1. Record Nr. UNINA9910416106903321

Titolo	Systems Modeling / / edited by Mukhtar Ahmed
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
ISBN	981-15-4728-9
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XI, 425 p. 152 illus., 101 illus. in color.)
Disciplina	378.1662
Soggetti	Agriculture Ecology Computer science Environment, general Computer Science, general Simulació per ordinador Agricultura Canvi climàtic Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Systems Modeling -- Chapter 2. Crop Phenotyping -- Chapter 3. Statistics and Modeling -- Chapter 4. Dynamic Modeling -- Chapter 5. Models Calibration and Evaluation -- Chapter 6. Wheat crop modeling for higher production -- Chapter 7. Genetic Analysis -- Chapter 8. Sugarcane: Contribution of process-based models for understanding and mitigating impacts of climate variability and change on production -- Chapter 9. Forecasting of rainfed wheat yield in Pothwar using Landsat 8 satellite imagery and DSSAT -- Chapter 10. Methane production in dairy cows, inhibition, measurement and predicting models -- Chapter 11. Sunflower Modeling: A Review -- Chapter 12. Disease Modeling as a Tool to Assess the Impacts of Climate Variability on Plant Diseases and Health -- Chapter 13. Chickpea Modeling under Rainfed Conditions -- Chapter 14. Potato Modeling -- Chapter 15. Application of Generalised Additive Model for Rainfall Forecasting in Rainfed Pothwar Pakistan. .

Sommario/riassunto

Achieving food security and economic developmental objectives in the face of climate change and rapid population growth requires systems modelling approaches, for example in the design of sustainable agriculture farming systems. Such approaches increase our understanding of system responses to different soil and climatic conditions, and provide insights into the effects of various variable climate change scenarios, providing valuable information for decision-makers. Further, in the agricultural sector, systems modelling can help optimise crop management and adaptation measures to boost productivity under variable climatic conditions. Presenting key outcomes from crop models used in agricultural systems this book is a valuable resource for professionals interested in using modelling approaches to manage the growth and improve the quality of various crops. .