

1. Record Nr.	UNINA9910768472003321
Titolo	Innovations in Dryland Agriculture // edited by Muhammad Farooq, Kadambot H.M. Siddique
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XVI, 571 p. 81 illus., 58 illus. in color.)
Disciplina	630
Soggetti	Agriculture Climate change Plant breeding Climate Change Plant Breeding/Biotechnology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	PART 1: INTRODUCTION -- 1. Dryland Farming: Concepts, Origin and Brief History -- 2. Research and Developmental Issues in Dryland Agriculture -- PART 2: ELEMENTS OF DRYLAND AGRICULTURE -- 3. Water Harvesting in the Dry Environments -- 4. Weed Management in Dryland Agriculture Systems -- 5. Nutrient Management in Dryland Agriculture Systems -- 6. Insect-pests in Dryland Agriculture and their Integrated Management -- 7. Epidemiology and Management of Fungal Diseases in Dry Environments -- 8. Integrated and Innovative Livestock Production in Drylands -- PART 3: MODELING AND CROP IMPROVEMENT FOR DRYLAND AGRICULTURE -- 9. Modelling Dryland Agricultural Systems -- 10. Breeding and Genetic Enhancement of Dryland Crops -- PART 4: DRYLAND AGRICULTURE: SOME CASE STUDIES -- 11. Dryland Agriculture in Australia -- 12. Pastures in Australia's Dryland Agricultural Zone -- 13. Dryland Agriculture in South Asia -- 14. Integrated Dryland Agriculture Sustainable Management in Northwest China -- 15. Dryland Agriculture in North America -- 16. Nurturing Agricultural Productivity and Resilience in Drylands of Sub-Saharan Africa -- PART 5: INNOVATIONS IN DRYLAND AGRICULTURE -- 17. Soil Carbon Sequestration in Dryland Agriculture

-- 18. Application of Microbiology in Dryland Agriculture -- 19. Salinity in Drylands: Challenges and Opportunities -- 20. Supplemental Irrigation: A Promising Climate-resilience Practice for Sustainable Dryland Agriculture.

Sommario/riassunto

In this book leading scientists in the field describe the basic principles of dryland agriculture, and synthesize recent experiences and innovations in dryland agriculture research and development. It is a ready reference on the subject and reinforces the understanding for its utilization to develop environmentally sustainable and profitable food production systems. Various elements of dryland agriculture are described, highlighting associated breeding and modelling efforts, analysing the experiences and challenges of dryland agriculture in different regions, and it proposes some practical innovations and new areas of research in this critical area of agriculture. This book is an invaluable source of information for scientists, teachers and students in the fields of agronomy, ecology, environmental sciences, range management, land and water management and sustainable livestock grazing systems.
