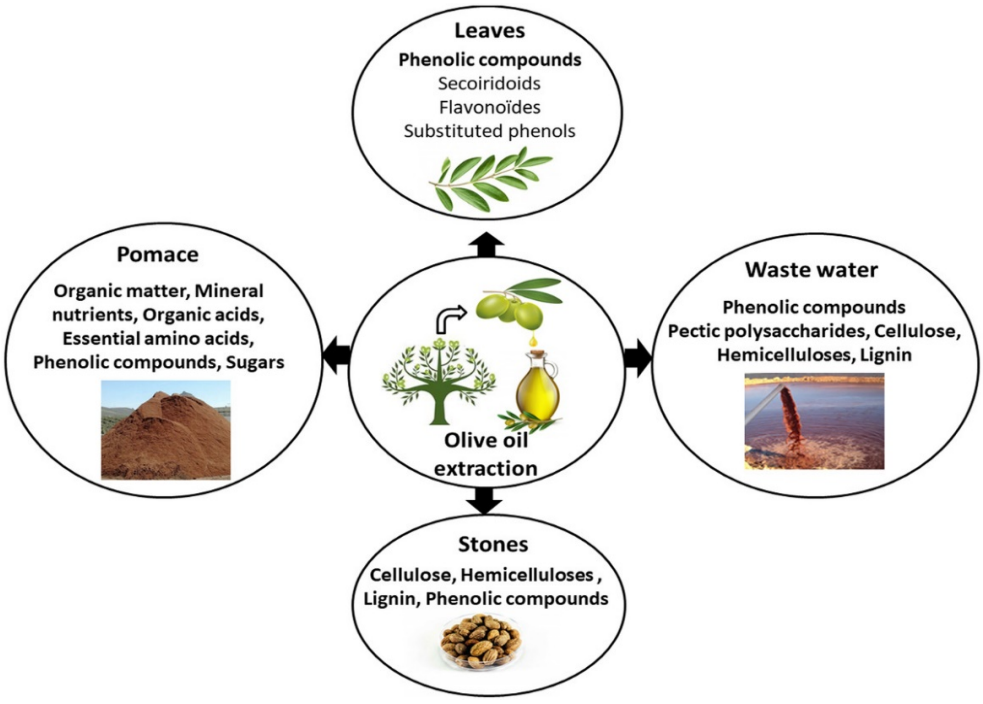
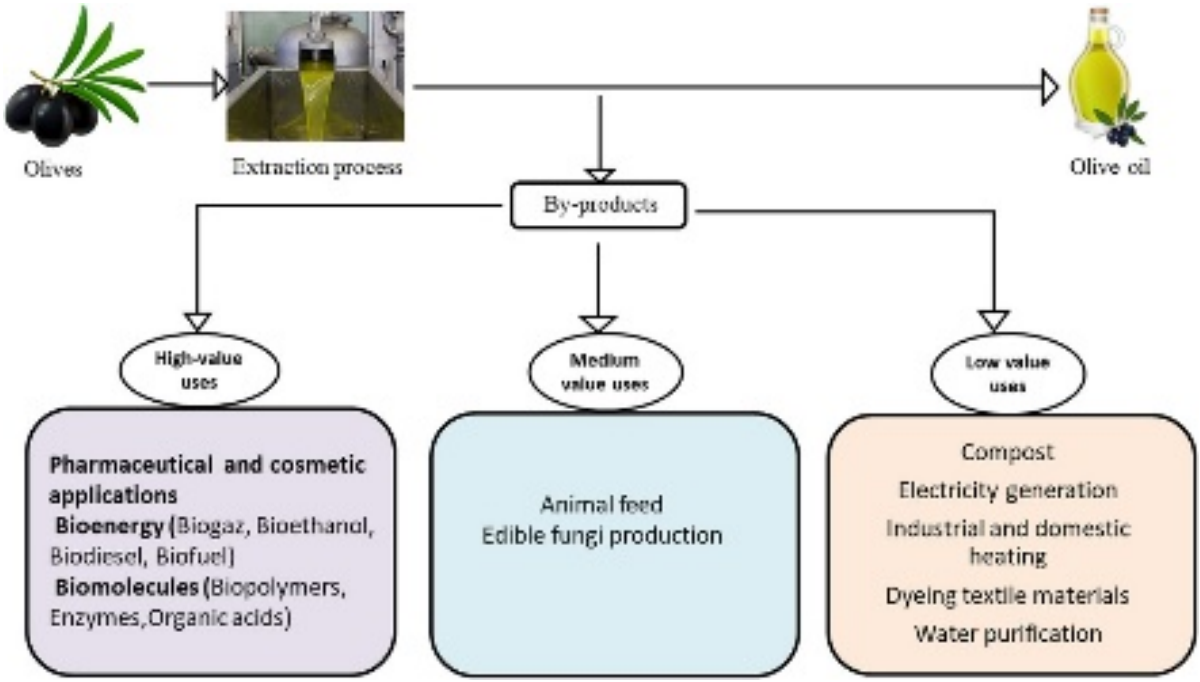


Fig 2: Diversified Applications of Olive By-products from Olive Oil Industry



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