Cultivation Of Straw Mushroom Volvariella Volvacea Using

CHAIM BARRON

Cultivating Edible Fungi Elsevier
This book highlights the latest research on waste processing technologies, particularly for domestic, agricultural, and petroleum based pollutants, intended to achieve waste valorisation. In addition, it discusses the important role of plastic recycling, as well as advanced waste processing techniques.

Mushrooms Springer Nature
This work offers comprehensive, authoritative coverage of current information on indigenous fermented foods of the world, classifying fermentation according to type. This edition provides both new and expanded data on the antiquity and role of fermented foods in human life, fermentations involving an alkaline reaction, tempe and meat substitutes, amazake and kombucha, and more.;College or university bookstores may order five or more copies at a special student price which is available on request from Marcel Dekker, Inc.

Mushroom Biotechnology Agromisa Foundation
Mushroom is a plant constructed with no tissue structures. Which can be a unicellular or a multicellular organism. Although mushroom is a type of plant, they do not contain cellulose and chlorophyll. So, they cannot create their own nutrients, for self-survival and they must have to living on another plants or animals for absorb nutrition from them. We usually only see a part of mushrooms - look like shape of the fruits of the tree. Exactly, mushrooms typically look like umbrellas which have a stem (stipe), a cap (pileus). The contain mushroom seeds called spores. The body of the mushroom in called mycelium and its individual parts are microscopic. The body of the mushroom is dispersed over a relatively large areas and rarely noticed. Mushroom is most often applied to those fungi (Basidiomycota and Agaricomycetes). Include: Edible and poisonous species (Edible and poisonous mushrooms). India is the second most populous country of the world with a population of over 100 crores. Increase in population is creating an alarming situation in the food problem of India. Malnutrition in terms of `protein'

deficiency is one of the major factors responsible for high mortality and morbidity in this country and other developing countries of the world. Due to population explosion (100 million/year) the problem of protein hunger will become more and more acute. Exploiting non-traditional food resources can make a substantial break-through - to meet the serious food deficit. Mushrooms, yeasts and algal foods are frequently mentioned as alternative sources of food. Of these, mushrooms are the most preferred. In the present circumstances, popularizing mushroom as part and parcel of everyday food is of paramount importance. Modern mushroom culture produces more protein per unit area of land than any other kind of agriculture and technology at present available. The use of mushrooms as food is probably as old as civilization itself. They have been a delicacy since ancient times. The Egyptians regarded them as a food for Pharaohs. The Greeks and Romans described them as 'food for the Gods" and were served only on festive occasions. Reference to mushrooms is found in Vedas. These were earlier preferred for their flavour and taste, while their nutritive value was recognized later. Mushrooms provide a rich addition to the diet in the form of proteins, carbohydrates, minerals and vitamins. The protein content of fresh mushrooms (3g/100g) is about 3.7 percent. It is twice as high as that in most vegetables except green peas, Brussels sprouts and pulses and is much lower to meat, egg, fish and cheese. They have a high percentage of all the nine essential amino acids. They are low in calories (less than 35 K calories per 100 g) with traces of sugar and without cholesterol. These are richer in vitamins (B1, B2, niacin, B12, pantothenic acid and vitamin C) than most vegetables and almost free from fat (0.2g/100g). They are also a good source of minerals like, phosphorus, potassium and iron. Thus, they serve a valuable source of nutritive and protective food.

