

Organic Farming

FOR CLASSES VI TO VIII

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एन सी ई आर टी
NCERT

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FOREWORD

The National Council of Educational Research and Training (NCERT) has been developing learner-friendly textbooks as per the recommendations of the *National Curriculum Framework (NCF), 2005*. The NCF 2005 proposes a new approach to infuse subject knowledge with the children's self-learning from their daily life experiences. In an agrarian country like India, agriculture is an important means of livelihood for a large population. The children also get associated with this occupation in one way or the other. As a result, the students may opt for it in early stages of vocational education. Agriculture has, thus, emerged as one of the most important areas to be learnt and practised in all stages of education.

The changes in agricultural practices in the last century have led to significant risk to the sustainability of various components of the environment, for example, the excessive use of chemicals in agriculture has adversely affected the soil quality. It has not only affected the food quality and health but the whole environment. We cannot separate health of individuals, communities, etc., from the health of the ecosystem. Sustainable agricultural practices are the need of the hour.

However, in India, organic farming was being practiced extensively before these changes took place. There are several established approaches to eco-friendly farming systems. Organic farming has now once again become the most widely recognised alternative farming system to the chemical-based agriculture. A common requisite in all schools is, therefore, to emphasise the principles and concepts of organic farming and inculcate them in the coming generations.

The present text material has been developed for use at the upper primary level of school education with an objective to make students aware of various aspects of organic farming and to encourage eco-friendly farming practices. It is expected that the introduction of this material in school education will create a healthy environment in the modern day agriculture and inculcate the principle and concepts of organic farming among the students of upper primary level.

This material gives priority and space to opportunities for contemplation and out-of-box thought process, discussion in small

groups, and activities requiring hands-on experiences. It follows the basic criteria of NCF 2005 in respect of content, cognitive process, historical, environmental and ethical validities. The effort made by the Development Team is highly appreciated.

As an organisation committed to systemic reform and continuous improvement in the quality of teaching-learning materials, NCERT welcomes comments and suggestions to enable us to bring further revision in the text.

New Delhi
24 August 2017

Hrushikesh Senapaty
Director
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PREFACE

Agriculture is an instinct of human kind on the earth. There are evidence from the ancient times that it is one of the basic activities for procuring food, fibre and shelter. Hence, it is also one of the important skills that are covered during capacity building of life skills. Children residing in the rural areas are familiar with common farming practices. In urban areas too, the concept might not be entirely new. Learners are somewhat familiar with the kitchen garden developed on small piece of land or even using big earthen pots in the balcony of their residences. Involvement of the community to resolve the curiosity of children in all facets of agriculture has been suggested throughout the book.

It caters to the need of the students at the upper primary stage—Classes VI to VIII. The book has three sections, one for each class. The section for Class VI has only one chapter, i.e., Chapter 1. It focuses on general agriculture with reference to organic agriculture. Here, the goal is to familiarise the students with preliminary information about cultivation of indigenous (*desi*) varieties of various crops and rearing of *desi* breeds of animals and also to provide glimpses of crop seasons, crops of India and environmental impact of various cultivation practices, etc.

The second section of the book is for the students of Class VII and has two chapters. Chapter 2 introduces organic farming as an alternative to the conventional farming. It focuses on how conventional farming affects the survival and sustainability of an ecosystem. In Chapter 3, learners are exposed to the core pillars of organic farming, which help organic farming to survive and sustain. It includes the methods to systematise farming, right from cultivation to production practices, certifying the product for its authenticity as an organic product and addition of value to the product, and finally, the marketing of the produce.

The third section of the book, having two chapters, is meant for the students of Class VIII. Chapter 4 apprises the learners not only with the certification procedure for organic products but also the institutions, offices, organisations and people involved in the

process such as — researchers, policy-makers, extension bodies, accreditation bodies for certification, intermediate manpower, farmers, traders; consumers and their feedback to traders and farmers and other stakeholders; and ultimately to conducting new researches so as to come up with new methods for sustainability. Finally, Chapter 5 deals with informing the learners about livelihood opportunities. Some success stories are also given so that a link between the classroom and everyday life is maintained.

Two characters from the Science textbooks — *Paheli* and *Boojho* — continue to poke the students' brain with their witty humour, promoting scientific temper. The book follows a child-centred approach where students are provided ample opportunities to explore, perform activities, conduct surveys, study projects, etc. They are also encouraged to visit the library, surf Internet, watch TV channels and read newspapers to resolve queries on their own. The book also provides learners an opportunity to reap benefits from the experiences of people from the community — right from the vegetable vendors to farmers, traders and societies/agencies. Learners have been encouraged to visit organic fests and *melas*, etc., and also to organise such programmes at the school level. There is an ample opportunity for the reader to interact and share experiences with others through various pedagogies, such as survey-based learning, project-based learning, etc. It also provides pedagogical inputs for teachers as facilitator, specifically, for differently abled in an inclusive set up.

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