

Plant Guide Vetiver

Vetiver Grass A Thin Green Line Against Erosion National Academies Press

This book covers such plants with edible modified storage subterranean stems (corms, rhizomes, stem tubers) and unmodified subterranean stem stolons, above ground swollen stems and hypocotyls, storage roots (tap root, lateral roots, root tubers), and bulbs, that are eaten as conventional or functional food as vegetables and spices, as herbal teas, and may provide a source of food additive or nutraceuticals. This volume covers selected plant species with edible modified stems, roots and bulbs in the families Iridaceae, Lamiaceae, Marantaceae, Nelumbonaceae, Nyctaginaceae, Nymphaeaceae, Orchidaceae, Oxalidaceae, Piperaceae, Poaceae, Rubiaceae and Simaroubaceae. The edible species dealt with in this work include wild and underutilized crops and also common and widely grown ornamentals. To help in identification of the plant and edible parts coloured illustrations are included. As in the preceding ten volumes, topics covered include: taxonomy (botanical name and synonyms); common English and vernacular names; origin and distribution; agro-ecological requirements; edible plant parts and uses; plant botany; nutritive, medicinal and pharmacological properties with up-to-date research findings; traditional medicinal uses; other non-edible uses; and selected/cited references for further reading. This volume has separate indices for scientific and common names; and separate scientific and medical glossaries.

A complete illustrated survey of fragrance in the garden by America's leading garden writer Popular garden writer Ken Druse offers a complete survey of fragrance in the garden, in a major work filled with new knowledge. He arranges both familiar and unusual garden plants, shrubs, and trees into 12 categories, giving gardeners a vastly expanded palate of scents to explore and enjoy, and he also provides examples of garden designs that offer harmonious scentual delights. Ellen Hoverkamp contributes her artful botanical images of flowers and plants discussed in the text. These are accompanied by Druse's award-winning garden photographs, to create a book that is as beautiful to look at as it is informative and evocative to read.

The first comprehensive, practical guide to the selection, construction, and installation of soil bioengineering and biotechnical slope protection Here is the ultimate guide to physically attractive, environmentally compatible, and cost-effective methods of protecting slopes from erosion and mass wasting. Lavishly illustrated with more than 150 photographs and supplemented with scores of charts and tables, this book covers the entire subject from general principles and background on the nature of soil erosion and mass movement to detailed information on root strengths, treatment selection, unit costs, critical tractive stresses, methods for harvesting and handling live cuttings, and more. Four illustrated case studies, each addressing a different set of problems and solutions, demonstrate both the application of particular technologies and the site investigation, planning, scheduling, and organization required to complete these projects successfully. This unique reference handbook * Reviews the horticultural and engineering underpinnings for biotechnical and soil engineering treatments * Documents and explains the role of woody plants in stabilizing slopes against both surficial erosion and mass movement * Provides details on a broad range of soil bioengineering methods, including live staking, live fascines, brush layering, live cribwalls, branch packing, and live slope gratings * Describes various biotechnical methods and materials, including the incorporation of vegetation in erosion control blankets, flexible mats, cellular revetments (geocells), rock armor (riprap), and gabion and open-front crib walls * Summarizes the findings of the National Science Foundation-sponsored workshop to assess the state of the art and determine research needs For practicing professionals, researchers, and students in geotechnical engineering, geology, soil science, forestry and forest engineering, landscape architecture, environmental horticulture, and restoration ecology, this book offers thorough, up-to-date coverage that is not available from any other single source.

"The Ultimate Guide to Aromatherapy is a comprehensive guide to using aromatherapy and essential oils for healing written by the co-founders of the New York Institute of Aromatic Studies"--

Despite increasing consumer demand and an imminent production surge in breadfruit, a number of barriers must be overcome in order to increase the market availability, distribution, and commercial competitiveness of breadfruit. Many growers have limited understanding of when a fruit is ready to harvest and how to best harvest and handle the fruit to ensure a high quality product is delivered to market. As with any perishable crop-producers must learn proper handling of breadfruit to optimize its value to consumers, and therefore its commercial value. Similarly, chefs and consumers also need essential information on handling and preparation of breadfruit. This comprehensive 36-page guide will help growers ensure that the existing and future breadfruit crop will be used on farm, in the marketplace, or in the consumer's kitchen. This second edition adds kitchen handling tips, nutritional information, and descriptions for three important breadfruit varieties.

Everything You Need to Know About Essential Oils for Pure Healing & Wellness Explore the world of natural, nontoxic essential oils for all aspects of your life. Stimulate your senses and soothe your body and soul with the popular practice that has become a respected, safe alternative to modern medicine. Learn all about essential oils to use for bettering your life and the lives of your family and friends. Included are: - Profiles of the most widely used essential oils - Formulas and blending guides with the most effective techniques for using them - Accurate application methods from time-honored poultices to modern day steam inhalation - Remedies for a wide range of ailments including muscle strain, headaches and skin problems - DIY personal care from beauty treatments, massage and cooking to moms & new babies, pets and spiritual healing - Over 300 stunning images This comprehensive guide is a must-have resource and welcome addition to the libraries of experienced and novice aromatherapists alike.