Concise Basics and Current Developments New Age International

Mushrooms are the health food of the world. These are that fast growing basidiomycetous fungi which produce fleshy fruit bodies. They are rich in proteins, vitamins and minerals, so they are consumed as energy rich food. Mushroom has been attracting attention of mankind since ancient times and use of mushroom, as food is as old as human civilization. Mushrooms are superior to many vegetables and beans in their nutritive value. It is very rich in protein, vitamins and minerals. Fresh mushrooms contain about 85% water and 3.2% protein. But dried mushrooms water content is low and protein level is high as 34 to 44% and the fat content is less than 0.3%. There are about 100 species of edible mushrooms all over the world. But only three of them are cultivated in India which are Agaricus bisporus, Volvariella volvacea and pleurotus sajor caju. Unfortunately, it is realized that mushrooms did not receive universal acceptance over the years since a number of naturally growing mushrooms are poisonous. Now the situation has been changed because the cultivated edible mushrooms are totally safe for human consumption. Mushroom cultivation fits in very well with sustainable farming and has several advantages: it uses agricultural waste products, a high production per surface area can be obtained, after picking; the spent substrate is still a good soil conditioner. They have less carbohydrate so they are believed to be suitable for diabetic patients. Fresh mushrooms have very limited life and hence they need to be consumed within few hours. But processing and canning increases their shelf life to few months. Osmotic dehydration is one of the important methods of processing mushroom which involves drying technology of mushroom. Mushrooms are very popular in most of the developed countries and they are becoming popular in many developing countries like India. Applications and market for mushrooms is growing rapidly in India because of their nice aroma, nutritious values, subtle flavour and many special tastes. Mushroom cultivation has been declared as a major thrust area by Government of India. Mushroom dish is a common item in all the big hotels. Mushroom production has increased many folds during the recent past. Mushrooms have found a definite place in the food consumption habits of common masses and there is a constant demand for it throughout the year. Some of the fundamentals of the book are nutritive value of edible mushrooms, medicinal value of mushrooms, advantages of mushrooms, symptoms of mushroom poisoning, morphology of common edible mushrooms, classification of fungi a brief survey, chemical composition, anti nutritional factors and shelf life of oyster mushroom , osmotic dehydration characteristics of button mushrooms, mushroom cultivation, cultivation of white button mushroom (agaricus bisporus), actors determining the amount of spawn needed, fungidues for mushroom diseases insectides for mushroom pets etc. The present book contains cultivation, processing, dehydration, preservation and canning of various species of mushrooms. It is resourceful book for agriculturists, researchers, agriculture universities, consultants etc.

Sustainable Rice Straw Management Academic Press

Fusing general interest in mushrooming with serious scholarship, Mushrooms of the Midwest describes and illustrates over five hundred of the region's mushroom species. From the cold conifer bogs of northern Michigan to the steamy oak forests of Missouri, the book offers a broad cross-section of the fungi, edible and not, that can be found growing in the Midwest’s diverse ecosystems. With hundreds of color illustrations, Mushrooms of the Midwest is ideal for amateur and expert mushroomers alike. Michael Kuo and Andrew Methven provide identification keys and thorough descriptions. The authors discuss the DNA revolution in mycology and its consequences for classification and identification, as well as the need for well-documented contemporary collections of mushrooms. Unlike most field guides, Mushrooms of the Midwest includes an extensive introduction to the use of a microscope in mushroom identification. In addition, Kuo and Methven give recommendations for scientific mushroom collecting, with special focus on ecological data and guidelines for preserving specimens. Lists of amateur mycological associations and herbaria of the Midwest are also included. A must-have for all mushroom enthusiasts!

The Chinese Kitchen Bib. Orton IICA / CATIE

Mushroom Biotechnology: Developments and Applications is a comprehensive book to provide a better understanding of the main interactions between biological, chemical and physical factors directly involved in biotechnological procedures of using mushrooms as bioremediation tools, high nutritive food sources, and as biological helpers in healing serious diseases of the human body. The book points out the latest research results and original approaches to the use of edible and medicinal mushrooms as efficient bio-instruments to reduce the environment and food crises. This is a valuable scientific resource to any researcher, professional, and student interested in the fields of mushroom biotechnology, bioengineering, bioremediation, biochemistry, eco-toxicology, environmental engineering, food engineering, mycology, pharmacists, and more. Includes both theoretical and practical tools to apply mushroom biotechnology to further research and improve value added products Presents innovative biotechnological procedures applied for growing and developing many species of edible and medicinal mushrooms by using high-tech devices Reveals the newest applications of mushroom biotechnology to produce organic food and therapeutic products, to biologically control the pathogens of agricultural crops, and to remove or mitigate the harmful consequences of quantitative expansion and qualitative

