



## ETHNOBIOLOGICAL AND PHYTOTHERAPEUTIC ANALYSIS OF MEDICINAL HERBS OF AZERBAIJAN FLORA USED AT CARDIOVASCULAR DISEASES TREATMENT

<sup>1</sup>Ibadullayeva S, <sup>2</sup>Gahramanova M, <sup>3</sup>Gasymov H, & <sup>4</sup>Zulfigarova P.

<sup>1,4</sup>Botany Institute of the Azerbaijan National Academy of Sciences, AZ1073, 40-Badamdar Shosse, Baku, Azerbaijan.

<sup>2</sup>Central clinic cure by natural methods 'Nargiz'

<sup>3</sup>Naxçıvan State University

### Abstract

Information about ethnobiological methods of more than 25 medicinal herbs spread in Azerbaijan flora used by people at cardiovascular diseases for centuries have been provided in the article. Also instructions on their use in presentday phytotherapy have been given here. Ethnobotanical characteristics of the herbs and the recipes were shown originated from ethnic sense that have come to the present day being used since the ancient times.

### Introduction

The curative properties of the herbs known are to mankind since ancient times. "If there are thousand diseases, be aware there are more than thousand cures" said our ancient ancestors used thousands of herbs, flowers, plant roots, fruits and vegetables in the plant cover and cured their disease by medicines obtained of plants. Such natural medicines have been successfully tested while the people got acquainted and used. Also they haven't lost their significance even today – in the age of technical progress, vice versa they increased it. Even scientific medicine that approached to folk medicine jealously before also recognizes its importance today.

For a long time the use of medicinal herbs is carried out on the basis of such improved and comprehensive scientific data that it paves the way for a prompt eradication of each disease [Damirov, 1988; Aliyev, 1988; Kerimov, et al., 1996]. Today the use methods of medicinal herbs is multilateral: use of medicinal herbs juices, raw salads, infusion, cooking, ointment et.al., direct delivery of their bioactive substances effect to pathological processes occurring areas create an opportunity for the body's immunity in the raw of the patient's cure. It should be noted that medicines prepared of herbs never cause any mischief or harm.

The use of medicinal herbs, creation of the population's confidence in this treatment method is not less important from the ecological point of view too. So, a person tested the importance of herbs in human life and their therapeutic effect on himself would never stay indifferent and agnostic to the richness of nature and protect it bravely and confidently.

A lot of very interesting and effective medicine prescriptions and receptions have been compiled by an Azerbaijani physician and healer Omar Osman in the Middle Ages. The doctor's special diet regime at heart diseases is of a great interest. Omar Osman used to prescribe to his patients diet dessert, sorbet, sweet wines, honey, as well as baked or boiled cucurbit and carrots.

Medicinal herbs being investigated in the Republic of Azerbaijan are studied by present-day botanists, phytochemists, pharmacologists and clinicians in a complex way [Gadimov, 1997; Ibadullayeva, 2001; 2004; Gasymov et al., 2009; Ibadullayeva et al., 2010; 2011; Mammadova et al., 2011]. They are widely used for medical purposes. On the result of the carried out long-term studies and ethnic surveys a lot of significant data on the medicinal herbs used in folk medicine have been acquired and was determined that in the area 164 herbs are widely used in folk medicine [Ibadullayeva et al., 2013]. Some of these are cultured plants widely used in our daily food diet ration as follows: *Citrullus Lanatus* L., *Fumaria officinalis* L., *Brassica oleracea* L., *Zea mays* L., *Linum usitatissimum* L., *Mentha piperita* L., *Avena sativa* L., *Petroselinum crispum* (Mill.) A.W. Hill., *Anethum graveolens* L., *Phaseolus vulgaris* L., *Foeniculum vulgare* Mill., *Raphanus sativus* L., *Allium sativum* L., *Allium cepa* L., *Allium ursinum* L., *Beta vulgaris* L., *Capsicum annum* L., *Cucurbita pepo* L., *Sinapis alba* L., *Solanum lycopersicum* L., *Daucus sativus* Roehl., *Ocimum basilicum* L., *Oryza sativa* L., *Solanum tuberosum* L., *Melissa officinalis* L.

