

**LEGISLATION IN SERBIA IN THE FIELD OF COLLECTING
MEDICINAL AND AROMATIC PLANTS**

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Abstract

According to the international criteria of the International Union for Conservation of Nature (IUCN) and the World Conservation Monitoring Centre (WCMC), Serbia together with the mountain areas in Bulgaria is one of six European and 153 world centers of biodiversity. In this region it has been recorded the presence of a high percentage of rare, sparse or endangered plant and animal species, of which 1,600 have the status of internationally important ones for the global preservation of genetic fund and biodiversity. Protection of the medicinal and aromatic plants' resources in our country is under strict legal control, which preceded by the ratification of appropriate international conventions (Agenda 21 - Rio Declaration, United Nations 1992, Bern Conventions 1982, Council Regulation No. 338/97 - 1996). The Government of the Republic of Serbia by the legal and regulatory regulations has prescribed different levels of protection for medicinal herbs and authorized the Institute for Nature Protection of Serbia to establish by the open competition the contingents of medicinal herbs that can be collected in the current year. Complete legislation has been passed by the Government of the Republic of Serbia, and they take effect upon their publication in the Official Gazette of the Republic of Serbia. The collection of wild flora and fauna is allowed upon getting a permit for collection of protected species in the permitted quantities as well as in the prescribed periods. The SEED study (2003) on the situation of herbal sector in Serbia and Montenegro has shown that despite the great wealth of natural resources in medicinal and aromatic plants (MAP) (hence the significant export potentials), a number of species and many populations, depending on the region, require special attention as they face pressures of excessive and/or improper exploitation.

Key words: medicinal and aromatic plants, protection of resources, legal documents, permits

Introduction

The problem of over-exploitation of medicinal plants *in situ* is a threat to the natural resources, so it is necessary to preserve the biodiversity of medicinal plants in Serbia. This requires proper assessment of risks to biodiversity, and all that is necessary in order to reconcile both the acquisition of income and preservation of natural resources (Parotta 2002). In order to develop this sector it is necessary to have cooperation in preserving MAP species by pointing to the collectors onto benefit of rational exploitation and cultivation. In this activity it should be point to the consequences of the biodiversity loss for the collectors and producers as well as on an importance of biodiversity for the community. (Gadgil, Berkes, Folke 1993)

According to the international criteria of the International Union for Conservation of Nature (IUCN) and the World Conservation Monitoring Centre (WCMC), Serbia together with the mountain areas in Bulgaria is one of six European and 153 world centers of biodiversity. In this region it has been recorded the presence of a high percentage of rare, sparse or endangered plant and animal species, of which 1,600 have the status of internationally important ones for the global

preservation of genetic fund and biodiversity. Given the availability and accessibility for commercial exploitation, the medicinal herbs have been classified into two groups: plants that are widespread in nature and types of medicinal and aromatic plants which are under state protection.¹¹

¹² Among many species of wild plants in Serbia in addition to endemic ones, there are species that have not been sufficiently investigated. Although the territory of Serbia is characterized by high floristic diversity (over 3,500 plant species and subspecies), as well as by the wealth of natural MAP resources (more than 700 species are used in ethno-medicine), due to irrational use some types of medicinal and aromatic plants have become extremely endangered and rare: *Gentiana lutea* - yellow gentian, *Gentiana punctata* - gentian, *Adonis vernalis* - wild flowers, *Arctostaphylos uva ursi* – bearbeery, *Menyanthes trifoliata* - bitter clover, *Cetraria islandica* - Iceland moss, *Sideritis scardica* - sideritis, *Gypsophila paniculata*, some species of genus savory, orchid, etc. Sustainable development of natural resources of medicinal and aromatic plants is directly dependent even on the application and improvement of regulations and standards that have to be harmonized with EU laws and standards.

The SEED study (2003) on the situation of herbal sector in Serbia and Montenegro¹³ has shown that despite the great wealth of natural MAP resources (the significant export potentials), a number of species and many populations, depending on the region, require special attention as they face pressures of excessive and/or improper exploitation.

A coordinated approach to the conservation of medicinal and aromatic plants' biodiversity is carried out through a number of programs aiming at the germplasm conservation at national and international level, according to the recommendations of international organizations, such as WWF, IUCN, WHO, IPGRI and others (Heywood 1989). Since 1993 there has been started in our country with introduction and application of legislative regulations in this area. Appropriate measures have been proposed by a number of institutions, in particular by the Institute for Nature Conservation of Serbia, Ministry of Agriculture and Ministry of Science and Environmental Protection. It is in the procedure the adoption of the appropriate law as well as the series of by-laws as a continuation of the EU harmonization process.