diversification of hazardous contaminants in natural environment
Investigations of Cultivation Technology of Paddy Straw Mushroom (Volvariella Volvacea) World Scientific
Mushroom is an important crop of fungal origin that can be cultivated on several agricultural residues. There are about twenty mushroom species grown commercially all over the world, specifically known for their attractive flavours and textures that make food delicious. Mushrooms not only contain protein, vitamins and minerals, but also have low calorie content with little fat and sugar. They provide a high amount of qualitative nutrition required for our growth and strong immune system. This is a complete manual on the cultivated edible mushrooms covering all the information from their morphological features to post-harvest preparations. The structure, natural diversity, food and medicinal values, impact of climatic factors on their cultivation and cultivation methodologies are all explained in an easy-to-understand way. The economics of mushroom cultivation and ancillary information about mushroom centres, sources of spawn and machineries as well as addresses of leading mushroom farms and exporters have been elaborated in the text. The text is intended for the undergraduate students of Agriculture, Biotechnology, Botany and Microbiology. Besides, it will serve as a handy compendium for those engaged in mushroom development programmes as well as those interested in establishing their own mushroom farms.
Socioeconomic and Environmental Implications of Agricultural Residue Burning Cultivation Technology of Paddy Straw Mushroom (Volvariella Volvacea)Studies on the Cultivation of Paddy Straw Mushroom Volvariella VolvaceaThe Chinese Mushroom (Volvariella Volvacea)Morphology, Cytology, Genetics, Nutrition and CultivationSustainable Rice Straw Management ... The best source of information on growing mushrooms at home (back cover.).
Science and Cultivation of Edible Fungi 2000 - Ten Speed Press
Cultivation Technology of Paddy Straw Mushroom (Volvariella Volvacea)Studies on the Cultivation of Paddy Straw Mushroom Volvariella VolvaceaThe Chinese Mushroom (Volvariella Volvacea)Morphology, Cytology, Genetics, Nutrition and CultivationSustainable Rice Straw ManagementSpringer Nature
Updates on Tropical Mushrooms Chinese University Press
A detailed and comprehensive guide for growing and using gourmet and medicinal mushrooms commercially or at home. “Absolutely the best book in the world on how to grow diverse and delicious mushrooms.”—David Arora, author of Mushrooms Demystified With precise growth parameters for thirty-one mushroom species, this bible of mushroom cultivation includes gardening tips, state-of-the-art production techniques, realistic advice for laboratory and growing room construction, tasty mushroom recipes, and an invaluable troubleshooting guide. More than 500 photographs, illustrations, and charts clearly identify each stage of cultivation, and a twenty-four-page color insert spotlights the intense beauty of various mushroom species. Whether you’re an ecologist, a chef, a forager, a pharmacologist, a commercial grower, or a home gardener—this indispensable handbook will get you started, help your garden succeed, and make your mycological landscapes the envy of the neighborhood.
JPS Scientific Publications, India
Comprehensive and timely, Edible and Medicinal Mushrooms: Technology and Applications provides the most up to date information on the various edible mushrooms on the market. Compiling knowledge on their production, application and nutritional effects, chapters are dedicated to the cultivation of major species such as Agaricus bisporus, Pleurotus ostreatus, Agaricus subrufescens, Lentinula edodes, Ganoderma lucidum and others. With contributions from top researchers from around the world, topics covered include: Biodiversity and biotechnological applications Cultivation technologies Control of pests and diseases Current market overview Bioactive mechanisms of mushrooms Medicinal and nutritional properties Extensively illustrated with over 200 images, this is the perfect resource for researchers and professionals in the mushroom industry, food scientists and nutritionists, as well as academics and students of biology, agronomy, nutrition and medicine.
The Biology and Cultivation of Edible Mushrooms University of Illinois Press
Microorganisms Are Living Things Like Plants And Animals But Because Of Their Minute Size And Omnipresence, Performing Experiments With Microbes Requires Special Techniques And Equipment Apart From Good Theoretical Knowledge About Them. This Easy To Use Revised And Updated Edition Provides Knowledge About All The Three I.E., Techniques, Equipment And Principles Involved.The Notable Feature Of This Edition Is The Addition Of New Sections On Bacterial Taxonomy That Deals With The Criteria Used In Identification, Phylogeny And Current System Of Classification Of Procaryotes Based On The Second Edition Of Bergey Manual Of Systematic Bacteriology And The Section One On History Of Discovery Of Events That Covers Chronologically Important Events In Microbiology With The Contribution Of Pioneer Microbiologists Who Laid The Foundation Of The Science Of Microbiology. In The Subsequent Twenty-Two Sections, Various Microbiological Techniques Have Been Described Followed By Several Experiments Illustrating The Properties Of Microorganisms And Highlighting Their Involvement In Practically Every Sphere Of Life.Along With The Cultivation/Isolation/Purification Of Microbes, This Edition Also Contains Exercises Concerning Air, Soil, Water, Food, Dairy And AgriculturalMicrobiology, Bacterial Genetics, Plant Pathology, Plant Tissue Culture And Mushroom Production Technology. This Manual Contains 163 Experiments Spread Over 22 Different Sections. The Exercises Are Presented In A Simple Language With Explanatory Diagrams And A Brief Recapitulation Of Their Theory And Principle.The Exercises Are Selected By Keeping In Mind The Easy Availability Of Cultures, Culture Media And Equipment. Appendices At The End Of The Manual Provide A Reference To The Source For Obtaining Cultures Of Microbes, Culture Media And Preparation Of Various Stains, Reagents And Media In The Laboratory And Classification Of Procaryotes According To The First And Second Editions Of Bergey Is Manual Of Systematic Bacteriology.This Book Would Be Useful For The Undergraduate And Postgraduate Students, Teachers And Scientists In Diverse Areas Including The Biological Sciences, The Allied Health Services, Environmental Science, Biotechnology, Agriculture, Nutrition, Pharmacy And Various Other Professional Programmes Like Milk Processing Units, Diagnostic (Clinical) Microbiological Laboratories And Mushroom Cultivation At Small Or Large Scales.
Make Money by Growing Mushrooms PHI Learning Pvt. Ltd.
Developments in Crop Science, 10: Cultivating Edible Fungi covers the proceedings of the International Symposium on Scientific and Technical Aspects of Cultivating Edible Fungi (IMS 86), held on July 15-17, 1986. The book focuses on the methodologies, processes, and technologies involved in the cultivation of edible fungi. The selection first offers information on antitumor activities of edible mushrooms by oral administration; variability of fluorescent Pseudomonas populations in composts and casing soils used for mushroom cultures; and influence of microorganisms and fungistasis on sporophore initiation in Agaricus brunnescens. The text then elaborates on the kratovirulence determinant of wood-decay fungi in transfer of mycelia to, and basidiocarp formation on, wooden raw substrates; spent compost as a carrier for bacterial inoculant production; and

