

Plant Physiology And Development By Lincoln Taiz, Eduardo

Plant Physiology and Development Plant Physiology and Development Plant Physiology, Development and Metabolism Plant Physiology Seeds Seeds Plant Physiology 6C The Physiology of Growth Seeds Physiology, Growth and Development of Plants in Culture Development, Anatomy, and Physiology The Physiology of Human Growth Development and Physiology Plant Growth and Stress Physiology Fundamentals of Plant Physiology Tendon Regeneration The Physiology of Bioelectricity in Development, Tissue Regeneration and Cancer The Physiology of Plant Growth and Development Physiology of Woody Plants Fish Physiology: Muscle Development and Growth Seeds Modeling Physiology of Crop Development, Growth and Yield Handbook of Plant and Crop Physiology, Third Edition Plant Physiology Oocyte Physiology and Development in Domestic Animals The Evolution of Plant Physiology Plant Physiology: Molecular, Biochemical, and Physiological Fundamentals of Metabolism and Development Anatomy & Physiology Handbook of Plant and Crop Physiology Cotton Physiology Fruit and Seed Production Encyclopedia of Plant Physiology Gastrointestinal Physiology Physiology of Prenatal Exercise and Fetal Development Physiology of Soybean Plant Herbicides and Plant Physiology The Physiology and Development of Some Anthracoses ... Tree Fruit Physiology The Physiology and Development of Some Anthracoses Potato Physiology

As recognized, adventure as competently as experience roughly lesson, amusement, as skillfully as contract can be gotten by just checking out a book Plant Physiology And Development By Lincoln Taiz, Eduardo with it is not directly done, you could take even more all but this life, in relation to the world.

We manage to pay for you this proper as capably as simple pretension to get those all. We manage to pay for Plant Physiology And Development By Lincoln Taiz, Eduardo and numerous book collections from fictions to scientific research in any way, along with them is this Plant Physiology And Development By Lincoln Taiz, Eduardo that can be your partner.

Physiology of Woody Plants Apr 14 2021 Woody plants such as trees have a significant economic and climatic influence on global economies and ecologies. This completely revised classic book is an up-to-date synthesis of the intensive research devoted to woody plants published in the second edition, with additional important aspects from the authors' previous book, Growth Control in Woody Plants. Intended primarily as a reference for researchers, the interdisciplinary nature of the book makes it useful to a broad range of scientists and researchers from agroforesters, agronomists, and arborists to plant pathologists and soil scientists. This third edition provides crucial updates to many chapters, including: responses of plants to elevated CO₂; the process and regulation of cambial growth; photoinhibition and photoprotection of photosynthesis; nitrogen metabolism and internal recycling, and more. Revised chapters focus on emerging discoveries of the patterns and processes of woody plant physiology. * The only book to provide recommendations for the use of specific management practices and experimental procedures and equipment * Updated coverage of nearly all topics of interest to woody plant physiologists * Extensive revisions of chapters relating to key processes in growth, photosynthesis, and water relations * More than 500 new references * Examples of molecular-level evidence incorporated in discussion of the role of expansion proteins in plant growth; mechanism of ATP production by coupling factor in photosynthesis; the role of cellulose synthase in cell wall construction; structure-function relationships for aquaporin proteins

The Physiology of Human Growth Nov 21 2021 Covers a wide spectrum of growth physiology, and presents a state-of-the-art review of human growth. Modeling Physiology of Crop Development, Growth and Yield Jan 12 2021 Model studies focus experimental investigations to improve our understanding and performance of systems. Concentrating on crop modelling, this book provides an introduction to the concepts of crop development, growth, and yield, with step-by-step outlines to each topic, suggested exercises and simple equations. A valuable text for students and researchers of crop development alike, this book is written in five parts that allow the reader to develop a solid foundation and coverage of production models including water- and nitrogen-limited systems.

Herbicides and Plant Physiology Oct 28 2019 Herbicides make a spectacular contribution to modern crop production. Yet, for the development of more effective and safer agrochemicals, it is essential to understand how these compounds work in plants and their surroundings. This expanded and fully revised second edition of Herbicides and Plant Physiology provides a comprehensive and up-to-date account of how modern herbicides interact with target plants, and how they are used to manage crop production. In addition, the text provides a current account of the importance of weeds to crop yield and quality; Describes how new herbicides are discovered and developed; Examines precise sites of herbicide action and mechanisms of herbicide selectivity and resistance; Reviews commercial and biotechnological applications, including genetically engineered herbicide resistance in crops; Suggests new areas for future herbicide development; Includes many specially prepared illustrations. As a summary of diverse research information, this second edition of Herbicides and Plant Physiology is a valuable reference for students and researchers in plant physiology, crop production/protection, plant biochemistry, biotechnology and agriculture. All libraries in universities, agricultural colleges and research establishments where these subjects are studied and taught will need copies of this excellent book on their shelves.

