



## DEVELOPMENT OF THE TECHNOLOGY OF OBTAINING DRY EXTRACT FROM RAW MATERIALS OF THE PLANTING SAFFRON PLANT (CROCUS SATIVUS L).

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**ABSTRACT:** Development of technique for getting dry extract from raw materials by planting daffodils (*C. sativus* L.). The ideal ratio of liquid extraction from plant raw materials with a practical approach was chosen for this aim. To extract dry, a centrifugal force method was applied. Then, different proportions of alcohol and distilled water were used.

**KEYWORDS:** dry extract, Ekma saffron (*C. sativus* L.) technology, method of analysis, plant, raw materials, comparative.

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### INTRODUCTION

In Uzbekistan, a lot of scientific research work has been carried out on the introduction and climatization of medicinal plants, and the stage of establishment of large-scale production plantations of species selected as promising in the conditions of introduction has begun.

Among such promising medicinal plants are planted saffron (Shafran posevnoy-Crocus sativus L.) also included. Currently, Ekma saffron (saffron) is grown in more than 15 countries of the world and its raw materials are exported. [1].

Ekma zafaron (Shafran) was considered a perennial plant and cultured in Uzbekistan and now it is grown on 100 hectares of land and its biological active substances are compared with those grown abroad [2]. Since the composition of the raw material of the plant Ekma saffron CROCUS SATIVUS L (saffron) is rich in biologically active substances, the drugs and biologically active (BFK) supplements derived from

its raw materials have an effective effect on improving brain activity, memory, urinary tract diseases and liver function [3].

When studying the bio factual substances contained in plants, it is determined that macro and micro elements in their composition constitute the main constituent bio factual substances. Many of the elements of the system that come across in a natural state are recognized as three and “vital necessity” in the human body [4,5,6].

**Purpose of the study.** Planting daffodils (*C. sativus* L.) development of the technology of obtaining dry extract from raw materials development of the technology of obtaining dry extract.

**Part of the experience.**

Research methods and objectives. Planting daffodils (*C. sativus* L.) to create the technology of extracting dry from the plant, the plant was harvested raw materials, cleaned, finely chopped with scissors and a sharp edging tool, and the process of extracting the liquid extract in a mixture of alcohol in a Har-kind ratio in the water was carried out in the following way.

Planting daffodils (*C. sativus* L.) on the analytical scales of pre-crushed flower nodes measured 1,0 GR (net weight) of the dried plant. In order to obtain a liquid extract state, it was necessary to prepare 70% ethyl alcohol. Process of preparation of 70% Li ethyl alcohol: for the preparation of 70% ethyl alcohol, we took -72,92 ml of ethyl alcohol, water - 29,72 ML and poured into a 2-liter measuring Lake. This is 70% ethyl alcohol and an aqueous solution of Ekma saffron (*C. sativus* L.) the plant was put in a separate container for raw materials.



*1-picture. Planting daffodils (*C. sativus* L.) part of the plant flower buds.*

Similarly, 70% Li ethyl alcohol was prepared in sufficient quantities only in 100 ml of the mixture. In this for plant flower buds ethyl alcohol -100 ml, 100 ml of water was accurately measured and prepared for 1000ml measuring puddles.

Now from 1 GR (net weight) into the tube poured a water-soluble magnetic grain and 70% alcohol into the tube, closed the mouth with a petri dish, and through the magnetic converter, heated to a temperature of 70-750 C, the conversion began. Time control was carried out. Slowly rotated under one condition. Set for the first 1 hour. In parallel style, 1g of raw materials and 100 ml of distilled water were put into the tube, the mouth was closed with a petri dish and, through a magnetic converter, heated to a temperature of 80-850 C, the conversion began, mixed in a steamer. This solution was also carried out to determine the amount of substance stored in the composition after standing at a pace for 1 hour. In this liquid extract was injected into the syringe after 1 hour to take 5 ml of the solvent and set in the drying cabinet to determine the dry residue 100-1050 C. When calculated by the dry residue formula from the plant raw materials, the dry bulk weight was 11,1847 mg with 5 ml of extract, while 11,1795 mg with 0,4888 mg of extract, when divided, the mass came out after drying. The percentage was 48,88% when it was calculated. The next 1 hour was turned in a magnetic mixer and measured again in 5 ml of the same Lux with a mass of 8,9209 mg with a mass of 2,85% with a mass of 3 lux with 9,8956 mg with a mass of 0,98 %. Since we left even 3 hours on 1 March, almost such a result came out, we decided that 3 hours of extraction process was enough for us.

Total filtrate in 1 g of 70% alcohol solution of raw materials was 285 ML, the syrup 4,42 G.



*3-picture. The process of extraction from plant raw materials.*

Next, we decided to continue our work with the drying of 40% liquid extract. To do this, the rotor was poured into the vaporizer (D-LAB RE 100-Pro) liquid extract carpet. Alcohol and water were blown

away until the liquid became darker to the required degree. After the rotor evaporator was taken from the well, the mass was taken to the container and extracted into the drying cupboard at a pressure of 80 0s, at a pressure of 0,8 until it was dry, until the moisture remained completely. flower planting daffodils (*C. sativus* L.) the flower buds of the plant were measured in 1% alcohol solution from 70 GR to 0,53 gr of dry extract.

We determined that our next job was to extract the aqueous liquid from a mixture of distilled water and raw materials.

From 1 GR (net weight) in the same zepharon (*C. sativus* L.) the plant was laid flower buds, poured into an aqueous solvent, the mouth was closed with a petri dish, heated and began to heat in a water bath at a temperature of 800 C. Time control was taken and rotated in a slow State. Installed for the first 1 hour. This solution was also carried out to determine the amount of substance stored in the composition after standing at a pace for 2 hours. In this liquid extract was injected into the syringe after 2 hours, taking 5 ml from the solvent and installed in the drying cabinet to determine 100-1050 C dry residue. When calculated by the dry residue formula from the flower buds of the plant, the mass after drying turned out 9,3080 MG, when divided into 5 mg with 9,3184 ml of extract and 0,5356 mg with dry bulk extract. The percentage was 53,56% when it was calculated. The next 1 hour, heated in a water bath and measured 5 ml of the same Lux by repeated taking 5,058 mg, the mass was 5,8% with 3 lux by 0,0085 mg by 0,85% with 0,85 mg. Even on 3 March, we were convinced that the extraction process for 3 hours was enough for us, as it turned out almost the same result after 3 hours.



*4-picture. The process of obtaining a rotor vaporizer*

We decided that our next task was to continue with the drying of the water extract. To do this, the rotor was poured into the vaporizer (D-LAB RE 100-Pro) liquid extract carpet. The water was blown away until the liquid reached the desired temperature. After the rotor evaporator is removed from the well, the

mass is taken to the container and taken to the drying cabinet until it is dry at a temperature of 80-85 °C, until the moisture remains completely. Planting daffodils (*C. sativus* L.) an aqueous solution of plant flower buds was measured from 1 GR to 0,6 gr of dry extract.

**Table 1**

№	Product name	Extract %	The resulting mass, GR
1	Planting daffodils ( <i>C. sativus</i> L.) plant flower nodes	70% alcohol-water	0,53
2	Planting daffodils ( <i>C. sativus</i> L.) plant flower nodes	Distilled water	0,6

**Conclusion:** Dry extract from the extracted liquid extract was obtained on the basis of documents. 1 GR Ekma saffron (*C. sativus* L.) from the raw material received dry extract of 70% alcohol-water content 0,53 GR, 1 GR plant product 0,6 GR. The moderate conditions of the composition of the extracted extracts were selected and the technology developed.

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