

GV-2: A high yielding little millet variety for South Gujarat conditions

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SUMMARY

A high yielding little millet (*Panicum miliare* L.) culture WV-13 was developed through mutation breeding at Hill Millet Research Station, Navsari Agricultural University, Waghai (Dangs), Gujarat and released as Gujarat Vari-2 (GV-2) for south Gujarat region during 2006. It recorded an average grain yield of 1731 kg/ha. The culture WV-13 recorded 32.6 per cent increased grain yield over check variety GV-1 in station trials. In All India Coordinated trial during 2009-2010, the culture WV-13 registered 36.27 percent and 39.39 per cent increased grain yield over both the national checks CO-2 and OLM-203, respectively. Likewise, it ranked second position during 2010-2011 recording 10.16 per cent and 22.42 per cent more yield over national checks JK-8 and CO-2, respectively. It matures in 115-125 days. The panicle is long, semi-compact and branched. The grains are bold and attractive yellow in colour. The nutritional quality of culture WV-13 was found better than check variety GV-1.

Key Words : Little millet, Grain yield, Nutritional quality

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Little millet (*Panicum miliare* L.) is grown in India under varied agro-ecological situations. It is a hardy crop which can withstand drought better than most of the other cereal crops and also water logging to a certain degree (Gautam and Kaushik, 1981). It is a good source of protein, very rich in carbohydrate, fat, minerals and vitamins and should be considered as essential food for nutritional security (Nirmalakumari *et al.*, 2010). It is locally known as *Vari* and cultivated in hilly tracts of south Gujarat. The area under this crop is mainly concentrated in the districts of Dangs, Valsad and Navsari. In Gujarat, little millet is cultivated in an area of 9,400 hectares with 8,800 tonnes of production having the

productivity of 936 kg/ha. It is normally cultivated in marginal and poor soil under rainfed situation. The tribals consume its grains in place of paddy. In urban areas, grains are used during fast-day after removing the seed coat.

The research work on evolution of improved strain of little millet was initiated at Hill Millet Research Station, Waghai (Dangs) of Navsari Agricultural University and as a result a high yielding variety Gujarat Vari-1 (GV-1) was released in 1995. Due to pure line selection from local germplasm, the genetic superiority of GV-1 was not much evident. Hence, to broaden the genetic base of the variety, mutation breeding work was initiated and as a result a new high yielding GV-2 variety was developed to increase the production and productivity of little millet in south Gujarat. Ganapathy *et al.* (2008) also studied mutagenic effect on little millet varieties and revealed that induced mutagenesis has been successfully used to generate wider variability, portioning for isolating mutants with desirable characters of economic importance.

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MATERIALS AND METHODS

Little millet culture WV-13 was developed through