1. Record Nr. UNINA9910847069503321

Titolo	Bioactive Compounds in the Storage Organs of Plants / / edited by Hosakatte Niranjana Murthy, Kee Yoeup Paek, So-Young Park
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031447464 3031447468
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (160 illus., 100 illus. in color. eReference.)
Collana	Reference Series in Phytochemistry, , 2511-8358
Disciplina	547
Soggetti	Natural products Botanical chemistry Plant biotechnology Botany Pharmacology Nutrition Natural Products Plant Biochemistry Plant Biotechnology Plant Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	-- Part I: Importance of Corm, Bulb, Rhizome, and Tuber-bearing Plants. -- Part II: Bioactive Compounds in Corm-bearing Plants. -- Part III: Bioactive Compounds in Bulb-bearing Plants. -- Part IV: Bioactive Compounds in Rhizome-bearing Plants. -- Part V: Bioactive Compounds in Stem-tuber Bearing Plants. -- Part VI: Bioactive Compounds in Root-tuber Bearing Plants.
Sommario/riassunto	This book offers a comprehensive and authoritative review of bioactive substances found in plant underground stems, roots, rhizomes, corms, and tubers from all around the world. Tubers and starchy roots are plants that store edible starch content in underground stems, roots, rhizomes, corms, and tubers. They are a key source for both human and animal consumption and are rich in carbohydrates. They are widely

used as industrial crops as well. Phytochemicals found in tubers and roots, such as phenolics, terpenoids, and alkaloids, have anti-inflammatory, anti-cancer, hypoglycemic, hypocholesterolemic, and antibacterial properties. Except for common potatoes, sweet potatoes, and cassava, the nutritional and health benefits of many tuberous crops have not yet been adequately investigated. This book sheds new insights into these topics by addressing several plant metabolites found in storage organs, which can be seen as scientifically neglected even though they have a high economic relevance as food and pharmaceutical sources. Divided into 6 parts, this book discusses how bioactive chemicals found in plant storage organs are synthesized and how their bioactive principles are specifically expressed in underground stems, roots, rhizomes, corms, and tubers. Additionally, each chapter includes background information on the plant, its parts, its nutritional makeup, chemical components, and biological functions. Given its breadth, the book appeals to a wide readership, from scholars through graduate and post-graduate students to professionals in the industry.