Fish Physiology: Muscle Development and Growth Mar 14 2021 With the advent of zebrafish as a model system, the development and growth of muscle in fish has become an ever more important process. This volume, in the continuing Fish Physiology series, focuses attention on muscle from the genetics of muscle development to application of muscle growth patterns to aquacultural production.

Plant Physiology Nov 09 2020 This third edition provides the basics for introductory courses on plant physiology without sacrificing the more challenging material sought by upper division and graduate level students. The text contains many new or revised figures and photographs, all in full color. A website, referenced throughout the text, includes additional study questions, WebTopics (elaborating on selected topics discussed in the text), WebEssays (discussions of cutting edge research topics, written by those who did the work) and additional suggestions for further reading. Key pedagogical changes to the text result in a shorter book. Advanced material from the second edition has been removed and posted at an affiliated Web site, while many new or revised figures and photographs, study questions and a glossary of key terms have been added. Despite the streamlining of the text, the third edition incorporates all the important developments in plant physiology, especially in cell, molecular and developmental biology.

Fundamentals of Plant Physiology Aug 19 2021 A condensed version of the best-selling Plant Physiology and Development, this fundamentals version is intended for courses that focus on plant physiology with little or no coverage of development. Concise yet comprehensive, this is a distillation of the most important principles and empirical findings of plant physiology.

Plant Physiology and Development Oct 01 2022 Plant Physiology and Development incorporates the latest advances in plant biology, making Plant Physiology the most authoritative and widely used upper-division plant biology textbook. Up to date, comprehensive, and meticulously illustrated, the improved integration of developmental material throughout the text ensures that Plant Physiology and Development provides the best educational foundation possible for the next generation of plant biologists. This new, updated edition includes current information to improve understanding while maintaining the core structure of the book. Figures have been revised and simplified wherever possible. To eliminate redundancy, stomatal function (Chapter 10 in the previous edition) has been reassigned to other chapters. In addition, a series of feature boxes related to climate change are also included in this edition. An enhanced ebook with embedded self-assessment, Web Topics and Web Essays and Study Questions is available with this edition.

Development, Anatomy, and Physiology Dec 23 2021 The Testis, Volume I: Development, Anatomy, and Physiology focuses on the study of the testis. Particular concerns include embryology, morphology, physiology, cytology, and anatomy of this complex organ. Composed of contributions of authors that are divided into nine chapters, the book outlines the development of mammalian testis. Areas discussed include differentiation of the testis; genital glands and ducts; and postnatal development. The text highlights the relationship of this organ, along with the scrotum and epididymis, to the nervous system. The book discusses as well the supply of blood; secretion of fluid; and regulation of temperature of the testis. Concerns include testicular lymph and lymphatics; testicular fluid; and rete testis. The discussions proceed with an examination of the intertubular tissue of the testis. The selection ends with the discussions on the structure and functions of the testis. Noted are the presence of different cells and tissues that compose this organ and how these influence its functions. The selection is a good source of information for readers interested in studying the complex structure and functions of the testis.

Development and Physiology Oct 21 2021 Development and Physiology: The Biology of You provides a concise overview of major topics and recent findings in the fields of development and physiology. Unlike standard texts in the field, which can be cumbersome and overly general, Development and Physiology keeps written text to a minimum. It relies on illustrations to illuminate key concepts and directs readers to first-rate internet animation to demonstrate biological processes.

Plant Growth and Stress Physiology Sep 19 2021 This book aims to emphasize on basic concepts of plant growth, acclimation, and their adaptation to environment in changing conditions. The book will provide an updated perspective on the physical/mechanical stress, including biotic and abiotic stress, and induced responses in higher plants. This volume will also include a view of the stress recognition by plants and the cell signaling events triggered as a consequence, and will also address an appraisal of the plant oxidant stress metabolism under those circumstances. The book will explore how soil minerals and microbes are affecting plant growth, including elicitors and novel compounds which stimulate plant growth and the defence mechanisms issued by plants. This volume will also cover an overview on the enzymes which may regulate plant growth, as well as the evidences of the involvement of phytohormones and other signalling molecules in plant growth.

