

BOOK REVIEW

PSEUDOGETREIDEARTEN – BUCHWEIZEN, REISMELDE UND AMARANT

PSEUDOCEREALS – BUCKWHEAT, QUINOA AND AMARANTH

Walter Aufhammer

*Verlag Eugen Ulmer GmbH & Co, Stuttgart, Germany, 2000. 262 pp.,
167 tables, 13 figures.*

Introducing alternative crops and thus improving the diversity of sowing practices as well as the spectrum of plant products for consumers has been one of the principles of plant production restructuralisation.

The book edited of Prof. W. Aufhammer represents an important contribution concentrating on the species of pseudocereals which are currently of worldwide interest. Buckwheat has been a traditional but neglected crop in our country whereas quinoa and amaranth have been known rather as weeds.

The author's work is based on long-term research carried out by his team – more than half of the data presented in the book originated from their own experiments. The book includes 238 references.

The book is divided into three main parts corresponding with the title. The introduction deals with the characterization of selected pseudocereal species, their common features and differences. Namely, the chapter dealing with the origin and history of the plants offers interesting facts on their spread and current use as related to areas, yields and production in particular parts of the world.

Within the botanic system, the pseudocereals belong to different genera, with diverse species with a number of subspecies, agroecotypes and forms with distinguished morphological, physiological characteristics including utilization. Thus it was important to incorporate an outline of institutions investigating the crops and lists of genetic sources kept in particular gene banks as well as the characteristics of chosen varieties. Concurrently the author attempts to specify the cultivation objectives, processing needs or

recommended standard parameters. In the chapter "Utilization" the author compares main characteristics of various crops from the point of view of technology, nutrition and even health care. This chapter is provided with a survey of active substances and antinutritional components including their effects and occurrence in the plants. This part is concluded with an interesting outline of the variants of processing and using pseudocereals including a supplement containing international recipes for meals and possibilities of non-production utilizations.

The chapter dealing with selected crops cultivation is divided in a standard way. The starting point consists in a number of experiments carried out on experimental bases of the University in Stuttgart-Hohenheim (60% of the tables are results of the team's research activities). Special attention is paid to the problems of seed quality and stability of the growths, resistance to stress factors (mainly biotic factors reducing yields and quality), and problems of growth, ripening, harvesting and harvest losses. Also, the comments on further use of buckwheat, amaranth and quinoa as vegetables, fodder crops or even decorative plants are interesting, as well as those on their non-production function.

The erudited and experienced scientist and pedagogist offers us a concise, comprehensible, interesting and inspiring scientific publication of high quality.

Even the style of the book is specific. The author does not deal with particular crops separately. In all chapters and partial conclusions he compares and evaluates them on a common basis. The first impression of the reader might signal some problems with orientation in the text but the later effect is stimulating. Those who can benefit from the book are undergraduate students, practitioners or research specialists.

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