**Keywords:** Folk medicine, Medicinal herbs, Cardio-vascular diseases

### Materials and Methods

Classic and current methods have been used while studying bioecological properties of the wild herbs [Krylova et al., 1971; Zayko et al., 2007]. The lifestyles of the herbs have been determined [The Azerbaijan flora, 1950-1961] and their use areas were investigated.

The data containing in monographs, transactions, dissertations, articles of various authors and archival materials concerning to botanical researches have been used in the research [Grossheym, 1936; Prilipko, 1965; Damirov, 1970; Turova et al., 1984; Sokolov, 2000; Ethnobotany: Integrating Biology and Traditional ..., 2008; Ibadullayeva et al., 2007; 2013].

The basic method of study of the material was the inquiry/survey method on the D.M.Cotton's method [Cotton, 1996]. At drawing up of questions G.F.Chursin's Program on data acquisition of folk medicine has been used [Chursin,

1929]. The ethnobotanical research methods as: the Wild ethnography; the Observation; the Survey; the Questionnaire design; the Interview; the Balances method; the Comparative method; the Component analysis et.al. were implemented [Guber, 2001; Martin, 2001]. In the observations often were used technical writing devices as: a dictating machine, a motion-picture camera and a video recorder.

## Results

Several methods of folk medicine providing the conservation of the data that are being acquired on the base of ethnobiological information attract our traditional culture remained among people through research of use at cardiovascular diseases on scientific bases for the future generation have been indicated below.

This information created by our people was a method tested for centuries. Data acquisition was mainly carried out on the base of individual conversations with representatives of older generation who better knows the folk medicine ways and deals with healing through all his life.

***Crataegus sanguinea* Pall** - It is used for different purposes in the practice of medicine. Its infusion of flower and fruit is used at heart failure as a cardio-tonic substance, tachycardia angio-neuroses, first stages of hypertonia, insomnia, hypertireises accompanied by tachycardia, blood circulation deficiency especially in climacteric periods and atherosclerosis. A 'cardioviolent' preparation is obtained of its water extraction.

Hawthorn known as a healing herb still widely used in folk medicine at cardiovascular disease treatment for a long time. Much information was provided how hawthorn is useful at treatments as: vasodilator, heart failure, high pressure regulating, nervine et.al.

In traditional medicine stems with young leaves, fruits and flowers of hawthorn is used in wet and dry state Its flowers and fruits are mainly used inside as tea extraction or in milled state as pills.

***Leonurus cardiaca* L.**-Preparations obtained of the herb are used at the following diseases as: neurosis, hypertonia, coronary heart disease, hyperthyroidism, insomnia and distonia. Besides it is appointed by physician at gastrointestinal neurosis, meteorism and spastic colitis.

All ground parts of the *Leonurus cardiaca* L.species: thin stems, leaves and flowers, seeds are widely used in folk medicine and scientific medicine at diseases as high blood pressure, cardiovascular and diseases of nervous. 20gr of fresh delicate collected plant parts place into a glass saucer, mix with 80ml 70% alcohol, keep the mixture within 4-6 weeks in a dark place and each 2 days stir up the mixture. You may take 10-15 drops in the morning and evening after filtering the solution obtained in this way.

***Equisetum arvense* L.** -Its infusion and in cooked/boiledis state were used at heart disease in medicine practice.

***Strophanthus* Genus**-Its ellipse shaped leaves are opposite to each other and have got sharp peaks. Its flowers are cymous, flowers crown is green, straight, pipe-like, with 5 petals, ribbon-like ant its tip is excessively curve. Its fruit is cut lengthwise, horizontally slit-spaced, dehiscent when ripe, free, has got numerous seeds with panache. The seeds are oblong and their tips are round.

*Strophanthus gratus* Franch.and *Strophanthus hispidus* DC species are used on the medicinal purposes. Its seeds are used as raw materials. *Strofantin* K (as an injection of 0.025%) is a cardiotoxic medicine. Qualitative medicine K. *strofantin* is obtained from its seeds as raw material. This medicine is applied at acute cardiovascular failure and acute myocardial infarction. It is high effective. It starts to effect in 5-10 minutes and in 15-30 minutes it reaches its maximum.

***Thymus serpyllum* L.**-Its leaves infusion and solution are very useful at heart diseases, constipation and liver diseases as an inflammation-absorbent in Azerbaijan medicine. Besides, is applied at hypertension and atherosclerosis disease.

