

CHEMICAL COMPOSITION AND MEDICINAL PROPERTIES OF
SAFFRON PLANT

Ermat Shermatovich Sanayev - docent

Maksumova Dilrabo Kuchkarovna - docent

Shokirova Mukaddas Musakhonovna - docent

Islamov Fayyozbek Shakhobiddin ugli - master of group M21-12

Abstract: This article provides information on the chemical composition and medicinal properties of the saffron plant.

Key words: saffron, saffron, essential oil, vitamins, spice, mother flower, pollinator, seed, beak, flower, onion head.

Crocus (*Crocus sativus* - Latin.) is a perennial herbaceous bulbous plant belonging to the family of crocus. Not found in the wild. It is planted in large areas in India, Pakistan, China, Southern Europe, Azerbaijan. The diameter of the onion is 1-2 centimeters. 5-15 leaves, pale yellow; 2 mm wide, glabrous. Flowers 1-4, yellow discharge, lower part (outer side) purple color, length 2-4 cm. Changchilari is shorter than a saffron. The calyx is long, 6-7 mm wide. It blooms in February-July, bears fruit in April-August. It has a very sharp and pleasant smell due to the presence of essential oil. From 90-100 thousand saffron flowers, 1 kg of dried flower buds are obtained. Dried buds of the saffron flower are used to improve the color and taste of jam, cakes, food (to color cheese, butter, liquor, etc.), and in the perfume industry. It is used as a medicine in medicine. Saffron is the only spice whose price and value have not decreased since the Middle Ages. In the Middle Ages, one pack (450 g) of saffron could be exchanged for a thoroughbred Arab horse. The name of this spice is derived from the Arabic word "Zaffaron", which means "yellow" in almost all languages, and indicates that this rare plant was used as a dye in ancient times. Nowadays, saffron has lost its ancient importance and is mainly used in cooking and is the only spice valued equal to gold. Today, only three hundred tons of saffron are grown on earth per year. It is known that saffron has been used as a spice by mankind for more than four thousand years. Traces of its use in food in ancient Mesopotamia have been found by archaeologists. The first mentions of it in writings are found in the remains of the Sumerian civilization. In Iran, in the 10th century BC, saffron fibers were used to dye sacrificial cloths, and they were also used as a strong astringent to prepare attar goods and delicious oils. It was used to treat wounds in Alexander the Great's army. In the Old Testament (Torah), it is written about the use of saffron as an auxiliary tool in sacrifices, as a dye and as an attar material. It is mentioned in ancient Chinese sources as a healing medicine. In the East, it was used to dye the robes of Buddhist monks. In

Europe, the rich who used it expressed their belonging to the cyborg class in society. The Roman archon state used saffron as a medicine, as a dye for leather and fabrics, and as an attar. It is the most delicious spice, a high-quality natural dye, and an expensive aphrodisiac, a cure for all ailments. In the East, it was called "red gold". There are two reasons for the price of saffron: firstly, its cultivation is very laborious, and secondly, saffron is unmatched among spices in terms of aroma, taste and healing properties. [1]The red "crocus" (Latin name) is dried buds of mother flower. The processing of saffron flowers, especially mother flowers, is done only by hand. Beaks of mother-of-pearl flowers should be cut only on the first day the flowers open. Its quality depends on the skin and the speed of its drying. In order to collect one kilogram of saffron, around 150,000 flowers must be picked before the sun dries up the mother's flowers in the morning. 8-12 kilograms of saffron can be harvested from one hectare of land, depending on the skill of the pickers and suitable weather conditions. The chemical composition of saffron is 10-12% water, 5-7% mineral substances, 5-8% oil and wax, 12-13% It is composed of unique and aromatic pleasant substances consisting of protein and a minimum amount of oil extract. It is known from ancient times that it has rare and unparalleled properties. It relieves pain, gives joy and happiness, relieves depression, and has the property of producing the hormone of happiness - serotonin. Thus, saffron is a light psychotropic substance that a person does not get used to constant consumption. Hakim Ayurveda uses saffron to improve digestion, strengthen the senses and respiratory organs, cleanse the liver, kidneys, lymph glands, suppress tremors, move stagnant blood in the veins, clear the complexion, noted that it also serves to activate sexual energy. [2]In ancient times, women belonging to the Kibor community drank water dissolved in saffron to relieve pain before childbirth. In modern medicine, it is used in the preparation of eye drops and various general strengthening medicines. It has been proven that saffron has anticarcinogenic and antimutagenic properties. If you drink it with boiling milk, it strengthens brain function and improves memory. If consumed with honey, it helps to break down kidney stones. The solution of saffron flower buds is rich in substances such as carotene, thiamin, riboflamin, flavonoids, calcium, phosphorus and various vitamins necessary for the human body. In the history of four thousand years of use, its use in the treatment of ninety different diseases has been determined. Smelling the aroma of saffron has a positive effect on the respiratory organs, calms a person and helps to get rid of insomnia. In case of severe headache and ear cold, cotton or soft cloth soaked in saffron water and pressed on the affected part will relieve the pain. In addition, it also reduces the feeling of flatulence. If saffron is used in excess, it can cause a severe strain on the senses. In addition to spoiling food, saffron added to food in excess of the norm can cause poisoning, and consumption of a few grams of freshly cut quality saffron can cause death. It is not recommended for pregnant women to use it as a sedative without

the advice of a specialist. When buying saffron, it is advisable to buy whole fibrous flowers, not crushed ones. Two thousand years ago, Pliny warned that crushed saffron could be fake. In the Middle Ages, anyone who faked saffron was burned at the stake. Real saffron has never been sold cheaply.[3]

