

# New Vistas of Organic Farming

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Mukund Joshi



# **New Vistas of Organic Farming**

**2nd Revised & Enlarged Edition**

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## FOREWORD

The awareness about organic farming is slowly pervading all the spheres of our society, including the health conscious consumers, who value the organic products as healthiest. The farmers, administrators, scientists, traders, exporters and even policy makers deal or attempt to deal with one or other aspects of organic sector, in the interest the health, trade, export or profitability. Most sections of the society accept the organic production as the most desirable pollution free food. Indeed, the interest in healthy pollution free food is increasing at an alarming rate.

Equally widespread perception, which is often debated, is the diagonally opposite issue that organic farming is not suitable to India, either due to heavy population of our country or tropical climate of India. Most sections of our society, excluding agricultural scientists and farmers are not even aware of the practical organic production, although they readily accept the organic products. Even among scientific community, many are not even aware of holistic meaning of organic farming. The debates by scientists and economic thinkers are have considered organic farming as use of manure, as they lack the holistic meaning of organic farming. In general organic growers have been inclined to practice organic farming either due to subsidy or reduced cost of cultivation. Most farmers are also not aware of the certification procedures and potential benefits of organic farming to the entire farm. Almost all sectors of society, including the farmers and many scientists hold large number of apprehensions doubting the usefulness or practicality of practicing the organic farming.

In such a scenario of ideological dichotomy, organic farming is slowly gaining momentum as an important future strategy. Even FAO and WHO sponsor the world wide promotion of organic farming. It is now practiced in as many as 139 countries, although organic area is small fraction of cultivated area. In this juncture, this book is an excellent attempt to show the holistic nature of organic farming, vastness of its potentialities and more natural option leading to sustainability in agriculture. The book has attempted to elaborately document the ill effects of continuing chemical agriculture besides

showing the great potentials of practicing the organic farming. Interestingly, it has dealt with the history of organic farming as relevant to India, finding its roots in Indian civilization. But, a clear cut differentiation is brought out between modern organic farming and traditional agriculture, popularly held as organic by default. A detailed account is also presented about various organic options for pest control.

Very few books have presented the global scenario of organic farming. The author of this book has attempted to briefly describe the nature and spread of organic farming throughout the world, besides giving brief account of each country. This section is of special importance, as it can enrich the readers with the knowledge of organic situation in different continents and selected countries.

This book is an exemplary attempt to reveal the new vistas of organic farming, serving as a document many research workers and students can frequently refer. It is the result of vast practical experience and many years of research of the author along with deep insight to find lasting solutions to the problems of deteriorating soil fertility.

I wish that this book will be encouraged as important reference book in Indian agriculture for all scientists, administrators, students and farmers.

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Dean (Postgraduate Studies)

## PREFACE

Our nation has pursued the policies of intensive use of agro-chemicals in the last 30-40 years to meet the challenges of increasing the agricultural production. Level of consumption of agro-chemicals is even held as yardstick of agricultural development. Use of agro-chemicals along with other technologies like improved hybrids/varieties and irrigation has indeed elevated our country to self-sufficiency in food production.

But, in the journey of ever challenging agricultural development, we have reached a stage, where the basis of production itself is in perilous situation. Because, the use of agro-chemicals has damaged our eco-system and delicate balance between various components of eco-system. The biological basis of fertility imparts self-supporting feature in soil. Reducing organic carbon status on one hand and treating the soil as mere physical medium to supply the nutrients on the other - have ignored the biological basis of soil fertility. Similarly, the pest control by pesticides alone is akin to chemical invasion on eco-system. A pest is part of biological equilibrium in an eco-system and killing the pest by pesticides not only damages the eco-system but also kills predators and natural enemies of pests. A pest can express itself through biological survival/buoyancy mechanisms. These truths are conveniently undermined by advocacy of increased pesticide use.

Use of fertilizers and pesticides had their designated aims of increased productivity and reduced damage due to pests respectively. But, the productivity of many crops has not shown proportionate improvement in the last 10-15 years - despite the increased use of fertilizers. Similarly, extensive use of pesticides has not reduced the losses due to pests. With these two facts in background - a stage has now reached to review whether promoting the use of agro-chemicals is appropriate strategy or not.

This book is written to enlighten the students and research workers that the use of agro-chemicals is perilous to our soils, eco-systems, water, foods, human health, animal health as well as productivity/pest control issues. The use of agro-chemicals has left us with unsustainable production systems. Factors leading to unsustainable agriculture are so pervasive and profound that urgent imperative need exists to achieve sustainable production - lest the food

security will be in jeopardy in populous countries like India and China.

Therefore, the present day challenges in agricultural research include important and formidable aspects of attaining sustainability in various agro-eco-systems. The essential features of sustainability are more appropriately satisfied by principles and concepts of organic farming than any other. Organic farming deals with such methods, materials and practices - which are attuned to nature and natural processes. Hence, self-supporting concept of sustainability are more satisfied by organic farming.

It is appropriately surmised - with profuse justifications and technical evaluation of facts - in this book that sustainability could be achieved by organic farming in phased manner, without experiencing the negative impacts of disuse of agro-chemicals. An attempt is also made to present the concept of sustainability in holistic approach rather than fragmented approach. Although the empirical assessment of sustainability is in its nascent form, an account is also given to assess the sustainability in quantitative terms.

It is expected by the author that this book will be of technical value to researchers, teachers, students and administrators - who are interested to know the various issues connected to sustainability and organic farming.

**MUKUND JOSHI**

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