

Achieving sustainable cultivation of sorghum

Volume 1: Genetics, breeding and production techniques

Edited by Professor Bill Rooney, Texas A&M University, USA



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Achieving sustainable cultivation of sorghum Volume 1

Genetics, breeding and production techniques

Edited by Prof. William Rooney, Texas A&M University, USA

Endorsement:

"A comprehensive update on "why do" sorghum and "how to do" sorghum in both developed and developing countries."

John F. Leslie, University Distinguished Professor, Kansas State University, USA

Description:

Sorghum is one of the world's major cereals, cultivated in the semi-arid tropics for a growing range of uses. Like other crops it faces the need to meet rising demand whilst reducing its environmental impact and adapting to the challenges of climate change. This volume summarises the wealth of research addressing these challenges.

Part 1 explores the genetic diversity and genomics of sorghum. This provides the foundation for Part 2 which reviews advances in conventional and marker-assisted breeding and their use to develop high-yielding and stress-resistant varieties. The final part of the book discusses ways of improving cultivation to make the most of new varieties, from nutrient and water management to better control of diseases, insects and weeds.

With its distinguished editor and international team of expert authors, this will be a standard work for cereal scientists, sorghum breeders and growers as well as government and non-government agencies supporting sorghum cultivation. It is accompanied by a companion volume which reviews the range of uses of sorghum and cultivation in different regions.

Key features:

- Comprehensive coverage of the latest research on the genetic diversity and genomics of sorghum
- Reviews key developments in breeding, from conventional to marker-assisted techniques, as well their application in developing higher-yielding, more stress-resistant varieties
- Discusses key elements in integrated crop, pest and weed management

Audience:

Cereal scientists; sorghum breeders and growers; government and non-government agencies supporting sorghum cultivation

Editor details:

Dr Rooney is Professor in the Department of Soil and Crop Science at Texas A&M University, USA. He has written widely on sorghum breeding and released a number of new varieties for use both in the US and Central America. He is a member and current Chair of the Sorghum Improvement Conference of North America which brings together experts from a number of universities to improve sorghum cultivation.

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