Filled with full-color photographs and step-by-step instructions, the authors show readers how to create a farm or garden habitat that will attract beneficial insects and thereby reduce crop damage from pests without the use of pesticides.

For developing nations, soil erosion is among the most chronic environmental and economic burdens. Vast amounts of topsoil are washed or blown away from arable land only to accumulate in rivers, reservoirs, harbors, and estuaries, thereby creating a double disaster: a vital resource disappears from where it is desperately needed and is deposited where it is equally unwanted. Despite much rhetoric and effort, little has been done to overcome this problem. Vetiver, a little-known tropical grass, offers one practical and inexpensive way to control erosion on a huge scale in both humid and semi-arid regions. Hedges of this deeply rooted species catch and hold back sediments while the stiff foliage acts as a filter that also slows runoff and keeps moisture on site. This book assesses vetiver's promise and limitations and identifies places where this grass can be deployed without undue environmental risk.

As cities develop, more land is converted into impervious surfaces, which do not allow water to infiltrate. Careful urban planning is needed to ensure that the hydrologic cycle and water quality of the catchment areas are not affected. There are techniques that can attenuate peak flow during rain events and reduce the amount of metals, nutrients, and bacteria that enter the urban water cycle. This brief gives a short introduction on bioretention systems and documents the effectiveness of some 36 plant species in removing water pollutants. A summary on the maintenance requirements is also presented.

This book is aimed at the practising engineer and engineering geologist working in tropical environments, where landslides are mainly triggered by rain fall. This book is based on a similar work published in 1999 in Portuguese, which became the Rio de Janeiro Slope Manual. This book is an engineering guide for the design of slopes and stabilisation works in rocks and residual soils. It evolves from the cumulative experience gathered by several engineers and geologists who faced severe slope problems. The authors' experience throughout Central and South America (Costa Rica, Argentina, Bolivia, Peru, Ecuador and Venezuela) and the Far East, especially Hong Kong and Malaysia, was used as a foundation for writing this book. The work also benefits enormously from the time spent in Hong Kong in 1996 and 1997 by the first

editor on sabbatical at the City University of Hong Kong, and the discussions he had with many colleagues from the Geotechnical Engineering Office (GEO) of the Hong Kong Government, especially Dr. A. Malone, Mr. w.K. Pun, Dr. A. Li, Mr. K. Ho, and Mr. y.c. Chan among others.

During the 1930s in the United States, the Works Progress Administration developed the Federal Writers' Project to support writers and artists while making a national effort to document the country's shared history and culture. The American Guide series consists of individual guides to each of the states. Little-known authors—many of whom would later become celebrated literary figures—were commissioned to write these important books. John Steinbeck, Saul Bellow, Zora Neale Hurston, and Ralph Ellison are among the more than 6,000 writers, editors, historians, and researchers who documented this celebration of local histories. Photographs, drawings, driving tours, detailed descriptions of towns, and rich cultural details exhibit each state's unique flavor. The WPA Guide to Louisiana features a state influenced greatly by both Cajun and Southern cultures, as seen in the excellent photography and the chapter focused solely on traditional Louisiana cuisine. From Acadiana to the northern Sportsmans' Paradise, this guide takes the reader on a journey across the swamplands of the Pelican State with several driving tours and special essays on the rich histories of Baton Rouge and New Orleans.

The book comprises select proceedings of the 2016 annual conference of the Indian Geotechnical Society (IGC 2016), with technical papers on the theme "Ground Improvement and Geosynthetics". The papers cover a wide range of topics, including chemical modification using admixtures, microbial-induced carbonate precipitation, geopolymers, fly ash and other industrial wastes, modification using geosynthetic materials such as natural and synthetic fibers, expanded polystyrene (EPS) geof foam, prefabricated vertical drains, geosynthetic encased-granular columns and mechanical densification through sand columns. This book is a valuable reference for researchers and practicing engineers alike.

Scientists within the field of plant biotechnology are in a constant search for techniques that can, in the simplest manner possible, answer the genetic and biochemical questions that underlie developmental processes. Thin Cell Layer Culture System not only takes an in-depth look at a technique that has had so much success in attempting, through various practical models and systems, to answer these issues, but also represents a celebration of almost 30 years of research that has covered a massive scope of plant species and areas of study. The initial studies conducted on tobacco thin cell layers (TCLs) - proving that organogenesis can be strictly controlled in vitro - allowed plant research to benefit from this finding, expanding this knowledge in a practical and applied manner into the biotechnological fields of tissue culture and micropropagation, cell and organ genetics and biochemistry. The chapters in this book tell the enigmatic tale of TCLs. An historical perspective opens the scene for an inquiry into the possible cellular, biochemical and genetic processes that allow for the controlled development of a TCL into any organ type. The success of the system is further demonstrated in both monocotyledonous and dicotyledonous species, covering successful organogenesis and in vitro flowering in species within ornamental, leguminous and wood crops, cereals and grasses. Methodologies are outlined in detail, as is the rationale behind the TCL-organogenesis-developmental sequel. The TCL method, shown to be superior to many conventional micropropagation systems, has also shown to be vital in the recovery of transgenic plants. This book is an essential part of every plant, cell and developmental biologist, geneticist and tissue culturist's shelf as it addresses the primary issue of any plant: the cell, the tissue, and their subsequent development into a highly organized system.

