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KEY=SCIENCE - JAMARI FREY

STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES

A PATH FORWARD

National Academies Press Scores of talented and dedicated people serve the forensic science community, performing vitally important work. However, they are often constrained by lack of adequate resources, sound policies, and national support. It is clear that change and advancements, both systematic and scientific, are needed in a number of forensic science disciplines to ensure the reliability of work, establish enforceable standards, and promote best practices with consistent application. **Strengthening Forensic Science in the United States: A Path Forward** provides a detailed plan for addressing these needs and suggests the creation of a new government entity, the National Institute of Forensic Science, to establish and enforce standards within the forensic science community. The benefits of improving and regulating the forensic science disciplines are clear: assisting law enforcement officials, enhancing homeland security, and reducing the risk of wrongful conviction and exoneration. **Strengthening Forensic Science in the United States** gives a full account of what is needed to advance the forensic science disciplines, including upgrading of systems and organizational structures, better training, widespread adoption of uniform and enforceable best practices, and mandatory certification and accreditation programs. While this book provides an essential call-to-action for congress and policy makers, it also serves as a vital tool for law enforcement agencies, criminal prosecutors and attorneys, and forensic science educators.

STANDARDS AND STANDARDIZATION: CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

IGI Global Effective communication requires a common language, a truth that applies to science and mathematics as much as it does to culture and conversation. **Standards and Standardization: Concepts, Methodologies, Tools, and Applications** addresses the necessity of a common system of measurement in all technical communications and endeavors, in addition to the need for common rules and guidelines for regulating such enterprises. This multivolume reference will be of practical and theoretical significance to researchers, scientists, engineers, teachers, and students in a wide array of disciplines.

PLANT BIOTECHNOLOGY AND GENETICS

PRINCIPLES, TECHNIQUES AND APPLICATIONS

John Wiley & Sons Designed to inform and inspire the next generation of plant biotechnologists **Plant Biotechnology and Genetics** explores contemporary techniques and applications of plant biotechnology, illustrating the tremendous potential this technology has to change our world by improving the food supply. As an introductory text, its focus is on basic science and processes. It guides students from plant biology and genetics to breeding to principles and applications of plant biotechnology. Next, the text examines the critical issues of patents and intellectual property and then tackles the many controversies and consumer concerns over transgenic plants. The final chapter of the book provides an expert forecast of the future of plant biotechnology. Each chapter has been written by one or more leading practitioners in the field and then carefully edited to ensure thoroughness and consistency. The chapters are organized so that each one progressively builds upon the previous chapters. Questions set forth in each chapter help students deepen their understanding and facilitate classroom discussions. Inspirational autobiographical essays, written by pioneers and eminent scientists in the field today, are interspersed throughout the text. Authors explain how they became involved in the field and offer a personal perspective on their contributions and the future of the field. The text's accompanying CD-ROM offers full-color figures that can be used in classroom presentations with other teaching aids available online. This text is recommended for junior- and senior-level courses in plant biotechnology or plant genetics and for courses devoted to special topics at both the undergraduate and graduate levels. It is also an ideal reference for practitioners.

BASIC SKILLS IN INTERPRETING LABORATORY DATA

ASHP **Basic Skills in Interpreting Laboratory Data, Fifth Edition**, is the classic and most popular pharmacy laboratory text because it is the only reference on this subject written by pharmacists, for pharmacists. Students find this guide a clear and useful introduction to the fundamentals of interpreting laboratory test results. The book enhances the skills pharmacists need by providing essential information on common laboratory tests used to screen for or diagnose diseases and monitor the effectiveness and safety of treatment and disease severity. Each chapter contains learning objectives, case studies, bibliographies, and charts that summarize the causes of high and low test results. New for this edition: Updated and expanded Quick View tables in each chapter now match those in the popular quick-reference, **Interpreting Laboratory Data: A Point-of-Care Guide** New glossary of acronyms is right up front for a streamlined reference Normal value ranges of all tests have been standardized by an expert pathologist New and updated cases in each chapter apply your **Basic Skills** in clinical situations Reorganized to highlight the application of concepts by body system, and in special populations **Basic Skills in Interpreting Laboratory Data** offers features that will help pharmacy students not only understand and engage with the material but also will streamline the transition from classroom to practice setting. After studying with this trusted text, students and pharmacists will more effectively monitor patient therapy, evaluate test results, and improve outcomes through optimal and focused pharmacotherapy.