Plant Physiology and Development Nov 02 2022 Published by Sinauer Associates, an imprint of Oxford University Press. Throughout its twenty-two year history, the authors of Plant Physiology and Development have continually updated the book to incorporate the latest advances in plant biology and implement pedagogical improvements requested by adopters. This has made Plant Physiology and Development the most authoritative, comprehensive, and widely-used upper-division plant biology textbook.

Physiology, Growth and Development of Plants in Culture Jan 24 2022 Over recent years, progress in micropropagation has not been as rapid as many expected and, even now, relatively few crops are produced commercially. One reason for this is that the biology of material growing in vitro has been insufficiently understood for modifications to standard methods to be made based on sound physiological principles. However, during the past decade, tissue culture companies and others have invested considerable effort to reduce the empirical nature of the production process. The idea of the conference "Physiology, Growth and Development of Plants and Cells in Culture" (Lancaster, 1992) was to introduce specialists in different areas of plant physiology to micropropagators, with the express aims of disseminating as wide a range of information to as large a number of participants as possible, and beginning new discussions on the constraints and potentials affecting the development of in vitro plant production methods. This book is based on presentations from the conference and has been divided into two main sections, dealing with either aspects of the in vitro environment -- light, nutrients, water, gas -- or with applied aspects of the culture process -- morphogenesis, acclimation, rejuvenation, contamination.

Cotton Physiology May 04 2020

The Physiology of Plant Growth and Development May 16 2021

Seeds Jun 28 2022 This updated and much revised third edition of Seeds: Physiology of Development, Germination and Dormancy provides a thorough overview of seed biology and incorporates much of the progress that has been made during the past fifteen years. With an emphasis on placing information in the context of the seed, this new edition includes recent advances in the areas of molecular biology of development and germination, as well as fresh insights into dormancy, ecophysiology, desiccation tolerance, and longevity. Authored by preeminent authorities in the field, this book is an invaluable resource for researchers, teachers, and students interested in the diverse aspects of seed biology.

Plant Physiology, Development and Metabolism Aug 31 2022 This book focuses on the fundamentals of plant physiology for undergraduate and graduate students. It consists of 34 chapters divided into five major units. Unit I discusses the unique mechanisms of water and ion transport, while Unit II describes the various metabolic events essential for plant development that result from plants' ability to capture photons from sunlight, to convert inorganic forms of nutrition to organic forms and to synthesize high energy molecules, such as ATP. Light signal perception and transduction works in perfect coordination with a wide variety of plant growth regulators in regulating various plant developmental processes, and these aspects are explored in Unit III. Unit IV investigates plants' various structural and biochemical adaptive mechanisms to enable them to survive under a wide variety of abiotic stress conditions (salt, temperature, flooding, drought), pathogen and herbivore attack (biotic interactions). Lastly, Unit V addresses the large number of secondary metabolites produced by plants that are medicinally important for mankind and their applications in biotechnology and agriculture. Each topic is supported by illustrations, tables and information boxes, and a glossary of important terms in plant physiology is provided at the end.

Gastrointestinal Physiology Jan 30 2020 This book offers one of the most comprehensive reviews in the field of gastrointestinal (GI) physiology, guiding readers on a journey through the complete digestive tract, while also highlighting related organs and glandular systems. It is not solely limited to organ system physiology, and related disciplines like anatomy and histology, but also examines the molecular and cellular processes that keep the digestive system running. As such, the book provides extensive information on the molecular, cellular, tissue, organ, and system levels of functions in the GI system. Chapters on the roles of the gut as an endocrine, exocrine and neural organ, as well as its microbiome functions, broaden readers' understanding of the multi-organ networks in the human body. To help illustrate the interconnections between the physiological concepts, principles and clinical presentations, it outlines clinical examples such as pathologies that link basic science with clinical practice in special "clinical correlates" sections. Covering both traditional and contemporary topics, it is a valuable resource for biomedical students, as well as healthcare and scientific professionals.

Potato Physiology Jun 24 2019 Potato Physiology provides perspective and knowledge on the biological behavior and potentials of the potato plant. Organized into 15 chapters, this book focuses on tuber development physiology, biochemistry, and anatomy. This text also covers topics on physiological and biochemical aspects of photosynthesis, photoassimilate partitioning, respiration, tuberization, as well as carbohydrate and protein metabolisms. It elucidates potato's rest period, the stage when growth is inhibited as a result of endogenous causes, and the tubers' disorders, environmental responses, frost hardiness, and tissue culture. This text provides a worldwide perspective and is organized and presented to be useful to graduate students, teachers, and potato investigators.

