

AN OVERVIEW ON THE ALBANIAN MEDICINAL AND AROMATIC PLANTS INDUSTRY

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INTRODUCTION

Albania, part of the lush Mediterranean basin, has a very rich flora with about 3250 native vascular plant species, distributed in 165 families and about 910 genera (Paparisto et al., 1989). This number comprises about 30% of the ca. 11.600 European species. Albania offers a wide range of Aromatic and Medicinal Plants (MAPs) giving the country a competitive trade advantage. About 250 different plant species are wild harvested for medicinal and aromatic use in Albania (Vaso, 1997). The MAP biodiversity includes, to a considerable extent, indigenous species. An excellent example is *Gentiana lutea* which is a plant named after Illyrian King Gent; such a name was inherited over the centuries and is very popular even to date.

Local use of Medicinal and Aromatic Plants has deep roots and a long tradition in Albania in treating human diseases. It appears that at least a century ago man valued herbs as medicinal agents as noticed by the British traveller Edith Durham, who was astonished by the knowledge owned by some local people on the north Albania on the use of MAP in remedies for disease (Durham, 1910; 1923). MAPs have been an important Albanian export commodity for many years. Until the early 1990s, the purchase of cultivated or wild harvested MAPs and trade in these materials were exclusively state controlled. State organisations and authorities sold the purchased plant material to the central, state-owned "Agroexport", which exported either the dried MAP raw material or distillations thereof (Qendro et al., 2004). Albanian MAP industry experienced significant changes during the transition towards the free market economy; originally functioning under the centralized system as an auxiliary economic sector, this industry has now become one of the weightiest components of the agricultural overall exports. Many exports are shipped to Western European countries, and a large number of private companies have taken over the formerly state-controlled trade.

However, it is important that for the harvesting and trade of MAPs, the ecological, the

social and the economic issues should be considered. We discuss the actual trends in MAPs harvesting and trade. Some recommendation that might have a positive impact on the conservation of the MAPs species diversity and the welfare of the harvesters and the economy of the country are given.

MATERIAL AND METHODS

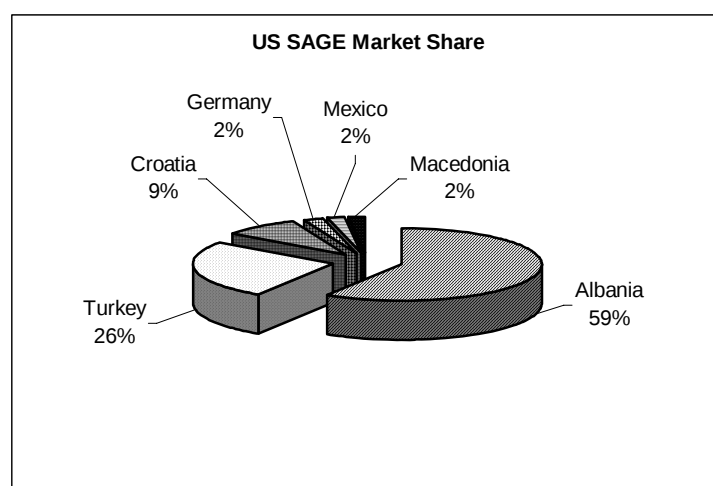
This paper represent a review of the most relevant and recent scientific reports and studies about the Medicinal and Aromatic Plant in Albania as well as relevant legislation and seeks to gain understanding of MAP collection scale and intensity, trends, likely future trends etc. The review is based on the information collected from local-level stakeholders and from individuals at the various departments of the General Directorate of Forest and Pastures, Ministry of Agriculture and Food, Ministry of Environment, international and national nongovernmental organizations with an interest in MAP exploitation and private enterprises involved in the business of MAP.

RESULTS AND DISCUSSIONS

1.1. Albanian MAP Industry Profile

Restructured and adjusted to synchronize with the international market demands, trends and developments, the industry diversified the products supplied thus continuing to maintain its position as a "demanded supplier". Wild collections, which enjoy excellent biological characteristics, are processed and sold to the international markets as a) dried bulk, b) essential oils, and c) fresh herbs.

Albania's major export MAPs are Sage, Thyme, Oregano, Savory, Hawthorns, Red clover, Lemon balm, Rose hips, Rosemary, etc. Sage has always been and still is the dominating export item. United States Department of Agriculture data indicate that Albania is the main international Sage supplier to the US providing 60% of total imports (Figure 1). It is assumed that another 20 % of Sage that enters the US market is of Albanian origin which transits European countries.



