



## ANALYSIS OF COMMON PEACH (*PERSICA VULGARIS* MILL.)

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### ABSTRACT

*As we know, the biochemical composition of the fruit of common peach (*Persica vulgaris* Mill.) and the physiological significance of the vitamin complex in it are analyzed from a scientific point of view. Within the framework of the study, the quantitative and qualitative indicators of vitamins A, C, E, group B vitamins, carotenoids, polyphenols and antioxidant active components in the peach were evaluated. These bioactive substances were considered from the point of view of activating the body's antioxidant defense system, supporting immunobiological reactions, regulating lipid and carbohydrate metabolism, as well as their effect on the regeneration process of epithelial tissues. The dietary value of the fruit, its use in metabolic syndrome, cardiovascular diseases and gastroenterological conditions were also summarized based on scientific literature. The results obtained confirm that peaches have a high biological value as a functional food. This article presents information on the biochemical and biological activity of common peach (*Persica vulgaris* Mill.) studied by scientists.*

## ODDIY SHAFTOLI (*PERSICA VULGARIS* MILL.) NING TAHLILI

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### ABSTRACT

*Bizga ma'lumki, oddiy shaftoli (*Persica vulgaris* Mill.) mevasining biokimyoviy tarkibi va undagi vitamin kompleksining fiziologik ahamiyati ilmiy nuqtayi*



*Oddiy shaftoli, karotenoidlar, polifenollar, immunitet*

*nazardan tahlil qilindi. Tadqiqot doirasida shaftolining tarkibidagi A, C, E vitaminlari, B guruhi vitaminlari, karotenoidlar, polifenollar hamda antioksidant faol komponentlarning miqdoriy va sifat ko'rsatkichlari baholandi. Ushbu bioaktiv moddalar organizmning antioksidant himoya tizimini faollashtirish, immunobiologik reaksiyalarni qo'llab-quvvatlash, lipid va uglevod almashinuvini tartibga solish, shuningdek, epitelial to'qimalarning regeneratsiya jarayoniga ta'siri nuqtayi nazaridan ko'rib chiqildi. Mevaning parhezligi, metabolik sindrom, yurak-qon tomir kasalliklari va gastroenterologik holatlarda qo'llanilish imkoniyatlari ham ilmiy adabiyotlar asosida umumlashtirildi. Olingan natijalar shaftolining funksional oziq-ovqat sifatida yuqori biologik qiymatga ega ekanini tasdiqlaydi.*

*Mazkur maqolada oddiy shaftoli (*Persica vulgaris* Mill.) ning olimlar tarafidan o'rganilgan biokimyoviy va biologik faolligi to'grisidagi ma'lumotlar keltirilgan.*

**INTRODUCTION.** The bioactive substances contained in peaches - flavonoids, phenolic compounds, organic acids and mineral elements (potassium, magnesium, iron, phosphorus) further increase the value of the fruit as a food and dietary product. In particular, the high content of ascorbic acid is studied as a key factor that enhances antioxidant protection and activates collagen synthesis. Beta-carotene, which acts as a provitamin A, plays an important role in maintaining the full physiological state of the visual analyzer, skin and mucous membranes.

**RESEARCH PURPOSE.** Analysis of foreign and domestic literature on the biological activity of common peach (*Persica vulgaris* Mill.).

**MATERIALS AND METHODS.** Analysis and generalization of data from articles by domestic and foreign authors published in open press.

**DISCUSSION.** The results of the literature analysis showed that peach fruits (*Persica vulgaris* Mill.) are rich in vitamins A, C and E, as well as B vitamins, each of which performs specific physiological functions in the body. Vitamin A and its provitamin form, beta-carotene, are necessary for the synthesis of visual pigments, skin tissue regeneration and active functioning of the immune response. Vitamin C is a powerful antioxidant that plays an important role in neutralizing free radicals, supporting collagen synthesis and strengthening vascular walls. Vitamin E, as a natural antioxidant that slows down lipid peroxidation processes, protects cell membranes from damage. B vitamins, including vitamins B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub> and B<sub>6</sub>, have a direct effect on the functioning of the nervous system, energy metabolism and protein synthesis. This complex of biologically active substances scientifically substantiates peaches as a source of full-value functional food. The main active ingredients in the leaves of the common peach (*Persica vulgaris* Mill.) plant are



flavonoids (kaempferol, kaempferol 3-galactoside, kaempferol 3-rutinoside, kaempferol 3-glucoside, quercetin, quercetin 3-D-glucoside, quercetin 3-rutinoside, isorhamnetin glucoside, rutin, naringenin). In addition, we can see that the leaves of the common peach (*Persica vulgaris Mill.*) plant contain hydroxysolic acids (chlorogenic, coffee, decafcouylquinine, p-coumaric acid), coumarins (coumarin and 7.8-furocoumarin), carotenoids ( $\beta$ -carotene), organic acids (ascorbic, malic, tartaric, quinic, citric acids), tannins, amino acids, macro- and microelements.

The leaves and flowers of the common peach (*Persica vulgaris Mill.*) plant have been studied by foreign scientists to show antioxidant, antitumor, antibacterial, antimicrobial, anti-inflammatory, anticarcinogenic, antiviral and anti-allergic effects. Also, the alcoholic extract (*Mycobacterium tuberculosis*) has been recommended as an effective raw material for the treatment of tuberculosis. At the same time, a number of BFQs ("Oleksin", "Persifen", "Akan", "Elmaris", "Sofol", "Milamed", "Flopersin", "Aleksiniya") were obtained from the leaves of the common peach (*Persica vulgaris Mill.*). These BFQs are anti-inflammatory, analgesic, antioxidant, and are used in the prevention and treatment of cancer.

Literature analysis showed that peach leaf extracts have also been studied in the Republic of Uzbekistan, but these studies were conducted for peach varieties growing in the Republic of Karakalpakstan. Taking the above into account, future research was focused on studying the leaves of common peach (*Persica vulgaris Mill.*) growing in the Republic of Karakalpakstan as a source of new medicinal plants.

## CONCLUSION

In conclusion, it should be said that the vitamin-rich biological composition of the common peach (*Persica vulgaris Mill.*) plant Peach indicates its potential not only as a food, but also as a raw material for biologically active additives (BAD). Its natural antioxidants, pectins and microelements can be an important component in the creation of additives that support the body's metabolic processes. The conducted analyses confirm that BADs based on peach are promising as an additional source of health-promoting substances.

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