TREND IN THE UTILIZATION OF MEDICINAL AND AROMATIC PLANTS

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Abstract: The use of medicinal and aromatic plants has never been out of focus throughout history. The old activity of wild collection and manufacture transformed plants in different phyto-pharmaceutical products (such as powder, infusion, hydro-alcoholic plant extracts, volatile oils, medicinal and aromatic vinegar, syrups, creams, plant baths, etc) easy to be produced by everybody and used in most of the families. In Romania new trends in the utilization of medicinal and aromatic plants is an opportunity for business development.

INTRODUCTION

Romania accounts almost 30-40% of the European flora and fauna. Out of the near 4000 species of registered higher plants, around 700 are traditionally used as medicinal (Parvu, 1991), 324 species scientifically proved to have therapeutical properties and 180 species can be used at industrial scale for plant extraction and different natural product obtaining.

Other 80 species were identified as toxic, due to their high content in pharmacologic active principles, there are strictly controlled, and these chemical compounds are used in veterinary and human medicine.

Different criteria (such as botanic, geographical, chemical as well as industrial importance), could be used to classify the Romania medicinal plants and to define the specificity of local bioresources.

Taking into account the life cycle, 51% of the medicinal plants and annual species, 31% are perennial species and 18% are biannual species.

The medicinal species that could be found frequent in spontaneous flora belong to Asteraceae, Lamiaceae, and Rosaceae families (5-10), less frequent are found the member of Ranunculaceae, Fabaceae and Aristolochiaceae families (2-5%), while not at all frequent are the members of the Poaceae and Violaceae families (2%).

MATERIAL AND METHOD

The industrial dimension of this activity was reached at the beginning of XX-th century, when a national network of plant processing industry (Plafar Trust, it covered 25% of Romanian administrative units and has headquartered in Bucharest). In the year ‘80 medicinal plants were exported in 20 countries, it goes also an important position (the 8-th place) as volume of processed medicinal plants/year (Stoianov, 2003).

Hundreds of research and development projects as well as the intensive work aiming to identify, evaluate and manage this important natural resource of Romania, resulted in a
valuable scientific support, which explain the successful economic and trade activity. Starting
with 1925, when the increasing of industrial needs was correlated with the rise of the
agriculture cooperatives (Adonis, Chamomilla, Digitalis etc), specialized in certain plant.
Medicinal plants were cultivated on large areas (up to 41000 ha), producing approximately
20000 tone/year of dry weight material (30% leaves, 16% flowers, 15% herba, 13% fruits,
11% roots, less 5% seed, 2,5% bark, 2% buds).

The agronomist researches have studied 52 species of cultivated medicinal and aromatic
plants (Mocanu, 1999). The main cultivate species are: Coriandrum sativum, Sinapis alba,
Brasica nigra, Foeniculum vulgare, Cynara scolymus, Hyssopus officinalis, Mentha piperita,
Salvia officinalis, Calendula officinalis, Melissa officinalis.

During the last 25 years, there were omologated 29 cultivars of 17 species, and 31
valuable local landraces were certified.

More than 20 technologies of cultivation (about 80 technological sequences) have been
created, succeeding to establish: soil preparation, fertilization, the preceding culture, methods
of plant multiplication, raw intervals, maintenance requirements, disease prevention and cure,
damaging insects control, harvesting methods, drying and storage conditions, processing
techniques for fresh and dry raw material, etc.

The sustainable use of local resources (63 species mainly collected in 2000) asked the
biodiversity conservation (today 297 species are ex- situ, 13 species are on the National Red
List, under the control of Romanian Academy of Science-Committee for the Nature
Monument Protection) and 179 species are hold by, Gene-bank, Suceava

RESULTS AND DISCUSSIONS

In Romanian agriculture, after 1990, the fames cooperatives disappeared, but now, up to
84% of those are private. During 1990-2000 there was a negative reference year for

Very slow steps were made towards the organic farming of medicinal plant.

In 2004 there were only 5 farms interested to certify their crop production, in spite of
the existing promising prospects, due to small quantities of chemical fertilizers use in past
(four time less than in the EU countries).

The increase of demands for natural product, full market, the trust of people in green
Farm, the low price and the traditional use of medicinal plant influence the development of
private.

They implemented new technologies using special financial support (EU funds such as
SAPARD – as governmental co-financing), diversified their production (40 medicines
obtained from medicinal plants and near 1300 food supplements) and developed new business
partnerships as well as import-export activities.

There is necessary to introduce the European Standards of Quality Management System
( they are certified ISO 9001/2001 and 14000): Good Manufacture Practice ( for medicine/
drug production, plant cultivation, plant collection) and HACCP ( for food supplements).
CONCLUSION

A review of the last law and regulation, show that Romania aimed to harmonize the own legislation with the international rules and directives.

The central authorities involved in rules establishment are the Government (Ministry of Agriculture, Forestry and Rural Development, Ministry of Health, Ministry of Environment and Water Management), Romanian Academy of Science and the Parliament.

The national and local authorities responsible for monitoring and control are: National Drug Agency (for drugs/medicine products), National Agency for Veterinary Medicine and Food Safety, Environment Protection Agencies and National Agency for Customer Protection.

The civilian society started also to organize professional scientific or economic associations. ROPAM (an observer member of EUROPAM), creates a network of medicinal plant producers and extension service providers for agriculture, PLANTA ROMANICA put together the Romanian processors of medicinal plants, the ASSOCIATION OF IMPORTERS of medicinal plants and natural products supply the market with drug and food supplements.

A real support for agriculture came from the Ministry of Agriculture that introduced medicinal plants in rural development strategy, offering subsidies for the cultures. Ministry of Education and Research implements a new, modern information system, which contain a national database of large interest and could be accessed on-line.

BIBLIOGRAPHY

1. Fischer E.,1999,-Medicinal plants dictionary, ed. Gemma Press, pg.399
2. Mocanu P.,1999, -Species situation as importance of wild medicinal plants, Ed. Romania Academy, Bucharest, pg.88-90
4. Stoianov R.,2003,-Farm from green garden, ed. Pocket Book, , Bucharest, pg.94
5. Romanian Statistical year book-2004, Agriculture, pg.142-159