Agriculture, Forestry & Food
New Titles

Agricultural Research Updates

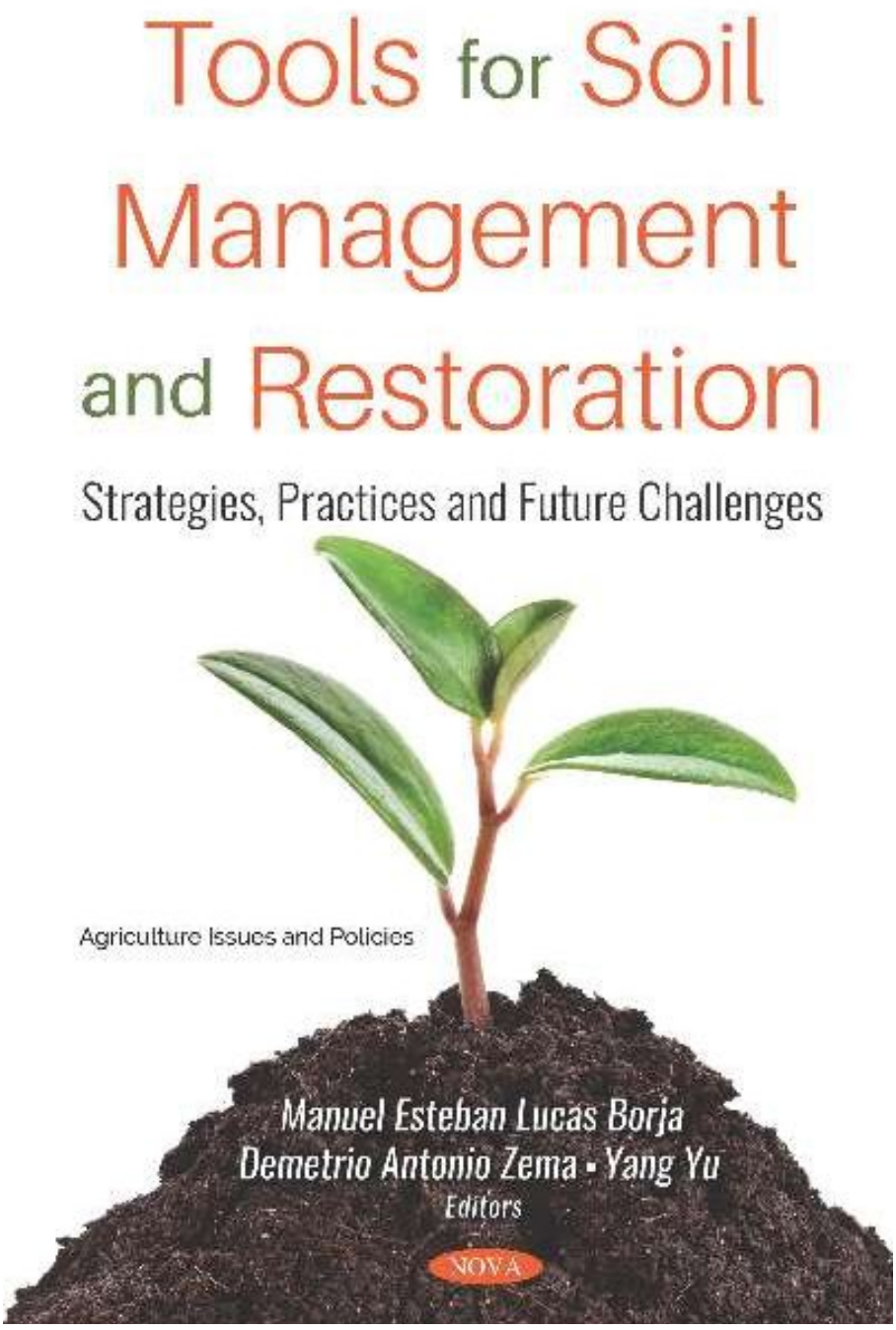
Pears: Cultivars, Production and Harvesting

Global Agricultural Extension Practices

Cotton: History, Properties and Uses

Tools for Soil Management and Restoration

Deficit Irrigation of Pome and Small Fruits (Pear, Raspberry, Blueberry)



