The Root Systems in Sustainable Agricultural Intensification
Zed Rengel (Editor), Ivica Djalovic (Editor)

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DESCRIPTION

Explore an in-depth and insightful collection of resources discussing various aspects of root structure and function in intensive agricultural systems

The Root Systems in Sustainable Agricultural Intensification delivers a comprehensive treatment of state-of-the-art concepts in the theoretical and practical aspects of agricultural management to enhance root system architecture and function. The book emphasizes the agricultural measures that enhance root capacity to develop and function under a range of water and nutrient regimes to maximize food, feed, and fibre production, as well as minimize undesirable water and nutrient losses to the environment.

This reference includes resources that discuss a variety of soil, plant, agronomy, farming system, breeding, molecular and modelling aspects to the subject. It also discusses strategies and mechanisms that underpin increased water- and nutrient-use efficiency and combines consideration of natural and agricultural systems to show the continuity of traits and mechanisms.

Finally, the book explores issues related to the global economy as well as widespread social issues that arise from, or are underpinned by, agricultural intensification. Readers will also benefit from the inclusion of:

- A thorough introduction to sustainable intensification, including its meaning, the need for the technology, components, and the role of root systems
- Exploration of the dynamics of root systems in crop and pasture genotypes over the last 100 years
• Discussion of the interplay between root structure and function with soil microbiome in enhancing efficiency of nitrogen and phosphorus acquisition

• Evaluation of water uptake in drying soil, including balancing supply and demand

Perfect for agronomists, horticulturalists, plant and soil scientists, breeders, and soil microbiologists, *The Root Systems in Sustainable Agricultural Intensification* will also earn a place in the libraries of advanced undergraduate and postgraduate students in this field who seek a one-stop reference in the area of root structure and function.

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**ABOUT THE AUTHOR**

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