

P. Laxman Rao
I. Thirupathi
Purma Sadvi

Glimpse on **General Agriculture**

For ICAR-JRF, SRF, NET and ASRB Prelims



SCIENTIFIC
PUBLISHERS

**GLIMPSE ON
GENERAL AGRICULTURE**

About the Author



P. Laxman Rao is pursuing his Ph.D. from Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad. He is a M.Sc (Ag.) in Soil Science and Agricultural Chemistry (2015) from PJTSAU, Hyderabad and a graduate from Acharya N.G. Ranga Agriculture University, Hyderabad (2013). He worked as a Senior Research Fellow on the project 'CRP - CA at CRIDA'.



I. Thirupathi, is pursuing his Ph.D. from Professor Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad. He completed his M.Sc (Ag.) in Agronomy from Acharya N.G. Ranga Agriculture University, Hyderabad (2014) and his B.Sc (Ag) from Acharya N.G. Ranga Agriculture University, Hyderabad (2012).



Purma Sadvi, is a Ph.D. Research Scholar at Mahathma Phule Krishi Vidyapeeth, Rahuri, Maharashtra. She pursued her M.Sc (Ag.) in Agricultural Extension (2015) from Professor Jayashankar Telangana State Agricultural University, Hyderabad and is a graduate from Acharya N.G. Ranga Agriculture University, Hyderabad (2013).

GLIMPSE ON GENERAL AGRICULTURE

(For ICAR-JRF, SRF, NET and ASRB Prelims)

Compiled by

P. Laxman Rao

I. Thirupathi

Purma Sadvi



Published by
SCIENTIFIC PUBLISHERS (INDIA)

Jodhpur –

5 A, New Pali Road

P.O. Box 91

Jodhpur - 342 001 INDIA

© 2018, Authors

All rights reserved. No part of this publication or the information contained herein may be reproduced, adapted, abridged, translated, stored in a retrieval system, computer system, photographic or other systems or transmitted in any form or by any means, electronic, mechanical, by photocopying, recording or otherwise, without written prior permission from the publisher.

Disclaimer: Whereas every effort has been made to avoid errors and omissions, this publication is being sold on the understanding that neither the editors (or authors) nor the publishers nor the printers would be liable in any manner to any person either for an error or for an omission in this publication, or for any action to be taken on the basis of this work. Any inadvertent discrepancy noted may be brought to the attention of the publisher, for rectifying it in future editions, if published.

This book contains information obtained from authentic and highly regarded sources. Reasonable efforts have been made to publish reliable data and information, but the editors and publisher cannot assume responsibility for the validity of all materials or the consequences of their use. The editors and publisher have attempted to trace and acknowledge the copyright holder of all material reproduced in this publication and apologize to copyright holders if permission and acknowledgement to publish in this form have not been obtained. If any copyright material has not been acknowledged please write and let us know so that we may rectify it.

Trademark Notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

ISBN: 978-93-86652-45-4

eISBN: 978-93-87991-90-3

Visit the Scientific Publishers (India) website at

<http://www.scientificpub.com>

Printed in India

Preface

Agriculture is a broad subject. It covers all the basic subjects of science. Therefore students have to pass through all the agriculture related subjects with elementary courses during under graduation. After passing graduation, higher degrees are done in specialized field of Agriculture so there is no need to read all Agriculture subjects in M. Sc. and Ph. D. But for the preparation of various agriculture competition examinations students have to read all the basic books of Agriculture to cover syllabus. That time most of students don't have all the necessary books and too much time to read them.

Therefore to overcome these problems the authors tried their best to write this book through reading various books and other sources of Agriculture to cover brief and best information of subjects (Agronomy, Genetics and Plant Breeding, Soil Science and Agricultural Chemistry, Agricultural Microbiology, Physiology, Agricultural Entomology, Plant Pathology, Horticulture, Agricultural Economics, Agricultural Extension And Agricultural Statistics) in one book.

To covering these ten subjects of Agriculture in one book is very hard task so some mistake may be left, therefore your suggestions are invited to further improvement of this book. But authors would like to say that students have to treat this book as a competitive book not a text book for various degree courses.

I hope this book would be very useful for students who appear in various Agricultural competition examinations.

Dr. M. RAJESHWAR NAIK

*Associate Professor (SS & AC)
College of Agriculture, PJTSAU,
Rajendranagar, Hyderabad-30*

Chapter Contributors

P. Laxman Rao

Ph. D. Research Scholar

Dept. of Soil Science and Agricultural Chemistry

PJTSAU, Rajendranagar, Hyderabad,

Chapter contributed: Soil Science and Agricultural Chemistry

I. Thirupathi

Ph. D. Research Scholar

Dept. of Agronomy

PJTSAU, Rajendranagar, Hyderabad.

Chapter contributed: Agronomy and Horticulture

Purma Sadvi

M. Sc (Agriculture)

Dept. of Agricultural Extension

PJTSAU, Rajendranagar, Hyderabad.

Chapter contributed: Agricultural Extension

Gade Priyanka

Pn. D. Research Scholar

Dept. of Genetics and Plant Breeding

PJTSAU, Rajendranagar, Hyderabad.

Chapter contributed: Genetics and Plant Breeding

L. Mahesh

M.Sc. (Agriculture)

Dept. of Agricultural Extension

PJTSAU, Rajendranagar, Hyderabad.

Chapters contributed: Agricultural Extension, and Agricultural Economics

B. Madavi

M.Sc. (Agriculture)

Dept. of Agronomy

PJTSAU, Rajendranagar, Hyderabad.

Chapters contributed: Agronomy and Agricultural statistics

E. Govardhan

M.Sc. (Agriculture)

Dept. of Soil Science and Agricultural Chemistry

PJTSAU, Rajendranagar, Hyderabad

Chapters contributed: Agricultural Microbiology and Physiology

B. Thirupam Reddy

Ph.D. Research Scholar

Dept. of Agricultural Entomology

UAS, Dharwada, Karnataka.

Chapters contributed: Agricultural Entomology, and Plant Pathology

Contents

<i>Preface</i>	(v)
<i>Chapter Contributors</i>	(vi)
1. AGRONOMY	1–10
2. GENETICS AND PLANT BREEDING	11–33
3. AGRICULTURAL MICROBIOLOGY	35–56
4. SOILSCIENCE AND AGRICULTURAL CHEMISTRY	57–103
5. PHYSIOLOGY	105–108
6. AGRICULTURAL ENTOMOLOGY	109–150
7. PLANT PATHOLOGY	151–187
8. HORTICULTURE	189–204
9. AGRICULTURAL ECONOMICS	205–212
10. AGRICULTURAL EXTENSION	213–229
11. AGRICULTURAL STATISTICS	231–232