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Descrizione fisica	1 online resource (XVI, 474 p. 98 illus., 63 illus. in color.)
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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Classification of Cannabis sativa L. in relation to agricultural, biotechnological, medical and recreational utilization -- History of Cannabis as Medicine: Nineteenth Century Irish Physicians and Correlations of their Observations to Modern Research -- Cannabis Sativa L.: Botany and Horticulture -- Cannabis sativa and Cannabis indica versus “Sativa” and “Indica” -- Morpho-anatomy of Marijuana (Cannabis sativa L.).-Chemical and Morphological Phenotypes in Breeding of Cannabis sativa L -- Natural Cannabinoids of Cannabis and Methods of Analysis -- Cannabinoids: Biosynthesis and Biotechnological Applications -- The Pharmacology and Therapeutic Potential of Plant Cannabinoids.-Cannabinoid CB2 Receptor Mechanism of Cannabis sativa L. -- Cannabidiol as a Treatment for Seizures, Convulsions and Epilepsy -- Allergenicity to Cannabis sativa L. and Methods to Assess Personal Exposure -- Micropropagation of Cannabis sativa L. – An Update -- Hairy Root Culture as a Biotechnological Tool in C. sativa -- Genomics and Molecular Markers in Cannabis sativa L --

The Role of Agrobacterium-Mediated and Other Gene-Transfer Technologies in Cannabis Research and Product Development -- Induction of Polyploidy and Its Effect on Cannabis sativa L.- Classical and Molecular Cytogenetics of Cannabis sativa L -- Assessing Genetic Diversity in Cannabis sativa Using Molecular Approaches -- Cannabis Endophytes and Their Application in Breeding and Physiological Fitness -- Chemical and physical elicitation for enhanced cannabinoid production in Cannabis -- Contaminants of Concern in Cannabis: Microbes, Heavy Metals and Pesticides.

Sommario/riassunto

This book highlights current Cannabis research: its botany, authentication, biotechnology, in vitro propagation, chemistry, cannabinoids biosynthesis, metabolomics, genomics, biomass production, quality control, and pharmacology. Cannabis sativa L. (Family: Cannabaceae) is one of the oldest sources of fiber, food and medicine. This plant has been of interest to researchers, general public and media not only due to its medicinal properties but also the controversy surrounding its illicit use. Cannabis has a long history of medicinal use in the Middle East and Asia, being first introduced as a medicine in Western Europe in the early 19th century. Due to its numerous natural constituents, Cannabis is considered a chemically complex species. It contains a unique class of terpeno-phenolic compounds (cannabinoids or phytocannabinoids), which have been extensively studied since the discovery of the chemical structure of tetra hydrocannabinol (9-THC), commonly known as THC, the main constituent responsible for the plant’s psychoactive effects. An additionally important cannabinoid of current interest is Cannabidiol (CBD). There has been a significant interest in CBD and CBD oil (extract of CBD rich Cannabis) over the last few years because of its reported activity as an antiepileptic agent, particularly its potential use in the treatment of intractable epilepsy in children.