

Sorghum: Origin, Classification, Biology and Improvement

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K. Hariprasanna and J.V. Patil

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5	Sorghum is a staple food crop for millions of poor people in the semiarid tropics of Africa and Asia. It is one of the important dryland crops grown in marginal soils and a source of feed, fodder and biofuel apart from food. It is a short-day C ₄ plant, and its easy adaptability to hot and dry agroecologies makes it a climate change-compliant crop. There are five basic races and ten intermediate races under cultivated taxa based on fundamental spikelet types. Sorghum is considered as an often cross-pollinated species, with outcrossing up to 6 % depending on the genotype and growing conditions. Extensive efforts in crop improvement have resulted in the development of a number of high-yielding cultivars with substantial yield increment over the years. The discovery and utilisation of the male sterility system have led to the successful commercial exploitation of heterosis. A number of biotic and abiotic yield-limiting factors and changes in consumption pattern and demand have resulted in a steady decline in cultivated area and grain production over the years. Much progress has been achieved in the field of sorghum biotechnology, including genomics over the last two decades. Adoption of genomic tools and molecular breeding strategies can help in tailoring sorghum cultivars with desired traits to enhance the productivity under various limiting factors in the years to come.	28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59

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Sorghum (*Sorghum bicolor* (L.) Moench) is indigenous to Africa and is a member of the grass family Poaceae and has high morphological variations (Deu and Hamon 1994; Hariprasanna and Patil 2015 ...

(PDF) Sorghum: Origin, Classification, Biology and Improvement

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Sorghum: Origin, Classification, Biology and Improvement ...

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Sorghum: Origin, Classification, 1 Biology and Improvement

In this document ‘cultivated sorghum’ or ‘sorghum’ will be used to refer to Sorghum bicolor subsp. bicolor grown for grain in Australia. Sorghum is a widely adaptable species that is cultivated as an annual cereal and forage crop in tropical, subtropical and temperate regions of the world. Sorghum grain is a staple human

The Biology of Sorghum - OGTR

Sorghum (*Sorghum bicolor* L. Moench) is a highly versatile crop of African origin with multiple uses as food, feed, fodder, fuel, and fiber. The grain is used as food or feed; the stem can be used as a source of fiber, fuel, and lately as feedstock for cellulosic ethanol. The crop is grown throughout the tropics, semitropics, arid, and semiarid regions of the world, and according to the Food and Agriculture Organization, India, Nigeria, Mexico, United States, Argentina, and ...

Classification, Distribution and Biology - ScienceDirect

Sorghum is a genus of flowering plants in the grass family Poaceae, which includes about 25 species. Some of these species have grown as cereals for human consumption and some in pastures for animals. One species, *Sorghum bicolor*, was originally domesticated in Africa and has since spread throughout the globe.

Sorghum - Wikipedia

ORIGIN AND HISTORY. Origins of Domesticated Sorghum and Its Early Diffusion to India and China (C. Kimber). Classification and Characterization of Sorghum (J. Dahlberg). Development of Some Agricultural Industries in Several African and Asian Countries (L. House, et al.).

Sorghum: Origin, History, Technology, and Production | Wiley

Sorghum vulgare Pers. 2.4 Common name (s) *S. bicolor* is commonly known in English as broomcorn, chicken-corn, common wild sorghum, durra, feterita, forage sorghum, grain sorghum, sweet sorghum, great millet, milo, Rhodesian sudan grass, shallu, shattercane, sordan, sorghum, sorghum-Sudan grass, and Sudan grass (USDA-ARS 2012).

The Biology of Sorghum bicolor (L.) Moench (Sorghum ...

Sorghum is an ancient crop of African origin and especially important in the semiarid tropics of Africa and South Asia, with significant production also in China, Southeast Asia, and the Americas. Questions regarding the time and place of its origin and domestication have been long deliberated on and debated. The earliest evidence of wild sorghums comes from hunter-gatherers in the Sahara dating to about 8000 BC, but the earliest known domesticated sorghum until now dated to 2000 ...

Origin, Domestication and Diffusion of Sorghum bicolor ...

Origin and History Classification and Characterization of Sorghum ... Nutritional Value and Use of Sorghum Grain as Feed for Poultry and Livestock Fermentation Products Forages and Fodder. Index click here to see books of related interest. ORDER NOW. Sorghum Origin, History, Technology, and Production edited by C. Wayne Smith and Richard A. Frederiksen 824 pages • \$370.50 + shipping Texas ...

Sorghum: Origin, History, Technology, and Production ...

The origin of sorghum and the history of its cultivation are discussed, together with breeding work carried out in the USA. Reference is also made to the taxonomy of the genus and to classification of cultivated varieties. A list of 48 references is included.

History and classification of sorghum Sorghum bicolor ...

ORIGIN AND HISTORY. Origins of Domesticated Sorghum and Its Early Diffusion to India and China (C. Kimber). Classification and Characterization of Sorghum (J. Dahlberg). Development of Some Agricultural Industries in Several African and Asian Countries (L. House, et al.).

Sorghum : origin, history, technology, and production in ...

The origin and early domestication of sorghum took place in Northeastern Africa. The earliest known record of sorghum comes from an archeological dig at Nabta Playa, near the Egyptian-Sudanese border, dated 8,000 B.C. Sorghum spread throughout Africa, and along the way, adapted to a wide range of environments from the highlands of Ethiopia to the semi-arid Sahel. The development and spread of ...

All About Sorghum | The United Sorghum Checkoff Program ...

Inapakurti Jaikishan, Passoupathy Rajendrakumar, Krishna Hariprasanna, B. Venkatesh Bhat. Gene Expression Analysis in Sorghum Hybrids and Their Parental Lines at Critical Developmental Stages in Relation to Grain Yield Heterosis by Exploiting Heterosis-Related Genes from Major Cereals, Plant Molecular Biology Reporter, 10.1007/s11105-018-1079-x, 36, 3, (418-428), (2018).

Growth Stages of Sorghum [Sorghum bicolor, (L.) Moench.]1 ...

Sorghum is an important tropical cereal, native to Africa and widely cultivated in tropical and subtropical Africa and Asia. It was introduced to North America during the slave trade. There are two subspecies in New England.

Sorghum bicolor (sorghum): Go Botany

Though a large volume of information has accumulated over the years, especially following the sequencing of the sorghum genome, until now it was not available in a single reference resource. This book fills that gap by documenting advances in the genomics and transgenic research in sorghum and presenting critical reviews and

future prospects. “Sorghum Molecular Breeding” is an essential ...

Sorghum Molecular Breeding | SpringerLink

Ethiopia is the centre of origin and diversity for sorghum, the crop has been cultivated for many thousands of years and hence indigenous knowledge based sorghum classification and naming has a long tradition. Sorghum was first described by Linnaeus in 1753 under the name of *Holcus*.

Infra-specific folk taxonomy in sorghum (Sorghum bicolor ...

Sorghum is an ancient cereal grain belonging to the grass family Poaceae. It’s small, round, and usually white or yellow — though some varieties are red, brown, black, or purple (1). There are many...

Sorghum: Origin, Nutrition, and Uses

Sorghum bicolor, commonly called sorghum (/ ˈsɔːrɡəm /) and also known as great millet, durra, jowari / jowar, or milo, is a grass species cultivated for its grain, which is used for food for humans, animal feed, and ethanol production. Sorghum originated in Africa, and is now cultivated widely in tropical and subtropical regions.

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