Greenhouse Operation and Management (6th Edition)

Paul V. Nelson
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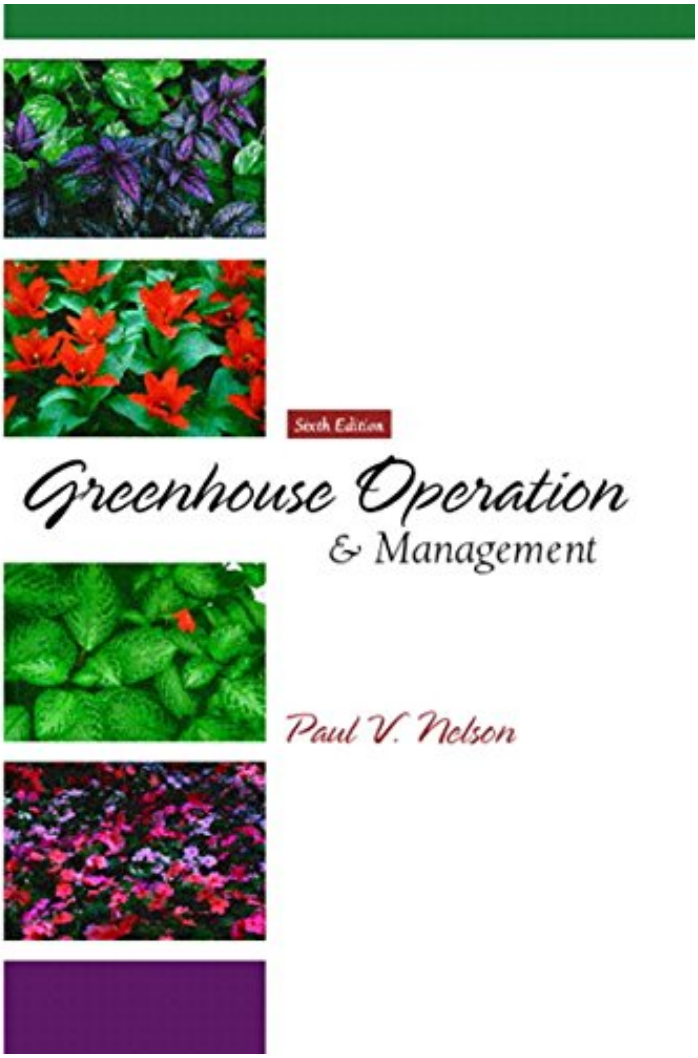

#876068 in Books 2002-09-29Ingredients: Example IngredientsOriginal language:EnglishPDF # 1 9.16 x 1.39 x 7.03l, 2.56 #File Name: 0130105775692 pages | File size: 65.Mb

Paul V. Nelson : Greenhouse Operation and Management (6th Edition) before purchasing it in order to gage whether or not it would be worth my time, and all praised Greenhouse Operation and Management (6th Edition):

0 of 0 people found the following review helpful. Four StarsBy Dr PatA bit dated, but still relevant!0 of 0 people found the following review helpful. Four StarsBy mamashoppervery educational0 of 0 people found the following review helpful. So informative! Waiting for 7th Ed.By Michael D. ManningThis book pretty much teaches you everything you would ever want to know about indoor horticulture. The only drawback is that it was published in 2003, so some of the computer-related technical sections are probably a bit out of date. In any case, a great book for learning about greenhouse technology and other considerations for indoor growing.

Based on the author's life-long practical experiences both in the industry and in research, this best-selling, state-of-the-art guide to the operation of commercial flower and vegetable greenhouses presents coverage in the order in which decision-making concerns occur. Exceptionally comprehensiveyet accessibleit provides detailed, step-by-step instructions in layman's terms for ALL aspects of the businessfrom the physical facilities, to the day-to-day operations, to business management and marketing. Specific chapter topics cover greenhouse construction, heating, and cooling; environmental control systems; root substrate; root substrate pasteurization; watering; fertilization; alternative cropping system; carbon dioxide fertilization; light and temperature; chemical growth regulation; insect control; disease control; postproduction quality; marketing; and business management. For individuals entering the greenhouse business.

