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Olive Commercial Cultivation

Small Business

Turn Potential Into Profit



Small and Medium Enterprises Development Authority
(SMEDA) Ministry of Industries and
Production (Mol&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



The olive tree is a perennial, evergreen tree that can live and produce olives for more than a century. The trunk is cylindrical, smooth on young trees and bumpy in older, because lumps of varying size appear as the time goes by. The olive tree plays an important role in utilizing land unsuitable for other crops and also helps to protect soil erosion. The main products produced by olive tree are olive oil and table olives. The pomace of olives is also important for industrial use. Some other by-products that may have economic importance are the leaves, wood, core etc. The olive trees are often grown in pots indoor or outdoor as ornamental.

2. Commercial Olive Varieties in Pakistan

Following are the varieties of Olives for commercial cultivation in Pakistan:

1. Ottobratica
2. Coratina
3. Frantoio
4. Leccino
5. Mirailo

3. Climate – Temperature Requirements

The areas where olive trees are cultivated for commercial use must have an average annual temperature of 60-68 °F (15-20 °C). The absolute maximum temperature can reach 104 °F (40°C) without causing damage, but the minimum should not fall below 20 °F (-7 °C). Lower temperatures than this can cause serious damage to the trees. Of course, the temperature of

20 °F is only indicative, because the resistance of the tree in cold depends on other factors as well, such as how quickly the temperature drops, the length of the frost, the presence of strong cold winds, humidity, germination and health of the tree variety, weather conditions before frost etc. In general, we can say that the olive tree cannot be cultivated commercially in areas where the temperature often drops below 20 °F (-7 °C). However, a certain amount of cold is necessary for the fruit set. This is the reason why olive trees cannot be grown in tropical climates.

4. Soil Requirements



The success of an olive grove depends on the natural environment, the selection of suitable field and varieties and application of appropriate agronomic / cultivation practices.

Olive farms grown on flat sites and sites surrounded by hills are not only exposed to spring frosts, but also face the risk of serious frost damage during the winter. A slightly downward location, resulting in a flat surface, where the cold currents can escape easily, is a proper place for plantation of olive trees. Flat places where no frosts or cold winds are reported are also suitable. The average olive tree also needs plenty of sunlight for producing a good yield. Whereas, excessive soil moisture affects the growth and produce of the plant. Therefore, the farmer must choose a well- drained field, where rain water cannot easily stagnate.

5. Plantation

The field selection and preparation is followed by labeling the positions for seedlings. A proper hole with dimensions 20 inches X 20 inches (50 cm X 50 cm) is made for plantation of olive trees and the seedlings must be planted at the same depth as they were in the nursery. The surface soil of the pit must drop below the ball of the

seedling. The spring and fall seasons are considered to be ideal for plantation.

The planting distance of 20 X 20 feet (6 X 6 meter) between trees is usually observed. This is obviously a square planting system and results in 109 trees per acre or 272 trees per hectare. If the soil is too fertile, planting of olive trees in a denser scheme will result in mutual shadowing. Moreover, the roots of the trees will cross each other and compete. However, there are also other factors that should be taken into account for planting distances, i.e. mechanical harvesting, desired canopy shape etc. The tree population in commercial olive orchards ranges from 150 to over 900 trees per hectare (1 hectare = 2,47 acres = 10.000 square meters).

6. Water Requirements

The olive tree is resistant to drought, but responds greatly to the supply of water by any method. Well irrigated trees tend to produce higher yields, while the annoying phenomenon of Alternate Bearing can be mitigated through a rational and well-designed irrigation system. In general, olive trees that are cultivated for oil need less irrigation than those grown for table olives. Productive olive trees are irrigated (when needed) from the beginning of the growing season until the start of winter rainfalls, because lack of water can adversely affect the growth of vegetation, fruit set and development of fruit.

There are movable and immovable irrigation systems that are commonly used in olive farms. Movable systems have no set up costs, but they are labor intensive. Immovable systems require an initial investment and they have to be designed and built before planting the young olive trees. Olive irrigation systems can also be divided into low-volume systems (mainly drip systems – suitable for soils with slope) and normal volume systems (sprinklers), which can supply a higher water quantity per minute.

7. Harvesting

The average olive production of a mature olive tree ranges between 50-200 pounds (22 to 90 kg). Harvesting olives can be made by hand or through sophisticated machines. Most olive farmers harvest the olives by hand. Simple or electrical devices are used that shake the branches, making the olives drop on the ground. Then, olives are collected, filled in special bags and delivered to the mill for processing. On average, 3 to 7 lbs. of olives result in 1 lbs. of olive oil.

Useful Links:

www.parc.gov.pk

www.narc.gov.pk

www.aari.punjab.gov.pk

www.zarat.kp.gov.pk/

www.balochistan.gov.pk/agri

[/ agri.sindh.gov.pk](http://agri.sindh.gov.pk)

www.pakolive.com

www.shahfarm.com

www.hashoofoundation.org.

pk www.smeda.org.pk

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