

1. Record Nr.	UNINA9910831042503321
Titolo	Horticultural reviews . Volume 43 // edited by Jules Janick, Purdue University
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley Blackwell, , [2015] ©2015
ISBN	1-119-10778-4 1-119-10776-8 1-119-10777-6
Descrizione fisica	1 online resource (419 p.)
Collana	Horticultural reviews ; ; volume 43
Disciplina	635.12398
Soggetti	Horticulture Horticulture - Research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Horticultural Reviews: Volume 43; Contents; Contributors; Dedication: Chad E. Finn; Chapter 1: Light-Emitting Diodes in Horticulture; Abbreviations; I. Introduction; II. Properties of Leds; A. What Are LEDs?; B. LEDs as a Horticultural Lighting System; C. LED Packaging; D. Wavebands of Interest; E. Performance Trends and Outlook; F. Misconceptions About LED Lighting; III. Design Considerations; A. General Design Requirements; B. Thermal Management; C. Control; 1. Warm-Up and Restrike Times; 2. ``Smart Control Systems; D. LED Lighting Systems; 1. Intracanopy Lighting 2. Overhead Point Source3. Overhead Distributed Source; E. Strategies for Maximizing Life and Maintaining Output; IV. Historical Overview of Led Use in Horticulture; V. Summary of Plant Experiments in Space With Leds; VI. Horticultural Applications of Leds; A. Providing Photosynthetic Light for Young Ornamental Plants; 1. Introduction; 2. Supplemental Lighting; 3. Sole-Source Lighting; B. Photoperiodic Lighting with LEDs; 1. Historical Background; 2. Red and Far-Red Light; 3. Blue Light; 4. Green Light; 5. Growth Response Parameters; 6. Comparison of LEDs with Traditional Light Sources C. Propagation of Vegetable Transplants Under LED Lighting1.

Introduction and Brief History; 2. Improving Transplant Morphology with LED Lighting; 3. Improving Transplant Photosynthesis and Growth; 4. Considerations in Evaluating Electric Lighting for Greenhouses; 5. LEDs for Sole-Source Lighting of Vegetable Transplants; D. LED Applications for Indoor Crop Production; 1. Full-Coverage Sole-Source Lighting; 2. Targeted Close-Canopy Lighting; E. LED Applications for Greenhouse Vegetable Crop Production; 1. Current Standard; 2. Sole-Source Lighting Pretreatments; 3. Supplemental Lighting 4. Current Status and ChallengesF. The Potential of LEDs to Enhance Produce Quality; 1. Strawberry; 2. Salad and Microgreens; 3. Tomato; 4. Postharvest; 5. Summary; VII. Led Lighting and Plant Health; A. Physiological Disorders; B. Insect Pests; VIII. Leds and Light Pollution; A. Control of Spectral Output; B. High Light Intensity; C. High-Resolution Control; IX. Led Light Distribution Issues; X. Led Environmental and Health Issues; A. Disposal; B. Optical Safety for LEDs; XI. Adoption of Led Technology By Horticultural Industries; A. Economics; B. Evolution of Design and Industry XII. The Future of Plant Applications for LedsA. Improvements in Technology; B. Improved Use of Light to Achieve Specific Horticultural Goals; Literature Cited; Chapter 2: Chayote: Pre-Columbian Origins and Dispersal; I. Introduction; II. Botany and Horticulture; A. Taxonomy; B. Ecology and Distribution; C. Morphology; D. Horticulture; E. Uses; 1. Food; 2. Medicinal; 3. Gastronomy; III. Linguistic History of Chayote; A. Uto-Aztecan; 1. Core Nahua (ASJP date 491 CE; Kaufman 900 CE); B. Mayan; 1. K'ichean-Mamean (ASJP date 351 CE; Kaufman 1400 BCE); 2. Cholan-Tzeltalan (ASJP date 568 CE Kaufman 100 CE)

---