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## ECOLOGICAL AND MEDICINAL PROPERTIES OF SAFFRON PLANT

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### Abstract:

Saffron tincture is widely used in folk medicine. The pharmacological feature of the saffron plant is that it has a wide range of effects, eliminates obstruction and resistance in the layer of blood vessels and kidney tubules, reduces the process of blood fibrinolysis, and the release of histamine into smooth muscles. It eliminates their spasm by blocking secretion and reduces the need for broncholytic drugs due to its less bromolytic effect.

**Keywords:** saffron plant, red gold, expectorant, blood thinner, obstruction, infusion.

### INTRODUCTION

**Crocus (Crocus sativus - Latin.)** is a perennial herbaceous bulbous plant belonging to the family of crocus. Saffron is a subtropical plant belonging to the saffron family. In folk medicine, saffron tea was drunk for patients with a weak heart and shortness of breath.

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 (for coloring in cheese, butter, liquor, etc.), and in the perfume industry. It is used as medicine in medicine. Saffron is the dried buds of the red "crocus" (Latin name) mother flower, which blooms once a year for 10-15 days, and the duration of each flower opening is only 2-3 days.

The processing of saffron flowers, especially mother flowers, is done only by hand. Beaks of mother flowers should be trimmed only on the first day of flower opening. 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 consists of 10-12% of water, 5-7% of mineral substances, 5-8% of oil and wax, 12-13% of protein and a small amount of oil extract.

### RESEARCH METHODOLOGY

Indian-controlled Kashmir is known for producing the highest quality saffron in the world. Photojournalist Abid Bhat traveled to the fields near the town of Pampore, where one of the most expensive plants in the world is planted. Saffron is cultivated in large areas for commercial purposes in many countries of the world. Most of them are grown in India, Iran and Spain. In recent years, efforts have been made to increase the planting

of saffron in Afghanistan and Uzbekistan. However, Kashmiri saffron is the best and most expensive. It is believed that saffron was cultivated for the first time in Greece. It has been cultivated in the Kashmir Valley for hundreds of years. Many tourists come to see the saffron fields surrounded by snow-capped mountains. The town of Pampore is half an hour's drive from Srinagar, the center of Indian-controlled Kashmir. Saffron is planted on thousands of hectares around the town. Pampore is also called the saffron city of Kashmir. 75,000 flowers are needed to harvest 450 grams of saffron. Ibn Sina writes about the benefits of saffron: It is astringent and a solvent. It has a twisting and adhesive feature, and it's also maturing. Its heat is moderate and opens blockages. It corrects the smell and strengthens the internal organs. Drinking saffron makes the color beautiful, the eyes clear, and the heart strong. Phlegm facilitates movement and strengthens respiratory organs [1].

That is why the price of saffron is expensive - 1 kilogram of dried saffron costs 2950 US dollars. Saffron tea, also known as coffee, is popular in Kashmir. In addition to saffron, cinnamon and cardamom, as well as honey and roasted almonds are added to the coffee. This drink is energizing and refreshing. 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 noted that saffron improves digestion, strengthens the senses and respiratory organs, cleanses the liver, kidneys, lymph glands, suppresses tremors, circulates stagnant blood in the veins, and brightens the complexion [2]. In ancient times, women belonging to the Kibor community drank water with saffron dissolved in it to relieve pain before giving birth. In modern medicine, it is used in the preparation of eye drops and various general strengthening medicines.

## **ANALYSIS AND RESULTS**

Saffron has been proven to have anticancer 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 relaxes a person by having a positive effect on the respiratory organs 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. 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 lead to poisoning, and the consumption of a few grams of freshly picked quality saffron can cause death. It is not recommended for pregnant women to use 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. Saffron improves digestion, improves appetite, improves the body's vital activity, people use it to strengthen the stomach, heart, liver, respiratory organs and nervous system, cleanse the kidneys, relieve pain, as a sedative, diuretic, bile and sweat agent. But it cannot be consumed during pregnancy, as 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, brightens 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 [3]. Research has proven this time and time again. The healing properties of saffron include: In the treatment of oncological diseases (even in the last stage of the disease, it resists cancer tumors and stops their cell growth), blood purification (it renews and cleans it, therefore strengthens the cardiovascular system, nourishes all cells of the body), brain activity improves activity (grows brain tissue, improves memory), relieves neurosis, relieves headaches and insomnia, normalizes gastrointestinal activity, relieves excess bile, 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 vision, cures eye diseases, improves erection, relieves pain during the menstrual cycle, treats skin burns and swelling, relieves allergies, alcoholism relieves the disease, rejuvenates the whole body, reduces the level of radiation in the body. Earlier it was called "red gold" in the East. There are two reasons why saffron is expensive: firstly, it is very laborious to grow, and secondly, saffron is unmatched among spices for its aroma, taste and healing properties [4].

