

The treatise is dedicated to one of the most important areas of modern biology *i.e.* plant molecular genetics. The science of genetics born to an Austrian monk Gregor Johann Mendel in the spring of 1865 was immediately consigned to the deep freeze for the next 35 years. It was rediscovered in 1900 by three scientists working independently. Since then the growth of the subject in terms of information generation has been phenomenal. The present book provides detailed information regarding the process of developing plants resistant to insect-pests, viruses, herbicides and cold stress using the modern techniques of genetics. It also discusses at length about heat-shock protein genes, defense response genes and photosynthetic genes of plants. The use of apomixis in crop genetic improvement has been thoroughly presented. The treatise has been prepared in simple language for easy understanding of the students, the complicated topics of plant molecular genetics. It would be of great interest to a very large group of readers undergraduate and postgraduate students of genetics, plant biotechnology, plant molecular biology, professional plant breeders and geneticists, research workers and candidates taking competitive examinations like NET, ARS and Civil services Examinations.

In writing this book the author has been led by the thought of the great ancient philosopher Aristotle "The book is good when it says only what should be said".

**Supriyo Chakraborty** (born in 1968) obtained his B.Sc. (Agri) degree with "Distinction" in 1990 and M.Sc (Agri) degree in 1992 with major subject "Plant Breeding and Genetics" and minor subject "Agricultural Biotechnology" in 1992 from Assam Agricultural University, Jorhat, Assam securing more than 80 percent marks in each degree. He secured Ph.D degree in Life Sciences (Botany) with specialization in Plant Breeding and Genetics in 1998 from Dibrugarh University, Dibrugarh. He has had a brilliant academic career right from high school leaving examination.

He qualified NET (National Eligibility Test) conducted jointly by CSIR-UGC for lectureship in life sciences in 1992. He also qualified NET conducted by ASRB (ICAR) for lectureship in plant breeding in 1996 and in genetics in 1997. Dr Chakraborty has more than 8 years experience as an Assistant Professor cum Scientist (PBG) in research, training and extension. He worked on the genetics and breeding of rice, tea, greengram, blackgram and other pulse crops. He has to his credit more than 35 research papers published in various scientific journals of repute and 22 popular articles. He has also authored a book entitled "Rice Breeding and Genetics" which bought him appreciation from a renowned rice scientist Dr. G.S. Khush, International Rice Research Institute, Philippines. In addition he has contributed two chapters to two books. He is also a fellow of the Indian Society of Genetics and Plant Breeding and a member of several other professional societies. In the arena of social upliftment, he has been involved in creating awareness among common people about "Biodiversity Conservation", "Intellectual Property Rights (IPRs)" and "Importance of Plant Breeding and Genetics to Farmers". Out of his own interest and not as a part of professional work schedule he has contributed towards the genetic analysis of human memory among school children. Prior to his joining the post of Assistant Professor cum Scientist (PBG) at RARS, Assam Agricultural University, Shillongani -782002, Nagaon (Assam), he worked as a JRF (CSIR, India) in the Department of Agricultural Biotechnology, AAU, Jorhat and as a SRA in the Central Silk Board, Government of India. He joined the Department of Biotechnology, Assam University (a Central University), Silchar-788011, Assam as a lecturer in July 2004.

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