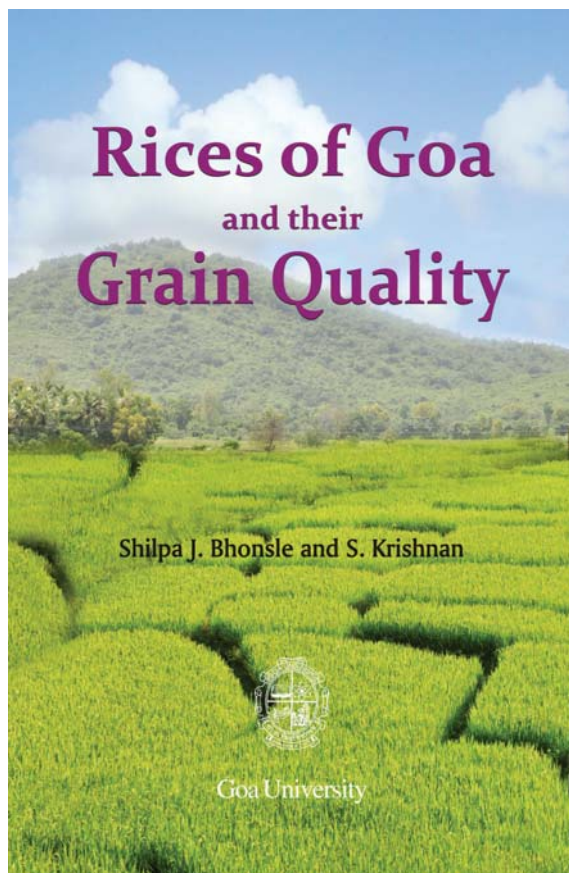


Book Review

Shilpa J. Bhonsle and S. Krishnan 2012

Rices of Goa and their Grain Quality, by Shilpa J. Bhonsle and S. Krishnan, published by Goa University, Goa. 2012. Pages 145. ISBN978-81-908791-2-5, Price: ₹ 699/-, US\$ 25.00.



This book begins with a brief description of geography and climatic conditions in Goa and also provides a glimpse of the origin and antiquity of cultivated rice and *Oryza* species-complexes. It essentially brings out results of an in-depth study based primarily on description of 50 rice varieties presently grown in Goa under different situations and distinct growing conditions. Out of this set of varieties, 28 are locally adapted indigenous cultivars grown traditionally in Goa while 22 are high yielding improved varieties introduced from other states. Major focus is on grain morphology, chemical characterization, cooking quality and nutrition value of rice products. In addition, it points

out cultural value of this crop and its uses in various local customs and rituals. Another interesting aspect is the medicinal uses of some rice varieties in traditional healthcare.

Rice is the most important cereal crop and staple food of nearly half of the world's population. It is cultivated in a very wide range of climatic conditions and soil types from the coastal level to high altitudes and grown across several major ecosystems including irrigated, rainfed lowland, rainfed upland and flood prone conditions. Because of its wide adaptation, rice is also grown under unfavourable soil conditions such as acid peaty soils of Kerala (pH 3), saline river estuaries of Goa and Sundarbans and also highly alkaline soils (pH 10) in parts of Punjab, Haryana and Uttar Pradesh. As may be expected, a very large number of rice strains are cultivated in different parts of India because of their specific adaptation to local growing conditions and also because they continue to cater to farmers' preferences in different regions of our country. The Indian National Gene Bank has a collection of nearly 80,000 rice accessions, collected from different rice growing areas and kept under long term storage for present and future use.

Genetic resources of rice, comprising locally adapted landraces, farmers' traditional cultivars, extant varieties, modern high yielding varieties, genetic stocks, breeding lines, and the gene pool of wild rice forms, are the building blocks that are used by the breeders in developing superior varieties. Thus, they form the basis of global food security and it is essential to conserve and enhance these bioresources so as to sustain all kinds of rice improvement programmes, based on conventional breeding methods as well as those employing most modern tools and techniques of biotechnology. Traditionally grown varieties are low yielding and these are continuously getting lost primarily because of their replacement in some areas by the more improved ones under intensive crop production systems. Many wild rice species are also threatened with extinction as their habitats are getting increasingly destroyed by human interference

and drastic land use changes to pave the way for growing developmental needs. This study has also revealed that 35 rice varieties, known to be grown traditionally by Goan farmers in the past, are no longer available and appear to have been lost unless they are available in collections maintained by the rice breeders or by the National Bureau of Plant Genetic Resources. It will be important for the rice researchers to follow up this lead and check the list given on page 114.

Written by the team of a research scholar, working for her Ph. D. degree, and her research guide, it is a delightfully brought out publication, printed on art paper and illustrated with good quality photographs and maps, usually seen in

trade catalogues and brochures. It is a commendable contribution to our knowledge of diversity of native rice varieties cultivated in Goa and adjacent rice growing areas. In addition to serving as an authentic source of scientific information to researchers and students interested in grain morphology and characterization of rice varieties, it may also be used to promote agri-tourism in Goa, attracting travelers to areas used primarily for agricultural purposes.

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