Source: USDA, Foreign Agricultural Services, 2005

Fig. 1. US Sage Imports by countries

Albanian MAP Industry businesses have intensified their business initiatives and efforts towards increasing industry's competitiveness capacities worldwide by heavily focusing on continuous increase of quality of final products, value adding, technology upgrade, marketing and market learning and business development and expansion.

1.2. Albanian MAPs Industry Challenges

MAPs in Albania represent an export industry; as such it is difficult to handle even in developed countries. Albania is still a developing country and the transition derived changes contributed to a new design of the industry, and introduced in the meantime several challenges which while facing them served as a great learning experience for the industry businesses for their successful survival and performance.

Migration of harvesting power towards urban areas diminished well experienced labor thus affecting the quality of harvesting raw material. In addition, inapt physical infrastructure directly influenced the increase in the overall productions costs. Moreover, legal framework on the other hand hasn't been very stimulating particularly delayed VAT reimbursement.

It is worth noting though external factors that driven by low purchasing prices interfere with the quality of the products exported from Albania thus indirectly impairing the reputation of the country.

1.2.1. Market place Timing: The most important Key to profitability

Marketplace timing is a key factor that is directly linked to the business profitability as if high quality spices, herbs and essential oil products are delivered on time that ensures long standing partnerships and sound reputation of supplying country. As most of the Albanian herb and spice businesses were born during transition, lack of

international business management and industry specifics experience and inadequate market information slowed down the integration of these businesses into the world's market, yet excellent biological properties and wide range of the Albanian herb and spice flora helped international markets still place inquiries for these items. With time (16 years after break down of system), Albanian herb and spice businesses learnt to be responsive to immediate market demands and honor the contractual agreements even though numerous are the cases of missing trade business opportunities which if captured would have significantly contributed to countries' overall export values (USD).

1.3. Albanian MAPs Industry Highlights

Despite the challenging working environment, the MAP industry in Albania developed and progressed thus contributing to the prosperity of all the levels involved in the harvesting, processing and export of the MAPs in the country. The United States Department of Agriculture data depicts a significant annual increase in export of the Albanian Sage (Table 1). It is noted a slight drop down in quantity of sage exports in 2004 versus 2003 (severe droughts and dollar drop down), yet the dollar value is increased due to value adding / further processing of this product in the country. Whereas the highest increase ever in dollar value is recorded in 2005 (it obviously triples the export figures of the previous year). This shows serious engagements and investments of the industry businesses for higher quality and diversified products.

Value adding has become the driving force of the MAP industry in Albania; as a result at present the industry supplies to international markets, in some cases for the first time ever:

- a) higher quality final products,
- b) organically certified MAPs (EU and NOP certified),
- c) further processed products – ASTA Quality and Rubbed Sage,

d) new packaged formulations (herbal curative teas and cooking spices).

Table 1. US Sage imports from Albania

No	Year	Quantity (MT)	Value (000 USD)	% Increase in Value
1	2003	1,610.6	2,578	
2	2004	1,431	2,852	10
3	2005	2,007	4,297	34

Source: USDA, Foreign Agricultural Services, 2005

Additionally, technology upgrade has been major component of companies' investments and focus consisting in processing and production capacities expansion and improved plants operations and management. This led to an increase in volumes and improved quality of exported products which in turn contributed to higher business profit margins.

Apart from sage, the most frequently collected MAP species and herbs include oregano (*Origanum vulgare*), thyme (*Thymus vulgaris* spp.), Bay tree leaves (*Laurus nobilis*), *Juniperus* spp., *Urtica* spp., *Hypericum perforatum*, *Viscum album*, *Lavandula officinalis* and rosemary (*Rosmarinus officinalis*). An estimation of the annual quantity exported as dried raw material and their value is given in the Table 2.

Table 2. Annual quantities of MAPs exported from Albania lbania

Year	Quantity [tones]	Value (000 USD)
1997	4 000	5 583
1998	8 000	9 063
1999	8 875	10 303
2000	7 411	9 950
2001	9 980	11 737
2002	9 500	14 760
2003	8 800	12 850

(Source: Qendro et al., 2004)

Immense are industry businesses efforts to perform direct export sales to final export markets in order for more dollar value to remain in the country; and those market segments previously overlooked because of their size are being considered and dealt with which in turns increases overall businesses profit margins.

1.4. Albanian MAP Industry Opportunities

MAPs natural resources in Albania are estimated to be three times higher than what is presently being harvested and exported (FAO, 1993, Kathe et al., 2003). This definitively represents great potential for future development in the export volumes which will certainly bring more dollar value in the country as well.