REGULATION OF GENOME EDITING IN PLANT BIOTECHNOLOGY

A COMPARATIVE ANALYSIS OF REGULATORY FRAMEWORKS OF SELECTED COUNTRIES AND THE EU

Springer This book provides in-depth insights into the regulatory frameworks of five countries and the EU concerning the regulation of genome edited plants. The country reports form the basis for a comparative analysis of the various national regulations governing genetically modified organisms (GMOs) in general and genome edited plants in particular, as well as the underlying regulatory approaches. The reports, which focus on the regulatory status quo of genome edited plants in Argentina, Australia, Canada, the EU, Japan and the USA, were written by distinguished experts following a uniform structure. On this basis, the legal frameworks are compared in order to foster a rational assessment of which approaches could be drawn upon to adjust, or to completely realign, the current EU regime for GMOs. In addition, a separate chapter identifies potential best practices for the regulation of plants derived from genome editing.

PREPARING FOR FUTURE PRODUCTS OF BIOTECHNOLOGY

[National Academies Press](#) Between 1973 and 2016, the ways to manipulate DNA to endow new characteristics in an organism (that is, biotechnology) have advanced, enabling the development of products that were not previously possible. What will the likely future products of biotechnology be over the next 5–10 years? What scientific capabilities, tools, and/or expertise may be needed by the regulatory agencies to ensure they make efficient and sound evaluations of the likely future products of biotechnology? Preparing for Future Products of Biotechnology analyzes the future landscape of biotechnology products and seeks to inform forthcoming policy making. This report identifies potential new risks and frameworks for risk assessment and areas in which the risks or lack of risks relating to the products of biotechnology are well understood.

TOOLS, TECHNIQUES AND PROTOCOLS FOR MONITORING ENVIRONMENTAL CONTAMINANTS

[Elsevier](#) Tools, Techniques and Protocols for Monitoring Environmental Contaminants describes information on the strategic integration of available monitoring methods with molecular techniques, with a focus on omics (DNA, RNA and protein based) and molecular imprinted polymer and nanomaterial based advanced biosensors for environmental applications. It discusses the most commonly practiced analytic techniques, such as HPLC, MS, GCMS and traditional biosensors, giving an overview of the benefits of advanced biosensors over commonly practiced methods in the rapid and reliable assessment of environmental contaminants. As environmental contaminants have become one of the serious concerns in terms of their rapid growth and monitoring in the environment, which is often limited due to costly and laborious methods, this book provides a comprehensive update on their removal, the challenges they create for environmental regulatory agencies, and their diverse effects on terrestrial and aquatic environments. Provides methods for assessing and monitoring environmental contaminants Includes recent advancement in molecular techniques Outlines rapid environmental monitoring methods Explains the use of biosensors for environmental monitoring Reviews monitoring methods beyond conventional analytic techniques

PRACTICAL TECHNIQUES IN MOLECULAR BIOTECHNOLOGY

[Cambridge University Press](#) The book will be useful for undergraduate students as a supplementary/reference text in the field of molecular biotechnology.

MATERIALS SCIENCE AND ENGINEERING: CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

[IGI Global](#) The design and study of materials is a pivotal component to new discoveries in the various fields of science and technology. By better understanding the components and structures of materials, researchers can increase its applications across different industries. Materials Science and Engineering: Concepts, Methodologies, Tools, and Applications is a compendium of the latest academic material on investigations, technologies, and techniques pertaining to analyzing the synthesis and design of new materials. Through its broad and extensive coverage on a variety of crucial topics, such as nanomaterials, biomaterials, and relevant computational methods, this multi-volume work is an essential reference source for engineers, academics, researchers, students, professionals, and practitioners seeking innovative perspectives in the field of materials science and engineering.

ANIMAL BIOTECHNOLOGY

SCIENCE-BASED CONCERNS

[National Academies Press](#) Genetic-based animal biotechnology has produced new food and pharmaceutical products and promises many more advances to benefit humankind. These exciting prospects are accompanied by considerable unease, however, about matters such as safety and ethics. This book identifies science-based and policy-related concerns about animal biotechnology—key issues that must be resolved before the new breakthroughs can reach their potential. The book includes a short history of the field and provides understandable definitions of terms like cloning. Looking at technologies on the near horizon, the authors discuss what we know and what we fear about their effects—the inadvertent release of dangerous microorganisms, the safety of products derived from biotechnology, the impact of genetically engineered animals on their environment. In addition to these concerns, the book explores animal welfare concerns, and our societal and institutional capacity to manage and regulate the technology and its products. This accessible volume will be important to everyone interested in the implications of the use of animal biotechnology.

