

Advances in temperate agroforestry

Edited by Professor María Rosa Mosquera-Losada, Universidade de Santiago de Compostela, Spain; Dr Ladislau Martin, Embrapa, Brazil; Professor Anastasia Pantera, Agricultural University of Athens, Greece and Dr Allison Chatrchyan, Cornell University, USA



bd burleigh dodds
SCIENCE PUBLISHING

Publication date

25 Mar 2025

Price

£150 / \$195 / C\$255 / €180 / A\$270

ISBN

Hardback: 978-1-80146-719-3

ePub: 978-1-80146-720-9

PDF: 978-1-80146-721-6

Format

152 × 229 mm / 6 × 9 in, 400 pages

Illustrations

Color tables, photos and figures

Series

Burleigh Dodds Series in Agricultural Science: no. 156

BIC/THEMA classification

TVR - Forestry & silviculture - practice & techniques, TVF - Sustainable agriculture

Distributors

INGRAM Publisher
Services UK

Print books (exc. US and Canada)



eBooks (worldwide)

Updated 26/11/24

New title information

Advances in temperate agroforestry

Edited by: Professor Maria Rosa Mosquera-Losada, Universidade de Santiago de Compostela, Spain; Dr Ladislau Martin, Embrapa, Brazil; Professor Anastasia Pantera, Agricultural University of Athens, Greece; and Dr Allison Chatrchyan, Cornell University USA

Description:

With growing concern about the environmental impact of agriculture and its consequent contribution to climate change, there is an increasing interest in the implementation of agroecological approaches to achieve a more sustainable agriculture. Agroforestry is one area of research which has gained significant momentum in recent years.

Advances in temperate agroforestry reviews key recent advances in measuring and valuing how agroforestry systems promote biodiversity and deliver ecosystem services such as soil carbon sequestration. The book also considers the development of different silvopastoral and silvoarable practices, including integrating trees and livestock in timber forests, orchard and pasture systems, as well as alley cropping and intercropping.

Key features:

- Provides a comprehensive overview of the ways agroforestry can support key ecosystem services
- Reviews the range of silvopastoral and silvoarable systems and their application in agriculture to optimise crop and livestock production
- Considers the benefits of temperate agroforestry in mitigating/adapting to climate change

Audience:

University and other researchers in forestry and agricultural science, arboriculturists, government and other agencies promoting agroforestry and sustainable agriculture, as well as farmers interested in adopting agroforestry practices on their farms.

Editors' details:

Dr María Rosa Mosquera-Losada is Distinguished Professor at the University of Santiago de Compostela, Spain. Professor Mosquera-Losada is President of the Spanish Agroforestry Association (AGFE) and a former President of the European Agroforestry Federation (EURAF).

Dr Ladislau Martin is a Senior Scientist Researcher at Embrapa, Brazil. Dr Martin is a co-Chair of the Croplands Research Group of the Global Alliance for Greenhouse Gas Research in Agriculture.

Professor Anastasia Pantera is Vice-President of the Department of Forestry and Natural Environment Management at the Agricultural University of Athens, Greece. Professor Pantera is an Associate Editor of Agroforestry Systems.

Dr Allison Morrill Chatrchyan is a Senior Research Associate at Cornell University, USA. Dr Chatrchyan leads the Climate Smart Farming and Climate Smart Solutions Programs in the College of Agriculture and Life Sciences.

Table of contents:

Part 1 Measuring and valuing agroforestry ecosystem services

- 1. Assessing the benefits of temperate agroforestry in promoting soil health: *Lukas Beule, Julius Kühn-Institut, Germany;*
- 2. Assessing the benefits of temperate agroforestry in enhancing carbon sequestration: *Maren Oelbermann, University of Waterloo, Canada;*
- 3. Ecosystem accounting to value ecosystem services from agroforestry: *Anthony O'Grady, CSIRO, Australia;*

Part 2 Advances in silvopastoral systems

- 4. Types of silvopastoral system: an overview: *Jim McAdam, formerly AFI/Queen's University Belfast, UK;*
- 5. Types of silvopastoral system: forests/timber plantations with pasture grazing for livestock: *Marina Castro, IPB-ESAB, Portugal;*
- 6. Types of silvopastoral system: orchards/vineyards with grazing for livestock: *Adolfo Rosati, CREA, Italy;*
- 7. Types of silvopastoral system: adding trees to pasture/rangelands: *Marcelo Javier Beltrán, National Institute of Agricultural Technology (INTA), Argentina;*
- 8. The design and role of tree planting/shelterbelts/windbreaks in promoting biodiversity and other environmental as well as agricultural benefits in agricultural landscapes: *Sara Burbi, Coventry University, UK;*

Part 3 Advances in silvoarable and other systems

- 9. Multifunctional windbreaks and riparian buffers can deliver biomass and other ecosystem services: *Oskar Englund, Mid Sweden University, Sweden;*
- 10. Types of silvoarable system: developing alley cropping: *Mario Santos, University of Trás-os-Montes and Alto Douro (UTAD), Portugal;*
- 11. Development in forest farming: *Margaret Bloomquist, North Carolina State University, USA;*
- 12. Developing urban agroforestry: *Steven Newman, BioDiversity International/University of Leeds, UK;*

Related products:

Advances in Conservation Agriculture Volume 1, 978-1-78676-264-1, 21 Jan 2020, AUD 270.00, CAD 255.00, EUR 180.00, GBP 150.00, and USD 195.00

Agroforestry for sustainable agriculture, 978-1-78676-220-7, 31 May 2019, AUD 325.00, CAD 305.00, EUR 215.00, GBP 180.00, and USD 235.00

Promoting pollination and pollinators in farming, 978-1-80146-098-9, 20 Dec 2022, AUD 260.00, CAD 245.00, EUR 175.00, GBP 145.00, and USD 190.00

Protecting natural capital and biodiversity in the agri-food sector, 978-1-80146-351-5, 30 Jan 2024, AUD 270.00, CAD 255.00, EUR 180.00, GBP 150.00, and USD 195.00

Reconciling agricultural production with biodiversity conservation, 978-1-78676-348-8, 22 Sep 2020, AUD 270.00, CAD 255.00, EUR 180.00, GBP 150.00, and USD 195.00

Understanding and fostering soil carbon sequestration, 978-1-78676-969-5, 08 Nov 2022, AUD 305.00, CAD 290.00, EUR 205.00, GBP 170.00, and USD 220.00

Understanding and preventing soil erosion, 978-1-80146-379-9, 20 Aug 2024, AUD 260.00, CAD 245.00, EUR 175.00, GBP 145.00, and USD 190.00