

# Unlocking the Secrets of Horticultural Science: Recent Management Approaches Revealed!

April/May 2021

## HORTICULTURAL INNOVATIONS CAMPAIGN #2

5 weeks of innovation 

Improving the competitiveness of Jordan's horticulture sector

All around the world, farmers are innovating. To support Jordan's horticulture sector in its development, Holland Horti Support Jordan introduces cost-effective innovations and good agricultural practices to Jordanian farmers in order to:

- Increase productivity and profitability
- Reduce water use
- Produce healthy crops without chemical residue
- Improve conditions of work



**What can I expect?**

- 1 Eid-Al Fitr giveaway action** to win two air blowers for aided pollination of tomato in greenhouses
- 4 video's** that introduce and demonstrate horticultural innovations and best practices on pest management
- 2 Webinars** with live Q&A from our project staff, partner farmers and sector experts

**How can I learn more?**

Follow us on Facebook for updates or send us a WhatsApp message

 079 071 3608  [Click here](#)

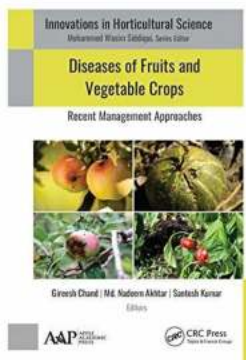


Horticulture, the science and art of cultivating plants, has undergone significant advancements in recent years. With the application of cutting-edge management

approaches and innovations, horticultural scientists have been able to unlock new possibilities and improve the cultivation of crops, fruits, vegetables, and flowers. In this article, we will explore the most recent management approaches and innovations in the field of horticultural science, shedding light on the exciting future of plant cultivation and quality enhancement.

## 1. Precision Agriculture in Horticulture

Precision agriculture, also known as precision horticulture, is revolutionizing the way plants are cultivated. By utilizing technologies like Global Positioning Systems (GPS), Geographic Information Systems (GIS), and remote sensing, horticulturalists are able to gather detailed information about an agricultural area and adjust management practices accordingly. This enables optimizing irrigation, fertilization, and pest control techniques, resulting in increased productivity and reduced environmental impact.



### Diseases of Fruits and Vegetable Crops: Recent Management Approaches (Innovations in Horticultural Science)

by Amanda Owen (1st Edition, Kindle Edition)

★★★★☆ 4.7 out of 5

Language : English

File size : 6867 KB

Text-to-Speech : Enabled

Screen Reader : Supported

Enhanced typesetting : Enabled

Print length : 527 pages



## 2. Vertical Farming

As available land for traditional agriculture diminishes, horticultural scientists have turned to vertical farming as an innovative solution. Vertical farming involves cultivating plants in stacked layers, utilizing artificial lighting and environmental controls. This approach allows for year-round production, reduces the need for vast land areas, and can optimize resource utilization. With the integration of automated systems, vertical farms can be efficiently managed, offering great potential for sustainable horticulture in urban areas.

### **3. Biotechnology in Horticultural Science**

Advancements in biotechnology have opened up new avenues for enhancing horticultural practices. Genetic engineering and molecular breeding techniques have made it possible to introduce desirable traits into plants, such as disease resistance, improved nutritional content, and extended shelf-life. Biotechnology is also playing a crucial role in the development of micropropagation techniques, allowing for rapid multiplication of elite plant varieties with reduced reliance on traditional propagation methods.

### **4. Integrated Pest Management (IPM)**

To reduce the use of chemical pesticides and promote ecologically sustainable pest control, integrated pest management (IPM) has gained popularity in horticulture. IPM involves combining various pest management strategies, such as biological control methods, cultural practices, and chemical control, in an integrated manner. By carefully monitoring pests and their impact on crops, horticulturalists can strategically deploy suitable control measures, reducing pesticide usage while maintaining optimal crop health.