***Digitalis purpurea* L.**-is poisonous plant. Its all organs have got cardiac glycosides. It was revealed purpurea A glycoside, digilan A, digilan B, a and b acetyldigitoxins, glucose, aglycon in the content of its leaves; steroid saponins (digitonin), flavanoides (luteolin and its glucoside), caffeine, choline substances in the content of its leaves and seeds; it is used at II and III degrees of blood circulation disorders and hypertension diseases. It increases diuresis in swellings and strengthen heart muscle. It subjects to vomiting, arrhythmia, and cumulation when is excessively used. Even it can cause cardiac arrest and death. Its leaves are high-quality cardiotoxic medications. In the state of powder and water solution it is medicinal substances as: digitoxin, gitoxin and cardigit. These medicines are successfully used at chronic cardiovascular failure (decompensation), mitral defects, myocardial dystrophy, heart rate and other disorders, hypertension, coronary sclerosis, retarding arrhythmia and paroxysmal tachycardia. Cumulative effect of this plant should be treated under a control of qualified physicians.

***Inula helenium* L.**-At the following diseases: heart diseases, hypertonia, toothache, shortness of breath / dyspnoea and weight loss / malnutrition, colitis, liver, bile, and urinary tract diseases and swellings is quite effective. Valerian is considered valuable Tibetan medicine. Infusion of its roots is used at diseases as: palpitations, headaches, epilepsy and diphtheria in Bulgarian medicine. It is used from time to time at: headaches, epilepsy, heart attacks and menstruation in folk medicine.

***Claviceps purpurea* (Fr.) Tul.** Been dried raw material of cultivated and ripe *Claviceps purpurea* (Fr.) Tul. rye ergot is qualitative medicinal herb has got a complex mechanism effect. According to its pharmaceutical characteristics due to ergotamine and ergometrine in its content it reduces uterine muscle tonus. According to its other characteristics it is prescribed at cardiovascular diseases as it is mainly an alpha adrenergic blocker.

***Convallaria transcaucasica* Utkin ex Grossh.** and ***Convallaria majalis* L.** species are used at neuro-circular distonia of cardiac-type, hysteria, toxic goitre of slight form diseases trait in Western Europe since Medieval Ages. Treatment is more effective when treating by means of Valerian and Hawthorn. You should drink the solution of spoonful herb with 200ml boiling water infused in thermos (o dose for 24 hour). 1-2 tablespoons for 3-4 times a day should be taken before eating every day. Flowers, leaves and grass of *Convallaria majalis* as a raw material contains very effective cardiolicon used at cardiovascular diseases.

It is used as an eye and outside fomentation at treatment of several as cardiac, as a diuretic at various etymology swellings, neurosis, epilepsy, temperature.

***Valeriana officinalis* L.** It is more used at weakness according to neurosis, nervous system. According to their hypertensive and spasmolytic characteristics it is also used at hypertension, cardio-neurosis and stenocardia disease. Valerian is also successfully applied at diseases as: spastic colitis, chronic diarrhea and gastro-intestinal neurosis. Taking valerian impacts pretty well at hyperfunction of the thyroid gland, body shiver (chorea), epilepsy and early climacteric complaints. At the same time its use gives very good result at: loss of appetite, strengthening the body's bile and pancreas system diseases. Its roots contain up to 2% essential oil, borneol, izovalerian acid, camphene, pinene and other terpens. It calms nervous system and affects as a spasmolytic. It is used at: weakness of neural origin, cardiovascular neurosis, cardiac attacks, extrasystole, flatulence and constipation. It is usually taken in proportion of 1 cup of boiling water 1 tablespoon roots infused in thermos 3-4 times a day per 1/3 glass each time. Its roots in powder state 1-2gr can be taken 3-4 times a day. An extract of valerian (T-ae Valeriane) teens and young adults can take 20-30 drops 2-3 times a day; depending on the age of the children. 15-30 drops of valerian essential solution 2-3 times a day; dried valerian extract 1-3 tablets 2-3 times a day; lily of the valley - valerian - adonizid drops 15-20 drops 2-3 times a day; analeptic (1 part valerian root, 2 parts mint leaves, 2 parts clover and 1 part 2 part hops) is very useful to take. There are carvolol (valokardin), Zelenin drops et.al. in the content of other mixtures.

