

Second Edition

Agricultural Economics

The book provides a clear understanding of the subject of agricultural economics in its totally to undergraduate students in agricultural universities. This book is written based on the syllabi of subject of agricultural economics in BSc (Ag.) courses offered in the state agricultural universities. Though there are a good number of textbooks published covering various branches of agricultural economics separately viz., microeconomics, macroeconomics, agricultural production economics, farm management, agricultural finance and agricultural marketing, there is no textbook so far by Indian authors, covering major branches in tune with the requirements of undergraduates in the faculty of agriculture. Therefore, this book is unique to fill this gap and will be of immense use of BSc (Ag.) students and teachers in Agricultural Universities. PG students in agricultural economics can also use this as a reference book. Students and teachers of economics and commerce in traditional universities may find this book a useful source of information. This book also serves as an important reference book to the students of BVSc and AH, BTech (Dairying), BSc (Agricultural Engineering), BSc (Horticulture) etc.

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Agricultural Economics

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Agricultural Economics

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Foreword to the Second Edition

The revised edition of the book AGRICULTURAL ECONOMICS is well organized and presented under seven sections and each section is divided into chapters. It is a big voluminous one containing fifty eight chapters in all, besides appendices. Over the years the book has received wide spread recognition and popularity due to the demand generated by the students, teachers, researchers belonging to economics and applied economics at all India level and abroad. The students and teachers of State Agricultural Universities, Horticultural Universities and Veterinary Universities besides traditional Universities in the country are evincing keen interest in the book for their academic needs. The popularity of the book is evident by its reprinting by the publishers annually since its first publication in 2004.

The first section of the book is devoted to present the basics of micro economics. The second section of the book deals with macro economics. The third section provides the contents of agricultural production economics. The key concepts of farm management economics are furnished in fourth section. Section five embodies the subject of agricultural finance. The area of agricultural marketing is provided in sixth section. Finally, the seventh section includes the topics concerned with the role of agriculture in Indian economy.

The chief merits of the book lie in providing absolute clarity on the key concepts of agricultural economics, an outcome of the painstaking efforts of the authors, besides identifying the farmers' decision problems and finding solutions to the same at the field level. In the process they used sophisticated programming models, production function techniques and time series analysis. Particularly a detailed account has been given for presenting price forecasting models. Another notable feature of the book is objective questions which are appended for each section.

All the four authors of the book have served the Acharya N. G. Ranga Agricultural University at different places and cadres. Their vast experience in teaching and research has reflected in the preparation of such a quality book. Though there are a number of books on Agricultural Economics, this book has its own place among all.

I congratulate and appreciate all the four authors individually by name for bringing name and fame to ANGRAU through such a valuable piece of work. I appreciate the efforts of Oxford & IBH Publishers, New Delhi for publishing and reprinting the book annually and undertaking the publication of second edition of the book during the year 2015.

A. Padma Raju

(A. Padma Raju)

Foreword to the First Edition

There are many known textbooks written by several authors dealing separately with various branches of agricultural economics during the past. But, the contents of all the branches of agricultural economics were not furnished in one book. As a result, the students of agricultural economics might not have an easy access to them. The present book by the authors is probably the first one that bridges this gap. The merit of this book lies in presenting the major fields of agricultural economics that are structured for academic use of undergraduates in various State Agricultural Universities for easy comprehension. The authors have made earnest efforts in publishing this book by including all the latest and relevant information on different fields of agricultural economics. Infact such a book is long pending and is very much required by the user agencies, students, staff and researchers. The book is presented in seven sections covering the various areas of agricultural economics, viz., microeconomics, macroeconomics, agricultural production economics, farm management, agricultural finance, agricultural marketing, economic problems of indian agriculture and WTO. For example, at the very outset the book commences with the field of microeconomics followed by macroeconomics, which form the basis for any student studying agricultural economics. These two sections provide a good foundation for the students before they start learning the areas of production economics, farm management, finance, marketing, etc. Agricultural production economics, which includes all the basic economic relationships, is very lucidly presented in the book using geometric, algebraic and mathematical approaches. Farm management principles are clearly elucidated with related agricultural data. The complex Operations Research techniques are clearly explained with their applications to the decision problems in agriculture. The authors highlighted the significant need of the credit for the farmers to generate income, employment and required capital base in agriculture. The book provides adequate knowledge and study of various financial institutions in public and cooperative sectors including the tests of farm credit proposals. Studying and identifying the elements of risk and uncertainty of farming are given good account covering both the theory and their applications to agriculture. The exigency of an efficient marketing of farm commodities and its related concepts are clearly highlighted. The subject matter of agricultural marketing includes the topics on the marketing functions, classification of markets, marketing functionaries, marketing efficiencies, defects in the existing marketing systems and their remedial measures, marketing channels, marketing institutions and the various aspects related to marketing risks. All these topics are well presented with clarity. In the last section of the book the most pressing economic

problems of Indian agriculture including WTO and its implications are well discussed and furnished with the help of relevant and recent agricultural data. On the whole, I feel extremely happy for bringing out this book in the present form.

