

THEMATIC ARTICLES

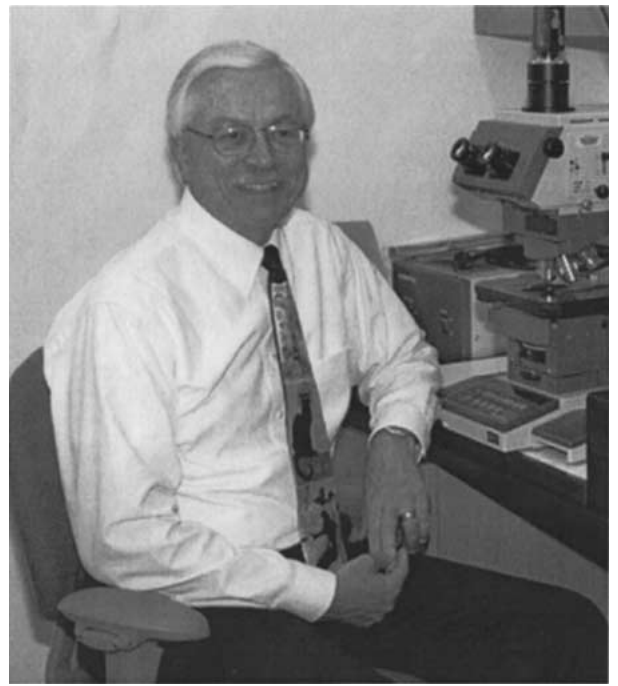
# Root Structure and Function

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The intensity and diversity of biological activity around plant roots dwarf those in the arid wasteland above ground, but the root environment—

literally life beneath our feet—has received even less attention than the polar icecaps or the ocean depths. As a result, rudimentary issues in root biology remain unresolved. About half of terrestrial primary production goes on below ground, but “its fate is still unlearned” (Steiner and Hawes 1949). Appropriately, a book series about roots, now in its

3rd edition, has taken the title, *Plant Roots: the Hidden Half* (Waisel and others 2002).

We, as adherents of the philosophy that “form ever follows function” (Sullivan 1896), solicited articles to treat each of the functions for roots: anchorage, uptake and transfer, and environmental sensing. The articles in this special issue of the *Journal of Plant Growth Regulation* present some striking new data as well as review the literature on processes in old roots, new roots, borrowed roots (that is, nodules, mycorrhizae, or root hairs), and

brown roots. We hope that you find this information as stimulating as we do.

## REFERENCES

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