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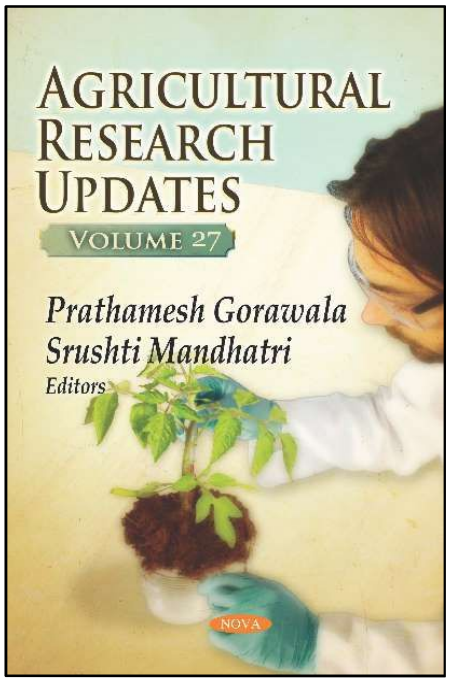


Agricultural Research Updates - Volume 27

Edited by Prathamesh Gorawala, Srushti Mandhatri

The aim of the opening chapter of *Agricultural Research Updates. Volume 27* is to discuss the role of phenolic compounds in the interactions of plants with abiotic stress, with special attention paid to their antioxidant properties. The second chapter attempts to assess the sustainability level of different types of agro-ecosystems in Bulgaria. A holistic hierarchical framework for measuring the integral, economic, social and ecological sustainability of agro-ecosystems in Bulgaria is proposed.

Following this, a study is presented with the goal of identifying and evaluating social and economic sustainability indices in corn production.

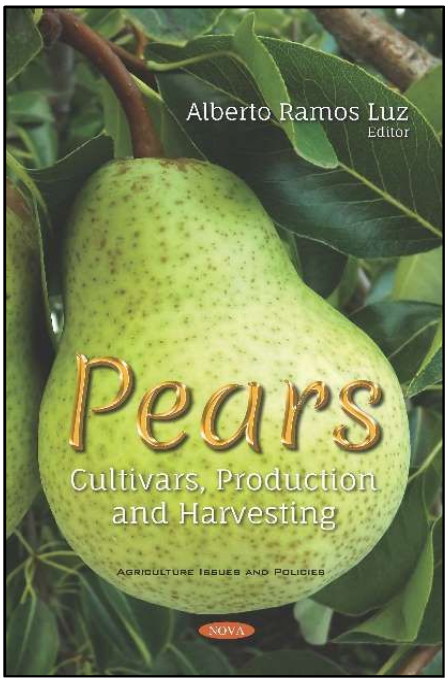
Statistical regression models were derived to estimate summer precipitation in a single location derived using lineal backward regression techniques, and the different efficiency between the derived models was analyzed.

Next, an analytical Fourier series solution to the equation for heat transfer by conduction in a spherical shell with an internal stone consisting of insulating material is presented, and an internal heat source linearly reliant on temperature is considered as a model of conduction of heat in stone fruits.

The subsequent study analyses the effects of certain parameters on the baking properties of wheat in years with different weather conditions. The results indicate statistically significant correlation coefficients between protein content, wet gluten content, alveograph properties, exstensograph properties and bread loaf volume.

Lastly, a summary of recent knowledge is evaluated in order to contribute to a better understanding of how farming practices affect berry composition and consequently, the sensory characteristics of raspberries.

July 2019 - 282 pages
HB (9781536159165) £210.99
Publisher: Nova Science



Pears
Cultivars, Production and Harvesting

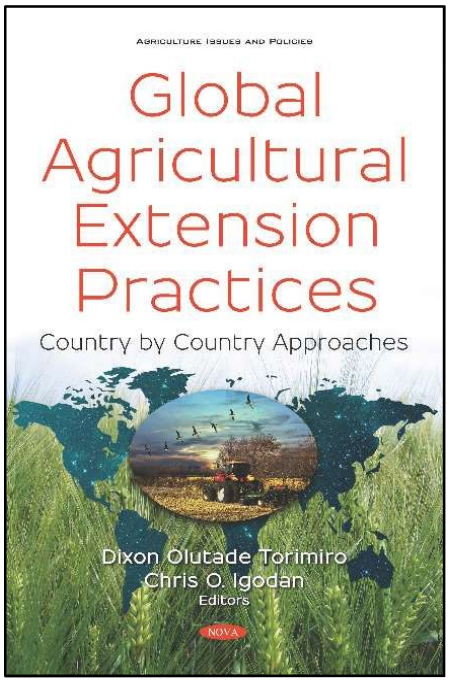
Edited by Alberto Ramos Luz

This book brings up-to-date information on different topics about the pear tree cultivation. The book was organized by Alberto Ramos Luz, Technologist in Fruit Crops, MD and PhD in Plant Production, specialist and lover of this culture. The chapters were written in collaboration with researchers and professors from Universities and Research Institutions of four different continents (South America, North America, Europe and Asia).