Plant Physiology: Molecular, Biochemical, and Physiological Fundamentals of Metabolism and Development Aug 07 2020

Physiology of Soybean Plant Nov 29 2019 The book provides in-depth knowledge on the physiology of soybean. It is written lucidly, systematically, and in depth. The book provides recent information and findings, explained with illustrations to express the ideas and concepts vividly to university students and researchers, and provides a better understanding of the improvement of the productivity of soybean to cope with the future demand. It describes the physiology of growth, development, flowering, pod development and seed yield as well as C, O, N and Oil metabolisms – their hormonal regulations under normal and stress environmental conditions. Molecular approaches are also described.

Tendon Regeneration Jul 18 2021 Tendon Regeneration: Understanding Tissue Physiology and Development to Engineer Functional Substitutes is the first book to highlight the multi-disciplinary nature of this specialized field and the importance of collaboration between medical and engineering laboratories in the development of tissue-oriented products for tissue engineering and regenerative medicine (TERM) strategies. Beginning with a foundation in developmental biology, the book explores physiology, pathology, and surgical reconstruction, providing guidance on biological approaches that enhances tendon regeneration practices. Contributions from scientists, clinicians, and engineers who are the leading figures in their respective fields present recent findings in tendon stem cells, cell therapies, and scaffold treatments, as well as examples of pre-clinical models for translational therapies and a view of the future of the field. Provides an overview of tendon biology, disease, and tissue engineering approaches Presents modern, alternative approaches to developing functional tissue solutions discussed Includes valuable information for those interested in tissue engineering, tissue regeneration, tissue physiology, and regenerative medicine Explores physiology, pathology, and surgical reconstruction, building a natural progression that enhances tendon regeneration practices Covers recent findings in tendon stem cells, cell therapies, and scaffold treatments, as well as examples of pre-clinical models for translational therapies and a view of the future of the field

Seeds May 28 2022 In response to enormous recent advances, particularly in molecular biology, the authors have revised their warmly received work. This new edition includes updates on seed development, gene expression, dormancy, and other subjects. It will serve as the field's standard textbook and reference source for many years to come.

Handbook of Plant and Crop Physiology Jun 04 2020 With contributions from over 70 international experts, this reference provides comprehensive coverage of plant physiological stages and processes under both normal and stressful conditions. It emphasizes environmental factors, climatic changes, developmental stages, and growth regulators as well as linking plant and crop physiology to the production of food, feed, and medicinal compounds. Offering over 300 useful tables, equations, drawings, photographs, and micrographs, the book covers cellular and molecular aspects of plant and crop physiology, plant and crop physiological responses to heavy metal concentration and agrochemicals, computer modeling in plant physiology, and more.

The Evolution of Plant Physiology Sep 07 2020 Coupled with biomechanical data, organic geochemistry and cladistic analyses utilizing abundant genetic data, scientific studies are revealing new facets of how plants have evolved over time. This collection of papers examines these early stages of plant physiology evolution by describing the initial physiological adaptations necessary for survival as upright structures in a dry, terrestrial environment. The Evolution of Plant Physiology also

encompasses physiology in its broadest sense to include biochemistry, histology, mechanics, development, growth, reproduction and with an emphasis on the interplay between physiology, development and plant evolution. Contributions from leading neo- and palaeo-botanists from the Linnean Society Focus on how evolution shaped photosynthesis, respiration, reproduction and metabolism. Coverage of the effects of specific evolutionary forces -- variations in water and nutrient availability, grazing pressure, and other environmental variables

