1. Record Nr. UNINA9910806192803321 Autore Walia Sohan Singh Titolo Rainfed Agriculture and Watershed Management / / by Sohan Singh Walia, Karmjeet Kaur, Tamanpreet Kaur Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 9789819984251 9819984254 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (158 pages) KaurKarmjeet Altri autori (Persone) KaurTamanpreet Disciplina 630 Soggetti Subsistence farming Agriculture Human ecology - Study and teaching Subsistence Agriculture **Environmental Studies** Lingua di pubblicazione Inglese **Formato** Materiale a stampa

Livello bibliografico

Monografia

Nota di contenuto

1. Definition, concept and characteristics of dry land farming -- 2. Soil and climatic parameters with special emphasis on rainfall characteristics -- 3. Constraints limiting crop production in dry land areas -- 4. Drought, its different types and drought management strategies -- 5. Stress physiology and preparation of appropriate crop plans for dry land areas and mid contingent crop plan for aberrant weather conditions -- 6. Tillage, tilth, frequency and depth of cultivation, compaction in soil tillage, concept of conservation tillage, tillage in relation to weed control and moisture conservation -- 7. Techniques and practices of soil moisture conservation (use of mulches, kinds, effectiveness and economics) -- 8. Seeding and efficient fertilizer use -- 9. Concept of watershed resource management, objectives, principles, problems, approaches and components -- 10. Factors affecting watershed management and impact of watershed management programme on sustainable agriculture -- 11. Plant Ideotype, their types and Ideotype for Dryland farming -- 12. Introduction, types and history of rainfed agriculture

and watershed management in India -- 13. Problems of rainfed agriculture in India -- 14. Soil and climatic conditions prevalent in rainfed areas -- 15. Soil and water conservation techniques in rainfed areas -- 16. Water harvesting: importance, its techniques -- 17. Practical.

Sommario/riassunto

This book provides a comprehensive explanation of rainfed farming. dryland agriculture, and watershed management concepts. Despite utilizing all available water resources for irrigation, approximately half of the cultivated land will still rely on rainfall. With limited scope for expanding cultivated areas, meeting future food demands becomes an immense challenge. It is within this context that the significance of dryland agriculture emerges. Indian agriculture relies heavily on the monsoon, making water crucial for sustainable development. Unequal distribution of the global average rainfall (about 1000 mm) contributes to disparities in agriculture and socio-economic conditions. Around 70% of India's agriculture depends on rainfall, producing nearly 44% of the food and supporting 40% of the human and 60% of the livestock population. Even with full irrigation potential, half of cultivated land still relies on rain. Approximately 30% of the country is prone to drought and water scarcity, posing challenges for rainfed agriculture. Inefficient water use affects other inputs, emphasizing the need for resource management and indigenous systems. This book serves as a valuable resource for farmers, students, and scholars by providing guidance on various aspects of rainfed agriculture, dryland farming, and watershed resource management techniques. It aims to optimize the use of irrigation water and foster sustainable agricultural development. Additionally, it caters to the needs of graduate and postgraduate students studying agriculture, offering specific insights relevant to their designated course on rainfed agriculture and watershed management.