

# Production Of Banana In Turkey

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**Abstract:** Banana, the production of which is restricted in some regions in both the world and in Turkey, is a rather demanded product as it is delicious, exotic and nutritious. The production, consumption and trade of banana is in high volumes in the world. Banana is the fourth most important crop species in the world and is critical for food security in many tropical countries. Bananas have been cultivated economically for a long time in subtropical regions of Turkey where production and productivity per hectare have significantly increased due to the adoption of protected cultivation. In Turkey, banana is mainly cultivated in Anamur and Bozyazı, where protected cultivation is common, and Alanya and Gazipaşa, where open cultivation is widely used. The area of protected cultivation in Alanya has lately been increasing. The objective of the study was to evaluate sustainability in banana production of Turkey.

**Keywords:** Banana, production, sustainability, Turkey.

Bananas are grown mostly between 30 degrees North and 30 degrees South latitude. It is grown in nearly 107 countries, the major banana growing regions are India, China, Brazil, Ecuador, Philippines, and Indonesia in tropics (FAO, 2006). Although banana is a fruit of tropical climate, it can be grown in subtropical climate belt countries like Spain, Israel, Morocco, Egypt, Portugal, and Turkey which have microclimate characteristics. Banana growing in Turkey is made in Mediterranean Region, in Mersin-Antalya coast line and especially in Alanya, Gazipaşa, Anamur and Bozyazı counties which are protected by the Taurus Mountains and have microclimate features, between 36. and 37. latitudes. (Türkey, 2007).

Banana was first brought to our country in 1750 from Egypt as an ornamental plant to Alanya. It has been grown for commercial purposes after 1930's for its fruit. (Anonymous a 2009). Banana production, which has been just hobby gardens for the first years, has reached to an important level in terms of area and amount of production. In 12 000 da area with a production of 30 000 tones, productivity per da was 2500kg in 1994. In 2008, production areas raised to 40 000 da and production amount raised to 200 000 tones, and the fruit quality was at world level (Anonymous b 2008). In our country, with the numbers of 2008, 200 000 tones of banana is produced and 100 000 tones is imported (Anonymous c 2008). Therefore, our total banana production has still not to met the domestic demand. Nonetheless, with some betterment as a result of both the growing system and some technical and cultural applications, our banana production will increase at places which show microclimate characteristics.

As our country is out of the main banana production areas, it is seen that at such times, cold affected banana plantation negatively. For this reason, especially in Anamur and Bozyazı bananas are grown in greenhouses instead of open areas. In spite of this, protected cultivation cannot be adopted to Gazipaşa because of its slope areas. In these areas, terracing is being used. In Alanya some of the plantation areas are sloping??? and some of them are plain. In plain areas it is not possible to build tall greenhouses because of the strong wind.

Under the subtropical conditions, watering is one of the major subject in banana producing. In our country, while drip irrigation is widely used in closed areas, in open areas 50% drip irrigation and 50% furrow irrigation systems are used. Especially in terracing areas of Gazipaşa with the effect of recent drought water of the well withdrew. As the wells are 80-140 meters depth, it is difficult to use them for watering. Watering is done by carrying water by tankers.

In our country, when looked at its planting area, yield, production, quality and potential, Anamur and its zone has become a trade mark of banana producing. For the sake of natural conditions, with its taste and odor, banana of Anamur became a brand name. Moreover, in our marketing domestic banana is being sold in the name 'Anamur banana'.

Banana production in Turkey has been initiated by clonal production of Dwarf Cavendish that is intensively used for dominant material. This variety has been known since many years due to its dwarfness and is convenient for protected cultivation. The growers are used depth shoots to proliferate the young plants or

meristematic shoots in establishing of the new plantations. As in the world, many growers also have initiated to plantation by cultivars comm only used in our country to increase yield in banana production (Türky, 2007). It has been informed that Grand Nain and Williams are convenient cultivars to be produced in protected cultivation and, Grand Nain, Williams and Basrai for open fields according to adaptation test plots conducted in Bozyazi town. These varieties have been recommended as alternative to Dwarf Cavendish in view of quality and yield (Gübbük vd 2003). These banana however, clones have different agronomic properties. For instance; Dwarf Cavendish is resistant to Panama disease, Grand Nain height is moderate level, Williams shows more yield but it is high plants. On the other hand, Dwarf Cavendish variety is produced by 90 % ratio in total production fields in which the plantation has been established by banana clones. This case results in increase individuals having remarkable bunch weight and quality from time to time resulted from unexpected mutations occurred in plants (Türky 2007).

The heating systems aren't used in banana greenhouses. In stead of that, the systems which can change the temperature and humidity of the greenhouses such as misting and sprinkler irrigation are used. During the summer season especially when the temperature is over 34°C, greenhouses temperature get lower by using misting system. Natural ventilation systems are used through all of the banana greenhouses in Turkey (Türky 2007).

Bananas harvesting becomes dense in certain periods in our country. Harvesting is done densely between November and March. However banana production in greenhouses extends the harvesting period.

As bananas are climacteric fruits, they are harvested in green ripe and then are matured. In our country after bananas were harvested, they were directly sent to consuming areas in wooden chests in the past and they were being matured according to the need. Recently, bananas are matured with ethylene in ripening rooms for consuming. If bananas are to be storage for a long time, they are stored at 12-13 °C, % 90-95 ratio of humidity (Paydas and Pekmezci 1983).

As a result bananas are produced in extreme conditions in Turkey. Banana production areas are sharp slopes surrounded by mountains on the north, and by sea on the south. Mountainous lands are being terracing for banana production. Although bananas need plenty of irrigation, production areas are lack of water. Moreover, these production areas making transportation of the crop to the market difficult. In spite of these negative conditions, in these areas there is no alternative product to banana to grow. According to the statistical data, our recent banana producing covers the 2/3 of our consuming. However, our country's production potential is enough to correspond to the consumption if assessed enough.

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