Herbal medicine with food plants. Publication 1: Apricot ordinary T.L. Kiseleva, A.A. Karpeev, Yu.A. Smirnova, V.P. Safonov, E.V. Tsvetaeva, I.L. Blinkov, L.I. Kogan, M.A. Dronova (Institute of Homeopathy and Naturotherapy of the Federal Scientific Clinical and Experimental Center for Traditional Methods of Diagnostics and Treatment Roszdrav, Moscow)

Among the many ways to prevent diseases, proper and nutritious nutrition traditionally occupies an important place. This means not only the optimal ratio in food of the main groups of nutrients and energy substances - proteins, fats and carbohydrates. A balanced intake of vitamins, microelements and biologically active compounds of other classes is of great importance for the normal functioning of the body. It is these substances that we obtain for the most part by eating vegetables, fruits, berries, cereals, legumes and gingerbread crops. Moreover, many of these plants can serve not only as a means of preventing the development of diseases, but also as therapeutic agents, since the active substances in them are often found in therapeutic doses. A team of employees of the Institute of Homeopathy and Naturotherapy of the Federal Scientific Clinical and Experimental Center for Traditional Diagnostic and Treatment Methods of Roszdrav (FNCEC TMDL of Roszdrav) tried to summarize the available reliable information about the therapeutic and toxic effects of food plants most often used on the territory of our country. The result of this long-term work was the monograph "The medicinal properties of food plants" (Moscow: Publishing house FNEC TMDL Roszdrav, 2007. - 533 p.). The need to write this work is largely due to the widespread misconception that any vegetables, fruits, herbs, legumes and spices are very useful and can be used in unlimited quantities, especially for the purpose of reducing body weight and "cleansing" the body. And despite the fact

Starting from this issue on the pages of the journal "Traditional Medicine" we begin to publish chapters from this monograph, which are of practical interest not only for specialists, but also for the population. In this publication, we provide information about the common apricot. This fruit in the southern regions of Russia has long been used for food, both fresh and processed. Currently, apricot is quite common in the diet of residents of all of Russia. Its correct application can provide real help in the treatment of patients with various diseases.

ORDINARY APRICOT (Armeniaca vulgaris Lam.) This is a large tree with a height of 3 to 17 m, belonging to the family rosaceae (Rosaceae). The leaves are large, 6–9 cm long, the leaf petioles are dark red. The flowers are white or pink and bloom before the leaves. The fruits are drupes, round, yellow or orange, up to 5 cm long with flat, light brown seeds. Apricot fruits ripen in June – July (Fig. 1).

In Russia, apricots are cultivated in the middle and southern Volga region and in the Caucasus. The bulk of the fruits comes to our country from Central Asia. Recently, a number of zoned apricot varieties have appeared, the fruits of which ripen in the middle lane. For food and medical purposes, they use: fresh fruits (apricots), dried (dried apricots, apricots, kaisa) and processed, dried seeds (raw materials are unofficial in the Russian Federation).

## Chemical composition

The pulp of fresh fruits contains:

- carbohydrates: monosaccharides up to 27% (in ripe fruits, mainly sucrose); v in dried fruits, the sugar content reaches 76–84%; polysaccharides (inulin, starch, dextrin, protopectins, fiber (up to 0.9%), gum);

- organic acids: citric, tartaric, malic, traces of salicylic;

- vitamins: carotenoids - 0.2-3.2 mg% - depending on the variety (β-carotene, giving the fruit pulp an orange color, lycopene), ascorbic acid (from 2.5 to 60.5 mg% depending on the variety, on average about 15 mg%) and folic acid, PP, B1, B2 (0.03-0.10 mg%);

- polyphenolic compounds, including flavonoids (quercetin, isoquercitrin, rutin, avicularin; catechins and leukoanthocyanidins), tannins (up to 1%);

- minerals: sodium, potassium, calcium, magnesium, phosphorus, iron (1.5-1.8 mg%), iodine, etc.

Found in seeds:

- cyanogenic compounds: amygdalin glycoside (about 8.4%), cyanide acid (up to 0.011%);

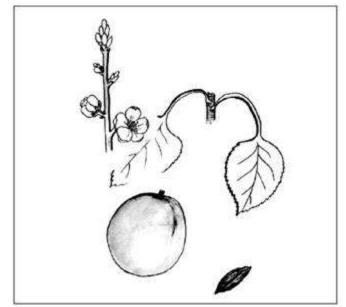
- more than 10% carbohydrates;

- 25–58% fatty oil;

- phytosterols: cholesterol, sitosterol, estrone, α-estradiol;

- vitamins: B15;

- essential oil.



Rice. 1. Flowers, leaves and fruits of common apricot

# **Beneficial features**

Apricot fruits have a pleasant taste, aroma and high nutritional value. They are eaten fresh and dried, and also processed into canned food, juices, compotes, liqueurs (apricotine), preserves, jam, etc. Unripe apricots can be pickled and salted like olives. Sweet seeds have almost the same taste as almonds; they are often used in the confectionery industry.