SOFTWARE APPLICATIONS: CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

[IGI Global](#) Includes articles in topic areas such as autonomic computing, operating system architectures, and open source software technologies and applications.

AGRICULTURAL BIOTECHNOLOGY IN CHINA

ORIGINS AND PROSPECTS

[Springer Science & Business Media](#) Agricultural Biotechnology in China: Origins and Prospects is a comprehensive examination of how the origins of biotechnology research agendas, along with the effectiveness of the seed delivery system and biosafety oversight, help to explain current patterns of crop development and adoption in China. Based on firsthand insights from China's laboratories and farms, Valerie Karplus and Dr. Xing Wang Deng explore the implications of China's investment for the nation's rural development, environmental footprint, as well as its global scientific and economic competitiveness.

ANALYTICAL BIOTECHNOLOGY

[Elsevier](#) ANABIOTEC '92 focused on the further integration of biotechnology and analytical chemistry. The results of this symposium clearly demonstrated that a substantial progress could be reported in the application of both conventional and new analytical techniques, the latter essentially based on natural analytical tools such as biomolecules. The main themes covered during this meeting are fermentation monitoring, chromatography, instrumental analysis, biosensors and bioanalysis.

SUSTAINABLE BUSINESS: CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

[IGI Global](#) In the increasingly competitive corporate sector, businesses must examine their current practices to ensure business success. By examining their social, financial, and environmental risks, obligations, and opportunities, businesses can re-design their operations more effectively to ensure prosperity. Sustainable Business: Concepts, Methodologies, Tools, and Applications is a vital reference source that explores the best practices that promote business sustainability, including examining how economic, social, and environmental aspects are related to each other in the company's management and performance. Highlighting a range of topics such as lean manufacturing, sustainable business model innovation, and ethical consumerism, this multi-volume book is ideally designed for entrepreneurs, business executives, business professionals, managers, and academics seeking current research on sustainable business practices.

MOLECULAR BIOTECHNOLOGY

PRINCIPLES AND APPLICATIONS OF RECOMBINANT DNA

The second edition explains the principles of recombinant DNA technology as well as other important techniques such as DNA sequencing, the polymerase chain reaction, and the production of monoclonal antibodies.

ANALYTICAL TECHNIQUES IN BIOTECHNOLOGY

Biotechnology is a rapidly progressing field of science and technology. It integrates principles and applications from diverse fields such as genomics, immunology, and many more. This book strives to equip the reader with thorough knowledge about various techniques of applied biotechnology, its applications in the areas of medicine, agriculture, environment, etc., along with details about the latest equipment and analytical tools which would help the reader gain an in-depth perspective about the subject. This book elucidates new techniques and their applications in a multidisciplinary approach and is apt for students of biotechnology and associated disciplines of study.

DATA WAREHOUSING AND MINING: CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

IGI Global In recent years, the science of managing and analyzing large datasets has emerged as a critical area of research. In the race to answer vital questions and make knowledgeable decisions, impressive amounts of data are now being generated at a rapid pace, increasing the opportunities and challenges associated with the ability to effectively analyze this data.

