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WATER RELATIONS OF PLANTS AND SOILS

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Plants use large amounts of water in the growth process, with important consequences for agriculture and the distribution of plant communities. Water is involved in nearly every aspect of plant activity, ranging from the transport of mineral nutrients and metabolites to growth, metabolism, and gene action. **Water Relations of Plants and Soils** discusses the properties of water, cell water relations, and soil water and the ways water moves and affects root activities, transpiration, ion transport and metabolism, photosynthesis and stomatal action, and cell growth. Particular attention is paid to the action of water on the enzymes and structures of plants and to applications of molecular biology in the context of whole plants. Principles of plant responses to water deficits are treated in detail, and recent advances in the agricultural and ecological management of water are described along with the historical development of the concepts of water relations.

KEY FEATURES

- Addresses the role of water in the whole range of plant activities
- Describes molecular mechanisms of water action in the context of whole plants
- Synthesizes recent scientific findings
- Relates current concepts to agriculture and ecology
- Provides a summary of methods

Water Relations of Plants and Soils provides a comprehensive review useful for students, researchers, and anyone interested in growing plants.



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