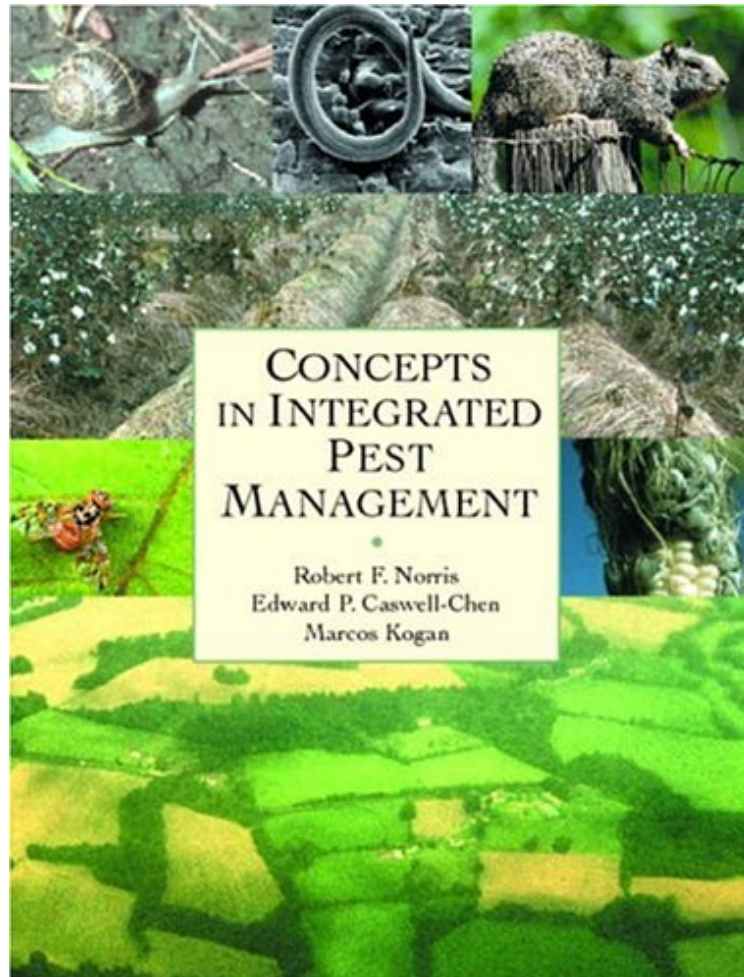


Concepts in Integrated Pest Management

Robert F. Norris Ph.D., Edward P. Caswell-Chen Ph.D., Marcos Kogan Ph.D.

**Download PDF / ePub / DOC / audiobook / ebooks*



DOWNLOAD



READ ONLINE

#637458 in Books 2002-07-28Original language:EnglishPDF # 1 9.90 x 1.50 x 8.00l, 2.87 #File Name: 0130870161586 pages | File size: 63.Mb

Robert F. Norris Ph.D., Edward P. Caswell-Chen Ph.D., Marcos Kogan Ph.D. : Concepts in Integrated Pest Management before purchasing it in order to gage whether or not it would be worth my time, and all praised Concepts in Integrated Pest Management:

0 of 0 people found the following review helpful. Much relievedBy ZJI needed this book for my spring course in Pest management. Loved the book. Info clear and concise. I just wish they had better indices to find what you were looking for (more specific). Otherwise the info wasn't too difficult to read or anything. Renting is the way to go!0 of 0 people found the following review helpful. tried to stop shippment the day i order itBy cgh. lamppcouldn't not stop this order and i asked 3 times because i found the college posted the wrong book and teacher told that right oine and order it and received it and the others for my classmates0 of 0 people found the following review helpful. Three StarsBy jrb0876Okay

This book presents readers with the basic principles of integrated pest management as they apply to plant pathogens, weeds, nematodes, mollusks, arthropods, and vertebrates. It reinforces the wisdom and soundness of the Integrated Pest Management (IPM) approach to crop protection, which attempts to limit the detrimental effects of pests in ways that are environmentally, economically, and socially acceptable. Includes diagrams and photographs as well as case histories and practical examples. Looks at the historical development of pest management, as well as IPM in the future. For pest management consultants and advisors, environmental issues specialists, gardeners, and public affairs activists.

