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Loquat (*Eriobotrya japonica* Lindl.) growing in Turkey

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SUMMARY – Loquat growing in Turkey has increased in the last 20 years. The crop mainly relies on standard cultivars and is located in Mediterranean regions. There are 288,000 loquat trees, 250,000 of which are bearing, and the total production is about 12,000 tonnes. Production is located in the Black Sea, Marmara and Aegean regions and is suitable for fresh consumption. Additionally, the Mediterranean region is adequate for early cultivars.

Key words: Loquat growing, *Eriobotrya japonica*, production, Turkey.

RESUME – "Culture du néflier (*Eriobotrya japonica* Lindl.) en Turquie". La culture du néflier en Turquie a augmenté au cours des 20 dernières années. La culture repose principalement sur des cultivars standard et est localisée dans les régions méditerranéennes. Il y a 288 000 néfliers, dont 250 000 sont en production, et la production totale est d'environ 120 000 tonnes. La production localisée dans les régions de la mer Noire, mer de Marmara et mer Egée est adéquate pour la consommation en frais. En outre, la région méditerranéenne convient aux cultivars précoces.

Mots-clés : Culture du néflier, *Eriobotrya japonica*, production, Turquie.

Introduction

China, Japan and North India are the main genetic diversity regions from loquat in the world. It is estimated that loquat was brought to Turkey from Algeria and Lebanon about 150-200 years ago (Demir, 1987). Loquats grow best in subtropical climate and in tropics, especially in areas where citrus are grown. Trees can withstand -12°C without serious injury (Demir, 1987).

Loquats bloom from middle November to middle February. Loquat fruit appears in the market in period of less fresh fruits and it is an important ingredient of the human diet because of its rich content of minerals and vitamins. Loquat fruits contain vitamins (A, B and C), minerals (phosphor and calcium), mineral salts and sugars (Demir, 1987; Erdogdu, 1987). Loquat species is grown for fresh consumption, jam and also is used as ornamental tree.

Loquat trees are planted in regular orchards in the Mediterranean and Aegen regions, but it is grown mixed with other species of fruits or nuts in Black Sea region and Marmara region.

Propagation

Loquat trees can propagate from seed, air layering and cutting. Seedling trees are suitable for ornamental use and rootstock which may bear inferior fruit, so it is necessary to plant vegetatively propagated loquat trees. The best propagation method is by bud grafting which includes shield, cleft, chip-budding, tongue and patch. Patch budding has the highest grafting success among bud graft methods (Demir, 1987). Loquats are grafted from spring to middle autumn. Grafted loquat trees will bear fruit in 2-3 years, the producing period could last 10-12 years (Demir, 1987; Campbell and Malo, 1994).

Quince species has been reported as a suitable rootstock for loquat (Polat, 1995). According to these results, quince rootstock resulted in 15-25% of dwarfing effect compared with a regular loquat rootstock.

Loquat trees are planted 7 x 7 m or 8 x 8 m. Pollinators are necessary for high yield. Cultivars as Uzun Çukur Göbek, Hafif Çukur Göbek, Akko XIII, Gold Nuggat were determined as good pollinators (Demir, 1987).

Adaptation

Adaptation studies with both local and introduced cultivars are in progress in different ecological conditions. In a study that were carried out in Erdemli area, the first harvest of Hafif Çukur Göbek, Gold Nugget, Baffico, Champagne de Grasse, Uzun Çukur Göbek Ekotip and Sayda cultivars was dated on April 20th and full ripening was dated on May 10th (Yilmaz *et al.*, 1995). In the same study Champagne de Grasse, Hafif Çukur Göbek and Ottawiani cultivars have the highest yield per tree, respectively (Yilmaz *et al.*, 1995). On the other hand, in Antalya region, Champagne de Grasse, Tanaka and Kanro cultivars had the highest yield (Demir, 1991) whereas Gold Nugget, Baffico and Kanro cultivars had in Adana area (Paydas *et al.*, 1991).

In another study by Yalçın and Paydas (1995) in Adana area, Champagne de Grasse resulted in the highest yield (70 kg/tree), followed by M. Marie (69 kg/tree) and Kanro (24.5 kg/tree).

Fruit size is one of the important factors for marketing. It was determined in adaptation studies that Ottawiani (49.78 g), Dr.Trabut (43.23 g) and Gold Nugget (39.68 g) have the better fruit size (Yalçın and Paydas, 1995).

Loquat production per region and provinces

Mediterranean region has more suitable ecological conditions for loquat growing than the other areas. Therefore, 97.5% of the total production is from Mediterranean region. Aegean region supplies 1.46% and Eastern Blacksea region produce the rest (Anonymous, 1999).

The highest production corresponds to Antalya province (7349 tonnes and 154,280 trees), followed by Içel region (2619 tonnes and 74,088 trees) and Hatay (1144 tonnes and 21,255 trees).

The trend of loquat production in Turkey is to increase. This species which was formerly propagated by seed, is now propagated clonally with standard cultivars. The new cultivars are better accepted in the market, the demand of loquat fruit and grafted trees is increasing rapidly. The most competitive production is located in microclimatic areas in the Mediterranean region where early cultivars can be grown. On the other hand, the crop for processing and fresh consumption is being increased in Aegean, Marmara region and Blacksea region.

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