Situation of Production and Markets of Medicinal and Aromatic Plants in Egypt

Prof. Dr. Mohamed Said Ali Safwat
Dept. of Agric. Microbiology, Fac. of Agric. Minia University, Egypt.
Chairman of the Board MAPN, AARINENA
said.safwat@gmail.com
If ye would count up the favours of Allah, never would ye be able to number them; for Allah is Oft-Forgiving, Most Merciful.
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In Egypt, medicinal and aromatic plants represent a significant source of national income. They have an economic value for local and exterior markets. The area cultivated with such plants reached about 63,500 acres in 2006, (presenting less than 0.8% of total cultivated area). In 2008, it were about 75,000 acres, most of them (80%) concentrated in EL-Fayom, Beni Suweif, El-Menia and Assiut governorates. In 2006, the total exported quantity attained about 35,000 tons of dry herb and spices. In 2008, it reached about 40,000 tons.
Distribution of Medicinal & Aromatic Plants Area in Egypt
The medicinal & aromatic plants that are cultivated in Egypt:

The status of medicinal and herbal plants production and research in Egypt

Medicinal plants and herbs can be divided into two main groups: cultivated and wild plants and herbs.
1- Cultivated medicinal plants and herbs:
There are about 50 species of medicinal plants cultivated regularly in Egypt which have economic value for export. The most important ones are Chamomile, Coriander, Fennel, Mint and Basil. The cultivation of these plants is concentrated in four provinces:
2- Wild plants:

Egyptian flora consists of about 2000 species, 322 of which are medical plants. These plants are spread in 13 locations throughout Egypt. They can be divided into four main groups: Very common plants (91 species), common plants (86 species), rare plants (95 species), and very rare plants (20 species).
Egypt’s international marketing of medicinal plants:

Egyptian exports take the 11th place among the biggest medicinal and herbal plants exporting countries. In 2001, Egypt’s exports reached a value of 17.7 million US Dollar and a percentage of 2.32 of all exports worldwide. The number of markets to which Egypt is exporting medicinal plants was 25 in the year 2001. The value of Egyptian exports of medicinal plants reached LE 45.28 million in 1995, and in 2001, it reached LE 205 million, whereas the imports decreased from LE 10.01 million in 1995 to LE 4.85 million in 1999.
Medicinal plants and scientific research:
There are many fields of scientific research dealing with medicinal plants and herbs:
• In agriculture: agricultural procedures, seasons, areas, crops, fertilization and post harvest.
• In science: selection, active ingredients.
• In pharmacology: separation and purification of effective substances, biological influence of plants, drugs.
• In medical treatment with herbs: ways of treatment, folk medicine.
• In economy: marketing, export and their constraints.
II - The constraints facing the production, processing and marketing of medicinal plants and herbs in Egypt:

In the field of production:

• Lack of clear data on the areas of cultivation and the various crops cultivated which leads to the incapability of planning or finding alternatives.
• Lack of knowledge of modern agricultural methods.
• The rise of production costs and the small size of plots which render their cultivation expensive.
II - The constraints facing the production, processing and marketing of medicinal plants and herbs in Egypt:

In the field of production:

• Quality and properties of the end product.
• Shortage of skilled workers when they are needed. Workers may shift to the harvesting of other more important crops.
• The intense use of chemical pesticides and fertilizers leads to a high rate of residues in the products which is not accepted in international markets.
In the field of processing (drying and packing):

- Traditional methods of collecting, drying and packing lead to the incapability of developing production. Bad quality of raw materials.
- Packing materials and methods are not up to international standards, in addition to high costs.
- The general trend is to export medicinal herbs as raw material without additions which would lead to fully processed products like medicinal, dried and oil products. This leads to a decrease in economic revenues which could be much higher through processing.
In the field of microbial contamination and sterilization:
Bad agricultural practices and environmental pollution lead to high microbial contamination with E. coli, yeasts and Salmonella after post harvest operations like drying in the sun. On the other hand, steam sterilization would be a safe and most accepted process because it is natural and environmentally safe. However, the absence of a steam fertilization facility is constraining the growth of Egyptian herb and spice export.
The problems of marketing:
1. The monopoly of local traders and the limited number of exporters lead to the refusal of many farmers to cultivate medicinal plants because of their low revenues.
2. Lack of stable amounts of plants for export because of the annual fluctuation of the cultivated areas as well as the fluctuation in prices.
3. The absence of marketing information on the needs of foreign markets and competitive countries as well as prices.
The problems of exporting medicinal plants and spices:

• Annual fluctuation of production amounts as a result of fluctuating cultivation areas.
• Shortage of marketing knowledge of foreign markets regarding the amounts, prices and properties, as well as the seasons during which there is an increase of the demand for medicinal plants and herbs.
• The complaints of foreign importers regarding the presence of chemical pesticides and insecticides in the products, in addition to the microbial contamination of some species of medicinal plants which influence the Egyptian exports in international markets.
Legislative obstacles:

- The existence of legislative gaps concerning the production and export of medicinal herbs constitutes one of the main obstacles for the production and export of medicinal herbs.
- There are no exact specifications for Egyptian producers, although there do exist specifications for imports.
- The absence of new laws for the trade with medicinal plants.
- The lack of any legislation concerning our rights to the natural genetic resources.
III- Recommendations for the development of medicinal plants and herbs production in Egypt:

Presentation of suggested solutions:

Solutions to production problems:

1. Allocation of land within mega projects like Toshka, East Owaynat and Sinai for the intensive cultivation of suitable plant species according to the nature and climate of each region, with the use of modern agricultural machinery and methods.

2. The collection of a correct and exact national data base regarding the areas, varieties and production of medicinal plants.
Solutions to industrial problems:

1. Permission for producers to allocate suitable areas for the drying of herbs, and the establishment of stations for drying and packing as well as of a distillation unit in the medicinal plants production areas.

2. Introduction of modern adapted technology for the extraction of various medicinal plants extracts because this activity is not existent on the national level. Also to increase added value in production and export of medicinal plants.
Solutions for sterilization problems:
   Establishing of a central sterilization unit, especially steam sterilization, in order to get rid of microbial contamination.

Solutions to marketing problems:
   1. Establishment of central data base on local and foreign activities as guideline for producers and exporters.
   2. Utilization of international quality standards (e.g. American ASTA), in order to obtain export standards which are useful for international market requirements.
General recommendations:
Extension of the cultivation of medicinal plants using organic farming and bio-systems. Trying to solve the problem of production in field, during and post harvest processing. Renewal of data base on international marketing which can help cultivate the areas for every kind of crops annually. Subsidizing the production input like fertilizer and machinery, etc., which leads to reduction of production costs of medicinal and aromatic plants. Application of research results and useful scientific theses.
IV: Reasons for the establishment of a medicinal plants and herbs network in Egypt:

1. The existence of a historic background consisting of ancient Egyptian medical papyri as well as Coptic and Islamic ones reflecting inherited knowledge.
2. Climate and soil are suitable for cultivation of many plants species during the whole year.
3. Egypt’s geographical position regarding international trade routes.
4. Lower wages for workers as compared to other countries.
5. Low production costs compared to the revenues for these plants.
6. Increase of the international demand for medicinal plants, especially organic grown ones.
7. The existence of pollution-free soils.
8. The quality of Egyptian products, 85% of herbs and 98% of oils and raw materials are exported.
9- The existence of numerous governmental institutions and non-governmental organizations which are active in the field of medicinal plants, like universities: (agriculture, pharmacy, science, human and veterinary medicine, engineering). There are 14 public and 10 private universities in Egypt. The ministries concerned are the following: Agriculture, Supply, Economy, Commerce, Industry, Higher Education and Scientific Research. Environment, & Health. Moreover, there exist many private sector companies and NGOs.
Marjoram
Lavender  الملافندر
Sage
Thyme
Lemongrass
Spearmint النعناع البلدى
Basil
Calendula
Chamomile
Black Cumin  حبة البركة
Roses
Aloe Vera
THANK YOU