The world's poor will be the most critically affected by a changing climate—and yet their current plight isn't improving rapidly enough to fulfill the UN's Millennium Development Goals. If experienced development organizations are finding it difficult to solve decades-old development problems, how will they additionally solve new challenges driven by climate change? This book illustrates how including community members in project design and co-management leads to long-lasting, successful achievement of development and adaptation goals. This field guide provides a system of building block activities for staff on the ground to use in developing and implementing successful adaptation to climate change projects that can be co-managed and sustained by communities. Based on years of use in 129 different countries, the techniques illustrated in this field guide use a step-by-step progression to lead readers through problem assessment, project design, implementation, and community take over. The book equips development staff with all the tools and techniques they need to improve current project effectiveness, to introduce community based adaptation into organizational programming and to generate new projects. The techniques provided can be applied to broad range of challenges, from agriculture and soil and water challenges, to health concerns, flood defences and market development. The book is supported by a user-friendly website updated by the author, where readers can download online resources for each chapter which they can tailor to their own specific projects. This practical guide is accessible to all levels of development staff and practitioners, as well as to students of development and environmental studies.

This eBook includes the images of all the important medicinal plants...

Improve your life and enhance your healing practice with The Essential Guide to Aromatherapy and Vibrational Healing, an A-to-Z guide to sixty essential oils and their corresponding vibrational elements. Renowned author Margaret Ann Lembo shows you how to achieve physical, spiritual, and emotional balance using a variety of vibrational tools, including: Flower Essences Gemstone Essences Chakras Divine Messengers Zodiac Signs Planets Colors Numbers Animals Holy Water Discover how different oils can be combined with the power of intention to create and maintain positive change in your life. Learn how aroma-energetic practices support your journey to self-awareness and well-being. Outlining detailed information on all sixty essential oils—from therapeutic properties and fragrances to complementary essences and interesting tidbits—this comprehensive book provides everything you need to heal, transform, and evolve on every level. Praise: "[This] is absolutely the best book I've read on the topic. It's all here—and more."—Cyndi Dale, author of The Complete Book of Chakra Healing "An off-the-charts, must-have resource to have in your home. With such clean style and grace, she reviews the history, the mystical, and all practical applications of essential oils...AMAZING!"—Joan Ranquet, author of Energy Healing for Animals

This book has been written to present major and efficient applications in landscape ecology, as well as to propose a solid action for this category of topics. The book aims to illustrate various treatment methods of the land-use models impact on landscape ecology creation. The book is divided into three parts: Part I: Ecological interpretation of land-use act - in this part, ecosystem and land use turn out to be a significant factor in the process of creating an ecological landscape. Part II: Landscape district in applied ecological analysis - this part attempts to illustrate the best possible model of analysis integrated with landscape in practical case studies. Part III: The anthropogenic impacts on landscape creation - this part discusses the human impact on landscape creation.

With tips covering everything from artemisia to vetiver grass, *What Can I Do with My Herbs?* offers a fun and lively look at forty common herbs and the creative and useful things people do with them. Each herb description includes the plant's history and a list of popular uses, as well as helpful information about how to successfully grow them, how to enjoy them in the garden (watch the swallowtail butterflies and caterpillars that love fennel), or how to use them in the kitchen (substitute the yellow flowers of calendula for saffron). Judy Barrett even shares some of her favorite recipes, including lavender lemonade and thyme cheese rolls. Barrett also suggests uses for each specific herb outside the kitchen. Readers will learn how to bathe with basil, fight fungus with chamomile, fertilize with comfrey, clean house with rosemary, and much, much more. Gardeners, herbalists, and anyone interested in learning more about herbs will relish this compact and easy-to-understand practical guide to growing and enjoying these versatile plants.

In this field guide to the future, esteemed Harvard University botanist Peter Del Tredici unveils the plants that will become even more dominant in urban environments under projected future environmental conditions. These plants are the most important and most common plants in cities. Learning what they are and the role they play, he writes, will help us all make cities more livable and enjoyable. With more than 1000 photos, readers can easily identify these powerful plants. Learn about the fascinating cultural history of each plant.

This handbook has been prepared to support fieldworkers and farmers in developing vegetative systems of soil and moisture conservation that will meet the requirements of small farmers in developing countries, most of whom reside in the tropics and semitropics. Experience has shown that conventional systems of earth bunds or terraces on small farms are expensive and in many cases, especially in modern times, ineffective. When applied correctly, vegetative systems of soil and moisture conservation - particularly the system of hedges of vetiver grass described in this handbook - have proved cheaper and more effective.

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