From the Back Cover With backgrounds in weed science, nematology/plant pathology, and entomology, Norris, Caswell-Chen, and Kogan have created a truly integrated, interdisciplinary approach to learning about pest management. This first edition text presents the basic principles of integrated pest management as they apply to plant pathogens, weeds, nematodes, mollusks, arthropods, and vertebrates. It reinforces the wisdom and soundness of the integrated pest management (IPM) approach to crop protection, which attempts to limit the deleterious effects of pests in ways that are environmentally, economically, and socially acceptable. Concepts in Integrated Pest Management offers the following benefits: Integration of information on all plant protection disciplines with a comparative approach Provides the reader with a realistic view of the world, which is not fragmented along disciplinary boundaries and shows the interdependence of all organisms in a crop ecosystem Case histories and practical examples Provides support for text information, bringing that information to life in meaningful, applied way Up-to-date with the latest technologies in the field Includes controversial topics that are useful for class discussions About the Author Marcos Kogan is Professor and Director Emeritus of the Integrated Plant Protection Center at Oregon State University. Marcos Kogan is Professor and Director Emeritus of the Integrated Plant Protection Center at Oregon State University. Excerpt. Reprinted by permission. All rights reserved. Progress in pest control technologies has contributed to the improved yield and quality of food, fiber, and ornamental crops that have occurred during the twentieth century. However, the development and widespread adoption of some pest-control technologies did not occur without environmental impacts and societal concerns about food safety. Integrated pest management (IPM) arose in the second half of the century as the paradigm of choice for pest control, and stressed the need to incorporate basic ecological concepts in the design and implementation of pest control systems. Integrated pest management requires detailed understanding of pest biology and ecology, including interactions at the community and ecosystems levels. This book is intended as a text for use in teaching the concepts of integrated pest management to upper-level undergraduates and graduate students that have successfully completed introductory biology. If the students have had more specialized courses in botany, entomology, invertebrate zoology, or vertebrate zoology, so much the better. This book explains the concepts upon which integrated pest management programs are based. We have gone beyond disciplinary boundaries, and consider IPM concepts relative to all pest categories, including: pathogens, weeds, nematodes, insects, mollusks, and vertebrate pests. Where possible, we consider interactions among pest categories. The book emphasizes the complexity of managing pests in economically viable production systems while avoiding detrimental impacts on the environment and society. Integrated pest management is a work in progress, and we have attempted to create a book that will aid in teaching IPM from a broad perspective, toward the goal of true integrated pest management. The ultimate goal of IPM is to achieve complete integration of management tactics, breaking the traditional barriers often imposed by the pest disciplines. In reality, the application and realization of IPM varies among cropping systems, with some agroecosystems being managed in a more integrated manner than are others. The future of IPM is promising, with opportunities and challenges ahead. Improvements in IPM will depend on the continued efforts of plant pathologists, weed scientists, nematologists, entomologists, and applied vertebrate zoologists working together to achieve the highest possible level of integration. This book is not a "how-to" manual for management of specific pests; we stress concepts and principles that, if understood and practiced, will help managers to design systems for the agroecological conditions prevailing within their regions. We have used international examples of IPM; however, details of how to manage a specific pest in a particular crop, in a given region, are found in specialized publications. We have provided reference lists that specify some such publications. The book shows how principles in pest management can be applied across ecosystems, how each strategy relates to the different categories of pests, and how these strategies impact ecosystems and human society. We have not written the book using a literature cited format as we would have if this were a review paper for the primary literature. Rather we acknowledge and direct students to resources and our source material in the recommended reading section that concludes each chapter. We hereby offer sincere thanks to all those authors whose work has provided the foundation for the development of IPM, and for our efforts herein. Many people have contributed to the development of and collective thinking about integrated pest management. To list them would run the risk of inadvertently omissions. We opt, therefore, to offer a collective acknowledgment to all the pioneers of IPM and the many who have contributed the building blocks of what has become one of the great advances in agricultural sciences of the twentieth century. The first three chapters of the book are introductory. Chapter 1 deals with pests and human society, defines the term pest, and the losses attributed to pests. Chapter 2 provides a more in-depth introduction to the different pest categories. Chapter 3 reviews the history of pest

control. The next four chapters (4-7) cover the biology and ecology of pests. Chapter 8 describes monitoring and how information is used to make management decisions. Pest management tactics are introduced in Chapter 9, and Chapters 10 through 17 explore each of the tactics in greater detail. Chapter 18 discusses IPM programs, and presents case histories from lettuce, cotton, and pome fruit crops. Chapter 19 discusses societal influences on IPM, and a brief look to the future of IPM is presented in Chapter 20. This book has a strong component that relates to sustainable agricultural production. It must be recognized that large-scale agriculture, as currently practiced in most industrialized countries, is not sustainable in the long-term. Given that the world's population continues to grow, this is a problem. Agriculture is human manipulation of the environment, and if human management and inputs are removed, the system will eventually revert to the native climax vegetation of the region. Perhaps the best-known example of the potential impact of insect pests on the sustainability of agriculture is offered by the history of cotton production in some of the coastal valleys of Peru, in particular, the Canete Valley. In the 1920s, growers in the valley shifted from sugar cane to cotton production. Yields were low, about 300-400 lb. per acre, but stable. With the demand for cotton during the Second World War and the advent of DDT, cotton production was intensified and yields nearly doubled but for a very short time. Soon, secondary pests began to appear and well-established pests became resistant to all known insecticides. The number of sprays increased but yields still dropped to levels that were no longer economical. Many growers were ruined and crops abandoned until new techniques of integrated control were introduced. The drama of the Canete Valley is a reminder of the delicate balance that exists among components of an ecosystem. In this book we attempt to present pest management in the context of maintaining economically and environmentally sustainable agricultural systems.