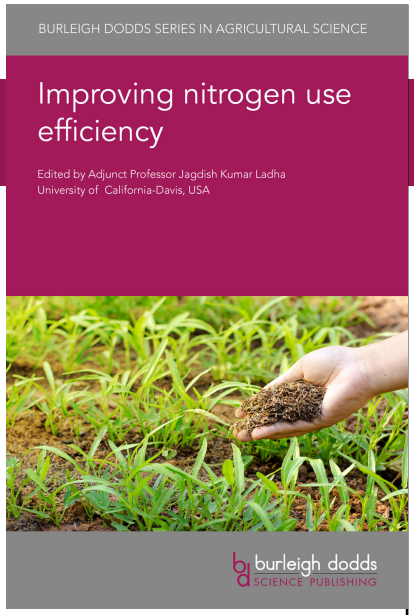

New title information

Improving nitrogen use efficiency

Edited by: Professor Jagdish Kumar Ladha, University of California-Davis, USA

Endorsement:

"Nitrogen is required for food production but most of it is released to the environment where it causes a cascade of negative impacts. This timely book provides an excellent overview of nitrogen use in agriculture and most especially suggestions on how to maximize the benefits of nitrogen while minimizing its detrimental impacts." (*James N. Galloway, Sidman P. Poole Professor, Emeritus, University of Virginia, USA)*

Description:

In the last 60 years fertiliser use in agriculture has increased by 900%. However, it's been reported that up to 80% of these fertilisers are not utilised by crops but are lost to the environment as nitrous oxide, ammonia and nitrate. Improving nitrogen use efficiency is recognised as one possible solution to reducing the sector's environmental impact and optimising its productivity and sustainability in the face of increasing pressure to feed a growing population.

Improving nitrogen use efficiency in crop production reviews recent advances in understanding nitrogen cycling in soil and best practices to assess crop nitrogen status, such as the use of proximal sensors and remote sensing techniques. The book considers developments in the use of inorganic nitrogen fertilisers and their effectiveness in optimising nitrogen use efficiency, as well as how more organic sources of nitrogen, such as livestock manure, can be optimised to achieve the same goal.

Key features:

- Considers the role of fertiliser use in agriculture as a major contributor to the imbalance of the global nitrogen cycle
- Reviews the effectiveness of inorganic nitrogen fertilisers and organic sources of nitrogen in optimising nitrogen use efficiency
- Highlights recent developments in the use of enhanced efficiency nitrogen fertilisers to reduce nitrous oxide emissions

Audience:

Researchers in agricultural and environmental science, government and other agencies advising on fertiliser use and its environmental impact, farmers, agronomists; as well as companies manufacturing fertilisers

Editor details:

Professor Jagdish Kumar Ladha is Adjunct Professor in the Department of Plant Sciences at the University of California-Davis, USA and is internationally renowned for his pioneering research on sustainable resource use in agriculture. In addition to numerous awards for his research, he is a Fellow of the American Association for the Advancement of Science, the Indian Academy of Agricultural Sciences, the Crop Science Society of America, the American Society of Agronomy, and the Soil Science Society of America. Professor Ladha is also co-Editor in Chief of *Field Crops Research*.

Publication date
27 Feb 2024

Price
£145 / $190 / C$245 / €175 / A$260

ISBN
Hardback: 978-1-80146-470-3
PDF: 978-1-80146-472-7
ePub: 978-1-80146-471-0

Format
152 × 229 mm / 6 × 9 in, 400 pages

Illustrations
Color tables, photos and figures

Series
Burleigh Dodds Series in Agricultural Science: no. 150

BIC/THEMA classification
TVK - Agronomy & crop production, RNU - Sustainability, TVF - Sustainable agriculture, TVB - Agricultural science, TVD - Agricultural engineering & machinery, RBGB - Soil science, sedimentology

Distributors
INGRAM Publisher Services UK
Print books (exc. US and Canada)
Taylor & Francis Group an informa business
eBooks (worldwide)

Updated 07/02/24

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