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Nota di contenuto	Chapter 1. Role of Nanosensors and Bionanosesors in Crop Abiotic Stress -- Chapter 2. Role of Environment Stress Leaf Senescence and Crop productivity -- Chapter 3. Genomics in Enhancing Crop Productivity against Stresses -- Chapter 4. Transgenic plants: A Tool to Increase Crop Productivity Under Stress Environment -- Chapter 5. Breeding efforts for crop productivity in abiotic stress environment -- Chapter 6. Changing Environment and Crop Plant Breeding -- Chapter 7. Crop plants, abiotic stress, reactive oxygen species production, signaling and their consequences -- Chapter 8. Environment Stress Tolerance in Plants -Physiological Aspects -- Chapter 9. Role of hormones in crop plants root system architecture under changing environmental conditions -- Chapter 10. Water Logging Tolerance and

Crop Productivity -- Chapter 11. Crop Adaptability to Excess Salts -- Chapter 12. Crop Scavenging Potential to Heavy Metals -- Chapter 13. Role of plant microbiome under stress environment to enhancecrop productivity -- Chapter 14. Role of Effective Management of Harvested Crop to Increase Productivity under Stress Environment -- Chapter 15. Bioactive Compost for Managing Plant Growth under Stress Environment -- Chapter 16. Salicylic acid: Metabolism, Regulation and Functions in Crop Abiotic Stress Tolerance -- Chapter 17. JA and Abiotic Stress Tolerance -- Chapter 18. ABA: Metabolism, Regulation and Functions in Crop Abiotic Stress Tolerance -- Chapter 19. Polyamines: Metabolism, Regulation and Functions in Crop Abiotic Stress Tolerance -- Chapter 20. Agriculture for Combating Global Starvation -- Chapter 21. Land use and Biodiversity Conservation through Agroforestry -- Chapter 22. Challenges of Stressed Soil: A Case Study of Acid Soil. .

Sommario/riassunto

The book inculcates a holistic approach to improve crop productivity and quality for ensuring food security and nutrition to all. This warrants to identify various stress conditions prevalent globally and tailor crop adaptability and productivity to the maximum accordingly, employing physio-molecular modern tools and techniques with judicious amalgamation with conventional crop husbandry. As a result, the book chapters encompass diverse environmental factors, internal physio-molecular processes and their modulations with a final goal of expanding area under cultivation by utilization of constraint terrains of poor site quality and augmenting sustainable crop productivity and quality on the face of rapidly changing climate. The book includes role of plant hormones, nano-sensors, nanomaterials etc. in stress tolerance responses, capturing recent advancement in the field of stress tolerance, enlarging scope of coverage by gleaning modern literature and providing glimpses of futuristic scenario of agriculture practices that can render ‘balance staple food rich in nutrition, vitamins and minerals’ to teeming billions of global human populations. Thus, the book provides a comprehensive overview of the role of stress environment and understanding stress physiology for developing stress tolerant crops. The book covers current knowledge and future prospects to achieve enhanced food security under stress environment of crops. The renowned contributors elegantly crafted each chapter, suited alike to both classroom texts for graduate students and reference material for researchers. The language and style are simple and lucid with liberal use of illustrations. This book should be on the shelf of university/ personal libraries for inquisitive students and enlightened researchers.