***Urtica dioica* L.** It normalizes asthenia, anaemia, arterial hypotension and metabolism. It is used at the following diseases as: neurosis, hysteria, bronchitis, pneumonia, bronchial asthma, tuberculosis, diphtheria, loss of appetite, diarrhea, constipation, gastritis and enterecolitic epilepsy and atherosclerosis. It is used at: hepatic, renal and the bile tract diseases, diuretic and anti-inflammatory drugs such as nephritis, pyelonephritis, and cystitis. It is used as to treat as cardiovascular diseases of I-II degrees.

***Schisandra chinensis* (Turcz.) Baill.** Its root, stem and fruit are used. It tones central nervous system by stimulating heart and breath, reduces mental and physical stress and gradually eliminates impotency. It increases the activity of peripheral and central nervous system. It helps to healing of acute and chronic diseases as: gastro-intestinal, respiratory, kidney, and blood diseases. People in the Far East drink infusion of its fruits like tea.

***Panax ginseng* C.A.Mey.** Only root of the plant is used. Its chemical content is quite interesting to study. As the herb is being researched however its therapeutic aspects still are not quite clear. Ginseng was called as: "a herb-man", "an arth-man» an ancient Eastern myth. According to legends it returns old age back to younger, makes patients healthier, makes people wiser, helps to cure many epidemics diseases like: pestilence, plague and smallpox. Ginseng was known in China and Southeast Asia. European countries became aware of it in the XVII Century. It stimulates the nervous system, liquidate nervous and mental anxiety, effects hypotensively, renders a very positive impact on the treatment of neurosis and impotencies, disorders unknown cause, weakening the body's defence capability, is being used at stressful situations and infectious diseases. It gives a general tonus to organism, stimulates the central nervous system (tekrrarlanir, 4 setir yuxari bax!) and eliminates mild depression. It affects pretty well at chronic lung disease, anaemia, diabetes, hypo and hyper gastritis. It quickly heals stomach ulcer, increases appetite and normalizes intestines activity. It regulates blood flow to the heart. Eliminates sexual weakness occurred of various reasons. However the use of this medicine without necessity is not acceptable. It significantly improves efficiency of use of the medicine together with vitamins. Ginseng is not toxic and can be used for a long time. Patients are advised to make an appointment with low doses of the medicine. It is irreplaceable roots contain stimulator of the central nervous system, hypotonia, neurasthenia and physical fatigue.

***Mentha piperita* L.** It has got spasmolytic, analgesic, antiseptic, choleric and gas-releasing properties. It is used at therapy of hypertension, angina, rheumatism, toothache and atherosclerosis diseases as it is a spasmolytic, analgesic, antiseptic, cardiovascular system stimulator (especially headaches). It is recommended for treatment of upper respiratory tract – bronchial asthma and bronchiectasis. It perfectly effects at intestine dyskinesia and bile ducts. It improves digestion and appetite. It is used at gastritis, peptic ulcer disease, colitis, enterecolitis, flatulence, shortness of breath, vomiting and diarrhea diseases. It was included into the tea plant at gallstone, hepatitis and cholecystitis diseases. Continuous taking mint strengthens and calms organism; along with a positive impact on disease as: hysteria, fatigue, migraine and also renders a diuretic effect. As it is delicious aromatic it is included into the majority of medicinal herbs composition. It is applied externally as a bath. It is usually in the state of drops, mixture, tablets (validol) and pencil-shaped. Since its leaves contain menthol it is used at: stomach and intestinal colics. It is recommended at: neuralgia, toothache, antiseptic, analgesic and due to its inflammatory nature, – at bronchitis and bronchiectasis diseases. Its blend of menthol with valerian is used as validol, with paraffin – as pencil-shaped migraine, as valocordin. Besides, its leaves are used for increasing appetite, at shortness of breath and vomiting. German physicians advice it at: diarrhea, meteorism; taking its fresh and dried leaves together with soup, salad, vegetables and meat products. It is widely used within the content of tea as bile-expelling and sudatory; in food, confectionery and perfume industry; in preparation of toothpaste and powders. Make an infusion of 2 tablespoons plant in 2 cups of boiling water in thermos, take 3 times a day, every

time you need to drink 30 minutes before meals (the daily dose). Oil of *Oleum Menthae piperitae*. 50% of menthol is used at dentist practice 1-3 drops; *mentholum* is used at skin rash and myalgia.