The book was divided in the following chapters:
1. Propagation and orchard establishment (Giacobbo et al.);
2. Traditional pear varieties in the east region of Republic of North Macedonia (Selamovska et al.);
3. An updated view on fertilization and pollination in European pears (Pyrus communis) (Goldway et al.);
4. Vegetative growth control (Pasa et al.);
5. Precocity production of pear trees grafted on high-vigor rootstocks (Almeida et al.);
6. Dormancy adaptation in pear trees grown under mild winter conditions in Brazil (Herter et al.);
7. Management techniques to increase yield of European pear trees grown in subtropical climate (Luz et al.); and
8. Water management based on precision agriculture for pears (Yamazaki and Miyakawa).

Basic content and more specific and in-depth content are presented such as a series of research results and experiences on behavior and management tools to grown pear trees in subtropical climate, warmer conditions of the traditionally cultivated areas, subject of world-wide interest in the face of the climatic changes that are occurring over the years.

August 2019 - 242 pages
HB (9781536160369) £134.99
Publisher: Nova Science



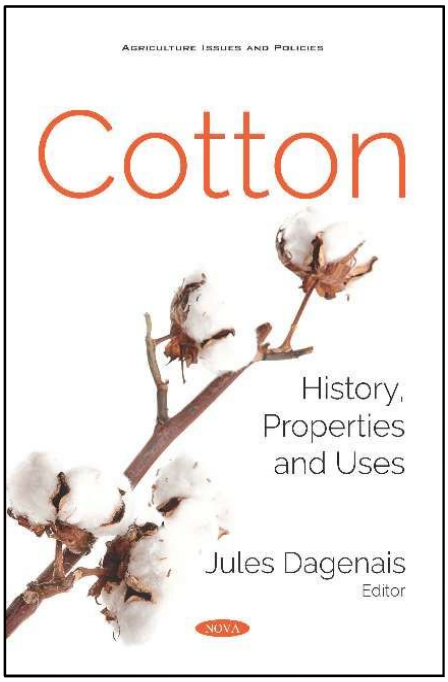
Global Agricultural Extension Practices
Country by Country Approaches

Edited by Dixon Olutade Torimiro

While the global marketplace is cluttered with books and products about agriculture and related issues of development, very few speak specifically to agricultural extension and its practices worldwide. Agriculture is the main source of livelihood for a majority of rural people and is often referred to as the mainstay of the economy of the developing world. Agricultural Extension practices or advisory services as per usage in some countries provide a close examination of country-by-country approach. In the book, contributions are drawn from thirteen countries in four regions of the world. Furthermore, the editors list the countries alphabetically. The countries are Botswana, Cameroon, Canada, Ghana, India, Kenya, Nigeria, South Africa, Swaziland, Tanzania, Ukraine and the United States of America.

The many contributors of the book at the onset explore the historical evolution of agricultural extension in their respective countries. For example, during the colonial era and prior to self-governance in several African countries, agriculture was the sole powerhouse that supplied raw materials to the industries of the now western societies. The effective connection between the 'colonial masters' and the search for rural raw materials was the agricultural extension worker. In one way, this book helps to connect the history of colonial and post-colonial Africa in the sustenance of agricultural development in Europe and America.

September 2019 - 328 pages
HB (9781536160123) £193.99
Publisher: Nova Science



Cotton
History, Properties and Uses

In this compilation, the authors aim to evaluate the emulsifying properties and the foaming properties of cottonseed protein isolate produced either by isoelectric precipitation or dialysis membranes, as well as the relevant effect of some agents on these properties.

Next, various aspects of amylase production, structural features of the starch, sizing of cotton yarns, amylase-assisted desizing, factors influencing the desizing process and evaluation of the desized fabrics are discussed.

The closing chapter highlights the various issues involved in cotton contaminations and elimination methods, suitable for various stages of cotton processing. Color space models, machine vision, support vector machine, infrared based detection and classification systems are widely adopted with different levels of success.

