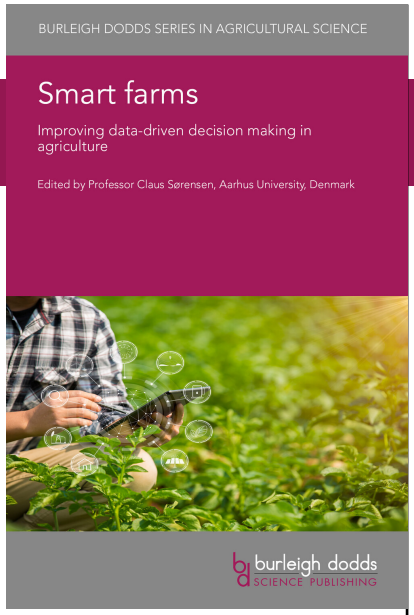

New title information

Smart farms

Improving data-driven decision making in agriculture

Edited by: Professor Claus Sørensen, Aarhus University, Denmark

Endorsement:

"Although digital agriculture is gaining momentum with the advent of smart tools and intelligent farm equipment, the application of artificial intelligence to agriculture strongly relies on the quality and quantity of data acquired from the crops. In this new book, Professor Sørensen has focused on a key point for a successful digitization of the farm; the practical execution of data-driven solutions, and to do so, he has brought together an outstanding team of recognized agricultural scientists and engineers. This collection will be valuable to agricultural researchers, industry developers, farm practitioners, students, and many other professionals committed to push the agriculture of the 21st Century into a sustainable activity." *(Francisco Rovira-Más, Professor of Digital Agriculture, Universitat Politècnica de València, Spain)*

Description:

The agricultural sector remains under increasing pressure to reduce its environmental impact and consequent contribution to climate change, whilst also producing enough food to feed a rapidly growing population. With the variety and volume of data, coupled with the advanced methods for data processing, a new era of digital agriculture is emerging as a possible solution to this monumental challenge.

Smart farms: improving data-driven decision making in agriculture provides a comprehensive review of the recent advances in gathering and analysing data as a means of improving farm sustainability, productivity and profitability. The book discusses the evolution of farm information management systems, highlighting current trends and challenges, as well as methods of data acquisition and analysis, including the use of artificial intelligence.

Key features:

- Provides a detailed overview of the recent trends in farm information management systems, including their evolution and role in improving farmer decision making
- Considers the range of data mining techniques used in decision support systems, such as artificial neural networks and support vector machines
- Includes a selection of case studies which explore the use of decision support systems in optimising farm management and productivity

Audience:

Researchers working in agriculture and computer science with an interest in enhancing data management and decision support systems, farmers, governments and other agencies supporting the emergence of a new era of digital agriculture; as well as companies supplying data management and decision support services to the farming sector

Editor details:

Professor Claus Sørensen is a Senior Scientist in the Department of Electrical and Computer Engineering at Aarhus University, Denmark. He is internationally renowned for his research on analysing data flows in farming operations to optimise resource use. He is winner of outstanding paper awards from the European Society of Agricultural Engineers (EurAgEng) and the journal Biosystems Engineering. He is past President of EurAgEng and current Workgroup Coordinator of the International Commission of Agricultural and Biosystems Engineering (CIGR). He has participated in a number of EU research projects such as Internet of Food and Farms 2020, FutureFarm and SmartAgriFood2.

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