MOLECULAR TECHNIQUES IN FOOD BIOLOGY

SAFETY, BIOTECHNOLOGY, AUTHENTICITY AND TRACEABILITY

John Wiley & Sons Molecular Techniques in Food Biology: Safety, Biotechnology, Authenticity & Traceability explores all aspects of microbe-food interactions, especially as they pertain to food safety. Traditional morphological, physiological, and biochemical techniques for the detection, differentiation, and identification of microorganisms have severe limitations. As an alternative, many of those responsible for monitoring food safety are turning to molecular tools for identifying foodborne microorganisms. This book reviews the latest molecular techniques for detecting, identifying, and tracing microorganisms in food, addressing both good foodborne microbes, such as those used for fermentation and in probiotics, and harmful ones responsible for foodborne illness and food quality control problems. Molecular Techniques in Food Biology: Safety, Biotechnology, Authenticity & Traceability brings together contributions by leading international authorities in food biology from academe, industry, and government. Chapters cover food microbiology, food mycology, biochemistry, microbial ecology, food biotechnology and bio-processing, food authenticity, food origin traceability, and food science and technology. Throughout, special emphasis is placed on novel molecular techniques relevant to food biology research and for monitoring and assessing food safety and quality. Brings together contributions from scientists at the leading edge of the revolution in molecular food biology Explores how molecular techniques can satisfy the dire need to deepen our understanding of how microbial communities develop in foods of all types and in all forms Covers all aspects of food safety and hygiene, microbial ecology, food biotechnology and bio-processing, food authenticity, food origin traceability, and more Fills a yawning gap in the world literature on food traceability using molecular techniques This book is an important working resource for professionals in agricultural, food science, biomedicine, and government involved in food regulation and safety. It is also an excellent reference for advanced students in agriculture, food science and food technology, biochemistry, microbiology, and biotechnology, as well as academic researchers in those fields.

PLANT CELL AND TISSUE CULTURE - A TOOL IN BIOTECHNOLOGY

BASICS AND APPLICATION

Springer Science & Business Media This book provides a general introduction as well as a selected survey of key advances in the fascinating field of plant cell and tissue culture as a tool in biotechnology. After a detailed description of the various basic techniques employed in leading laboratories worldwide, follows an extended account of important applications in, for example, plant propagation, secondary metabolite production and gene technology. Additionally, some chapters are devoted to historical developments in this domain, metabolic aspects, nutrition, growth regulators, differentiation and the development of culture systems. The book will prove useful to both newcomers and specialists, and even "old hands" in tissue culture should find some challenging ideas to think about.

OECD SCIENCE, TECHNOLOGY AND INDUSTRY SCOREBOARD 2007

OECD Publishing Explores recent developments in matters relating to science, technology, globalisation and industrial performance of OECD and major non OECD countries, bringing together over 200 graphs.

PLANT-BASED GENETIC TOOLS FOR BIOFUELS PRODUCTION

Bentham Science Publishers Biofuels are currently used as a viable alternative energy source in several countries. Plant-Based Genetic Tools for Biofuels Production explains biotechnological techniques and concepts that are applied to increase biofuel yield from plants and algae. Chapters of the book cover a variety of topics: the basic research techniques (cell suspension, embryogenesis, protoplast fusion), plant genetics (plant DNA mutations, new plant breeding techniques, viral genetic vectors for heterologous gene expression, sub cellular proteomes), genomic resources and bioinformatics tools, plant species with bioenergy and biofuel potential, factors influencing biomass yield, advances in cultivation technologies, fermentation of different substrates for ethanol production, and microalgae biomass technologies. Readers will gain a thorough understanding of modern biofuel production. Plant-Based Genetic Tools for Biofuels Production is a suitable reference for students in biotechnology and bioinformatics programs as well as researchers interested in information about the basics of biofuel production.

SCIENCE PROFESSIONALS

MASTER'S EDUCATION FOR A COMPETITIVE WORLD

National Academies Press What are employer needs for staff trained in the natural sciences at the master's degree level? How do master's level professionals in the natural sciences contribute in the workplace? How do master's programs meet or support educational and career goals? Science Professionals: Master's Education for a Competitive World examines the answers to these and other questions regarding the role of master's education in the natural sciences. The book also focuses on student characteristics and what can be learned from efforts underway to enhance the master's in the natural sciences, particularly as a professional degree. This book is a critical tool for Congress, the federal agencies charged with carrying out the America COMPETES Act, and educational and science policy makers at the state level. Additionally, anyone with a stake in the development of professional science education (four year institutions of higher education, students, faculty, and employers) will find this book useful.

INFORMATION VISUALIZATION TECHNIQUES IN THE SOCIAL SCIENCES AND HUMANITIES

IGI Global The representation of abstract data and ideas can be a difficult and tedious task to handle when learning new concepts; however, the advances in emerging technology have allowed for new methods of representing such conceptual data. Information Visualization Techniques in the Social Sciences and Humanities is a critical scholarly resource that examines the application of information visualization in the social sciences and humanities. Featuring coverage on a broad range of topics such as social network

analysis, complex systems, and visualization aesthetics, this book is geared towards professionals, students, and researchers seeking current research on information visualization.

OECD GREEN GROWTH STUDIES FARM MANAGEMENT PRACTICES TO FOSTER GREEN GROWTH

[OECD Publishing](#) This report looks at farm management practices with green growth potential, from farmer-led innovations (such as those directly linked to soil and water, Integrated Pest Management, organic farming) to science-led technologies (such as biotechnology and precision agriculture).