From the PublisherProviding detailed instructions in layman's terms, this best-selling text gives excellent coverage of the operation of commercial flower and vegetable greenhouses.From the Back Cover Revised, expanded, and updated, Greenhouse Operation and Management continues to he the most thorough and inclusive greenhouse management text on the market. A wealth of new graphs and charts clearly illustrate new sections on floriculture as well as the expanded sections on production and marketing opportunities in the greenhouse industry. Featuring the same in-depth coverage that has made previous editions of Greenhouse Operation and Management noteworthy, this remarkable text maintains its unique blend of modern industry trends and pragmatic business perspectives. New to this edition: Substantially revised sections on floriculture production and marketing A reference of careers in the greenhouse industry Numerous original photographs as well as completely new graphs and charts An updated chapter on "Marketing" reflecting current market developments Expanded information on the social and environmental movements within the floriculture trade Excerpt. Reprinted by permission. All rights reserved. Progress has been a consistent part of production technology and marketing in the greenhouse industry since its inception during the latter part of the 17th century in Europe and the latter part of the 18th century in North America. However, against today's backdrop, development was very slow until after World War II when the vast technologies of the war effort were brought to bear on peace time industries. The 1950s ushered in technological advancements in production such as replacement of wood greenhouses by aluminum to free up labor of maintenance, polyethylene coverings that rendered the industry more economically accessible to larger numbers of entrepreneurs, pasteurization of root substrate further freeing up labor of annual soil replacement, automation of watering, conversion from solid to water soluble fertilizers and associated automation of application. Simultaneously, that decade saw a sizeable shift of cut (fresh) flower production from the greenhouses in close proximity to markets throughout countries to outdoor fields in a few warm areas, such as Florida and California in the United States. This shift was fueled by freight rate reductions in the rapidly expanding air transport industry. Many growers in the more northern localities went out of business while others changed to other floral commodities. The 1960s further challenged growers and marketers alike. Centralization of fresh flower production within the United States progressed on to greenhouses in the California and the Denver areas further upsetting northern greenhouses as well as southern field growers. Within the marketing arena, the mass market emerged to challenge the traditional full-service florists and garden centers. This market brought floral products into the lives of vast numbers of people who did not previously purchase such items. However, this change created considerable difficulty for the traditional retail florists who were faced with lower flower prices of the mass market. The largest change in this series of events came in the early 1970s when flower export began from Israel and developing tropical countries in Africa to Europe and from Colombia, South America to the United States and Canada. This brought serious pressure on fresh flower production throughout the developed market countries. But simultaneously, green (foliage) plant sales grew almost exponentially offering an alternative opportunity for domestic fresh flower growers adversely affected by imports. Again, growers either perished or made the painful transition to other crops and possibly other production locations. During the 1980s technology was introduced with increased momentum in such areas as computerized control of the greenhouse environment and plug seedling production. This latter technology encouraged change among growers with some specializing in plant establishment and others in finishing these plants for the consumer market. Crops grown have also been changing. The new spectrum of customers gained largely through mass market influences desire new flowers and designs. This is, in turn, driving an ever increasing rate of new plant introductions and with them new opportunities for growers. Since 1990, a great change has occurred in the size of greenhouse firms. To better match the product demand and bargaining power of ever enlarging mass market retail firms growers have likewise had to increase in size. Additionally, to meet lower product prices offered by the mass market, these large growers have adopted automation to the point where they now literally have plant factories. Consolidations of grower firms are becoming another popular method to meet these production and marketing challenges. Smaller growers have not been left out of the changes and opportunities. Their success has taken root in new specialty crops, a mix of growing and retailing, and customer service. In spite of all of the change and impending danger that it brings, this is a very opportune time to be in the greenhouse production business. Ornamental horticulture is, after all, the fastest growing segment of agriculture. The question is how to handle the changes that are involved because those who recognize and understand change stand to prosper from it. They will help

to shape it and become a part of it. Those who do not assimilate change will probably perish. Education is the best key to understanding change. Certainly an understanding of the technology for performing greenhouse operations and growing crops is an integral part of this education, but it is not nearly enough. Business management is an equally important component. Whether you own your own business or work for someone else, your well-being will depend on your ability to manage materials, money, and time-both your own and that of others. Without this ability, the application of your technical knowledge of growing crops ultimately will not be profitable and rewarding. Cost accounting and analysis, personnel management, and marketing are all important topics. Because an appreciation of these areas is not common in young students entering the greenhouse field, this book is written in such a way that these principles are addressed in context with cultural instructions. Additional books and courses would serve this facet of education very well. The third component of a well-rounded education should be an industry perspective. It is important to know the current status of the greenhouse industry and the trends impacting it. From this stage, one can begin to predict future changes. This component of education is gained by attendance at industry conferences; communication with fellow growers, allied industry personnel, and educators; and reading trade literature. A good beginning to this third facet of education is presented in the first chapter of this book. The outline for this book anticipates the decisions in the order in which they occur for a person entering the greenhouse business. Initially, the decision to enter the field is dealt with in a chapter on the worldwide perspective of floriculture. Decisions involving the physical arrangement of a greenhouse business are taken up in successive chapters considering site selection, greenhouse types, heating and cooling systems, and environmental control systems. Considerations then turn toward the type of root substrate in which the crops are to be grown; pasteurization of the root substrate; maintenance of disease-free conditions in the greenhouse; watering principles and automated systems; fertilizer formulations and methods of application; alternative systems of production such as NFT and rock wool; injection of carbon dioxide gas into the greenhouse atmosphere; light; temperature; chemical growth regulation; pest control; postproduction handling of crops; marketing; and business management. These are the main categories of decisions with which you will be faced as you design, build, and operate a greenhouse business.