I personally congratulate the authors for their painstaking and sincere efforts in bringing out such a comprehensive book on agricultural economics. I am very confident that the book would get wider acceptance by all State Agricultural Universities and other related Universities and institutions concerned with agricultural economics.

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Preface to the Second Edition

We have great pleasure in presenting to the students, teachers and researchers this second edition of the book. This edition provides a new look with the additional feature of objective type of questions. It takes care of recent data wherever it is required. During the last decade, the students and the teachers in India and abroad showed much interest and few of them offered suggestions to incorporate which have been duly included in this revision. We earnestly express our heartfelt gratitude to all patrons of the book and are confident that this revised edition will find even more welcome reception. We all also express our gratitude to the Oxford & IBH Publishing Co. New Delhi, for undertaking the reprinting of the book for the past 11 years and also for bringing out the second edition of the book.

Suggestions for further improvement of the book are most welcome.

Tirupati
1 June, 2015

S. Subba Reddy
P. Raghu Ram
T.V. Neelakanta Sastry
I. Bhavani Devi

Preface to the First Edition

The basic purpose of this book is to assist the reader to develop a thorough understanding of the subject of agricultural economics. To accomplish this objective an attempt has been made to present the subject lucidly to suit the requirements of undergraduates in Indian Agricultural Universities. The book presents a comprehensive treatment of microeconomics; macroeconomics, agricultural production economics, farm management, agricultural finance, agricultural marketing and economic problems of Indian agriculture. For convenience the book is furnished in seven sections. In section I, the field of microeconomics contains basic concepts of economic theory of consumer behaviour, theory of production, of distribution, market structure etc. adequate to provide a foundation for the graduates in the subject.

Section II includes key chapters on national income, money, public expenditure, public revenue, unemployment, business cycles and inflation to provide requisite insights on fundamental macroeconomic aspects.

Section III describes simple input-output relationships *viz.*, including factor-product, factor-factor and product-product relationships and their implications to farming.

Section IV focuses on the role of management in the organization of the farm business. The topics that appear in this section are economic principle, types of farming, types of farm business organization, planning, techniques of planning, farm records and accounts, acquisition and management of farm resources and risk and uncertainty.

There is no denying the fact that farm finance strengthens farm business and helps to increase the productivity of scarce resources. Therefore an attempt is made to present the most important topics of agricultural finance. These are problems of agricultural finance, classification of credit, institutional agencies supplying credit, tests of farm credit proposals, tools of farm financial analysis and agricultural project analysis.

From the welfare point of view of the farmers, consumers and middlemen, agricultural marketing plays a crucial role. Therefore there is a need to analyse the agricultural marketing from all dimensions. The topics that figure here are the processes of agricultural marketing, problems in agricultural marketing, suggestions to improve agricultural marketing, marketing channels, agricultural marketing efficiency, agricultural prices and role of Government in agricultural marketing.

In section VII, economic problems of Indian agriculture are highlighted including a brief note on agricultural price policy.

Many colleagues in the Department and University have helped us in this endeavour. We would like to express our gratitude to them individually. Any errors and omissions found in this book are entirely those of the authors. We welcome suggestions from the readers for the improvement of the book.

Tirupati
1 June, 2015

S. Subba Reddy
P. Raghu Ram
T.V. Neelakanta Sastry
I. Bhavani Devi

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INTRODUCTION

Agricultural Economics

The word agriculture comes from the Latin words *ager*, referring to the soil and *cultura*, to its cultivation. Agriculture, in its widest sense can be defined as the cultivation and/or production of crop plants or livestock products. It is synonymous with farming: the field or field—dependent production of food, fodder and industrial organic materials.

Having known the meaning of agriculture, let us know what economics is. Economics is the science that studies as to how people choose to use scarce productive resources to produce various goods and to distribute these goods to various members of society for their consumption. Now having defined agriculture and economics, we look into the field of agricultural economics.

Definitions

Agricultural economics is an applied field of economics in which the principles of choice are applied in the use of scarce resources such as land, labour, capital and management in farming and allied activities. It deals with the principles that help the farmer in the efficient use of land, labour and capital. Its role is evident in offering practicable solutions in using scarce resources of the farmers for maximization of income.

Prof. Gray has defined agricultural economics as *"The science in which the principles and methods of economics are applied to the special conditions of agricultural industry"*.

According to Prof. Hibbard *"Agricultural economics is the study of relationships arising from the wealth-getting and wealth-using activity of man in agriculture"*.

Jouzier defined that *"Agricultural economics is that branch of agricultural science which treats that manner of regulating the relations of different elements comprising the resources of the farmer, whether it be the relations of each other, or to human beings in order to secure the greatest degree of prosperity to the enterprise"*.

Snodgras and Wallace defined agricultural economics as *"an applied phase of social science of economics in which attention is given to all aspects of problems related to agriculture"*.

Accordingly to Goodwin *"Agricultural economics as a social science is concerned with human behaviour during the process of producing, processing, distributing and consuming the products on farms and ranches"*.

Agricultural economics is an applied social science dealing with how humans choose to use technical knowledge and the scarce productive resources such as land, labour, capital and management to produce food and fibre and to distribute it for consumption to various members of the society over time (Cramer and Jensen).

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