***Melissa officinalis* L.** Its infusion as sedative medicine is successfully used at: neuroses, fatigue, vegetative-vascular dystonia and high sexual sensitivity. Besides, it is used at: intestines colic, cholecystitis, cholangitis, nephrolith, urinary tract disease and angina as well as at stenocardia and climacteric syndromes. It perfectly effects at external use at onto the skin antibacterial, antiviral, furunculosis, herpes, stomatitis and parodontoses. This herb in combination and as an infusion effects as sedative, spasmolytic, analgesic and hypotensive one. The juice of its young leaves before flowering are used in cookery. As the smell of lemon in its leaves are essential oil based is used in perfumery.

***Tribulus terrestris* L.** On the purpose of prophylactics and therapy it is used at: atherosclerosis, coronary heart disease and hypertension. Blood pressure is reduced, headache and sounds in ears are lost by lowering amount of lipoproteins by means of this device at therapy of atherosclerosis. This preparation regulating lipid and carbohydrate changes reduces amount of saccharin in the blood at diabetes in the background of atherosclerosis. Contributes for widening and opening of peripheral arteries.

***Adonis vernalis* L.** As it consists of numerous ascorbic acid it is regarded as a spring salad. Its dried herbs are used at: influenza, tonsillitis, bronchitis, hay fever, and rinosinusitis. As *Adonis vernalis* L. has got weak sedative and hypnotic features it is used in the cases of migraine, neurosis and weakness. Its roots are cough suppressant substances. Saponines containing in it is very useful especially to stop dry cough. It improves blood supply to heart and lungs by reducing heartbeat. It is considered purposeful if you add some mallow onto this herb it would be appropriate to use in cases of colds and coughs. It improves blood supply to heart and lungs by reducing heartbeat. It normalizes hyperfunction of thyroid gland.

***Erysimum diffusum* Ehrh.** A cardioviolent is produced of *E.diffusum* as a raw material. Cardioviolent being a complex is used at rheumatic heart defects, cardiosclerosis, heart-blood circulatory deficiencies and even at vegetative stenocardia neuroses.

***Nigella sativa* L.** According to some sources Turkey is considered to be the birthplace of this herb and from there it has spread to other countries. However for thousands of years many of these herbs are being cultivated in Africa, Turkey, Egypt and other countries. Since the ancient period up to day it has being used in folk medicine as healer at different diseases (renal, cardiovascular, diabetes, sexual dysfunction et.al.). According to the historical archival sources – the herb that seed cure all diseases except of death was announced.

*Nigella sativa* is an erect, thin-stemmed and finely branched herb. It is grass plant height of which is 15-50cm depending on condition. Its fine leaves are divided into feather-shaped parts placed on stem with an alternative row. Its flowers are heart-shaped or egg-shaped and have originated of five dark blue or white petals with small wavy edges. Approximately 30-50 breeding pollens are located in the middle part. After pollination a five-clove fruit is originated. There are antenna-shaped sharp grooves on the tip of each clove. Black seeds similar to small onion seed mature inside the fruit. Five species of *Nigella* Genus happen in Azerbaijan. They can be met in lowland, mountainous and foothill, crop plots, grassy and drought slopes, fallow land and wormwood areas. All organs of *Nigella* can be used. On this purpose its upper part is recommended as a tea infusion and seeds in milled state is advised to swallow with water.

As *Nigella* seeds are oily essential oil is obtained from them. It is used inside on the purpose of therapy as well as render a massage onto various hurting places.

***Glycyrrhiza glabra* L.**– Liquorice is a perennial herb with branched, deep-rooted, spread in the wild and known in folk medicine and scientific medicine long ago. Height of its cylindrical stem reaches from 50cm up to 1 meter and even more depending on its spread area.

The herb has rhizomatous stem and a couple of branches develop on the upper part of the body. As the roots grow deeply and laterally a lot of root shoots are formed along the rhizomatous roots. That is why thick cover of liquorice is originated around its spread area.

