

Book review: Treatise of cultivated and spontaneous medicinal plants - Second Edition. Muntean L. S. (coordinator), Tamas M., Muntean S., Muntean L., Duda M., Vârban D., Florian S., 2016, Ed. Risoprint Cluj-Napoca, 1078 p.

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The "Treatise of cultivated and spontaneous medicinal plants", now at its second edition, is developed by the same authors as the first edition (published at Risoprint Publishing House, Cluj-Napoca, 2007). The second edition includes chapters and new species of medicinal plants and modern aspects of the presentation and capitalization of these species of plants based on the scientific results obtained in the country and abroad.

With varied conditions of soil and climate, our country has a rich and diverse flora. From the steppe and to the mountain area we meet various grass and woody plant species growing naturally and a large number of crops, exceeding 3,500 species of superior plants, a quarter of which are used in empirical medicine and about 200 species are studied from a chemical and pharmacodynamic point of view. The nearly 900 species of plants (by some estimates, nearly 1,000 species) constitute the medicinal flora of Romania. For medicinal and aromatic purposes, for domestic needs and for export, in our country there are currently systematically collected over 150 species of plants.



Front cover.

In our country is cultivated, or are being introduced in culture, a significant number of plant species for medicinal and aromatic purposes (listed in the Treaty), with upward trend, in line with the increasing demands from the chemical and pharmaceutical industry, other domestic customers and the possibilities of making a more efficient export of these products. The ever-growing requirements for vegetable raw material for the chemical and pharmaceutical industry, which has grown much nowadays, as well as requests for other beneficiaries, have led to the increase of the area with cultivated medicinal plants and the widening of their assortment.

By scientifically cultivating medicinal and aromatic plants, it is ensured the necessary vegetal raw material for the pharmaceutical industry in our country, a product rich in active principles and more homogeneous is obtained, substitutions and falsifications can be avoided, harvesting is made at the optimum time (when the active principle content is at its maximum), followed by drying or processing as fresh, new

species can be acclimatized, which do not grow spontaneously in our country and plants considered natural monuments can be protected etc. All these advantages that the cultivation of medicinal and aromatic plants presents compared with the possibilities that the spontaneous flora offers, led to the gradual introduction in culture of a growing number of plants whose location and cultivation requires good knowledge to achieve production high and rich in active principles. High crops of raw material rich in active principles can be obtained only by applying some technologies of differentiated culture, based on a thorough knowledge of biology and plant requirements in relation to the factors of vegetation.

Medicinal spontaneous flora of our country, consisting of species with multiple uses in phytotherapy, covering in varying proportions almost all pharmacological groups, represents together with cultivated medicinal and aromatic plants a *national thesaurus* that should be well known and exploited rationally.

Meeting half way the knowledge and rational capitalization of this national thesaurus, this work presents cultivated medicinal plants or to be introduced in culture, but also the medicinal spontaneous flora of our country, grouped into botanical families, described in *Flora României/Flora of Romania*, volumes I-XII. There are also described some exotic species, contained in products used for therapeutic purposes. Before presenting the cultivated and spontaneous plant species, the book summarizes aspects of their use, the chemical composition and the therapeutic action of their active principles, and the factors influencing production and quality of the product capitalized in phytotherapy and for other purposes. In the final part of the volume are described the major Romanian phytotherapeutical products and some items that usefully complement the knowledge and capitalization of cultivated and spontaneous medicinal plants of our country.

In cultivated plants, the presentation material for each of them comprises two parts: "importance, biology, ecology" and "technology of cultivation". The first part consists of an elaboration on the main aspects, concerning: the importance (raw material, chemical composition and its uses), systematics (cultivated varieties), biological peculiarities, and requirements for climate and soil and crop areas. In the second part, the technology of cultivation includes: rotation, fertilization, tillage, seed and sowing (planting), maintenance works, harvesting and packaging the product for acceptance. The recommended technologies restrict the use of chemical fertilizers and pesticides that lead to pollution of the product and the environment. The treaty also briefly reviews plants cultivated for other purposes, which also have medicinal uses, mentioning only the vegetal raw material, the uses and the technical conditions of acceptance of the product.

Plants from the spontaneous flora of our country and the exotic ones included in the paper are presented each into two parts: "importance, biology, ecology" and "harvesting and conditioning". So, in the beginning there are covered the raw material and the chemical composition, areas of use, biological peculiarities, systematics, ecology and spread of species, and the second describes all aspects of harvesting, conditioning and preservation of the vegetal raw material.

Issues presented in the present work, both in the cultivated medicinal and aromatic plants, as well as in those of the spontaneous flora, are based on an extensive bibliographic documentation in the domestic and foreign literature, as well as on the scientific results obtained in researches of the authors of this volume and the research groups in the field of medicinal plants from Cluj universities to which they belong.

This book is addressed to all agronomy specialists, pharmacists, biologists etc., those who directly or indirectly contribute to the production and capitalization of medicinal and aromatic plants. It is a documentary material useful to Ph.D. candidates and students who are preparing in these areas of the economy, in agronomic, biological, and medical and pharmaceutical higher education establishments etc. The treaty presents knowledge useful to a wide audience, desirous to know, cultivate or harvest of spontaneous flora and to capitalize on medicinal and aromatic plants for their own needs and the requirements

of the national economy. Some of the species presented are also melliferous or ornamental plants, and can be used for these complementary purposes. We can say that cultivated and spontaneous medicinal and aromatic plants are a real thesaurus of medicines, a wellspring of life and health, which happily combines usefulness with beauty.

If you would like to know more about this book, you can see the following link:
https://www.researchgate.net/publication/312172697_TREATISE_OF_CULTIVATED_AND_WILD_MEDICINAL_PLANTS_Tratat_de_plante_medicinale_cultivate_si_spontane

References

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