



Preface

This special volume of *Biogeochemistry* consists of papers presented at a symposium "PLANT-INDUCED SOIL CHANGES: PROCESSES AND FEEDBACKS" that was held during the American Society of Agronomy-Soil Science Society of America Annual Meeting in Indianapolis, November 4–8, 1996. The symposium was built on the growing realisation that plant-induced changes in soils feed back in various ways to natural vegetations, giving rise to a plethora of plant–soil interactions beyond the classical one-way cause and effect pathways plant-to-soil and soil-to-plant. The aim of this special issue is not in the first place to present new research findings, but to review and discuss the more holistic aspects of plant–soil interactions, providing more room for speculation than do most research papers.

After a general introduction which emphasises ecological and evolutionary aspects of plant–soil interactions (van Breemen and Finzi), three papers deal with particular effects of plants on soil properties: mineralogy (Kelly et al.), soil structure (Angers and Caron) and soil fertility (Berendse). Next, five papers take up plant–soil interactions in specific biomes: forests (Binkley and Giardina; Gobran et al.), grasslands (Burke et al.; Epstein et al.) and deserts (Schlesinger and Pilmanis). Two papers discuss plant–soil interactions via effects of differences in litter quality in specific ecosystems: California's pygmy forest (Northup et al.) and the Alaskan Taiga (Schimel et al.). The last paper (Markewitz and Richter) deals with the oft neglected role of biocycling by trees in the geochemistry of aluminium and silica.

I hope that this volume will stimulate further discussion and research on this fascinating multi-disciplinary topic, which is of such great interest for a better understanding of terrestrial biogeochemistry, systems ecology and soil science.

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