Feather-like composite leaves completed in a single leaf are located on the stem; and there are 9-13 even more leaves on each leaf stalk. Fruit-shaped pale purple flowers located in the upper part of the stem. After flowering fruits called fruit bean are formed. On the couple of each fruit-been there are 3-5 pieces of raspberry colour and rather kidney-shaped small seeds. One can see these fruit-been even in winter on the stem.

According to their appearance of bitter liquorice sometimes they confuse with sweet liquorice. That is why please pay attention. As it seems based on its name the sweet liquorice has a sweet taste of all underground and above-ground parts. And the bitter liquorice tastes entirely bitter. Stem of the sweet liquorice is pale raspberry colour. Stem of the bitter liquorice is gray. Leaves of sweet liquorice are bigger than bitter ones. Cluster flowers of sweet liquorice are bigger and violet colour.

Root of *Glycyrrhiza glabra* is mainly used in folk medicine and scientific medicine. It's being used at cardiovascular diseases including high pressure lowering, inflammation of the respiratory tract, constipation, strengthening reproductive (sexual) system et.al. On this purpose liquorice root is used in infusion, powder, baking, boiling and extract state.

Surface parts of the sweet liquorice can be used as tea infusion in the flowering period of the herb. One can also eat its young shoots as vegetables when it is fresh and not dry. In all cases it is useful when is used a little. It should not be taken too much.

Liquorice resources in the lowland and highland regions of Azerbaijan are much enough. They happen on the edges of streams and canals, planting areas around the sowing areas in large quantities in the vicinity of each location supplied with water flow.

**Allium sativum L.** to be stronger According to historical sources garlic was used at sportsmanship and running races is since the very ancient times in Greece; at the construction of the pyramids in Egypt and considered and to be protected from a malefice for employees working in the garlic.

The subsequent researches confirmed that this valuable herb really increases power of human body and has got unique healing properties of many diseases. That is why garlic is of great importance in scientific medicine and folk medicine at treatment of cardiovascular system and reduce high blood pressure, diabetes and nervous system diseases.

Considered to be the original homeland of Central Asia this herb is grown in all temperate climate, vineyards and orchards. Possessing sharp smell this species of Alliaceae Family is 40-80cm high depending on soil conditions perennial *Herbaceous* herb. It has got subterranean bulbs and the bulbs are with cloves. There are flat and long leaves on the lower half part of its stem. The upper part is usually leafless. Its leaves are with parallel veins and sharp tips whether the stem is festooned. Lots of small bulbs are formed in flower group besides the flowers.

Garlic is introduced by its cloves. Each bulb has got 10-20cloves. The cloves regularly linked with the stem. Each clove is covered with a diaphragm separately.

3 species of the *Allium* genus is known in Azerbaijan. An *A.sativum*, *Allium cepa* L. and *Allium ursinum* L. The number of Floral garlic cloves are 5-10pieces and outside ones are bigger while the middle cloves are smaller. The bulb of garlic and green surface portion of the herb are eatable or used in preparation of different food products. Garlic should be reproduced by bulb cloves. If garlic would be reproduced by means of bulbs that are on the stem the garlic will be grown single-cloved and less yield. Garlic product should be collected and delivered after getting its leaves to dry. One should be careful when eating raw garlic as those with low blood pressure and gastrointestinal diseases may have a negative impact. That is why we must not forget to take advice a physician.

**Rubus sanguineus Friv.** Wild perennial shrubs naturally spread along with roadsides, gardens, in the edges of ditches, around backyard fence. Its very branched stems and surrounded with whitish hair and thick spread tenacious thorns. Its curve, hooked and tenacious thorns are even on its leaves. These thorns well protect the plant from being eaten by animals. Young shoots of blackberry bent down and touching the ground sooner is tied and forms knots to a new plant roots around. So, blackberry plant is capable to spread by its scion tendrils several meters away from it and increase into bush. It is almost difficult to clean it up from a widespread area.

Depending on its species there are triple composite leaves on its stems (eg, on fruitless species). On the stems of fruit-bearing species there are five composite leaves. Id. est. there are 5 leaves on general stalk linked with smaller stalk on its stem; the 2 leaves situated below them are smaller. The flowers located on the stem are single or assembled group of flowers and is forked like a cluster of grapes. Flower crown consists of 5 petals. It is pink or white colour. Stamen and pistil are of large number. The fruits are red at first and get darkened into black when they are fully ripened. Its fleshy pseudo fruits are a cluster of number of small and round-shaped small fruits. According to the scientists 15 species of *Rubus sanguineus* Genus happen in Azerbaijan. Almost they are met in all regions of the Country.

