



The book 'Fundamentals on Agriculture and Crop Production (Research and Applied)' is a multidisciplinary book. Agriculture is a way to produce crops and related items from domesticated plants and animals though sometimes from wild races for the betterment of the people. Recent scientific inventions and technological skills, even technical applications of technology in the field make the system faster in terms of productivity. The better management and optimum production through an eco-friendly environment make it clear in front of farmers. The application of skill through knowledge enhances the yield as well as the quality of the items that boosts many new and novel products. In horticulture scientists are growing recurrent varieties in combination with non-recurrent varieties and incorporating wild genes in the new high yielding variety (HYV) and generating high yielding crops/cultivars, disease resistant and drought prone even saline water resistant varieties. So, in many fields new and novel products are the outcome due to research and applications of knowledge in multidisciplinary fields. Authors are trying to present diverse chapters for the dissemination of new knowledge in front of us.

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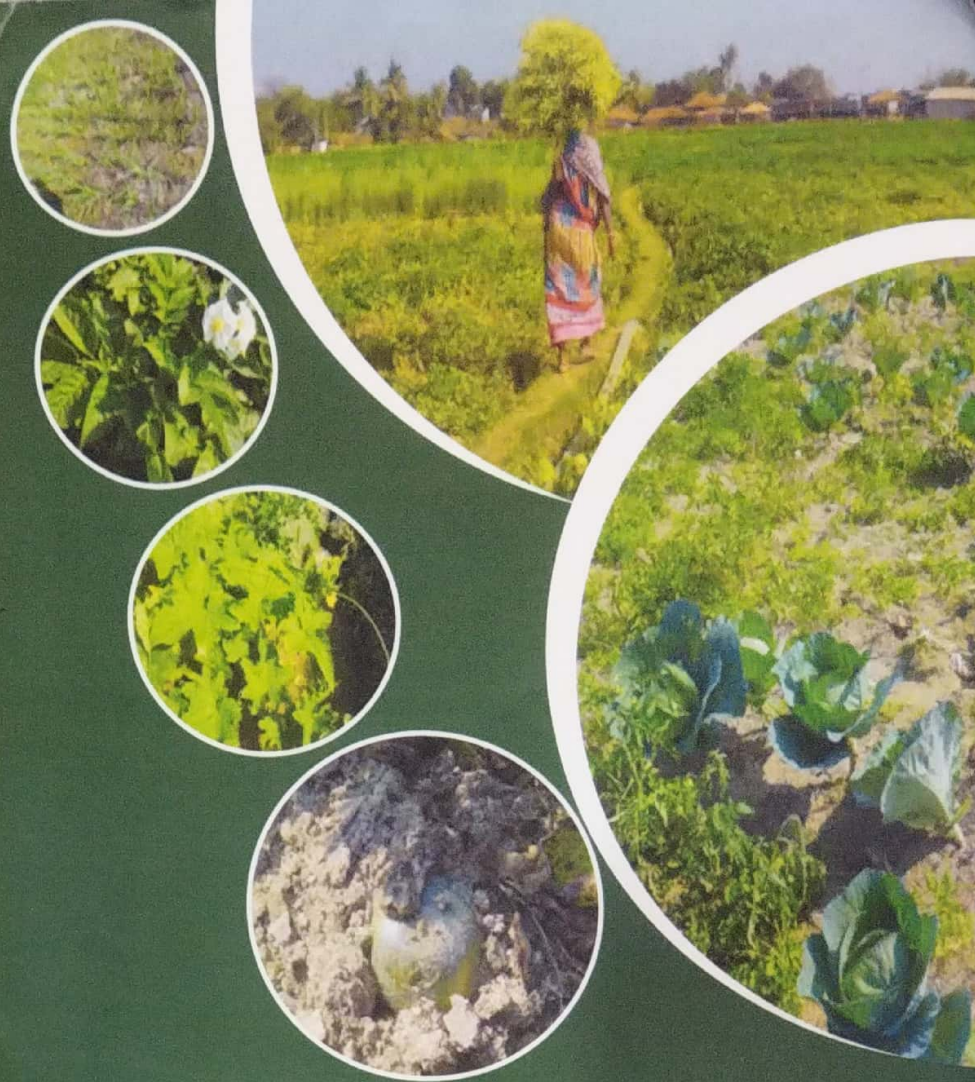
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Fundamentals of Agriculture and Crop Production
(Research and Applied)

Dr. Debabrata Das
Dr. Pampi Ghosh



FUNDAMENTALS OF AGRICULTURE AND CROP PRODUCTION (Research and Applied)

