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# Physicochemical and cooking quality inquisition of aromatic and non-aromatic rice cultivars locally grown by Indian farmers

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The experiment was conducted to study the grain quality characteristics of aromatic and non-aromatic rice cultivars and to compare with other prominent rice cultivars. The result of an experiment on various physicochemical and cooking qualities attributes of rice cultivars, among which Badshah Bhog exhibited high hulling (80.82%) and milling (75.47%) whereas, highest head rice out-turns had in Gobind Bhog (58.22%) and lowest broken rice obtained in Khushboo (5.15%). All aromatic rice were short-bold, excepting Swetganga (short-slender) and Khushboo (medium-slender) whereas long-slender found in all non-aromatic rice with translucent, creamy white kernels. Kernel dimensions of all aromatic rice except Khushboo (1.35 mm) were satisfactory in respect of breadth and L/B ratio found less than 3.0 except Khushboo (5.55); all aromatic rice possess highest and lowest to non-aromatic rice with respect to breadth and L/B ratio, respectively whereas, Kalanamak, Khushboo, Sarbati and Todal had 6.16 mm to 7.88 mm kernel length fell marginally near than the desired minimum acceptable standard of kernel length for Basmati rice (6.6 mm). On cooking, Swetganga exhibited highest kernel elongation after cooking (KEaC) and kernel elongation ratio (KER) were 2.20 and 2.07, respectively whereas, Todal for highest (4.07) volume expansion ratio (VER). Swetganga and Todal were comparable and found to be significantly better than all other aromatic and non-aromatic rice with the respect of KEaC, KER and VER, respectively. All aromatic cultivars were higher (more than 20%) in amylose content (AC) and classified intermediate type as compared to evolved aromatic rice Kalanamak and non-aromatic Sarbati and Todal rice.

## Biography

Deepak Kumar Verma is an Agricultural Science Professional and is currently a PhD Research Scholar in Food Processing Engineering at Agricultural and Food Engineering department, Indian Institute of Technology, Kharagpur (WB), India. In 2012, he received a DST-INSPIRE Fellowship for PhD study by the Department of Science and Technology (DST), Ministry of Science and Technology, Government of India. He earned his BSc degree in Agricultural Science in 2009 from Faculty of Agriculture, Gorakhpur University, Gorakhpur and MSc in Agricultural Biochemistry from the Department of Agricultural Biochemistry, CSAUA&T, Kanpur, India in 2011. In addition, he is member of different professional bodies and his activities and accomplishments include conferences, seminar, workshop, training and also the publication of research articles, books and book chapters. Apart from this, he is working as a Senior Acquisitions Editor and Senior Technical Editor-in-Chief in the volume series of "Innovation in Agricultural Microbiology" for Apple Academic Press Inc. USA, and also an Associate Editor in the volume series of "Agricultural and Biomedical Engineering" for Apple Academic Press Inc., USA.

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