July 2019 - 164 pages
PB (9781536159936) £79.99
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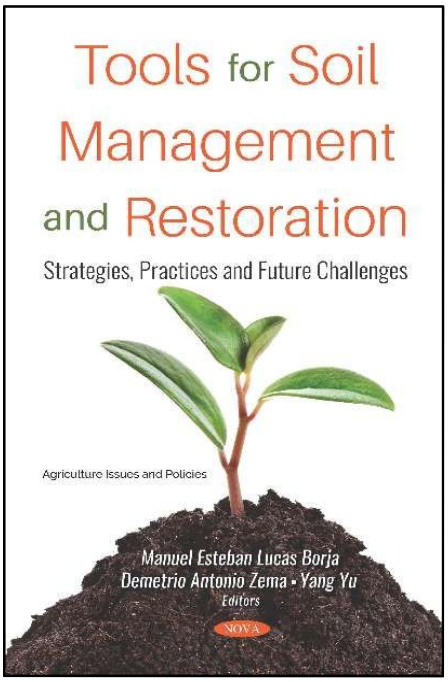


Tools for Soil Management and Restoration
Strategies, Practices and Future Challenges

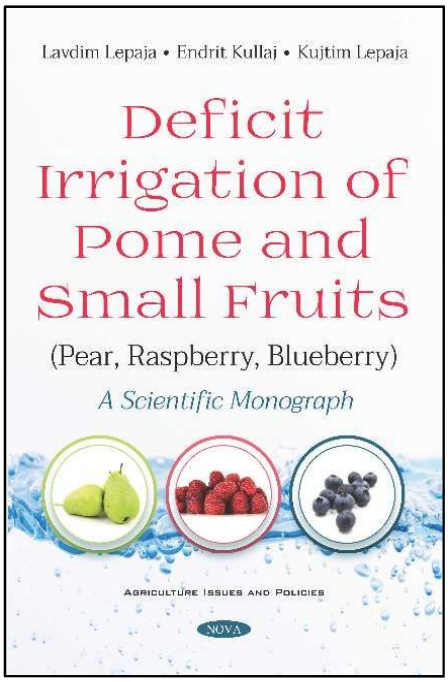
Edited by Manuel Esteban Lucas-Borja, Demetrio Zema, Yang Yu

Natural ecosystems provide the basic conditions without which humanity could not survive. Goods and services provided by ecosystems include, for example, provision of food, fibre and fuel, purification of water and air, cultural and aesthetic benefits, stabilization and moderation of the Earth's climate, generation and renewal of soil fertility, including nutrient cycling or maintenance of genetic resources as key inputs to crop varieties and livestock breeds, medicines, and other products.

However, the ability of natural ecosystems to continue performing these services is seriously threatened because plant species diversity or soil are being seriously deteriorated, and in some cases destroyed. While loss of species has always occurred as a natural phenomenon, the pace of extinction has accelerated dramatically as a result of human activity. Ecosystems are being fragmented or eliminated, and innumerable species are in decline or already extinct. At the same time, various studies worldwide have shown that soils do not support intensive annual plant cultivation without fertilizer applications and even these may not maintain sustainability.

Inappropriate silvicultural operations or the use of land for intensive agricultural purposes is one of the main causes of soil degradation, and there is therefore worldwide interest in quantifying the loss of soil quality generated by incorrect agricultural operations or forest management practises. This can only happen if people have the right information, skills, and organizations for understanding and dealing with soil and plant diversity issues.

October 2019 - 192 pages
PB (9781536159080) £134.99
Publisher: Nova Science



Deficit Irrigation of Pome and Small Fruits (Pear, Raspberry, Blueberry) A Scientific Monograph

Lavdim Lepaja, Endrit Kullaj, Kujtim Lepaja

Irrigation of pear, raspberry and blueberry is less studied relative to apple and peach, for example. Various researchers have tried different techniques to reduce vegetative growth, but regulated deficit irrigation (RDI) and partial rootzone drying (PRD) are the most favourable and cost-effective techniques, maintaining and, in some cases, increasing yields because allocation of photosynthetic carbohydrates to fruits is favoured compared to vegetative growth.

