

## Nutrient Acquisition by Plants

Adaptation and evolution of terrestrial plants depend, to a large extent, on their ability to acquire nutrients. This is a modern and integrative treatment of the mechanisms controlling plant nutrient uptake and how plants respond to changes in the environment. The following key topics are covered: soil nutrient bioavailability; root responses to variations in nutrient supply; nitrogen fixation; regulation of nutrient uptake by internal plant demand; root characteristics; kinetics of nutrient uptake; root architecture; life span; mycorrhizae; responses to climate change. This integrated view of nutrient uptake helps us to understand the mechanisms that govern present-day plant communities and is indispensable in models designed to predict the response of plants to a changing climate.

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