Dr. Debabrata Das
Dr. Pampi Ghosh

Bharti

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Foreword

Agriculture is the technique to get better or higher yields of any kind of crops. In the earlier day, men and women had tried their best to select & grow more potential items both in the field of animal and plant sphere, for their own purposes though it was an old and natural practice. They noticed many problems and tried to solve them by knowledgeable persons or elderly people. Day by day they developed good and potential stock to get maximum benefits in their field. People domesticated different crop plants, animals and wild races for their own purposes. Geographically isolated patches had different wild stock which was distinct by their physiognomic factors but nowadays people try to put them on a global basis which significantly makes them important over time. Nowadays we see large numbers of genetic races over the species but the productivity of crops under any circumstances has been changed. Not only yield but also quality factors and disease free/ resistant stocks are today's products that lead to plant and animal growers becoming more commercial. Research and development including extensive applications both in field as well as in the glasshouse bring out new variants that could be congenial in the present environment. In this book many chapters have been placed at the same time recognize here to give us immense knowledge in our practical field of agriculture. I convey my heartiest thanks to all authors, editors and elderly persons, junior team mate and publishers who gave their effort to make it complete. Hope readers and researchers of all spheres will be benefitted.

With regards,

Bhattacharya

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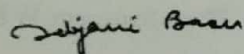
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Message

I feel immense pleasure that the book is going to be published very soon with the theme "Fundamentals of Agriculture and Crop Production (Research and Applied)" from Bharti Publications (New Delhi). It's a time when people need very deep and sincere knowledge on Agriculture and Crop production. In flood plains every year crop production fails to meet the demand of farmers. In dry and humid regions crop production fails to meet the target due to scarcity of water. In hills and in valleys of Himalayas and Western Ghats, a large number of factors interrupt to touch the goal. But the demand for agricultural products is always high due to overpopulation. Global warming and climate change alters the degree of different factors that lower the production of crops. So, people need research and extension activities at different degrees to solve the problems in the field, not in the lab. Indigenous stocks, organic manure, local labour, investment in waste and vested land along the technique based knowledge are nowadays essential. Remembering the theme in mind the chapters have been placed by authors in the book. Hope that it would be beneficial for all to mitigate the current problems. Thanks to editors, authors and team of publishers for this kind of publication for all.

Thanks,



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Comparing the Diversity Pattern of Vegetation Between two Seasons in a Hydrocarbon Exploration Site of Tripura

Huidrom Babina Devi*, Hirusoni Hazarika*, Prasenjit Patari* & Sabyasachi Dasgupta**

ABSTRACT

Plants have been used for a variety of purpose since time immemorial. With the advancement in the field of research and growing interest in plants shows that a lot of plants can clean up a variety of contaminants from the soil, water and air. The current study has been carried out to find out the plants found in the hydrocarbon exploration site in two different seasons (pre-monsoon season and post-monsoon season). The vegetational composition and structural diversity of the plants found in the sites was also calculated. The study will be helpful as it will list out the plants which are observed in the site and which have been used in previous phytoremediation experiment. The study also recorded the absence of shrub species in pre-monsoon season while its presence in the post monsoon season. *Cynodon dactylon* (L.) Pers. and *Ageratum conyzoides* L. were found to be present in both the seasons. Most of the plants found in the site were known to be phytoremediators. The presence of plants in the abandoned hydrocarbon exploration site is a very good indication that the site can be restored using those plants. Using plants which

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Agriculture Potential Zone Mapping with Water Resource Management using Geospatial Techniques of Jhargram District in Janghalmohal Geographical Area, WB.

Dr. Chandan Karan*

ABSTRACT

Regional development is an effort to improve the people's standard of living and Socio-economic development by the fight of hard efforts against the extreme adversities of Nature. This pattern is especially noticeable among the residents of Lateritic zone of Jhargram district in the Jungle Mahal region of West Bengal. The Jhargram Jungle Mahal region is composed mainly the tertiary graveliferous materials and older alluviums of South Western margin of West Bengal. Using the Geo-spatial RS & GIS data with Intensive field verification, more than 60% land area is under the Lateritic Zone with forest cover and also 40% area is dominated by Lateritic upland; which is infertile soil and less agriculture area due to scarcity of water. The annual rainfall is occurring about 140 cm to 160 cm. But the slope of lateritic upland is steep to moderate; as result the surface water in rainy season is quickly flowing down; that way that the area is comes under the draught phone. Jhargram district consist is eight block these are Jhargram, Binpur-I, Binpur-II, Jamboni, Gopiballaopur-I, Gopiballaopur-II, Nayagram and Sankrail. About 40% peoples are directly engaged to agriculture system, Where 30% area depend on Monocrop production system due to the water crisis, pedogenic unevenness and not implemented of proper scientific methods for

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