

1. Record Nr.	UNINA9910284954703321
Titolo	Beneficial microorganisms in agriculture, food and the environment [[electronic resource] ] : safety assessment and regulation // edited by Ingvar Sundh, Andrea Wilcks and Mark S. Goettel
Pubbl/distr/stampa	Wallingford, : CAB International, c2012
ISBN	1-283-90357-1 1-78064-008-0
Descrizione fisica	1 online resource (355 p.)
Altri autori (Persone)	SundhIngvar WilcksAndrea GoettelMark S <1954-> (Mark Stanislaw)
Disciplina	363.19/26 363.1926
Soggetti	Food - Microbiology Microbial ecology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; Contributors; Preface; 1 Microbes and the Law - Safety Assessment and Regulation of Beneficial Microorganisms; PART I: FOOD AND FEED; 2 Safety and Regulation of Microorganisms Added to the Food and Feed Chains, Including Probiotics - Introduction and Overview; 3 Microbes for Human and Animal Consumption; 4 Antibiotic Resistance in Relation to Starter Cultures and Probiotics; 5 Biopreservation of Food and Feed by Postharvest Biocontrol with Microorganisms; PART II: PEST CONTROL AGENTS AND PLANT GROWTH PROMOTERS 6 Safety and Regulation of Microbial Pest Control Agents and Microbial Plant Growth Promoters - Introduction and Overview7 Microbial Control of Invertebrate Pests; 8 Microbial Control of Plant Diseases; 9 Safety and Regulation of Microbial Control of Weeds; 10 Plant Growth Promotion with Microorganisms; PART III: OTHER INDUSTRIAL APPLICATIONS; 11 Regulation of Microorganisms Used for Bioremediation, Biorefinery and Other Bioindustrial Applications in the USA and Canada; PART IV: EVALUATING SAFETY; 12 Determining the

Safety of Microorganisms - Introduction and Overview

13 Virulence Genes in Risk Assessment of Beneficial Microorganisms: What Do Genome Sequences Tell Us?

14 Occupational Safety of Microbial Agents; PART V: MODEL TEST SYSTEMS; 15 Model Systems for Testing Microbial Pathogenicity, Virulence and Toxicity - Introduction and Overview; 16 Nematode and Insect Models to Assay Microbial Infectivity, Virulence and Cytotoxicity; 17 Assessing Potential Cytotoxicity of Biocontrol Microorganisms Using Invertebrate Assays; 18 Assessing Genotoxic Effects of Microbial Products; 19 Assessing the Sensitization and Irritant Properties of Microorganisms

PART VI: INTERNATIONAL HARMONIZATION AND RISK PERCEPTION

20 International Conventions and Agreements - Consequences for International Trade and Utilization of Biological Matter, Including Microorganisms; 21 OECD Guidelines and Harmonization for Microbial Control Agents; 22 Understanding Public Risk Perception for the Use of Beneficial Microorganisms; Index; A; B; C; D; E; F; G; H; I; J; K; L; M; N; O; P; Q; R; S; T; U; V; W; X; Y; Z

---

Sommario/riassunto

Microorganisms are widely used in various beneficial applications, including food, pest control, bioremediation, biodegradation, biofuel processes, and plant symbiosis and growth stimulation. This book provides an overview of the available methodology for safety assessments of microorganisms, including determination of their infectivity and whether they produce toxic or sensitizing substances. Also covered are the regulatory systems in risk assessment and management of microbial products, quarantine legislations, international treaties, the importance of public risk perception and risk reducti

---