Women are separating saffron pollen grains from their flowers. 75,000 flowers are needed to harvest 450 grams of saffron. Ibn Sina writes about the benefits of saffron: It is astringent and a solvent. It has a twisting and adhesive feature, and it's also maturing. Its heat is moderate and opens blockages. It corrects the smell and strengthens the internal organs. Drinking saffron makes the color beautiful, the eyes clear, and the heart strong. It facilitates the passage of phlegm and strengthens the respiratory organs. That is why the price of saffron is expensive - 1 kilogram of dried saffron costs 2950 US dollars. Saffron tea, also known as coffee, is popular in Kashmir. In addition to saffron, cinnamon and cardamom, as well as honey and roasted almonds are added to the coffee. This drink is energizing and refreshing.

The effect of the saffron plant on the body activates the metabolism along with general strengthening of the body. Cleans the blood well. Strengthens immunity. Prevents oncological diseases. The composition of the medicinal tincture: take 2-3 flowers of saffron and 10 raisins, put them in half a glass of cold water, let it rest overnight - the water will turn brown-golden. It is taken in the morning for lunch, and in the same way, the next standard medicine is prepared in the morning for drinking in the evening.

Duration of treatment - 2 months. The best time to drink this medicine is spring and summer [5].

How to drink saffron. In order to normalize liver function and treat it, saffron is ground and ground like flour and consumed 20 minutes after eating. Method: it is eaten by licking with the tongue from the tip of a teaspoon. To increase male potency, saffron, ginger medicinals and black pepper are added after cooking vegetable, meat or fish dishes. A mixture of saffron in water is used in the treatment of heart, kidney, liver diseases, conjunctivitis, keratitis and purulent wounds. For this, one teaspoon of saffron fibers is poured into a glass of boiling water, let it rest for 20 minutes, pass through 3 layers of gauze, cool, and drink 15 grams three times a day before meals, or soak gauze in this water and apply it to the wound. In vascular diseases, cataracts, glaucoma, cardiovascular diseases and gastrointestinal diseases, in the treatment of kidney stones, dried and ground saffron fibers mixed with honey are placed under the tongue and swallowed. Taking saffron oil is good for calming the nerves and improving sleep, as well as improving urination. To normalize the menstrual cycle and reduce pain, 5-10 strands of saffron are consumed per day. In this case, the fibers can be slowly licked or eaten by adding apples, honey and tea. For the treatment of liver diseases and blood diseases, we use 10 raisins, 3 strands of saffron and 100 g of water diluted with running water. Infuse this mixture for 8-9 hours [6]. Every time for a month and a half, a freshly prepared and tempered mixture is drunk in this way. Add saffron fibers to tea and drink it to normalize the immune system. For this, put 7-15 strands of saffron in a teapot and pour 200 g of boiling water over it, put it on fire and boil it for another 5 minutes, add another 400 g of boiling water, remove it from the fire as soon as it boils. It is left to rest until the fibers sink to the bottom of the kettle, and then it is drunk. This tea is drunk three times a day before meals for two months. This tea is brewed twice from one brewed saffron fiber. At the end of the course of treatment with saffron, most of the patients showed dilution of blood components, anti-prothrombin effect, and improved urine excretion. During the follow-up, when the general blood analysis was carried out by referring the patients to the laboratory, ECHT was found to be 15 mm/s in women and 10 mm/s in men, the number of platelets was  $180-190 \cdot 10^9$  on the 7th day of taking saffron tincture, and it was observed that the arterial blood pressure decreased to a noticeable level. As a result of the reduction of the effect of histamine on the capillaries, their permeability also decreased, and the swelling caused by the release of plasma into the surrounding tissue was eliminated. When consuming saffron tincture, it blocks the effect of histamine on smooth muscles and eliminates their spasm, and a weak broncholytic effect is also manifested. Taking saffron tincture 3 times a day and the duration of the course mainly depends on the level of the disease [7].

## CONCLUSION

Thus, taking saffron tincture has a good effect, eliminates obstruction and resistance in the lining of blood vessels, kidney tubules, reduces blood fibrinolysis, blocks the effect of histamine on smooth muscles, eliminates their spasm, and has a less bromolytic

effect. It also reduces the need for broncholytic drugs. Saffron tincture can be recommended in the practice of doctors due to its effectiveness and low level of safety in the treatment of colic.

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