#### SHORT COMMUNICATION

# A Scented Sorghum Landrace from Bundelkhand Region of Uttar Pradesh

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During a germplasm collection trip to Bundelkhand region of Uttar Pradesh in year 2002, a seed sorghum landrace possessing basmati-rice like aroma was identified. The germplasm of scented sorghum landrace, locally known as *Basmati* (MASC-1/2002 and MASC-2/2002) was collected from Sarila village of Hamirpur district (26<sup>0</sup>N, 80<sup>0</sup>E). The region is semi-arid, receiving 600-8000 mm rainfall annually, spread over 40-50 days during mid June to mid September. Soil types are mar, kabar, parawa and rokar of undulating topography and erodable nature. Although, the landrace is not very popular among farmers for general cultivation, some farmers cultivate if for their own consumption due to the characteristic flavour and taste for culinary preparation called 'kui' from immature seeds (dough stage). Scented sorghum is planted in July and harvested in November in *kharif* season under rainfed conditions. The panicles are recurved (MASC-1/2002), erect (MASC-2/2002), decidous awns and heads had characteristics of the race–durra. The ear heads and seeds emit mild scent like that of typical basmati rice. Green leaves of the plant also emit distinct aroma when tested using the KOH technique, devised to distinguish basmati rice plant from normal plants (Sood and Siddique, 1989).

The seeds of scented sorghum are dimpled, bold (35.5g/1000 seeds) and had soft endosperm (hardness 8.63kg/seed on OSK 201 grain hardness tester Type E). Chemical analysis of seeds showed high protein (11.44%) and low tannin (88.33m/100g). Nutritionally, seed protein



Fig. 1: Scented sorghum (erect) Indian J. Plant Genet. Resour. 18(2): 260-261 (2005)



Fig. 2: Scented sorghum (curved)

could be rated of good quality as indicated by lysine content (1.6mg/16mgN), chemical score (22.72) and protein quality index for adults (73). The cultivar is under evaluation for yield potential during *kharif/rabi* seasons and for quantitative assessment of volatile aroma compounds. This local type may be utilized in the breeding programme for transfer of aroma character to other selected cultivars.

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### Reference

Sood BC and EA Siddique (1989) A rapid technique for scent determination in rice. *Indian J. Genet.* **38**: 268-271.