

Precision Horticulture

By Archarya SK

Agrotech Publishing Academy

PRECISION HORTICULTURE

(Towards Value Addition and Marketing)

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PROLOGUE

The global agriculture has been under incessant recession in terms of declining productivity and coercing economic capability of the million hands after agriculture over two decades last. Now the new technology, the precision farming, has entered in agri-horti production for making every handful of soil meaningfully productive, every drop of water rightly destined to root zone and every iota of sunshine be translated into the *magnum opus* of photosynthesis. The minute change in field variability or daily rainfall should find a language of committed production, beyond risk and uncertainty. The value addition process can be haemoglobinized with the intake of finest technology intervention, for catching up oxygenated economy across the volume of dynamic entrepreneurial maneuvering.

The present creation, hence, has been a modest attempt to respond to the ICARs great attempt in solubilizing apparently insoluble pedagogy of classical agricultural education into a real health drink for the inquisitive minds, aspiring scholars and voyaging professionals towards making both carrier and cause aptly meaningful.

Indian agriculture is at the cross road of market driven economy and increasingly organizing production into agro-food value chains to synchronize all stages of production from seed to supermarket. In the cycle of production to consumption, marketing is a prime link that can never be dispensed. The value addition and processing industry has been given an impressive fillip during the last decade or so, only to yield an outcome of multifold increase in processed and value added produce. Small-scale producers find new opportunities in regionally branded products, farmers' markets, new specialty crops, ethic markets, or in establishing direct marketing links between farms and regional groceries. For small growers to flourish, we need to address the issues like high yield, input efficiency, biotic and abiotic stress resistance, sustainable productivity, soil health resilience, better nutritional quality, value-added products and of course, farmer-oriented food policies and marketing systems that ensure high return.

The essentials of value addition and marketing have been discussed in this book in twelve chapters. Important information on supply chain and value-marketing has been furnished based on latest research findings, which will be useful to students, researchers, entrepreneurs, govt. personnel and policy makers.

This book is not intended to answer all questions encompassing the domain of value addition and marketing of horticultural products, but this book will certainly help to a better understanding of the subject dealt with efficiently by the authors.

We acknowledge and appreciate the efforts made by the authors and other people, without whose help and active engagement this book would have been a pipe dream.

S.K. Acharya
A.B. Sharangi
M.K. Pandit
S. Dutta

ABOUT THE BOOK

The application of cutting edge technology in the production and management of agri-horticultural enterprises is increasing in a swashbuckling manner. Today we are not only attuned to ensuring food security but also adequately concerned to the ecological deterrence from erosion and contamination. The precision agriculture has got tremendous application at micro-micro level and also at the national level. The increasing application of GIS, GPS and RST, together called geoinformatics, has enabled precision agriculture and precision horticulture to create value added marketable production with a clandestine consideration of field and temporal variabilities. This book is a splendid creation for eyeing on both the value addition as well as precision technology so that any academician or any entrepreneur can address and epitomize the opportunity and scope of precision farming *par se*.

The age of classical agriculture is facing sharp redundancy and will be losing relevance in a shorter frame of time unless it can be uplifted to a level of livelihood generation process and product not only for the horticultural entrepreneur elites, but also for the millions of grass root farmers, hungry and hunting for food, income and livelihood from the amazing world of horticulture.

The volume of biological production is sometimes rendered meaningless and sometimes goes a liability of production because these are not scaled up with value addition- a worth of Rs 30,000/- crores of horticultural produces every year is lost in India due to lack of proper supply chain. This is a sheer insensitive activity on the face of upsurge in poverty and unemployment. In a global market, value added agriculture from India does contribute only to the tune of 1-2 %. A country with the highest horticultural productivity in the versions of vegetables, fruits, flowers, spices, medicinal and plantation crops is suffering from intrinsic contradictions by displaying a poor value addition to the mammoth production.