Since the ancient times the herb known in folk medicine as a healer had been used at therapy of many diseases as: cardiovascular diseases and high blood pressure, foot tumour, mouth cavity and throat infections et.al.; and at present it is retaining its significance its significance. All its organs are being used as a healing. Its leaves are collected and dried even before the flowering. They are used in milled state of what brew tea and drink half an hour before meal in the morning and evening lillamar by gulping. For infusion a teaspoonful herb and a cup of boiling water should be taken. It can be taken for months with intervals. Its fruits are eaten and used as jam, stewed fruit and compote.

**Foeniculum vulgare L.** It is widely spread in many countries all around the world in wild form. Knowing significance of *Foeniculum vulgare* people have begun to cultivate it. *F.vulgare* belonged to Umbelliferae is a herbaceous perennial herb. Height of its stem can be 1-2 meters, depending on soil and climatic conditions. People who know the benefits of the herb have begun to cultivate it as vegetable plant in their private plots.

*F.vulgare* is erected herb and has got a cylindrical stem. The leaves of the lower part of the stem are big and long stalked. And the leaves of the upper part of the stem are small and stalkless. There are composite umbrella flowers consisting of a couple of yellow flowers on the upper part of the stem. After flowering cylindrical fruits are formed of two parts on which mature the seeds of a few millimetres in length. *F.vulgare* is widely spread in the wild of Davachi - Khachmaz Regions. They cultivate it as a vegetable plant in private plots too. On medicinal purposes seeds and roots of *F.vulgare* are used. Young shoots and leaves are eaten as vegetable. *F.vulgare* is used in folk medicine at: anaemia, heart disease, also at the treatment of gastrointestinal and respiratory diseases. On this purpose, it is advisable to collect fruits and seeds of the herb in the period of maturation. And its roots should be collected after seed maturation, washed, cut and dried in a less shady place. *F.vulgare* Its tea infusion is based on the rules that already we know. Its roots and seeds can also be used in milled and/or cut states *F. vulgare* Its fruit gives a positive result to kids and adults at gastrointestinal pain when mixing its fruit with dry mint leaves in equal proportion and infusing to use.

**Hippophae rhamnoides L.** The herb belonged to *Angustifolia* Family has been known in folk medicine since the ancient times. It is popular as a healing herb because mainly it has got valuable vitamins like: A, E, K, P, F and useful for human body mineral substances like: Mg, Fe, Al, Si, Ti in its content.

Tea infusion obtained of leaves and flowers as well as the young shoots of Sea Buckthorn herb is used in folk medicine since the ancient times at: anaemia, vitamin failure, joint pains and other diseases. During the subsequent investigations its positive effect at diseases like: cardiovascular, gastrointestinal diseases and sexual dysfunction have been studied and proven.

This healing herb has been widely spread in many countries including Azerbaijan. It happens in lowland, mountainous and foothill regions. Height of this tree-plant widely spread in the wild depending on soil and climatic conditions can be 5-8 meters. Bark of the tree trunk is thick and gray. Trunks are branched. The trunks have got irregularly located sharp and tough prickles. Thorns are able to protect the herb well. Even is not so easy to collect Sea Buckthorn fruits as requires more attention and carefulness.

Long and sharp-end leaves short stalks located alternatively on trunk branches attracts attention. Veins visible in the centre extend along with in the middle of each leaf. The buds are located under leaves. Flower and fruit buds are located close to each other. The flowers are hardly noticeable star-shaped. Flowers are arranged in the form of ears in whole. Flowering happens in May. After flowering juicy, sour tasted fruits like small berries are formed. Its ripen fruits are yellowish or orange. As the fruit stalks are firm fruits on the plant able remain in winter.

As seeds of Sea buckthorn are much oily Sea buckthorn oil is obtained of it in industry and in household use. One can use fruit, leaves, bark and young shoots of Sea buckthorn can be used as a tea infusion. Its fruits, can be used to cook jams, compote. Reproduction can be made through the shoots of the plant and trunk cuttings.

