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Kharif sorghum genotype SPV 1786 with excellent quality characters and high yield

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Sorghum Research Unit, Dr. PDKV, Akola (MS) has developed one kharif sorghum genotype SPV-1786 with excellent dough and roti making quality. In the present era of nutritional security, development of such quality rich genotypes is of significance. This centre has identified new kharif dual purpose sorghum genotype SPV – 1786 which recorded grain yield (37.97 q/ha) which was comparable with the checks SPV – 1616 (38.44 q/ha) SPV – 462 (40.49 q/ha) and CSV – 15 (37.87 q/ha). It has further recorded higher fodder yield (130.47 q/ha) over the checks SPV – 462 (129.13 q/ha) and CSV – 15 (121.72 q/ha) and comparable with check SPV – 1616 (131.88 q/ha) during the three years AICSIP (All India Coordinated Sorghum Improvement Project) trials during 2006, 2007 and 2008 under zone IInd of AICSIP trials. The grain of genotype SPV – 1786 recorded higher value of starch content (69.55%) and comparable values of fat (2.55%), protein (9.88%) and 0.36% water activity (mean in percent) comparable with the checks SPV – 1616, SPV – 462 and CSV – 15. The Stover of genotype SPV – 1786 recorded lower value of lignin content (5.76%). However, comparable values of crude protein (5.33%), ASH (69.50%), ADF (45.40%) and *in vitro* organic matter digestibility (49.60%) with the checks SPV – 1616, SPV – 462 and CSV – 15. The ten dough quality and six roti quality parameters were evaluated under AICSIP trials of zone IInd. The genotype SPV – 1786 recorded good quality standard of the dough quality parameter for all the characters in respective scale of measurement viz water requirement (120.57ml), water absorption (161.03 ml), kneading quality (1), spreading quality (1), hectoliter weight (79.54 kg/ha), crude protein (9.96%), total soluble sugar (2.15%) and starch (70.32%) accept soluble protein (1.03%) and free amino acid (68.10 mg/100 gm meal) over the checks SPV – 1616, SPV – 462 and CSV – 15. The genotype SPV – 1786 recorded good standard of roti quality for all the characters studied viz colour (1.40), texture (1.47), test (1.20), flavor (2) acceptability (1.33) and Storage study at 4 hrs (1.37), 8 hrs (2.11) and 24 hrs (4.18). The genotype SPV – 1786 possess comparable grain and stover quality with checks SPV – 1616, SPV – 462 and CSV – 15. However, the dough and roti making quality of SPV – 1786 was found to be excellent over the checks SPV – 1616, SPV – 462 and CSV – 15. Hence, it holds promise for further use in breeding programme oriented towards improving the quality characteristics in sorghum.

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