1. Record Nr. UNINA9910686476603321 Autore Dehgan Bijan Titolo Garden plants taxonomy . Volume 2. / / Bijan Dehgan Pubbl/distr/stampa Cham, Switzerland:,: Springer Nature Switzerland AG,, [2022] ©2022 **ISBN** 9783031115653 9783031115646 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (1526 pages) Disciplina 582.13 Soggetti **Angiosperms** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Part-Dicotyledons -- 1. Basal Lineages -- 2. Magnoliids -- 3. Eudicots -- Index. Sommario/riassunto Horticulture has remained far behind in understanding of botanical principles. Recent phylogenetic (DNA-based) reorganization of higher plants has revolutionized taxonomic treatments of all biological entities, even when morphology does not completely agree with their organization. This book is an example of applying principals of botanical phylogenetic taxonomy to assemble genera, species, and cultivars of 200 vascular plant families of ferns, gymnosperms, and angiosperms that are cultivated for enhancement of human living space; homes, gardens, and parks. The emphases are on cultivated species but examples of some plants are often shown in the wild and in landscapes. In providing descriptions, it is assumed that students and other interested individuals have no background in general botany (plant characteristics), or nomenclature. Fundamental features of all plant groups discussed are fully illustrated by original watercolor drawings or photographs. Discussion of the families is grounded on recent botanical phylogenetic treatments, which is based on common ancestry (monophyly). Of course, phylogenetic taxonomy is not a new concept, and was originally based on morphological characteristics; it is

the DNA-based phylogeny that has revolutionized modern biological classifications. In practical terms, this book represents the horticultural

treatment that corresponds to phylogenetic-based botanical taxonomy, to which is added cultigens and cultivated genera and species. Hence, the harmony between horticultural and botanical taxonomy. This book covers phylogenetic-based taxonomy of Angiosperms (Eudicots). A companion volume covers Ferns, Gymnosperms, and Angiosperms (Monocots).