# ASSESSMENT OF LOQUAT AND ITS EFFECTS ON HUMAN HEALTH

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#### Abstract

The loquat is indigenous to China and Japan in Turkey breeding has been carried out in western and southern Anatolia and in the Black Sea Region where it is also known as Malta plum. Loquat does not lose their leaves in the winter and are used as both landscape plants and as a fruit crop. It is one of the earliest ripening fruits and because there are few alternatives, price is high. Loquats are consumed fresh, and processed as juice, marmalade, liquor, wine, tea, jam, cake, bonbon, ice cream and added to yoghurt. The fruit is frozen and canned. Its fruits and leaves are used to prevent constipation. The liquid which is acquired by boiling its fresh and dried leaves is an effective remedy for diarrhea. Its fruits are astringent. Loquats are rich in vitamins, minerals and fibers. Loquat fruits have been recommended for preventing cardiovascular disease and curing digestion system problems.

Key Words: Loquat, human health, loquat products, fruit joice,

#### INTRODUCTION

Loquat is grown in the limited areas of Aegean and Mediterranean shores in Turkey [12]. Loquat, a tree in the gardens for a long period, is grown increasingly due to the domestic consumption and demand for import [9]. Loquat has various species and it has 7-10 main species, having commercial importance in respect to cultivation and being edible [8].

Loquat is Chinese and Japanese-origin fruit. In Turkey, it is grown in the western and Southern Anatolia and Black Sea region. It is one of the precocial fruits in the spring. This fruit is sent to the markets betimes and it is priced out of the market due to the lack of alternative fruits in the market.

### USAGE AREA OF THE FRUIT

## Usage as fresh fruit

When it comes to our country, the most important feature of the fruit is that it is early comer. Spring, when our country is geographically in this belt, is the poorest period in respect to fresh fruit. In this period when season of winter fruits over, summer fruits has doesn't grow mature yet. During this period, loquat grows mature at the same

time as gage, green almond and strawberry. It provides the consumers with fresh fruits considerably. Potentiality for storage is limited. Hence, it as regarded as edible [9].

### Usage as Processed Food

It is stated that besides its consumption as a fresh fruit, loquat can be processed to make jam (Photo 1) or marmalade [6] or it can be kept as canned (Photo 2) [7]. It is also expressed that 10% of the crop is processed with the aim of canning [14]. The results of a study conducted in Turkey shows that suitable species have been determined to make marmalade, nectar or to can. This division is made by taking into consideration some physical and chemical features [15]. Moreover this study reveals that loquat-like fruits can be processed to these products economically. This studies and similar surveys increase consumption areas of loquat, and some by-products are consumed such as fruit juice, marmalade, liqueur (Photo 3), wine, ice cream, tea, syrup, composte, can, jam, cake, sweet (Photo 4) candy (Photo 5), fruit yoghurt, frozen (Photo 6), shampoo, perfume etc. Peeled and seedy fruits are consumed fresh; sometimes it is used with sliced banana, orange slice and grated coconut.

Tasty stewed fruits can be made by adding some sugar. Canned fruits are exported from

Taiwan. Moreover, some people make flavored fruits by putting ground clove, cinnamon, vinegar and lemon then fill them into glass jars. In the meantime, the fruits have adequate pectine to make jello and jams when they grow mature. In the past, small amount of jello produced in California with commercial aim [1] (Photo 7). It is also consumed in Gaziantep as "Loquat kebab" (in Turkish yenidünya kebabı) (Photo 8).



Photo 1. Loquat jam

Photo 2. Loquat canned

## EFFECTS OF THE FRUIT ON HEALTH

For at least 40 years, syrups, exported from Hong Kong, are sold as decongestion, chronic bronchitis, cough and lung decongestant in the food shops of USA and China (Photo 9). As a result of the studies conducted in South China University of Agriculture, high level of ursolic acid was detected in the content of this nicescented fruit. Also it is found that it includes compounds of palliative cough, rather than the other species. Therefore, it is expected that loguats, included in the Chinese culture, are used rather than wild loquat for development of traditional medicine. China also uses the fruit with the aim of consuming fresh and medicine. The fruits are tested successfully in the production of fruit juice, tea, cake or wine [3] (Photo 10).

The fruit is close- grained and it has too may leaves. It is also filling. The liquid, made by boiling fresh and dried leaves of the fruit is antidiaretic. On the other hand, the fruits have binging characteristics. Loquats are rich in some mineral substances and vitamins, especially fibers. The fruits are beneficial for the cure of cardiovascular diseases and nerve system disorders.

When it is compared to other pome fruits, loquat is characterized by high level of sugar, acid and pectine. The fact that sugar content is over 10% is the major cause of preference by consumers. Moreover, loquat is rich in carotenoids, especially Vitamin A [12].

Loquat includes vitamins (A, B, C), minerals (phosphorus and calcium), mineral salts and sugar [8;10]. Loquat is the resource of Vitamin A for the teeth and eye health of humans. It is used as a diet due to its rich fiber content.



Photo 3. Loquat liqueur



Photo 4. Loquat sweet

It is useful for protecting health with its low saturated fat and cholesterol content. Extract, obtained from leaves of loquats in the past, is an important compound for cure of lung diseases. It is also stressed that the leaves of loquat alleviate nausea and cough. Furthermore it is expressed that it is also expectorant. Besides, it includes some nuclein, known as anti-cancer vitamins which help prevent cancer [4].

Organic loquat leaves are used as detox feet band by helping mucus solve and by acting like mucolytic agent. It reinforces pancreas and it can be used as a tropical cream to fight against HIV, to decelerate skin cancer, to protect skin inflammation, histamine skin contraction and oedema [5].

It is stated that species of loquat is of vital importance for human health with its high level of HP content and antioxidant [13]. They have too may leaves. They are also filling. The liquid, made by boiling fresh and dried leaves of the fruits is antidiaretic and this tea is not hazardous (Photo 11). On the other hand, the fruits have binging characteristics [11].



Photo 5. Candy



Photo 6. Frozen loquat

## Usage as ornamental plant

Loquat plants are used not only in fruit growing, but also in houses and parks decoratively. They are one of the unique plants which are evergreen in winter time. Since loquat trees blossom in winter months, in this season when there can't be seen flowers around, their outlook is very charming and they give off pleasant odor. As their leaves are always green, they help clean dirty air and landscape.

## **CONCLUSIONS**

Development of subtropical fruit growing will ensure important raw material sources for food industry sector. By this way, recovery can be observed among the sectors, it will help provide raw materials and profitable working opportunities for the enterprises, producing fruit juice, can, jam, marmalade, candy and ice cream. Processed products of subtropical fruits will play an important role in the increase of export [2]. Studies related to current subtropical fruits are relatively inadequate.



Photo 7. Loquat jelo

Photo 8. Loquat kebab



Photo 9. Loquat syrups



Photo 10. Loquat vine



Photo 11. Dried leaves

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