STERILE INSECT TECHNIQUE

PRINCIPLES AND PRACTICE IN AREA-WIDE INTEGRATED PEST MANAGEMENT

[CRC Press](#) The sterile insect technique (SIT) is an environment-friendly method of pest control that integrates well into area-wide integrated pest management (AW-IPM) programmes. This book takes a generic, thematic, comprehensive, and global approach in describing the principles and practice of the SIT. The strengths and weaknesses, and successes and failures, of the SIT are evaluated openly and fairly from a scientific perspective. The SIT is applicable to some major pests of plant-, animal-, and human-health importance, and criteria are provided to guide in the selection of pests appropriate for the SIT. In the second edition, all aspects of the SIT have been updated and the content considerably expanded. A great variety of subjects is covered, from the history of the SIT to improved prospects for its future application. The major chapters discuss the principles and technical components of applying sterile insects. The four main strategic options in using the SIT — suppression, containment, prevention, and eradication — with examples of each option are described in detail. Other chapters deal with supportive technologies, economic, environmental, and management considerations, and the socio-economic impact of AW-IPM programmes that integrate the SIT. In addition, this second edition includes six new chapters covering the latest developments in the technology: managing pathogens in insect mass-rearing, using symbionts and modern molecular technologies in support of the SIT, applying post-factory nutritional, hormonal, and semiochemical treatments, applying the SIT to eradicate outbreaks of invasive pests, and using the SIT against mosquito vectors of disease. This book will be useful reading for students in animal-, human-, and plant-health courses. The in-depth reviews of all aspects of the SIT and its integration into AW-IPM programmes, complete with extensive lists of scientific references, will be of great value to researchers, teachers, animal-, human-, and plant-health practitioners, and policy makers.

ENGINEERING TOOLS FOR ENVIRONMENTAL RISK MANAGEMENT

4. RISK REDUCTION TECHNOLOGIES AND CASE STUDIES

[CRC Press](#) The four volumes of the book series "Engineering Tools for Environmental Risk Management" deal with environmental management, assessment & monitoring tools, environmental toxicology and risk reduction technologies. This last volume focuses on engineering solutions usually needed for industrial contaminated sites, where nature's self-remediation is inefficient or too slow. The success of remediation depends on the selection of an increasing number of conventional and innovative methods. This volume classifies the remedial technologies and describes the reactor approach to understand and manage in situ technologies similarly to reactor-based technologies. Technology types include physicochemical, biological or ecological solutions, where near-natural, sustainable remediation has priority. A special chapter is devoted to natural attenuation, where natural changes can help achieve clean-up objectives. Natural attenuation and biological and ecological remediation establish a serial range of technologies from monitoring only to fully controlled interventions, using 'just' the natural ecosystem or sophisticated artificial living systems. Passive artificial ecosystems and biodegradation-based remediation - in addition to natural attenuation - demonstrate the use of these 'green' technologies and how engineering intervention should be kept at a minimum to limit damage to the environment and create a harmonious ecosystem. Remediation of sites contaminated with organic substances is analyzed in detail including biological and physicochemical methods. Comprehensive management of pollution by inorganic contaminants from the mining industry, leaching and bioleaching and acid mine drainage is studied in general and specifically in the case of an abandoned mine in Hungary where the innovative technology of combined chemical and phytostabilization has been applied. The series of technologies is completed by electrochemical remediation and nanotechnologies. Monitoring, verification and sustainability analysis of remediation provide a comprehensive overview of the management aspect of environmental risk reduction by remediation. This book series focuses on the state of knowledge about the environment and its conscious and structured application in environmental engineering, management and decision making.