The Physiology and Development of Some Anthracoses ... Sep 27 2019

Tree Fruit Physiology Aug 26 2019

Anatomy & Physiology Jul 06 2020

The Physiology of Bioelectricity in Development, Tissue Regeneration and Cancer Jun 16 2021 Recent advances in technology have led to the unprecedented accuracy in measurements of endogenous electric fields around sites of tissue disruption. State-of-the-art molecular approaches demonstrate the role of bioelectricity in the directionality and speed of cell migration, proliferation, apoptosis, differentiation, and orientation. New information indicates that electric fields play a role in initiating and coordinating complex regenerative responses in development and wound repair and that they may also have a part in cancer progression and metastasis. Compiling current research in this rapidly expanding field, *Physiology of Bioelectricity in Development, Tissue Regeneration, and Cancer* highlights relevant, cutting-edge topics poised to drive the next generation of medical breakthroughs. Chapters consider methods for detecting endogenous electric field gradients and studying applied electric fields in the lab. The book addresses bioelectricity's roles in guiding cell behavior during morphogenesis and orchestrating higher order patterning. It also covers the response of stem cells to applied electric fields, which reveals bioelectricity as an exciting new player in tissue engineering and regenerative medicine. This book provides an in-depth exploration of how electric signals control corneal wound repair and skin re-epithelialization, angiogenesis, and inflammation. It also delves into the bioelectric responses of cells derived from the musculoskeletal system, bioelectrical guidance of neurons, and the beneficial application of voltage gradients to promote regeneration in the spinal cord. It concludes with a discussion of bioelectricity and cancer progression and the potential for novel cancer biomarkers, new methods for early detection, and bioelectricity-based therapies to target both the tumor and metastatic cancer cells. This multidisciplinary compilation will benefit biologists, biochemists, biomedical scientists, engineers, dermatologists, and clinicians, or anyone else interested in development, regeneration, cancer, and tissue engineering. It can also serve as an ideal textbook for students in biology, medicine, medical physiology, biophysics, and biomedical engineering.

Oocyte Physiology and Development in Domestic Animals Oct 09 2020 Oocyte Physiology and Development in Domestic Animals reviews the most recent advances in the research of physiological and biochemical mechanisms underlying oocyte growth and development, providing readers with the fundamental understanding of these key processes and summarizing this important field of research. The book covers multiple molecular and physiological mechanisms including initiation of oocyte growth during folliculogenesis and in vitro follicle culture to support oocyte competence, that are critical to health and quality. Physiological processes ranging from gene expression to metabolism will be covered with an eye toward using these factors to uncover biomarkers that will further advance the field. In addition, the text looks at the effects of in vitro maturation environments on oocyte quality and developmental outcome.

Seeds Feb 10 2021 This updated and much revised third edition of *Seeds: Physiology of Development, Germination and Dormancy* provides a thorough overview of seed biology and incorporates much of the progress that has been made during the past fifteen years. With an emphasis on placing information in the context of the seed, this new edition includes recent advances in the areas of molecular biology of development and germination, as well as fresh insights into dormancy, ecophysiology, desiccation tolerance, and longevity. Authored by preeminent authorities in the field, this book is an invaluable resource for researchers, teachers, and students interested in the diverse aspects of seed biology.

Encyclopedia of Plant Physiology Mar 02 2020

Plant Physiology Jul 30 2022 "Plant Physiology, Fifth Edition continues to set the standard for textbooks in the field, making plant physiology accessible to virtually every student. Authors Lincoln Taiz and Eduardo Zeiger have again collaborated with a stellar group of contributing plant biologists to produce a current and authoritative volume that incorporates all the latest findings. Changes for the new edition include: A newly updated chapter (Chapter 1) on Plant Cells, including new information on the endomembrane system, the cytoskeleton, and the cell cycle. A new chapter (Chapter 2) on Genome Structure and Gene Expression, A new chapter (Chapter 14) on Signal Transduction. Updates on recent developments in the light reactions and the biochemistry of photosynthesis, respiration, ion transport, and water relations. In the phytochrome, blue-light, hormone and development chapters, new information about signaling pathways, regulatory mechanisms, and agricultural applications. Coverage of recent breakthroughs on the control of flowering. Three new Appendices on Concepts of Bioenergetics, Plant Kinematics, and Hormone Biosynthetic Pathways As with prior editions, the Fifth Edition is accompanied by a robust Companion Website. New material has been added here as well, including new Web Topics and Web Essays."-P. 4 de la couv.

Seeds Feb 22 2022 In response to enormous recent advances, particularly in molecular biology, the authors have revised their warmly received work. This new edition includes updates on seed development, gene expression, dormancy, and other subjects. It will serve as the field's standard textbook and reference source for many years to come.

Fruit and Seed Production Apr 02 2020 Flowering and fruiting are key processes in the biology of higher plants, ensuring the transfer of genetic material from one generation to the next. In addition, as almost all of the world's agricultural and horticultural industries depend on the production of flowers, fruits and seeds, the study of the reproductive biology of cultivated plants is of fundamental importance to humankind. Surprisingly, therefore, this topic has received relatively little attention from environmental physiologists compared with studies on the growth and development of vegetative structures. This book, based on a meeting held by the Environmental Physiology Group of the Society of Experimental Biology, sets out to correct this deficiency. The topic is given a broad and comprehensive treatment, with chapters covering the onset of flowering through to the development and growth of fruits and seeds, and finally to ecological and evolutionary aspects of fruiting. This volume will therefore serve as a useful introduction to the various aspects of flowering and fruiting and will also provide a thorough general overview of the subject for students and researchers alike.