For medicinal purposes, both fresh apricot FRUITs and dried (dried apricots, kaisa, apricot) are used. The presence of a large amount of potassium (in dried apricots - up to 700 mg%) determines the value of apricots in conditions accompanied by its deficiency. First of all, dried apricots are prescribed to patients suffering fromheart rhythm disorders (including children), circulatory failure, myocardial infarction, myasthenia gravis, as well as those patientswho are taking diuretics and cardiac glycosides. Phosphorus and magnesium contained in apricot fruits affect memory processes; magnesium prevents the development of atherosclerosis, reduces the risk of developing a heart attackmyocardium. The high content of potassium and iron makes apricots essential forthe diet of pregnant women and patients with iron deficiency anemia.

Fruits rich in carotene, ascorbic acid and microelements are recommended to be eaten with hypo and vitamin deficiencies (as well as for their prevention) for children and the elderly. Apricots are valuable for the nutrition of those suffering from diabetes, however, when eating them, it is necessary to take into account the total amount of carbohydrates in the diet. Apricot pulp promotesthinning phlegm for dry cough, and also acts as

antipyretic, thirst-relieving and mild laxative.100–150 g of apricots per day ensures stool regulation.

SEEDS of fruits are used as an antihelminthic agent, effective due to the presence of small amounts of hydrocyanic acid and amygdalin. The so-called "apricot milk" (an emulsion from crushed seeds) is obtained from the seeds, which is used as an antitussive agent for whooping cough, bronchitis, tracheitis, and hiccups. The antitussive effect is due to the inhibitory effect of amygdalin on the cough center.

Vitamin B15, contained in the seeds of many plants, including apricots, has an immunomodulatory effect. FAT OIL, pressed from seeds, was included in the State Pharmacopoeia of the USSR X edition. It is still used in the pharmaceutical industry along with peach for the preparation of injectables, as well as as a base for the production of liquid ointments.

Toxic effect and contraindications for use

- When eating a lot of seeds or old jam cooked with bones, hydrocyanic acid accumulates in the body, as a result of which poisoning may develop in the period from half an hour to 5 hours.

Apricot pits contain up to 8.4% amygdalin and 0.011% poisonous hydrocyanic acid. In the seeds, in addition to amygdalin, there is an emulsin that breaks it down. Moreover, they are in a disconnected state: amygdalin - in cotyledons, and emulsin - in vascular-fibrous bundles. Close contact of the glycoside and the enzyme is possible only with good chewing and moistening with saliva in the digestive tract of humans and animals, during maceration of seeds while in the stomach, as well as when cooking jam with seeds and subsequent long-term storage. As a result, amygdalin is split into hydrocyanic acid, which, in fact, causes poisoning, benzoic aldehyde and sugar.

When a small amount of seeds is consumed, this process occurs slowly, and amygdalin has only a depressing effect on the cough center.

Poisoning symptoms: general weakness, sore throat, headache,nausea, vomiting, fear, staining of the mucous membrane of the oral cavity in a scarlet color.

In severe cases, there are convulsions and loss of consciousness, respiratory arrest and cardiac arrest. When breathing, you can smell bitter almonds.

If symptoms of poisoning appear, you should consult a doctor as soon as possible. Home treatments include gastric lavage and cleansing enemas. The available antidote is glucose.

- Apricots, especially fresh ones, should not be eaten on an empty stomach, and after eating slowly digesting food (for example, meat).

- Drinking cold water after eating apricots can cause loosening of the chair.

- Fresh apricots are not recommended to be consumed in large quantities patients with gastric ulcer and 12 duodenal ulcer, hyperacid

### gastritis.

- It is believed that due to the high sucrose content of apricots contraindicated in patients with diabetes mellitus and overweight people. However, in small quantities, they are also needed for these categories of patients.

#### Other species

In North China, North Korea and Primorye, it grows wildArmeniaca mandshurica (Maxim.) Skvorts. (Manchurian apricot), morefrost-resistant compared to common apricot. Small (up to 2.5 cm in diameter) fruits of this type are edible, but do not have high taste. They are eaten fresh, they are used to make jam, marshmallow, drinks.

Found in Dauria, Mongolia, and China A. sibirica (L.) Lam. (apricotSiberian) has outwardly attractive, but bitter and therefore completely inedible fruits. The species is distinguished by exceptional frost and drought resistance and is of great interest to breeders.

### Other use

The cake, which remains as a result of obtaining fatty oil, is given to livestock in small quantities.

Finely crushed shells are used in cosmetics as an integral part of face and body scrubs.

Black paint and activated carbon are made from seed shells. The gum

protruding from the damage on the trunks and branches is used to prepare emulsions, high-quality glue.

The wood of the plant is suitable for various crafts and carpentry work. The roots are used for dyeing fabrics orange.

Apricot trees strengthen the slopes and talus, use them in decorative landscaping and in the creation of forest shelter belts.

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