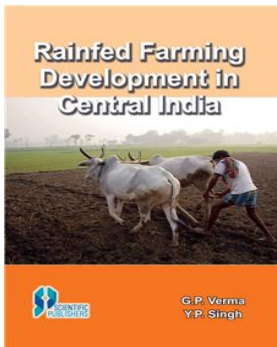


Rainfed Farming Development In Central India

[G.P. Verma](#) & [Y.P. Singh](#)



ISBN	: 9789386102874	Book Format	: Book
E-ISBN	: 9789387307452	Binding	: Hard Bound
Language	: English	Edition	: 1
Imprint	: Scientific Publishers	© Year	: 2017
Pages	: 224	Trim Size	: 9.00 X 6.50 X 0.75
Weight	: 550 Gms		

Print Book : ₹1,795.00

Individual E Book : ₹2,334.00

Institutional E Book : Price available on request

Blurb

This book entitled Development of Rainfed Farming in Central India has 10 chapters viz. (1) Problems and prospects of Rainfed Farming (2) Present status and strategy of Rainfed Farming Development, (3) Land and water resources, (4) Technology for watershed based Rainfed Farming Development, (5) Land and water management practices, (6) Improvement of productivity of rain water, (7) Cropping systems and crop management practices, (8) Planning for aberrant weather conditions and drought management, (9) Farm machinery and implements and (10) Integrated farming systems for livelihood security. In support of various statements made in different chapters, reliable data have been presented in 62 tables. Further, the book is well illustrated through 24 figures and sketches. The book will serve as a text book for Watershed management, Dry farming courses for B. Sc. Ag. students as a reference book of M.Sc. Ag. students of various Agricultural universities, as a manual for field workers of the Department of Agriculture, a good teaching media for teachers of Agricultural universities and a thought provoking material for those responsible for planning and executing development projects on rainfed/ dry farming and watershed management.

Foreword

Dr. A. K. Singh

Vice Chancellor,

R.V.S. Krishi Vishwa Vidyalaya, Raja Pancharam Singh Marg, Gwalior-474 002 (MP)