effects of growth regulator compounds on yield and size of Agaricus bisporus. The manuscript examines the effect of benomyl application and spawnmate supplementation on yield and size of selected genotypes of Pleurotus spp; changes in free amino acid content of the compost during growth and development of Agaricus bisporus; and basidiospore number variation in Agaricus. The book then takes a look at the integrated control of pests and diseases in mushroom cultivation; status of pests in the cultivated mushroom in India; and laboratory and cropping tests with cyromazine for mushroom sciarid control in mushroom compost. The selection is a dependable source of data for researchers interested in the cultivation of edible fungi.

Experiments In Microbiology, Plant Pathology And Biotechnology John Wiley & Sons

This open access book on straw management aims to provide a wide array of options for rice straw management that are potentially more sustainable, environmental, and profitable compared to current practice. The book is authored by expert researchers, engineers and innovators working on a range of straw management options with case studies from Vietnam, the Philippines and Cambodia. The book is written for engineers and researchers in order to provide them information on current good practice and the gaps and constraints that require further research and innovation. The book is also aimed at extension workers and farmers to help them decide on the best alternative straw management options in their area by presenting both the technological options as well as the value chains and business models required to make them work. The book will also be useful for policy makers, required by public opinion to reduce greenhouse gas emissions and air pollution, looking for research-based evidence to guide the policies they develop and implement.

Cultivation Technology of Paddy Straw Mushroom (Volvariella Volvacea) Springer Science & Business Media

This is a work on the role of fungi in processed and unprocessed foods. In addition to offering practical and applied information on fungi associated with food and beverages this second edition now covers poisonous mushrooms. Topics include water activity, specific commodities, fungi and metabolities as human dietary components, health hazards and mycotoxin producers, and mycotoxin and fungal contaminant detection.

