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| Nota di contenuto | Chapter 1_ Genetic Improvement of Rice for Salt Tolerance -- Chapter 2_Enabling role of ICAR-Indian Institute of Rice Research in coordination and rice variety development for salt-affected areas of India -- Chapter 3_ Genetic improvement of rice for salt tolerance in Andaman and Nicobar Islands, India -- Chapter 4_Recent approaches in breeding for salt tolerance of rice in Bangladesh -- Chapter 5_Genetic improvement of rice for inland saline and alkaline areas of North-Western India -- Chapter 6_Genetic improvement of rice for saline tolerance under coastal agro ecosystem of Tamilnadu -- Chapter 7_Genetic and agronomic approaches for higher rice productivity in Sundarbans Deltaic region -- Chapter 8_Genetic and agronomic approaches for higher rice productivity in sodic lands of Indo-Gangetic plains -- Chapter 9_Genetic Enhancement of Rice for Alkalinity affected area of Central Uttar Pradesh, India -- Chapter 10_Genetic enhancement of rice for salt affected areas of Bangladesh -- Chapter 11_Physical and Chemical Characteristics of salt-affected Soils in India -- Chapter 12_Breeding Salt Tolerant Rice Varieties In Puducherry (U.T) |

-- Chapter 13_Mechanisms of Saline and Submergence Tolerance in Rice for Coastal Ecology -- Chapter 14_Genetic Improvement of Rice for Salt Tolerance At RRS, VYTTILA. .

Sommario/riassunto

This edited book is a compilation of tangible research findings and actual experiences on various salt tolerant rice breeding programmes, that have been successfully practiced and continuing to do so by research centres in South East Asia, with major emphasis in India, Bangladesh and Philippines. Rice being one of the most important staple crops of the world, its production and productivity have to be kept on increasing so as to feed the burgeoning population. This is a very challenging task in the midst of shrinking resource base and arable lands in the face of climate change. Salt stress is the second major abiotic stress, next only to drought, which greatly affects rice production. To overcome this problem, development of improved salt tolerant rice cultivars coupled with appropriate package of practices, an ecologically sound and socially acceptable strategy should be developed which is well within the reach of marginal farmers. With rapid advances in molecular biology, mechanisms underlying the complexity of the trait are better understood now than before. Selection of appropriate parents, desired mapping populations, precise phenotyping are the key components to underpin the mapping and utilization of reliable QTLs. Understanding genetics of salt tolerance, identifying the robust molecular markers and targeted utilization of available molecular markers form the sound basis to develop the commercial products with more precision and speed. This book covers entire range of topics: starting from biophysical characterization of salt stressed areas in different rice ecologies, conventional and molecular breeding approaches for mapping salt tolerance and subsequent development of improved rice varieties for commercial cultivation and their societal impacts. This book is of interest to scientists, faculty, policy makers and administrators. It also serves as a resource guide to graduate students of agriculture particularly plant breeding, plant physiology, molecular biology and soil science.