The book is rightly envisaging to create a series of vista primarily for the small and medium entrepreneurs on how to create livelihood, generate income and ensure food security by transforming the stale green biology into a rippling silvery livelihood. All possible traits of horticulture has been incorporated with a clear focus on processing and quality enhancement, marketing and supply chain performances, the gender dimensions, livelihood and employment.

We are of every hope that this is not a mere book volume but a comprehensive handbook for willing entrepreneurs to transform their means of life into a synergy of economy and emotions. The institutions, organizations from the domain of agribusiness management, horticultural enterprises, NGOs, scholars, corporate professionals, ameturists and many more genres will be immensely benefited.

ABOUT THE AUTHOR

Prof. S.K. Acharya, is a man from Extension who is famous for his innovative ideas, thoughts and approaches in the aegis of Agricultural extension. This erudite and pleasant personality is presently offering his service as the Professor in the Department of Agricultural Extension, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, West Bengal, India. His innovative approaches and concepts in the aegis of Extension education helped him to establish as the experienced expert in different DFID projects in the specialized area of Participatory Extension, Technology socialization, Participatory project management, Value-added agriculture, Microplanning, Universalisation of Primary education, Joint forest management. He has so far published 75 research papers in different National and international journals, eighteen volumes of books and a good number of popular articles have already been figured. He has visited overseas countries covering Italy, China, France, Bangladesh and Germany on academic mission. He was nominated as a member of the Agricultural Commission, Government of West Bengal and honoured with the membership of American Society of Sociology, USA.

Dr. A. B. Sharangi is a teacher and researcher of eminence. He has been in the profession as Associate Professor in the Department of Spices and Plantation Crops, Faculty of Horticulture, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, West Bengal, India, for about fourteen years. To his credit a score of seventy research publications in various national and international journals, ten volumes of books and a good number of popular articles has already been figured. His profile of career has been illuminated by overseas academic programmes covering Israel, Thailand, Australia, Scotland and Bangladesh. His areas of specialization cover production, processing and value addition of spices, plantation crops and various herbs as well as medicinal plants with nutraceutical values. He is associated with a couple of projects having academic and empirical implications. Dr Sharangi has completed his Post-doctoral research on allelopathy from the University of Melbourne(Australia) and also got hands-on research experience in GC-MS, LC-MS and Solid phase microextraction of spices as Visiting Scientist (UK) after getting the Endeavour Award-2010 and INSA-Royal Society of Edinburgh Fellowship-2011, respectively.

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Dr. S. Datta, has been working as the Assistant Professor in the Uttarbanga Krishi Viswavidyalaya over six years in the Department of Vegetable and Spice Crops. He is eminent on his mettle of research work and proficiency in teaching. He has published a good score of research papers and popular articles in journals of national and international standards. He has been associated with good many organizations and kept on contributing in different areas of academic persuits.

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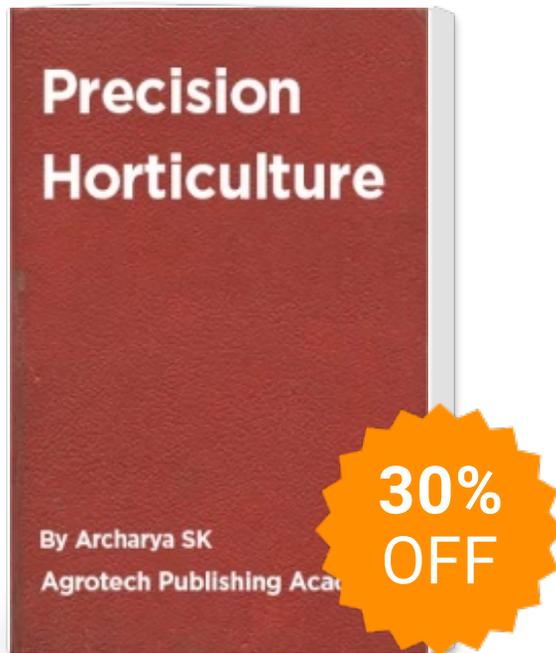
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