Physiology of Prenatal Exercise and Fetal Development Dec 31 2019 This new SpringerBrief in Physiology explores the newest research findings on how exercise influences the fetus in utero and beyond. *Physiology of Prenatal Exercise and Fetal Development* reviews the current findings of how maternal exercise throughout gestation influences fetal development of key organ systems, and also encompasses the relationship between maternal activity level and fetal, birth, and neonatal effects. This information will help researchers and scientists better understand the physiological effects of exercise during pregnancy on offspring development.

The Physiology and Development of Some Anthracoses Jul 26 2019 This work has been selected by scholars as being culturally important, and is part of the knowledge base of civilization as we know it. This work was reproduced from the original artifact, and remains as true to the original work as possible. Therefore, you will see the original copyright references, library stamps (as most of these works have been housed in our most important libraries around the world), and other notations in the work. This work is in the public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright on the body of the work. As a reproduction of a historical artifact, this work may contain missing or blurred pages, poor pictures, errant marks, etc. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.

Handbook of Plant and Crop Physiology, Third Edition Dec 11 2020 Continuous discoveries in plant and crop physiology have resulted in an abundance of new information since the publication of the second edition of the *Handbook of Plant and Crop Physiology*, necessitating a new edition to cover the latest advances in the field. Like its predecessors, the Third Edition offers a unique, complete collection of topics in plant and crop physiology, serving as an up-to-date resource in the field. This edition contains more than 90 percent new material, and the remaining 10 percent has been updated and substantially revised. Divided into nine parts to make the information more accessible, this handbook covers the physiology of plant and crop growth and development, cellular and molecular aspects, and production processes. It addresses the physiological responses of plants and crops to environmental stresses, heavy metals, and agrichemicals; presents findings on small RNAs in response to temperature stress; and discusses the use of bioinformatics in plant/crop physiology. The book deals with the impacts of rising CO2 levels and climate change on plant/crop growth, development, and production. It also offers guidance on plants and crops that can be successfully cultivated under more stressful conditions, presented in six chapters that examine alleviation of future food security issues. With contributions from 105 scientists from 17 countries, this book provides a comprehensive resource for research and for university courses, covering plant physiological processes ranging from the cellular level to whole plants. The content provided can be used to plan, implement, and evaluate strategies for dealing with plant and crop physiology problems. This edition includes numerous tables, figures, and illustrations to facilitate comprehension of the material as well as thousands of index words to further increase accessibility to the desired information.

The Physiology of Growth Mar 26 2022 The Physiology of Growth focuses on the physiological mechanisms underlying the growth of organs and tissues such as the epidermis, connective tissues, bone and cartilage, blood cells, and the heart. The atrophy and hypertrophy of muscle, adaptive plasticity of the nervous system, and neural regulation of salivary glands are also explored. Comprised of 24 chapters, this book opens with an overview of the nature of growth, ways to measure growth, and theories of growth. The discussion then turns to the renewal of epidermis; the growth of connective tissues such as collagen and keloids; physical regulation of bone growth and cartilage regrowth; and turnover of blood cells. The following chapters focus on the link between hypertension and heart growth; expansion of arteries and veins; muscle atrophy and hypertrophy; and intraocular regulation of lens development. The effect of lactation on the growth of the mammary glands is also considered, along with liver degeneration and experimental regulation of the testis. This monograph is intended for physiologists, developmental biologists, and students of histology.

Plant Physiology 6C Apr 26 2022 Plant Physiology: A Treatise, Volume VIC: Physiology of Development: From Seeds to Sexuality deals with the physiology of development in angiosperms, from seeds to sexuality. This book treats germination and cell division, growth, and development from a single point of view, emphasizing the problems of early development in flowering plants. This volume begins with an introduction to the process of germination, focusing on the dispersal unit that emerges at some stage in the life cycle of plants, seed viability and dormancy, and properties of seed components. The following chapters discuss cell division in higher plants, the importance of cell expansion for the growth of the whole plant, and the sexuality of angiosperms. Topics such as meiosis in the anther and the ovule, male spores and gametophytes, and the embryo sac are discussed in detail. This book concludes with problems that arise, and points of view that emerge, as development is considered in the light of genetics. This book is a valuable resource for researchers, students, and specialists in related fields who wish to gain insights on the concepts and research trends in the physiology of development in flowering plants.