

Achieving sustainable cultivation of sorghum

Volume 2: Sorghum utilisation around the world

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



 burleigh dodds
SCIENCE PUBLISHING

Publication date
30 Nov 2017

Price
£130 / \$165 / €160

ISBN
Hardback: 978-1-78676-124-8
PDF: 978-1-78676-127-9
Mobi: 978-1-78676-125-5
ePub: 978-1-78676-126-2

Format
152 x 229 mm / 6 x 9 in, 240 pages

Illustrations
Tables, photos and figures

Series
Burleigh Dodds Series in Agricultural
Science: no. 32

BIC/THEMA classification
TVKC - Cereal crops, PSTD - Plant
physiology, TVF - Sustainable
agriculture, TVM - Smallholdings



**Print (exc. US and Canada) and e-books
(worldwide) distributed by NBN
International.**

Updated 29/09/17

New title information

Achieving sustainable cultivation of sorghum Volume 2

Sorghum utilisation around the world

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 reviews the chemistry of sorghum and its physiology, before discussing its use as a food grain, in feed and as a forage and energy crop. The second part of the book discusses ways of improving cultivation in regions such as South America, Europe, Asia and Africa.

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 genetics, breeding and production techniques.

Key features:

- Discusses latest research on sorghum structure, chemistry and physiology
- Reviews varied uses of sorghum as a feed and feed grain, forage and energy crop
- Includes case studies of key challenges facing sorghum cultivation in regions such as Asia, Africa and South America

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.

Table of contents:

Part 1 Sorghum utilization

1. Structure and chemistry of sorghum grain: S. R. Bean, B. P. Ioerger, J. D. Wilson, M. Tilley, D. Rhodes; and T. J. Herald, USDA-ARS, USA
2. The domestication, spread and uses of sorghum as a crop: F. M. Shapter, A. Crowther, G. Fox, I. D. Goodwin, The University of Queensland, Australia; I. J. C. Hannah, AGRIndustries, Australia; S. L. Norton, Australian Grains Genebank, Australia; and L. Watson-Fox, The University of Queensland
3. Sorghum crop physiology and development: Vara Prasad, Kansas State University, USA;
4. Sorghum as a food grain: Barbara J. Stoecker, Oklahoma State University, USA; Kebede Abegaz and Yewelsew Abebe, Hawassa University, Ethiopia
5. Sorghum as a forage and energy crop: Scott Staggenborg and Hui Shen, Chromatin Inc., USA

Part 2 Sorghum production and improvement across the world

6. Introducing new technologies and market strategies for sorghum producers in developing countries: the Sahel case: John H. Sanders, Purdue University, USA; Botorou Ouendeba, formerly 3N Program, Niger; Ababacar Ndoye, formerly Institute of Food Technology, Senegal; and Niaba Teme, Institute of the Agricultural Economy (IER), Mali
7. Improving sorghum cultivation in South America: Rafael Augusto da Costa Parrella, Robert Eugene Schaffert, Cicero Bezerra de Menezes, José Avelino Santos Rodrigues, Jurandir Vieira Magalhães, Cynthia Maria Borges Damasceno, Dagma Dionísia da Silva and Simone Martins Mendes, Embrapa Milho e Sorgo, Brazil
8. Improving production and utilization of sorghum in Asia: Aruna C., B. Dayakar Rao, Vilas A. Tonapi and T.G. Nageswara Rao, Indian Institute of Millets Research, India
9. Sorghum cultivation and improvement in West and Central Africa: Eva Weltzien-Rattunde, ICRISAT, Mali; H.F.W. Rattunde, ICRISAT, India; T.A. van Mourik, Helen Keller International, Senegal; and H.A. Ajeigbe, ICRISAT, Nigeria

Related products:

- Achieving sustainable cultivation of maize Volume 1, 978-1-78676-008-1, 09 Jun 2017, USD 190.00, EUR 180.00, CAD 255.00, GBP 150.00, and AUD 270.00
- Achieving sustainable cultivation of maize Volume 2, 978-1-78676-012-8, 31 Jul 2017, USD 240.00, EUR 230.00, CAD 325.00, GBP 190.00, and AUD 340.00
- Achieving sustainable cultivation of sorghum Volume 1, 978-1-78676-120-0, 31 Dec 2017, GBP 180.00, EUR 220.00, USD 225.00, CAD 310.00, and AUD 325.00
- Achieving sustainable cultivation of wheat Volume 1, 978-1-78676-016-6, 30 Jun 2017, USD 265.00, EUR 250.00, CAD 355.00, GBP 210.00, and AUD 380.00
- Achieving sustainable cultivation of wheat Volume 2, 978-1-78676-020-3, 31 Jul 2017, USD 165.00, EUR 155.00, CAD 220.00, GBP 130.00, and AUD 235.00