Table of Contents

1. PROBLEMS AND PROSPECTS OF RAINFED FARMING

1.1 Rainfed Farming versus Dry Farming

1.2 Importance of Rainfed Farming

1.3 History of Rainfed Farming in India

1.4 Great Potential

1.5 Problems of Rainfed Farming

1.6 Early Research Efforts

1.7 Establishment of Soil Conservation Research Centres

1.8 Initiation of All India Coordinated Research Project on Dryland Agriculture and its Development Phases

2. PRESENT STATUS AND STRATEGY

2.1 Land and Rain-water in Central India

2.2 Present Land and Rain-water Management Practices

2.3 Present Cropping Pattern and Practices

2.4 Low Yields of Rainfed Crops

2.5 Present Cropping Pattern Inappropriate

2.6 Low Yields of Wheat and Paddy

2.7 Chronically Drought Affected Areas

2.8 Strategy of Rained Farming Development

3. LAND AND WATER RESOURCES

3.1 Land Resource

3.2 Water Resources

3.3 Climate

3.4 Crop Zones

3.5 Agro-climatic Zones

4. WATERSHED BASED RAINFED FARMING DEVELOPMENT

4.1 Rational Approach for Development of Rainfed Farming

4.2 What is a Watershed?

4.3 Why Watershed Approach?

4.4 Classification of Watersheds

4.5 What is Watershed Management?

4.6 Watershed Planning

4.7 Preparation of Watershed Development Plan

4.8 Implementation of Watershed Development Projects

4.9 Case Study of Operational Research Project, Indore

4.10 Other Pioneer Projects

4.11 Growth of Watershed Programmes

4.12 Projects Implemented by State Agriculture Universities

4.13 Projects implemented by Central Soil and Water Conservation Research and Training Institute Centre, Datia (MP)

4.14 Projects Implemented by State Governments

4.15 Projects Implemented by NGOs

4.16 Conclusion

5. LAND AND WATER MANAGEMENT PRACTICES

5.1 In-situ Water Conservation

5.2 Land and Water Management to Control Soil Erosion

5.3 Management of Slopy Land

5.4 Stabilization of Washes

5.5 Gully Control and Reclamation

5.6 Ravine Reclamation

5.7 Gabion Structures for Stabilization of Waterways and Gully Control

5.8 Grassed Waterways

5.9 Moderately Slopy Land with Medium and Deep Soil

5.10 Soil Conservation by Vegetative Cover

5.11 Agronomical Practices

5.12 Management of Flat Land

6. IMPROVEMENT OF PRODUCTIVITY OF RAIN WATER

6.1 Rain-water a Very Precious Gift of Nature

6.2 Plenty of Rain-water

6.3 Availability of Rain-water

6.4 Strategy of Rain-water Management

6.5 Present Productivity of Rain-water

6.6 Increasing Productivity of Rain-water

6.7 Run-off Collection and Recycling

6.8 Rainfall and Run-off

6.9 Practices of Water Harvesting/Run-off Collection

6.10 Site of Tanks and Farm Ponds

6.10 SITE OF TANKS AND FARM PONDS

6.11 Design of Tank

6.12 Specifications for Malwa Region

6.13 Siltation of Tanks/Farm-ponds

6.14 Conservation of Stored Water

6.15 Recycle of Collected Run-off

6.16 Run-off Recycling and Productivity of Rice

6.17 Farm-pond/Tank Based Intensive Farming Systems

6.18 More Intensive Pond-based Integrated Farming Systems

7. CROPPING SYSTEMS AND MANAGEMENT PRACTICES

7.1 Untapped Yield Reservoir of Dry-land Crops

7.2 Appropriate Cropping System

7.3 Improved Package of Practices

7.4 Recommendations for Different Agro-climatic Regions

8. PLANNING FOR ABERRANT WEATHER CONDITIONS AND DROUGHT MANAGEMENT

8.1 Aberrant Weather

8.2 Early Onset of Monsoon Followed by a Gap and Early Withdrawal

8.3 Early Onset of Monsoon without Gap but Early Withdrawal

8.4 Early Onset of Monsoon Without Big Gap but Late Withdrawal

8.5 Normal Onset Without Gap but Early Withdrawal

8.6 Normal Onset with a Big Gap and Late Withdrawal

8.7 Late Onset of Monsoon Without Big Gap but Early Withdrawal

8.8 Late Onset of Monsoon with a Big Gap and Late Withdrawal

8.9 How to Start

8.10 Advance Actions and Precautionary Measures

8.11 Selection of Crops

8.12 Selection of Crop Varieties

8.13 Rainfed Crops for High Moisture Regime Areas

8.14 Date of Sowing

8.15 Drought Prone Areas

8.16 What is Drought?

8.17 Drought Management

8.18 Long Term Measures or Preventive Steps

9. FARM MACHINERY AND IMPLEMENTS

9.1 Tillage

9.2 Various Tillage Systems

9.3 Conventional Tillage vs. Minimum Tillage

9.4 Tillage Implements

9.5 Seeding and Planting Implements

9.6 Bullock Drawn Seeding Equipment

9.7 Tractor Mounted Zero-Till Seed-cum-Fertilizer Drill

9.8 Inter-culture Tools and Equipment

9.9 Harvesting Tools

9.10 Animal and Tractor Drawn Digger

9.11 Threshers

9.12 Other Equipment

10 INTEGRATED FARMING SYSTEMS FOR LIVELIHOOD SECURITY

10.1 Traditional Mixed Farming

10.2 Other Livestock Based Integrated Farming Systems

10.3 Bee Keeping

10.4 Lac Cultivation

10.5 Livelihood security through Mushroom Production

10.6 Farm-pond/Tank Based Integrated Farming Systems

10.7 Integrated Farming Systems for Livelihood Security in Rain-fed Micro-watersheds of Jharkhand

BIBLIOGRAPHY

This is computer generated document and does not require signature

Scientific Publishers

Date :- Fri Mar 21 2025