It cannot be stored for a long time, so it cannot be taken out in advance. Saffron improves digestion, increases appetite, improves the vital activity of the body, people use it to strengthen the stomach, heart, liver, respiratory organs and nervous system, cleanse the kidneys, relieve pain, relax, urinate, bile. and sweat is used as a driving tool. But it cannot be consumed during pregnancy, because it can cause premature miscarriage. Saffron is widely used in the pharmaceutical industry, it is part of more than 300 medicines of oriental medicine. Cataracts were treated with its tincture in ancient times, and even now it is included in eye drops.

Saffron nourishes the cells of the whole body, makes the skin smooth, clears the color, improves memory and mental activity, and improves mood. Saffron has healing properties that cure more than 100 diseases. Practically any disease, whether it is in the initial stage or in the last stage of development, can be cured by 85-87% with the help of saffron. Research has proven this time and time again.

The healing properties of saffron include:

In the treatment of oncological diseases (even at the last stage of the disease, it resists cancer tumors and stops their cell growth);

In cleaning the blood (it renews and cleans it, therefore strengthens the cardiovascular system, nourishes all cells of the body);

Improves brain activity (grows brain tissues, improves memory);

Gets rid of neurosis;[4]

Relieves headache and insomnia;

Normalizes gastrointestinal activity;

Get rid of excess grass;

Heals the kidney and bladder (saffron mixed with honey crushes kidney and bladder stones);

Has an antioxidant effect (improves energy metabolism, removes harmful substances);

Energizes the body;

Restores eyesight, cures eye diseases;

Improves erection;

Relieves pain during the menstrual cycle;

Treats burns and swelling of the skin;

Get rid of allergies;

Get rid of alcoholism;

Expels wind and spasms;

Rejuvenates the whole organism;

Reduces the level of radiation in the body.[6]

Saffron makes the color beautiful, the eyes clear, and the heart strong. Facilitates the passage of phlegm and strengthens the respiratory organs.

It is possible to activate mental activity, reduce sweating, improve appetite, improve digestion and accelerate metabolism by adding herbal spices to daily food. Regular drinking of saffron tea helps to cleanse the liver and kidneys and improve their performance, and helps to reduce edema in the liver area. We can even witness the dissolution of stones in the kidney and gall bladder with the help of medicine prepared by mixing saffron water with honey. causes it to remain. As it accelerates the production of serotonin hormone in the body, it creates a happy mood and relieves heart palpitations and anxiety. It helps to get out of the state of stress, suppresses various fantasies and fear, temptations in the brain. Due to the presence of the most important biologically active substances in saffron, crocetin and glycoside crocein, it is quickly absorbed and unclogs the brain and blood vessels, dissolves clotted blood, as a result, blood pressure is moderated, general body blood circulation is improved, fresh blood is delivered to the brain and oxygen access becomes easier. Because saffron contains digentibiose ester of crocin caratinoid crocetin, its aroma is indescribable. For this reason, it is effective to smell saffron on a patient with zotiljam disease. [5]The patient who smells saffron calms down and goes to sleep peacefully. With the help of saffron oil, it is possible to clean and smooth the respiratory tract, increase the performance of the organs of the respiratory system. Another important substance that provides the aroma of saffron is 2-hydroxy-4,4,6- is trimethyl-2,5-cyclohexadien-1-one, which gives saffron a hay-like smell when dried. As a result, saffron has its own unique taste and gives flavor to food. The bitter glucoside picrocrocine provides the spicy taste of the spice made from saffron. A-crocine is a carotenoid pigment and a-crocine can be used to give boiled and steamed rice a bright color along with its unique taste. Saffron tea is recommended for alleviating melancholia, depression, and fear. Saffron provides effective antispasmodic, diuretic and anti-inflammatory benefits. Saffron can also be used to relieve chronic diseases such as dry bronchitis, measles, and whooping cough. The antimutagenic properties of saffron prevent the development of cancerous tumors and help keep them in check. This characteristic compound - kaempferol is found in saffron petals. The saffron aroma-active compounds contained in saffron raise human mood, improve memory, increase enthusiasm for learning, and protect brain cells from oxidative stress. Since ancient times, saffron has been mixed with hot milk and drunk, which in turn promotes the growth of brain tissue, improves memory and has a positive effect on vision. Boiling saffron in warm water and pouring it on the head little by little will induce sleep. Saffron contains about 28 volatile and aromatic compounds dominated by ketones and aldehydes, and it has positive effects

on the visual system. studied. Prevents age-related disorders, restores lost tension in the visual system, damaged photoreceptor cells. Stops puffiness and provides anti-aging benefits. People of old age who take saffron regularly can prevent cataracts.

In conclusion, it can be said that saffron *crocus sativus*, the king of spices and a wonder of medicinal plants, has been helping people with various diseases for centuries. Today, on the initiative of our president, this unique plant is being transplanted to plantations and is widely used to restore the health of the population of our country.

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