Good knowledge of phenological stages susceptible to water stress is a prerequisite for the successful application of RDI and PRD as various factors effect separately or together the application of RDI and PRD. It should be emphasised that plants grown in open fields are highly dependent to climatic factors, and this is demonstrated by the fact that the same researchers have gathered drastically different results in various environments. RDI is applied in countries in arid climates as it saves water more than in humid or temperate climates. Different cultivars and rootstocks have different response to RDI and PRD. Thus, the application time depends very much from the genotype, because application at early age of the tree may have negative consequences.

July 2019 - 143 pages
PB (9781536157581) £68.99
Publisher: Nova Science

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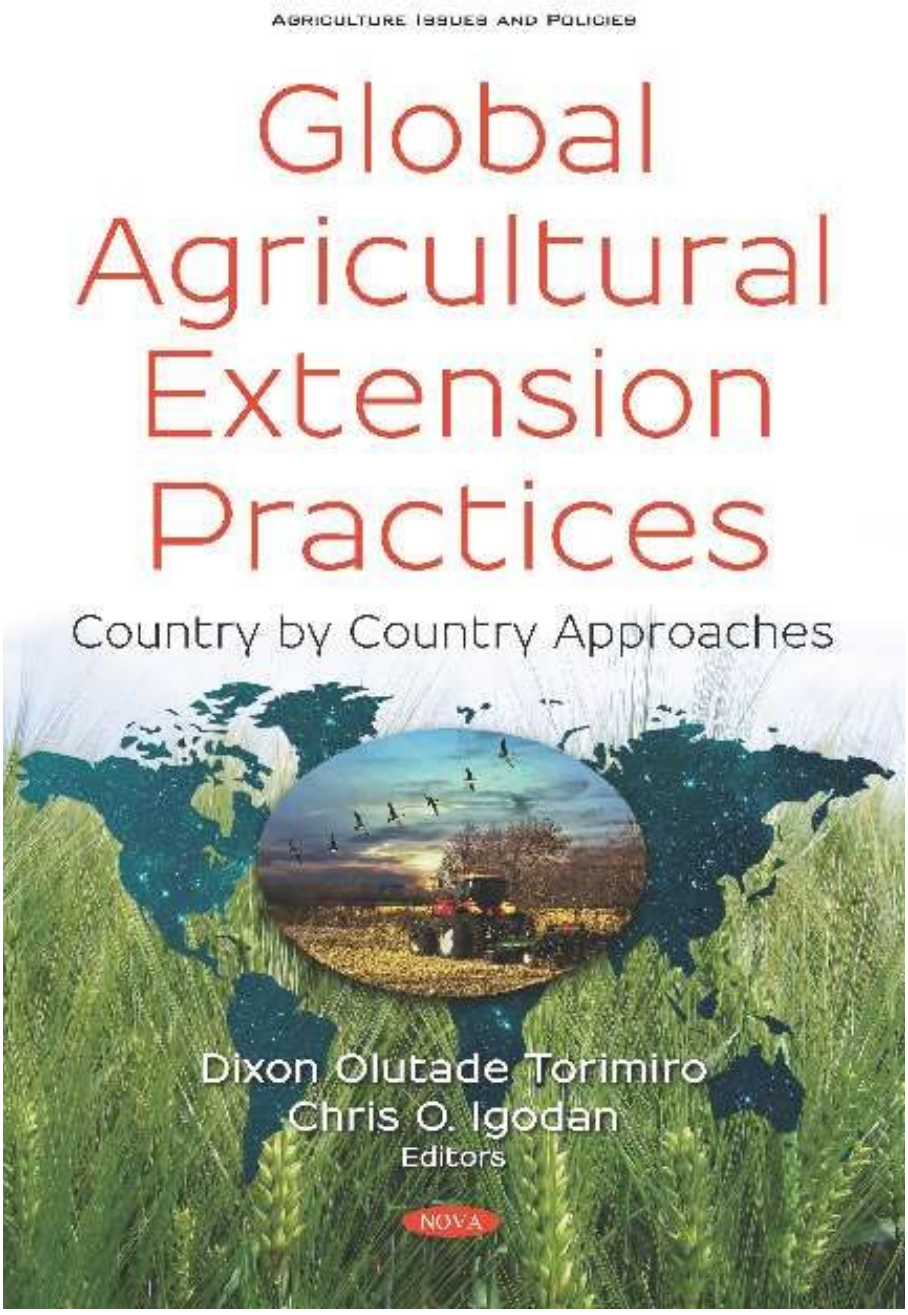

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