

BOOK REVIEW

COSTEL VÎNĂTORU, BIANCA MUȘAT, CAMELIA BRATU, *Tratat de legumicultură specială* [*Special vegetable growing treaty*], 2019, ALPHA MDN Publishing House, Buzău, 886 p., ISBN 978-973-139-453-4.



Plants represent a unique category of organisms, capable of producing organic matter from water and mineral compounds, being the primary producers in many trophic chains. For thousands of years, people use plants as a main food resource, developing and perfecting growing protocols and methods in order to improve the quality and quantity of the vegetal products.

In Romania, Buzău County is considered to be the cradle of the Romanian vegetable growing, due to the special pedo-climatic conditions found here. To harness the valuable potential of this region, in 1957, the first Romanian Research Station for Growing Vegetables was established here. This excellency institution is a strategic unit, where specialists aim to improve and optimize the crop technologies for open fields and greenhouses, select and produce biological material for several vegetable and flower varieties, research in the fields of agrochemistry, physiology and biochemistry.

In this volume, the authors gathered a major part of their work experience regarding the growing technologies for many species of vegetables, fungi, aromatic and condimentary plants, information structured in 13 chapters, an Annex and selective references, eloquent for this field of research.

The first 10 chapters present the specific growing techniques for 135 species of plants, starting with the most common ones, widely cultivated nowadays, some old, traditional species and varieties that are now somehow forgotten, but which are very well adapted to our country's pedo-climatic conditions and also some new, acclimated species, of foreign origin, but nutritionally and medicinally valuable. These annual or perennial species are grouped according to the plant's organ (part) used for the mentioned purpose: **subterranean organs**: carrot (*Daucus carota* conv. *sativus*), parsnip (*Pastinaca sativa* conv. *hortensis*), celery (*Apium graveolens*), onion (*Allium cepa*), potato (*Solanum tuberosum*), radish (*Raphanus sativus*), yacón (*Smallanthus sonchifolius*), beet (*Beta vulgaris*), etc., **leaves**: salad (*Lactuca sativa*), arugula (*Eruca sativa*), endive (*Cichorium endivia*), Okinawa spinach (*Gynura bicolor*), amaranth (*Amaranthus* sp.), basil (*Ocimum basilicum*), mint (*Mentha* sp.), rosemary (*Rosmarinus officinalis*), etc., **fruit**: tomato (*Solanum lycopersicum*), pepper (*Capsicum annuum*), cucumber (*Cucumis sativus*), pumpkin (*Cucurbita pepo*), bitter melon (*Momordica charantia*), African cucumber (*Cucumis africanus*), pepino (*Solanum muricatum*), sponge gourd (*Luffa cylindrica*), etc. or **seeds**: beans (*Phaseolus vulgaris*), peas (*Pisum sativum*), broad bean (*Vicia faba*), chickpea (*Cicer arietinum*), sweet corn (*Zea mays* ssp. *saccharata*),

coriander (*Coriandrum sativum*), chia (*Salvia hispanica*), sesame (*Sesamum indicum*), etc. For every species, the authors offer readers important information regarding the plant's taxonomy, scientific and popular names, origin and their worldwide spreading, botanic description, alimentary and medicinal properties, other uses, growing technology (relation with the abiotic factors, types of cultures, sowing, specific works, controlling pests and diseases, harvesting).

Chapter 11 includes relevant information regarding the culture technology for several species of mushrooms (*Agaricus* sp., *Pleurotus* sp., *Lentinula edodes*, *Coprinus comatus*, *Stropharia rugosoanullata*, etc.) and chapter 12 is dedicated to plant species with eatable flowers, rich in nutrients and medicinally valuable compounds (*Agastache foeniculum*, *Bellis perennis*, *Brassica juncea*, *Borago officinalis*, *Calendula officinalis*, *Viola odorata*, *Tropaeolum majus*, etc.).

Chapter 13 presents the main diseases (viroses, bacteriosis and mycosis) and pests (nematods, mites and spiders, insects, snails, birds, mammals) that attack crops, affecting the quality of the vegetal products, together with methods for preventing and controlling them. An important subchapter presents the nutrient deficiencies in vegetables and their manifestations.

The written information is accompanied by a rich collection of original pictures and diagrams, meant to better illustrate the plant's morphology (general aspect, subterranean organs, stem, leaves, flowers, fruits, seeds), symptoms of diseases and pests attacks, nutrient deficiencies and field management.

The volume constitutes an important theoretical and practical tool dedicated both to professionals and amateurs, the culture technologies being perfected over the years by specialists from one of Romanians most influential Research Station for Growing Vegetables.

As the first author states, this book aims to “*enrich the growers, processors and consumers knowledge [...] and everybody's who loves and practices one of the most noble and beautiful occupations – gardening, starting from the pot in the apartment and getting to the precision vegetable growing in the field or in the greenhouse*”.

Cristiana Virginia PETRE,

Mihaela MIHALACHE

“Alexandru Ioan Cuza” University of Iași, “Anastase Fătu” Botanic Garden

Cătălin TĂNASE

“Alexandru Ioan Cuza” University of Iași, Faculty of Biology