

Vitamins and Mineral Substances in Fruit and Nuts of Wild Siberian Plants

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Wild fruit berry and nut plants, growing in the Siberian and Far East regions of Russia, have a great influence in man's life. These plants are the richest wills of vitamins (C, provitamin A-carotene, vitamin B₁, B₂, P, E and others), carbohydrates, in particular sugars, fats (fatty oil), proteins, organic acids, aromatic substances, in which man organism feels sharp necessity.

In Siberian forests, the area of which is 472 mln.ha, there are the following fruit-berry and nut plants: sweetbrier, mountain ash, sea buckthorn, currant-bush, barberry, viburnum, cloudberry, blackberry, strawberry, foxberry, bilberry, miyama cherry, honeysuckle, cranberry, raspberry, cedar nuts.

Analysis of cedar wood distribution permits to conclude that about 60% of its world stocks are on the territory of Siberian region, and about 80% Siberian cedar wood. By reason of this, the Siberia can give, according to our estimation, on the average 10 mln. tons of cedar nuts every year and to the ten millions tons of wild fruits and berries.

In Krasnoyarsk State Institute of Economic and Trade during several years it is investigated the composition of organic and mineral substances of wild fruit-berry and cedar nuts. The average ingredient compound of some species is given in the table.

The content of the main ingredients in some wild berries of Siberia.

index	bilberry	blueberry	cranberry	foxberry	viburnum	mountain ash	sea buckthorn
humidity,%	89,0	90,0	89,0	86,5	84,0	90,8	84,8
ash content,%	0,4	0,4	0,3	0,2	4,6	1,1	1,0
acidity,%	1,2	1,9	3,0	1,8	2,0	2,7	1,9
sugars,%	4,2	4,5	4,6	7,8	8,0	6,2	5,5
vitamin C, mg%	19,0	14,0	22,6	18,4	32,1	116	130
vitamin P, mg%	3,5	520				340	
vitamin PP mg%	4,2	0,4					
ash elements, mg/l:							
sodium	794	380	375	250	342	221	0,47-2,85
potassium	6,96	6,50	2760	2100	3060	5300	0,40-2,80
calcium	2,26	1,08	1,42	750	1,42	1130	8,0-32,6
ferrum	294	277	146	183	165	153	8,0-32,6
manganese	393	178	47	131	23	8	-
zinc	30	30	11	11	11	6	-
magnesium	736	565	329	258	350	340	4,30-8,45
copper	-	5	5	6	4	3	-

In the nuclei of cedar nuts it was discovered 60,0% of fat, 2,7% of mineral substances, alongside with vitamins B₁ and B₂ - to 12 mg% of vitamins E. Mineral substances contain five main elements: phosphorus, magnesium, potassium, sodium, and calcium.

The results of given investigations show the food and medicinal value of wild berries and cedar nuts. Its composition differs by vitamin variety, mineral substances, sugars and other organic substances necessary to man organism for normal life activity.