MOLECULAR BIOLOGY TECHNIQUES

A CLASSROOM LABORATORY MANUAL

[Academic Press](#) This manual is an indispensable tool for introducing advanced undergraduates and beginning graduate students to the techniques of recombinant DNA technology, or gene cloning and expression. The techniques used in basic research and biotechnology laboratories are covered in detail. Students gain hands-on experience from start to finish in subcloning a gene into an expression vector, through purification of the recombinant protein. The third edition has been completely re-written, with new laboratory exercises and all new illustrations and text, designed for a typical 15-week semester, rather than a 4-week intensive course. The "project approach to experiments was maintained: students still follow a cloning project through to completion, culminating in the purification of recombinant protein. It takes advantage of the enhanced green fluorescent protein - students can actually visualize positive clones following IPTG induction. Cover basic concepts and techniques used in molecular biology research labs Student-tested labs proven successful in a real classroom laboratories Exercises simulate a cloning project that would be performed in a real research lab "Project" approach to experiments gives students an overview of the entire process Prep-list appendix contains necessary recipes and catalog numbers, providing staff with detailed instructions

BIOLOGY PREVIOUS YEAR MCQS SOLVED CHAPTERWISE FOR NEET EXAM PDF FORMAT

MOCKTIME PUBLICATION

by [Mocktime Publication](#) Biology Previous year MCQs Solved Chapterwise for NEET Exam PDF Format Neet previous year chapterwise topicwise solved papers questions mcq, neet practice sets, neet biology, neet physics, neet chemistry, neet cbse, neet ncert books, neet ncert exemplar, neet 30 years solved papers., neet guide, neet books, neet question bank, neet disha arihant books

INDUSTRIAL BIOTECHNOLOGY

[Walter de Gruyter GmbH & Co KG](#) The book provides an excellent introduction to industrial biotechnology, addressing the applications of biomolecules and living systems in industrial manufacturing of various products. Each part of the book is devoted to a certain biotech sector, such as biofuels, food, chemicals, pharmaceuticals and materials. The book also covers the environmental aspects of industrial biotechnology and the principles of bio-based economy.

LABORATORY MANUAL FOR BIOTECHNOLOGY AND LABORATORY SCIENCE

THE BASICS

[Benjamin Cummings](#) Laboratory Manual for Biotechnology provides the basic laboratory skills and knowledge to pursue a career in biotechnology. The manual, written by four biotechnology instructors with over 20 years of teaching experience, incorporates instruction, exercises, and laboratory activities that the authors have been using and perfecting for years. These exercises and activities serve to engage and help you understand the fundamentals of working in a biotechnology laboratory. Building skills through an organized and systematic presentation of materials, procedures, and tasks, the manual will help you explore overarching themes that relate to all biotechnology workplaces. The fundamentals in this manual are critical to the success of research scientists, scientists who develop

ideas into practical products, laboratory analysts who analyze samples in forensic, clinical, quality control, environmental, and other testing laboratories.

PLANT BIOTECHNOLOGY AND GENETICS

PRINCIPLES, TECHNIQUES, AND APPLICATIONS

John Wiley & Sons "This book can be used in a junior or senior level course, including masters students in plant biotechnology or plant genetics, as well as in special topics classes for both undergraduate and graduate students"--Provided by publisher.

PROTOCOLS IN ADVANCED GENOMICS AND ALLIED TECHNIQUES

Springer This laboratory manual includes the latest tools and techniques involved in genomic research. It starts with an introductory chapter on genomics and the various tools and applications involved. The initial chapters present protocols for basic techniques such as DNA isolation, electrophoresis, PCR, cDNA synthesis etc. The book then goes on to describe more advanced techniques such as next-generation sequencing, exome sequencing, use of RNAi, RNAseq, genome editing, single cell genomics etc. Each topic includes a brief description, information on the principles involved, materials & methods, protocol, and expected results, with diagrams and graphs. All protocols are presented in a very lucid and precise way, to make it easy for readers to follow and replicate them.

GREEN BUSINESS: CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

CONCEPTS, METHODOLOGIES, TOOLS, AND APPLICATIONS

IGI Global The issues of sustainability and corporate social responsibility have become vital discussions in many industries within the public and private sectors. In the business realm, incorporating practices that serve the overall community and ecological wellbeing can also allow businesses to flourish economically and socially. Green Business: Concepts, Methodologies, Tools, and Applications is a vital reference source for the latest research findings on the challenges and benefits of implementing sustainability into the core functions of contemporary enterprises, focusing on how green approaches improve operations. Highlighting a range of topics such as corporate sustainability, green enterprises, and circular economy, this multi-volume book is ideally designed for business executives, business and marketing professionals, business managers, academicians, and researchers actively involved in the business industry.