## Referens

- Aliyev N. 1998. Medicinal plants of Azerbaijan and Phytoterapy. Baku. 343p.
- Chursin G.F.1929. A programmme for ethnographic data collecting. It's compiled with reference to a life of the Caucasian peoples. Pub/house for Publ. Survey and Study. Azerbaijan.
- Cotton C.M. 1996. Ethnobotany: Principles and application. Chichester-New-York-Brislane-Toronto-Singapore: John Willey and Sons.
- Damirov I.A. 1970. Towards the history of use of herbs in Azerbaijan. Baku, 37.
- Damirov I.A., Prilipco L.I., Shukurov D.Z., Kerimov U.B. 1988. Herbs of Azerbaijan. Baku: 319.
- Ethnobotany: Integrating Biology and Traditional Knowledge. Missouri Botanical Garden. St. Louis, MO. November 7-8, 2008.
- Kerimov U.B., Islamova N.A., Khalilov D.S., Jafarova R.E., Suleymanov T.A., Isayev D.I., Agayev E.M. 1996. Prospect of use of herbal raw material and production of phytopreparations in Azerbaijan. Baku: 84 p-s.
- Krylova I.Y., Shreter A.I. 1971. Methodical directions on resource study of the wild herbs. M: ВИЛИАР, 21p-s.
- Gadimov Sh. Healing Ensklopediya. Baku: 1997. 335 p.
- Gasymov G.Z, Guliev V.B, Ibadullayeva S.J. 2009. Wild food plants in Naxçıvan Autonomous Republic of Azerbaijan on materials of ethno-botanical researches. St.-Petersburg. Vegetative resources, issue 2, Vol. 45, p. 109-115.
- Grossheym A.A. 1936. Analys of flora of Caucasus. / Works of Bot. Inst.of the Azerb.Branch of the Acad.of Sciences.of the USSR, Baku.
- Guber R. (2001) La Etnografia. Metodo, campo y reflexividad. Norma, Bogota.
- Ibadullayeva S.J. Useful plants of the *Umbelliferae* family. Publishing house of Baku, "Araz", 2001, 147p.
- Ibadullayeva S.J. *Apiaceae* of the Azerbaijan flora. Publishing House "Elm", Baku, 2004, 374p.
- Ibadullayeva S.J. & Jafarli I. A. Essential oil and aromatherapy. Baku, "ELM". 2007, 150p.
- Ibadullayeva S.J., Mamedova S.E., Ibadullayeva S.J., Sultanova Z.R., Movsumova N.V., Jafarli I. 2010. Medicinal plants of Azerbaijan flora used in the treatment of certain diseases. African Journal of Pharmacy and Pharmacology Vol. 4(5). August –pp. 545-548. ISSN 1996-0816 © 2010 Academic Journals.
- Ibadullayeva S.J. 2011. Flora and vegetation of Azerbaijan: ecoprotective effect of the useful plants. "Actual problems in the use of useful plants" International Conference. October 26-28, Baku, pp.8-13.
- Ibadullayeva S.J. 2011. Medicinal plants of Azerbaijan. / International Conference. Diversity, characterization and utilization of Plant Genetic Resources for enhanced resilience to climate. Baku, p.69-70.
- Ibadullayeva S., Alakberov R. 2013. Medicinal plants (Ethnobotany and Phytoterapy). 330p.
- Mammedova Z.A., Ibadullayeva S.J. 2011. Antimicrobial characteristics of essential oils of some species of the *Nepeta* L. genus / Journal of Medicinal Plants Research Vol. 5(17), ISSN 1996-0875, 4369-4372
- Martin G.J. 2001. Etnobotany. Manual de methods. Nordan - Comunidad. Montevideo, Uruguay.
- Prilipko L.I. 1965. Herbal resources of natural & economical areas of the Azerbaijan SSR. Baku. 134.
- Sokolov S.Y. 2000. Phytotherapy and phytopharmacology. M:Medical Inform. Agency, 971.
- Turova A.D., Sapojnikova E.N. 1984. Herbs of the USSR and their use. M:Medicine, 230.
- The Azerbaijan flora. 1950-1961. Volumes I-III. Baku:.
- Zayko L.N., Pimenova M.E., Maslikov V.U. 2007. Review of the method and results on study of herbs of Russia (ВИЛИАР). Transactions of the Int. Scientific and Practical Conference. Present-day problems of phytodesign. Belgorod, 148-157.