Legislation and Standards

Protection of the medicinal and aromatic plants' resources in our country is under strict legal control, which preceded by the ratification of appropriate international conventions (Agenda 21-Rio Declaration, United Nations 1992, Bern Conventions 1982, Council Regulation No. 338/97 - 1996). The collection of wild flora and fauna is allowed upon getting a permit for collection of protected species, in the permitted quantities as well as in the prescribed periods.

The Government of the Republic of Serbia has prescribed different levels of protection for medicinal herbs and authorized the Institute for Nature Protection of Serbia to establish the contingents of medicinal herbs that can be collected in the current year by the open competition procedure. Legislative acts that have to be applied by producers and processors of medicinal plants are the following: laws, regulations, rule books and orders. Complete legislation has been passed by the Government of the Republic of Serbia, and they take effect upon their publication in the Official Gazette of the Republic of Serbia.

The field of medicinal and aromatic plants is regulated by the following **laws**: The Law on Plant Protection ("Official Gazette of SRY", No. 24/98, 26/98, 101/05 and 41/09); The Law on Environmental protection ("Official Gazette of RS", No. 135/2004 i 36/09); The Law on Organic

¹¹ Study "Market Analysis for the Products of Higher Degree of the Medicinal Plants Processing (The First Phase), Market Analysis of Medicinal and Aromatic Plants and the Plant Based Products (Basic Trends) – Institute for Market Research

¹² "Official Gazette" RS, No. 50/903 i 16/96

¹³ www.balkanherbs.org

Production and Organic Products "Official Gazette of SRJ", No. 62/06); The Law on Plant Health "Official Gazette of RS", No. 41/09); The Law on Plant Chemicals ("Official Gazette of RS", No. 41/09); The Law on the Protection of the Plant Breeders' Rights ("Official Gazette of RS", No. 41/09); The Law on Nature Protection ("Official Gazette of RS", No. 36/2009 i 88/10); The Law on Food Safety in Republic of Serbia ("Official Gazette of RS", No. br. 41/09).

The particular **Regulation** specifies the species of wild flora, fauna and mushrooms, i.e. the protected species whose collection from natural habitats, utilization and sales have been brought under control and determined the amount of compensation for their use: the Regulation on controlling the use and trade of wild flora and fauna ("Official Gazette of RS", No. 31/05, 45/05, 22/07, 38/08, 9/10).

Among the **Rule Books** governing the issue of LAB, there can be mentioned the following: The Rule Book on the methods of organic plant production and organic production methods of wild plant and animal species from natural habitats ("Official Gazette of RS", No. 47/09); The Rule Book on the cross-border sales and trade of protected species ("Official Gazette of RS", No. 99/09); The Rule Book on designation and protection of the strictly protected and protected wild species of plants, animals and mushrooms ("Official Gazette of RS", No. 5/10); The Rule Book on criteria for allocation of habitat types, on the habitat types, on the sensitive, threatened, rare and priority habitat types for protection, as well as on the protective measures for their preservation ("Official Gazette of RS", No. 35/10); The Rule Book on the compensation price list applied to determine the indemnity caused by the unauthorized act done in relation to the strictly protected and protected species ("Official Gazette of RS", No. 37/10); The Rule Book on conditions for establishing a gene bank for the wild plants, animals and mushrooms, on mode of the gene bank operating, on the handling with biological material, contents of requirements and documents required to be submitted with the application for a license for establishment of the gene bank ("Official Gazette of RS", No. 65/10); The rule Book on the conditions and methods for assessing the risk to carry out the phytosanitary inspection of the plants' consignments, plant products and regulated objects with lower frequency ("Official Gazette of RS", No. 67/11); Regulation on the quality of tea, herbal tea and their products ("Official Gazette of RS", No. 4/12).

The **Order** is made at the beginning of each year in late March or early April, e.g. The Order prohibiting the collection of certain protected species of wild flora and fauna in 2011 ("Official Gazette of RS", No. 24/11). This Order prohibits the collection of protected species of wild flora throughout the territory of the Republic of Serbia, e.g. in 2011 there were the following species: *Hypericum barbatum* Jacq. – the cilia Klamath weed, *Hypericum maculatum* Crantz – the mountain Klamath weed, *Hypericum rumelicum* Boiss. – the rumelian Klamath weed, *Iris pseudoacorus* L. – the marsh iris, yellow iris, wild iris, *Veratrum nigrum* L. – the black hellebore. The recommendation for all collectors is that they have to be familiar with the Order of the current year, in order to avoid coming into conflict with the law as well as the payment of penalty.

