

CHEMICAL COMPOSITION OF THE ROSE HIP AND PREPARATION OF USEFUL FOOD COMPOUNDS

Ibragim Askarov*; Shakhbiddin Kirgizov**; Dilnoza Muydinova***

*Professor,

Doctor of chemical Sciences, Department chemistry,
Andijan State University, Andijan region
Republic of UZBEKISTAN
Email id: tabobat@mail.ru

**Professor,

Andijan State University, Andizhan Region,
Republic of UZBEKISTAN
Email id: agsuinfo@edu.uz

***Master,

Andijan State University, Andijan Region,
Republic of UZBEKISTAN
Email id: dilnoza.moydinova@gmail.com

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ABSTRACT

This article provides information on the chemical composition, physiological and antioxidant activity, medicinal properties of dried and fresh fruits of rose hip plant. It is advisable to use rose hip instead of such synthetic drugs. Rose hip fruit is also very good for anemia due to its iron content, so two teaspoons of the fruit in a glass of boiling water and drunk three times a day after meals is useful in anemia, kidney, bladder and liver diseases. These potent food supplements have been officially registered by the Ministry of Health of the Republic of Uzbekistan and have been recommended for production and implementation.

KEYWORDS: *Nutrients, Chemical Composition, Biologically Active Substances, Natural Antioxidants, Medicinal Food Additives.*

INTRODUCTION

Today, the production and consumption of various food additives is growing rapidly. This field is also developing in our country, in particular, the chairman of the Academy of Medicine of Uzbekistan, Honored Inventor of Uzbekistan, Doctor of Chemical Sciences, Professor of Andijan State University I.R Askarov and a full member of the Academy of Medicine of Uzbekistan, Doctor of Chemistry, professor of the Latvian Institute of Organic Synthesis F.Polyak, in collaboration with the President of the Latvian Academy of Sciences, Academician I.Calvinshlar, for the first time in the world developed new medicines based on plant substances, such as "AS-QURQUMIN", "ANTIKOVIR", "ANTIVIR 101", "ASKOVIR", "NONI ANTIVIR" invented food additives. These potent food supplements have been officially registered by the Ministry of Health of the Republic of Uzbekistan and have been recommended for production and

implementation. These food additives have antioxidant effects, cleanse the blood and liver, for residents of degraded areas, mining metallurgy, chemical industry, mines, workers of manufacturing enterprises with high radiation environment, exposure to harmful elements of the environment, viruses, harmful effective in protecting against the effects of bacteria and microorganisms, chronic fatigue, nervous tension and others. The chemical composition of rose hip is effectively used in the production of such medicinal food additives.

Rose hip is a major helper of the immune system, a source of biologically active substances and trace elements, a multivitamin raw material with natural antioxidant properties [1]. Infusion made from rose hip strengthens the immune system of the human body, strengthens the cardiovascular system, lowers blood pressure, normalizes the digestive system. It also lowers cholesterol levels, has a positive effect on the regeneration of all organs, intoxicates the body at the cellular level, i.e. Rose hip has a strong antioxidant effect [2]. The nutrient content of rose hip fruit consists of biologically active substances [3]. Their amounts are given in Table 1.

TABLE 1 NUTRIENT CONTENT OF ROSE FRUIT, 100 G/MG

Chemical composition	Dried rose hip fruit	Freshly picked rose hip fruit
Carbohydrates	48,3 г	22,4 г
Proteins	3,4 г	1,6 г
Oils	1,4 г	0,7 г
Dietary fiber	23,2 г	10,8 г
Organic acids	5 г	2,3 г
Water	14 г	60 г
Kul	4,7 г	2,2 г
Energy value	284 kkal	109 kkal

Many diseases are caused by a lack of macro and micro elements in the body. Synthetic drugs are now used to treat such diseases. Excessive use of these drugs can lead to diseases such as salt accumulation in the internal organs, increased cholesterol levels and disorders of gastric function. It is advisable to use rose hip instead of such synthetic drugs [4]. Rose hip fruit is also very good for anemia due to its iron content, so two teaspoons of the fruit in a glass of boiling water and drunk three times a day after meals is useful in anemia, kidney, bladder and liver diseases [2]. The composition of rose hip fruit is rich in macro-and micronutrients, the amounts of which are given in Table 2 below.

TABLE 2 QUANTITATIVE CONTENT OF MINERALS OF DRIED AND FRESHLY PICKED FRUITS, 100 G/MG

Chemical composition	Dried rose hip fruit	Freshly picked rose hip fruit	Daily demand
Potassium	50 mg	23 mg	2-5,5 g
Calcium	60 mg	28 mg	0,8-1 g
Magnesium	17 mg	8 mg	0,3-0,4 mg
Sodium	11 mg	5 mg	1,1-3,3 g
Phosphorus	17 mg	8 mg	1,2 g
Iron	3 mg	1,3 mg	14 mg

Manganese	54 mkg	19 mkg	2-5 mg
Mis	220 mkg	113 mkg	2 mg
Rux	0,25 mg	0,26 mg	15 mg
Molybdenum	9000 mkg	4330 mkg	0,075 mg

Rose hip fruit contains useful vitamins [3], the quantitative content of which is given in Table 3.

TABLE 3 THE AMOUNT OF VITAMINS IN ROSE HIP FRUIT, 100 G/MG

Vitamin Names	Dried rose hip fruit, mg	Freshly picked rose hip fruit, mg
Vitamin E	3,8	1,7
Vitamin C	1000	650
Vitamin A	817	434
Beta carotene	4,9	2,6
Vitamin B1	0,07	0,05
Vitamin B2	0,3	0,13
Vitamin B3	1,4	0,7
Vitamin K	-	25,9
Vitamin PP	1,4	0,7

CONCLUSION

Information on the chemical composition, physiological and antioxidant activity, medicinal properties of dried and fresh fruits of rose hip plant was studied. The data were analyzed, and the results showed that the fruits of peppermint contain 7-10 times more vitamin C than currants and 40-50 times more than lemons.

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