### **5. Controlled-Release Fertilizers**

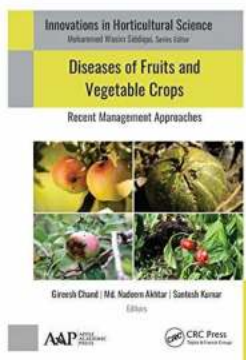
Fertilizers play a vital role in plant growth and development. Recent innovations in horticultural science have led to the development of controlled-release fertilizers,

which release nutrients gradually over time. These fertilizers ensure a steady and sustained supply of essential nutrients to plants, reducing nutrient losses due to leaching and runoff. With controlled-release fertilizers, horticulturists can achieve better nutrient management, improve plant health, and contribute to more environmentally friendly agriculture.

## 6. Data-Driven Decision Making

With the advancement of digital technologies and data collection capabilities, horticulturists are now able to make more informed decisions for crop management. By collecting and analyzing data on variables like soil composition, weather patterns, and crop growth, horticulturalists can optimize farming practices and predict potential challenges. Data-driven decision making enables more precise resource allocation, improved disease and pest monitoring, and increased overall efficiency in horticultural operations.

The recent management approaches and innovations in horticultural science have truly transformed the field. Precision agriculture, vertical farming, biotechnology, integrated pest management, controlled-release fertilizers, and data-driven decision making are revolutionizing plant cultivation and quality enhancement. As these advancements continue to progress, horticulture will become increasingly sustainable, efficient, and capable of meeting the global demand for food, beauty, and environmental conservation.



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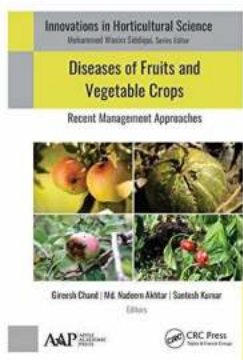
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Diseases of Fruits and Vegetable Crops: Recent Management Approaches covers certain basic aspects of knowledge on diagnostic symptoms, modes of perpetuation and dissemination of pathogens, favorable conditions for disease development, and the latest management strategies for disease prevention and mitigation in vegetable crops, fruit crops, and plantation crops.

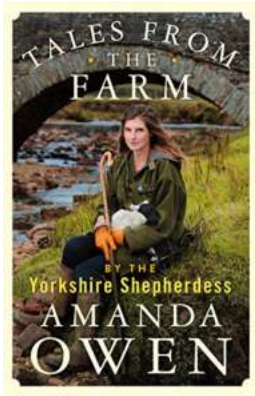
With chapters written by experts working on specific fruit and vegetables disease, the volume covers many vegetable and fruit crops, including pineapples, grapes, apples, guava, litchi, potatoes, peas, beans, ginger and turmeric, and many more. Each chapter reviews the specific diseases relevant to the crop and their management and includes recent research findings.

The information presented here will be valuable for plant protection officers, district horticulture officers, and other government personnel in the directorates and agencies of agriculture, horticulture and plant protection, as well as plant protection experts, vegetable specialists, and others.



## **Unlocking the Secrets of Horticultural Science: Recent Management Approaches Revealed!**

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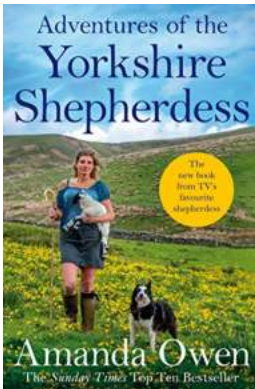
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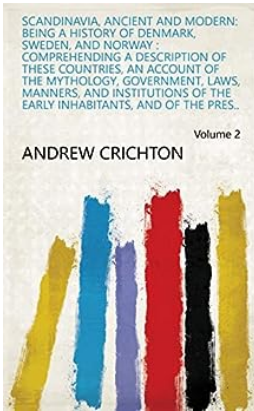
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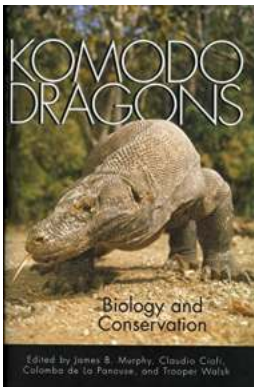
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postharvest diseases of fruits and vegetables and their management