In addition to the legal acts regulating this issue, we highlight and **strategic documents** dealing with the subject of medicinal herbs: The Strategy of the Medicinal Herbs Protection in Serbia, The Institute for Research of Medicinal Herbs "Dr. Josif Pan ic" (1999); The National Strategy of Sustainable Development of Serbia (2008); The Strategy of Biodiversity in the Republic of Serbia for the 2011-2018 period ("Official Gazette of RS" No. 13/11); The Strategy of Agricultural Development of Serbia ("Official Gazette of RS" No. 78/05).

Legislation Procedure in the field of MAP natural resources protection in Serbia

The license for collection of the wild flora and fauna protected species for the commercial purposes has been issued by the Ministry in charge of environmental protection on the basis of the public announcement. The public announcement contains types and amounts that can be collected in the current year. The license can be obtained by the legal entities and entrepreneurs registered for

carrying out the collection of forest and other products, their purchase, sales and processing. The condition for getting a license is that its potential carrier has not been convicted for misdemeanor of the regulations on the protected species' collection of wild flora and fauna. Together with requirement for issuing of the license, there have to be submitted the following prescribed documentation (data on the applicant, protected species, collected quantity, location of collection, collection centers, capacities – facilities, storage, processing, sales, as well as the proof of fee payment). The fee is paid at the annual level equal to 10% of the price for the particular specie, as determined by the competent Ministry before the public announcement for the license issuing. Entities that are licensed to collect protected species have obligation to submit in due time and on prescribed forms to the competent Ministry and the Institute for Nature Conservation of Serbia the data of the collection (by species and collection centers), as well as on utilization and sales. Those entities that are engaged in cultivation of the protected species are also required to submit to the Ministry the required data.¹⁴ The collection, use and trade of protected species is placed under control in order to ensure their sustainable use, by preventing the collection of species from natural habitats in the quantities and in a manner that would endanger their survival in the future, which would violate the structure and stability of habitats. The total quantities of protected species collected for commercial purposes have been determined each year on the basis of previously assessed status of species on natural habitats. Also, this regulation prohibits the collection of plants from small population, pulling underground organs (roots, rhizome, etc..) for the species where the above-ground organs have been used, as well as the crushing and cutting of trees and branches of trees and shrubs if there have been collected the fruits, flowers or leaves, and collecting near busy roads and waste dumps.

Under the protection of the state it has been recently 8.09% of the flora of Serbia, and now it is 12.52%.¹⁵ Implementation of legal regulations is the responsibility of the Institute for Nature Conservation of Serbia, which implements its protection program through annual quotas for each species. It is difficult to estimate the total amount of MAP which is harvested in Serbia. All together quotas amount to about 6,000-8,000 tons of fresh plant material depending on the particular year. From this quantity it could be got around 1,500-2,000 tons of dried herbs. It is not possible to get information whether all the quotas are exhausted or some of them are exceeded. The quotas that were relatively low in the 2000-2004 period, have been increased in the 2005-2007 period and in 2009. Annual quota has been increased from 201 to 2,000 tons for juniper, from 297 to 5,000 tons for wild rose, from 21 to 150 tons for wild strawberry, from 45 to 2,000 tons for wild blackberry, from 681 to 2,000 tons for blueberry etc.

Quotas would have to be reviewed every year, depending on the status of natural populations, in order that the number of individual specie unit would not have been in decline. As monitoring requires significant resources and engagement of competent teams of professionals, it is more practical to predict the vulnerability of species, taking into account the actual collection methods, areas from which the plants are collected and indicators, such as drugs (organs - parts that are collected), the profile of collectors and rough estimates of quantities, prices and trends.¹⁶

Conclusion

In order to develop the MAP sector together with biodiversity preservation, it is necessary to have adequate application of legislative as well as cooperation of all stakeholders, particularly by emphasizing to the MAP collectors the benefit of rational exploitation and growing of MAP. In this process it is necessary to point at the consequences for collectors and producers coming from the

¹⁴ www.zzps.rs

¹⁵ USAID Agribusiness project in Serbia (2008): Herbs, mushrooms and forest fruit (medicinal and aromatic plants) value chain assessment, 34, www.agrobiznis.net/.../Herbs_Mushrooms_and_Forest_Fruits_Value_Chain_.

¹⁶ Cunningham A. B. (2001): Applied ethnobotany: people, wild plant use and conservation. Earthscan, London

loss of biodiversity, as well as at significance of biodiversity for the community. That is why the stimulating of organized plantation production through the subsidies given to the producers would encourage the collectors to begin with production of some imperiled species (gentian, calamus), as well as the species growing wild that have been introduced in cultivation (marsh mallow, plantain, yarrow). By better cooperation within existing association in the MAP sector it has to be assured the position of MAP collectors, as one of the key but marginalized social group in the chain of the MAP trade and processing.

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