Along with increased export volumes, MAPs industry is in the position to offer much a diverse export products basket supplying competitive items like properly cleaned products, oleoresins, organic

products, cultivated based dried and essential oils, etc.

Training and education of all levels of the industry will definitively contribute to quality improvement from the collection all the way to final processing and production. Training will help educate businesses cope up with the up to date international standards and requirements thus immediately react and better answer market needs; it will also help educate on the sustainable use of MAPs in order for next generations to still enjoy and benefit from these natural resources.

ASTA specifications, GMP and GHP systems implementation will definitively help MAP industry businesses in Albania increase quality control and assurance thus not only remaining competitive but also increasing their share in the global markets.

1.5. Cultivating Medicinal Herbs as a Small Enterprise

Albania's key competitive advantage in the world markets is the wild collections. With dwindling supplies from natural sources and increasing global demand, the MAPs will need to be cultivated to ensure their regular supply as well as conservation. Moreover, most wild spices, herbs and essential oils crops are labor intensive; therefore, less challenging alternatives which would significantly reduce labor, time and overall costs and would increase the quality of final products have been explored and experimented over the years in Albania.

Prior to the political changes in 1991, rosemary (*Rosmarinus officinalis*) was cultivated on a fairly large scale by some co-operatives; once the land had reverted to private property again, the cultivation of rosemary almost ceased to exist Recently rosemary is once again the most commonly cultivated species. Other major export herb and spice plant species such as lavender (*Lavandula officinalis*), thyme (*Thymus vulgaris*), coriander (*Coriandrum sativum*) and *Satureja montana* are being cultivated in various eco-zones of the country as small scale commercial activities undertaken by leading export businesses and/or associations which basically intend to:

- Supply valued added products to international markets;
- Utilize non-productive lands;
- Create job opportunities for non migrating rural community;
- Reduce pressure on plants populations;
- Increase control of companies over quality and supply
- Increase profitability

However, practically speaking cultivation is not seen as a trendy development of the Albania's herb and spice industry; it is basically seen as a small enterprise activity and applies to fast-growing, not space-demanding, and high-yielding species are economically attractive to commercial growers.

Since many of the MAPs are grown under forest cover and are shade tolerant, agroforestry might offers

a convenient strategy for promoting their cultivation and conservation. Several approaches are feasible: integrating shade tolerant MAPs as lower strata species in multistrata systems; cultivating short cycle MAPs as intercrops in existing stands of plantation tree-crops and new forest plantations; growing medicinal trees as shade providers, boundary markers, and on soil conservation structures; interplanting MAPs with food crops; involving them in social forestry programs; and so on (Rao et al., 2004).

1.6. Risks and Problems for the Grower

There are about 7-10 individual herb and spice businesses that are presently cultivating.

While their interest on cultivation tends to increase, these growers are faced with challenges that affect initiative and performance of such activities. Critical demolishing factors that influence large scale/extensive cultivation in Albanian primarily are:

1. Land segmentation;
2. Lack of "Contractual farming" practices;
3. Differences in quality and yield introduced by imported herb and spice chemo-types;

SUMMARY

Albania offers a wide range of Aromatic and Medicinal plants which presently sell to the International markets mainly as bulk dried and essential oils. Over 95% of Albanian Medicinal and Aromatic plants are wild collections grown all over the country. The most important export items are Sage, Oregano, Juniper, Thyme, Savory and Laurel. Transitional developments in the country, over the last decade, contributed to a new design of this industry which in the meantime introduced several challenges. Considering the maxim "Don't put all your eggs in one basket!", it is important to search for new ventures although these are always risky. While Albania is on the way to become an EU member country, the Albanian herb and spice industry businesses should start preliminary preparations preceding the integration process, which means firstly an effective management system to ensure that MAP harvesting from the wild and protected areas are properly administered, and secondly more information on the international plant trade and regulation.

CONCLUSIONS

Rapid changes in the global economy represent a big challenge for the Albanian herb and spice industry businesses. Within this challenging business environment, intensive and serious efforts are being made to increase their competitiveness

capacities in order to maintain the existing trade links and/or capture new market segments. As a result of over-harvesting, land conversion, erosion and other factors, the populations of some MAP species traditionally collected in the region have declined considerably; some species have become rare, threatened or vulnerable. It is important to search for new ventures although these are always risky.

Albanian herb and spice industry businesses should start preliminary preparations preceding the integration process, which means firstly an effective management system to ensure that MAP harvesting from the wild and protected areas are properly administered, secondly shift to cultivation of MAPs and thirdly, more information on the international plant trade and regulation.

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