Record Nr. UNINA9910337927403321
 Titolo Endophytes and Secondary Metabolites / / edited by Sumita Jha

Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,,

2019

ISBN 3-319-90484-1

Edizione [1st ed. 2019.]

Descrizione fisica 1 online resource (101 illus., 42 illus. in color. eReference.)

Collana Reference Series in Phytochemistry, , 2511-8358

Disciplina 581.70913

Soggetti Biotechnology Microbiology

Medicinal chemistry Botanical chemistry

Agriculture

Medicinal Chemistry
Plant Biochemistry

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di contenuto Biology of the major groups of endophytes -- Endophytes identification

using conventional and molecular tools -- Production of useful

metabolites -- Applications in agriculture and industry.

Sommario/riassunto This reference work presents an authoritative review of endophytes and

their applications to human welfare. Endophytes have become a class of interesting and curious microorganisms due to their intimate intraand intercellular association with plants for competence, survival and reproduction. They can be bacteria or fungi, and they are usually nonpathogenic to their host. Endophytes have important applications in agriculture and industry, namely, they can help with plant growth, act as biocontrol agents and biosurfactant and secondary metabolite producers, and they are also rich sources of bioactive natural products. Novel and beneficial effects of endophytes are constantly emerging, and this book, divided into four sections, provides readers with the latest developments in this fast expanding field. In the first section, readers will discover the biology of the major groups of endophytes, followed by a summary of conventional and molecular tools for

endophytes' identification in Section II. The production of high-value metabolites by endophytes will be explored in the third section of this book, and in the final section, readers will find several case studies, examples and prospects for endophytes' application in agriculture and industry. Written by leading international authors, this reference work will appeal to a wide readership, from students and researchers in the field of botany, biotechnology and agriculture to professionals interested in the production and applications of endophytic metabolites.