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## BOOK REVIEWS

# Acid Soils: Their Chemistry and Management

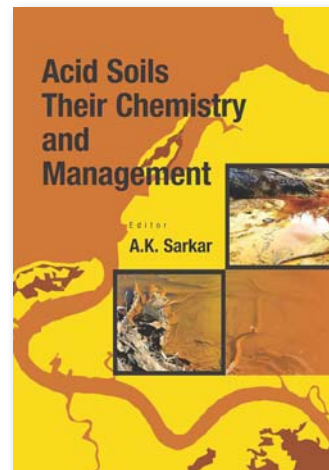
Edited by Dr. A.K. Sarkar, Former Dean & Professor & Head (Soil Science), Birsa Agricultural University, Ranchi and Published by New India Publishing Agency (NIPA), New Delhi.

About 25 million ha of cultivated soils in India are affected by soil acidity (pH < 5.5), mainly in the Himalayan region and areas with red and lateritic soils. Crops grown on acid soils, such as maize, jute, pulses, oilseeds, wheat, millets and vegetables, generally produce less than 50% of the yields obtained in neutral soils (pH 6.5 to 7.0). Eastern and Northeastern parts of India are of greater concern in this regard.

The book outlines theoretical as well as practical aspects of soil acidity and its management. It not only deals with the genesis of acid soils through the variety of chemical reactions involved, but also provides scientific support for the technique of lime application in furrows of direct seeded crops and the economic benefits farmers can derive from the implementation of this technique in their fields. The book emphasises on using locally available, low cost and efficient liming materials for

ameliorating soil acidity and provides on-farm results from several states of India on the efficacy of lime and nutrient application in acid soils in different crops. It also attempts to draw a strategic framework for sustainable development of acid soil regions.

The book consists of 10 chapters, viz., Introduction, Concepts and Applications, Chemistry of Acid Soils, Genesis and Classification of Acid Soils, Field Studies on Acid Soils, Acid Soils of Northeastern states, Jharkhand, Odisha, Secondary and Micronutrients in Acid Soils, Paper Mill Sludge as an Acid Soil Ameliorant, and Way Forward. This multi-authored book from experienced scientists is a valuable contribution in the field of Soil Science. **ICSA**



# Nitrate in Leafy Vegetables: Toxicity and Safety Measures

Edited by Shahid Umar, Naser A. Anjum and Nafees A. Khan and Published by I.K. International Publishing House Pvt. Ltd., New Delhi.

Vegetables, especially the green leafy vegetables, constitute a major dietary source of nitrate. Although nitrate itself is relatively non-toxic, and even beneficial within permissible limits for their role in vascular and immune functions, the possible harmful effects of nitrate-derived compounds on human health arouse public concern. The use of excessive nitrogenous fertilizers has been regarded as one of the major reasons leading to accumulation of nitrate in leafy vegetables, which is wrongly considered by farmers as reasonable insurance against yield loss. Therefore, vegetable nitrate content is of great interest to governments and regulators as well as to plant scientists and health professionals.

This book is a comprehensive compilation of the latest science on dietary nitrate sources and provides practical and scientific data-driven resources on the potential human health effects and sustainable remedial strategies for nitrate in

plants and humans. The book attempts to provide a wealth of information and a common platform for plant scientists and health professionals working towards sustainable solutions to nitrate-led human and environmental health consequences. The 8 chapters in this book have been written by eminent researchers and scientists working in the field of nitrate in soils and plants. The book is sure to enlighten readers from various disciplines and at various levels, and should prove useful for advanced students, researchers, faculty of both plant and animal sciences, and environmentalists and policy makers. **ICSA**

