

abiotic stress tolerance in crop plants breeding and biotechnology

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ABIOTIC STRESSES IN CROP PLANTS- Breeding and ...

Each has been laid out with systematic approaches to develop abiotic stress tolerant genotypes using biotechnological tools. Use of molecular markers in stress tolerance and development of transgenic also have been detailed. Air pollution and climate change are the hot topic of the days.

Abiotic Stress Tolerance in Crop Plants

Abiotic stresses have become an integral part of crop production. One or other persist either in soil, water or in atmosphere. The information in the areas of injury and tolerant mechanisms, variability for tolerance, breeding and biotechnology for improvement of crop plants against abiotic stresses are lying ...

Biotechnological Advances to Improve Abiotic Stress ...

by MA Villalobos-López · 2022 · Cited by 30 — Cultivated plant varieties are usually more sensitive to abiotic stress than their wild-type relatives because breeding selection for yield and plant size traits are not necessarily linked to stress tolerance genes. A water deficit reduces photosynthesis by inducing stomata closure and inhibiting ...

Abiotic Stress Tolerance in Crop Plants: Roy, Bidhan

This book also deals with the plants' symptoms of particular abiotic stress, reclamation of soil and crop/cropping pattern to overcome the effect of adverse condition(s). Each has been laid out with systematic approaches to develop abiotic stress tolerant genotypes using biotechnological tools.

Potential Mechanisms of Abiotic Stress Tolerance in Crop ...

by MA Waqas · 2019 · Cited by 245 — Several physiological, morphological, and molecular mechanisms are involved in stress tolerance of crop plants. Research conducted over recent decades has clearly demonstrated that TU can be used as a practical solution to mitigate the adverse effects of abiotic stresses and sustain productivity.

Abiotic Stress Tolerance in Crop Plants: Breeding and ...

Systematic approaches for developing abiotic stress-tolerant genotypes using biotechnological tools are detailed, as are the use of molecular markers in stress tolerance and the development of transgenic plants. The final three chapters of the book focus on the effects of air pollution and climate change on crop plants ...

Engineering Abiotic Stress Tolerance in Crop Plants ...

by M Rahman · 2022 · Cited by 20 — Environmental abiotic stresses challenge food security by depressing crop yields often exceeding 50% of their annual production. Different methods, including conventional as well as genomic-assisted breeding, mutagenesis, and genetic engineering have been utilized to enhance stress resilience in ...

Abiotic Stress Tolerance in Crop Plants: Breeding and ...

Abiotic stresses have become an integral part of crop production. One or other persist either in soil, water or in atmosphere. The information in the areas of injury and tolerant mechanisms, variability for tolerance, breeding and biotechnology for improvement of crop plants against abiotic stresses ...

(PDF) Breeding for Abiotic Stress Tolerance in Crop Plants

26 Dec 2017 — Biotic and abiotic stress may be introduced by genetic engineering. Cultivated Varieties. Large genetic variation for drought and salinity resistance attributes exists in .

Abiotic stress tolerance: Genetics, genomics, and breeding

by Y Xu · 2023 · Cited by 2 — Exploitation of associated genetic loci and genes can be achieved by marker-assisted selection, genomic selection, gene transfer, and genome editing to develop stress-resistant crops. In this special issue, Liu et al. [13] summarize recent progress in elucidating the genetic basis of crop.