



Ecological Aspects of Nitrogen Metabolism in Plants

Nitrogen plays an essential role in the optimal growth and development of plants. Nitrogen availability is a major limiting factor to the successful cultivation of plants and crops worldwide. Understanding how plants acquire and utilize nitrogen is necessary to strike the delicate balance of providing plants with a needed nutrient while not negatively impacting the environment. *Ecological Aspects of Nitrogen Metabolism in Plants* looks broadly at nitrogen, plants, and the environment to provide readers with a broad ranging perspective on the impacts of this key nutrient.

Ecological Aspects of Nitrogen Metabolism in Plants looks first at the nitrogen cycle and the positive and negative impacts of nitrogen on the environment. Subsequent sections cover a variety of ecological interactions in which plants participate and their impacts on nitrogen acquisition and metabolism. These sections look at plants' give and take with soil microbes, endo-phytic and epi-phytic microbes, and arthropods. The final section covers aspects of environmental chemical signaling in nitrogen acquisition—an exciting field in which complex interactions are currently being elucidated.

Providing thorough and in-depth coverage, *Ecological Aspects of Nitrogen Metabolism in Plants* will serve as a timely reference for plant biologists, ecologists, soil scientists, and microbiologists.

KEY FEATURES:

- Reviews ecological factors that impact nitrogen acquisition and utilization by plants
- Provides readers with insight to striking the correct balance between enhancing plant nutrition while limiting environmental impacts
- Looks at the interrelationship in nitrogen use between plants, microbes, fungi, and other organisms, interrelationships that vary from direct competition to mutualistic associations

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