Advances in Waste Processing Technology CRC Press

The discipline of Mushroom Biology, created by the authors of this book, has now been legitimized by references in the scientific literature and by two International Conferences devoted to the subject. This book sets the parameters of Mushroom Biology in a concise manner and also emphasizes trends and points out future directions which will lead to a greater utilization of mushrooms and mushroom products. The discipline was established to bring together persons who have in common scientific or commercial interests involving mushrooms. The authors' definition of mushroom is more broad than the usual mycological definition so that macrofungi other than Basidiomycetes can be included. Mushrooms may be edible, non-edible, poisonous or medicinal species, with hypogeous or epigeous fruiting bodies, and their texture may be fleshy or non-fleshy. Many aspects of Mushroom Biology are presented, including nutritional and medicinal uses, the role of mushrooms in bioremediation, biotechnology, and in the bioconversion of waste organic materials into forms that can enter the major nutrient cycles. Basic scientific studies involving mushroom species are also considered with an emphasis on genetics and breeding. Contents:Mushroom Biology:Introduction to Mushroom BiologyConcise Basics of Fungi as Background for Mushroom Biology:ClassificationBiology of FungiGeneral Principles of Production of Mushrooms and Mushroom Products:IntroductionMushroom ScienceMushroom BiotechnologyCurrent Developments in Mushroom Biology:Worldwide Trends Over the Past DecadeCurrent Activities. Readership: Graduate students, mycologists, mushroom specialists, nutritionists and pharmaceutical chemists. keywords:Mushroom Biology;Biotechnology;Mushrooms;Fungi;Cell/Molecular Biology;Mycology

Handbook of Indigenous Fermented Foods, Revised and Expanded Food & Agriculture Org

A brightly illustrated guide to the art of Chinese cookery introduces ingredients that are essential in Chinese cooking and includes more than two hundred recipes using each ingredient, from the common to the exotic. Reprint.

Studies on Cultivation and Biology of Straw Mushroom, Volvariella Volvacea (Bull. Ex Fr.) Sing Lubrecht & Cramer Limited

Dimensions: 22x15x3 cm Description: The Book Covers Introduction, Biology Of The Mushroom, Food Value Of Mushrooms, Uses Of Mushrooms, Cultivation Of White Button Cultivation Of Agaricus Bitorquis, Cultivation Of Paddy Straw Mushroom (Volvariella Spp.), Cultivation Of Pleurotus Spp. Common Edible Mushrooms Of India, Delicious Recipes Of Mushroom, Laboratory Aspects, Growth, Picking, Grading & Packing, Cultivation Of Oyster Mushroom & Paddy Straw Mushroom, Mushroom Preservation & Processing, Requirements Of A Project On Mushroom For Export, Marketing Of Mushrooms Etc. -Engineers India Research Institute

Handbook on Mushroom Cultivation and Processing (with Dehydration, Preservation and Canning) CRC PressI Llc

The Biology and Cultivation of Edible Mushrooms emphasizes the biological and cultivation aspects of edible mushrooms. This book refers to edible mushrooms as epigeous and hypogeous fruiting bodies of macroscopic fungi that are commercially cultivated or grown in half-culture processes or potentially implanted under controlled conditions. The topics discussed include the morphology and classification of edible mushrooms; cryogenic freezing of mushroom spawn; spawning and mycelium growth; and cultivation of Pleurotus. The geographic distribution of truffles; potential cultivation of various edible fungi; and economics of cultivated mushrooms are also elaborated. This publication is intended for experienced mushroom specialists, seasoned commercial growers, and biology students who are interested in edible mushrooms.

Mushrooms - A Hidden Treasure Scientific Publishers

This book discusses the important issue of the socioeconomic and environmental impacts of agricultural residue burning, common in agricultural practices in many parts of the world. In particular, it focuses on the pollution caused by rice residue burning using primary survey data from Punjab, India. It discusses emerging solutions to agricultural waste burning that are cost-effective in terms of both money and time. The burning of agricultural residue causes severe pollution in land, water and air and contributes to increased ozone levels and climate change in the long term. However, appropriate assessments have not been undertaken so far to demonstrate the relevant impact of agriculture-based pollution, especially residue burning. This book addresses this gap in the literature. Punjab has been used as a case study as it is the chief granary of India, contributing to 27.2 percent of the Indian national produce of rice and 43.8 percent of wheat. It is presumed that the findings from this state will be useful not only for other agricultural areas in India, but across the world. This book, therefore, sensitizes policy makers, researchers and students about the impacts of air pollution caused by

agricultural residue burning---a subject not much dealt in the literature---and provides a way forward.

Related with Cultivation Of Straw Mushroom Volvariella Volvacea Using:
• Spanish In Sign Language : click here