THE BIG BOOK OF MAKER SKILLS (POPULAR SCIENCE)

TOOLS & TECHNIQUES FOR BUILDING GREAT TECH PROJECTS

Weldon Owen Makers, get ready. This is your ultimate, must-have, tip-packed guide for taking your DIY projects to the next level—from basic wood- and metalworking skills to plugged-in fun with power tools, from cutting-edge electronics play to 3-D printing wizardry. Join Chris Hackett, Popular Science intrepid DIY columnist and star of the Science Channel's Stuck with Hackett , on a rummage through the toolbox of yore—and a foray into the technologies of the future. HAND TOOLS A classic is a classic for a reason. Learn to build your own metal forge, screen-print whatever you want, swing a hammer better than your ancestors, and repurpose what Hackett calls "obtainium"—but what others might call trash—into your own mad-scientist creations. POWER TOOLS Discover the supreme joy that is angle-grinding, rig your own welding machine out of a junked car battery or three, and meet and master a whole host of electronic gadgets—LEDs, piezo buzzers, solar panels, and more. ROBOTS & BEYOND When it comes to making, there's a whole new skillset in town. Get started with CNC milling, laser-cutting, programming microcontrollers, and 3D printing in a chapter that's all about building what's next. MUCH MORE Setting up a hackerspace, drones and space exploration tools, circuitry basics, sourcing and crowdsourcing and biotechnology- just to name a few more. You name it; it's probably in this book.

HANDBOOK OF RESEARCH ON SCIENCE EDUCATION AND UNIVERSITY OUTREACH AS A TOOL FOR REGIONAL DEVELOPMENT

IGI Global Higher education institutions play a vital role in their surrounding communities. Besides providing a space for enhanced learning opportunities, universities can utilize their resources for social and economic interests. The Handbook of Research on Science Education and University Outreach as a Tool for Regional Development is a comprehensive reference source for the latest scholarly material on the expanded role of universities for community engagement initiatives. Providing in-depth coverage across a range of topics, such as resource sharing, educational administration, and technological applications, this handbook is ideally designed for educators, graduate students, professionals, academics, and practitioners interested in the active involvement of education institutions in community outreach.

HERBICIDES IN ASIAN RICE

TRANSITIONS IN WEED MANAGEMENT

Int. Rice Res. Inst. Overview; Impacts of herbicides; Integrated weed management; Use of herbicides in asian rice.

BIOECONOMY AND SUSTAINABILITY

PERSPECTIVES FROM NATURAL AND SOCIAL SCIENCES, ECONOMICS AND ETHICS

Springer Nature In this edited volume, scientists from different disciplines discuss modern biotechnological processes and a knowledge-based bioeconomy. The authors base their arguments on ecological, economic, legal, social and ethical aspects. Moreover, they explore the opportunities, risks, and challenges of bioeconomic concepts and biotechnologies in many subject areas. The chapters consider land use, nature and environment, nutrition, technology and governance, energy, economy, law and regulation, as well as ethics. A special focus should be on new technologies and how they can be used, without compromising the ambitious goal of creating a more sustainable, but also fair world. To do justice to this broad array of topics, the editors frame all topics in overarching introductions and close the volume with final conclusions. Thereby this volume offers data and critical thoughts for any member of a Bioeconomy - be it from academia, the industry or public regulation.

BIOTECHNOLOGY IN INTERNATIONAL AGRICULTURAL RESEARCH

Int. Rice Res. Inst.

THE AMERICAN BIOLOGY TEACHER

EMERGING ISSUES IN CLIMATE SMART LIVESTOCK PRODUCTION

BIOLOGICAL TOOLS AND TECHNIQUES

Academic Press Emerging Issues in Climate Smart Livestock Production: Biological Tools and Techniques furnishes a detailed reference on livestock sustainability and the role of biotechnology for creating more sustainable livestock production systems. The book is a

collection of scientific techniques, including genetic engineering used to modify and improve animals, fishes, and microorganisms for human benefit. The book is particularly attractive for scientists, researchers, students, educators, and professionals in agriculture, veterinary, and biotechnology science. This book promotes several biotechnological approaches that can easily be evaluated in the field for quality assurance programs beneficial to producing livestock products and overall public health. Biotechnology has the potential to improve the productivity of animals via increased growth, carcass quality and reproduction, improved nutrition and feed utilization, improved food quality and safety, improved animal health and welfare, and reduced waste through more efficient utilization of resources. Identifies and explores biotechnological approaches for sustainable livestock and fish production Focuses on strategies for enhancing livestock and fishery productivity and sustainability Presents the latest research on modern methods and technologies