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RESEARCH ARTICLE

Performance of new ragi variety ML 365 by adopting production technology in southern Karnataka, India

R. VENKATESH GANDHI, SHAILAJA HITTALMANI AND N. NARESH BABU

SUMMARY

A study was conducted in South Eastern Dry Zone (Zone-5) of Karnataka, India to assess the performance of new ragi variety ML-365 vs GPU 28 (check) in rainfed situation. The performance of ML365 was superior in both grain and straw yield over GPU 28 at all the 40 locations. The farmers harvested an average grain yield of 32.24 q/ha with the highest grain yield of 47.20 q/ha and the lowest grain yield 10.00 q/ha with a yield advantage of 11.19 per cent over the existing variety (GPU 28) in all locations. Similarly, farmers harvested an average straw yield of 66.40 q/ha with the highest straw yield of 152.00q/ha and the lowest straw yield 30.00q/ha with a yield advantage of 13.40 per cent over the existing variety (GPU 28) in all 40 locations. The farmers identified important key traits like low dusting ability, superior cooking quality and high nutritive quality of the fodder of ML 365 as compared existing variety. The results revealed that acceptance of ragi variety by farmers mainly depends on key traits like high grain yield with better fodder quality like low dusting during threshing, grain colour and resistance to drought and blast. The research information gives feedback information to ragi breeder to incorporate these traits in breeding of new ragi varieties for rainfed condition.

Key Words **:** ML 365, Ragi, Adoption, Low dusting, Rainfed crop

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Ragi (*Elusina coracona*) is also called finger millet, originally native to the Ethiopian highland and was introduced to India about 4000 years ago. This finger millet is the main staple food consumed by majority of the people in South Karnataka. Ragi is grown as rainfed as well as irrigated crop, mostly cultivated by poor and marginal farmers as it is most nutritious among all the cereals and grown as pure crop as well as intercrop with pulses. Ragi is rich in carbohydrates, calcium, fibre, proteins and vitamins, contains slow releasing carbohydrates and provides continuous energy and is being promoted as food for diabetics.

Ragi is grown in 1.8 million ha with average yield of 1.3 t/ha in India and 9.16 lakh ha area and 14.02 lakh ton of productivity with average yield of 1.6t/ha in Karnataka (http:www.icrisat.org/crop-fingermillet.htm and Anonymous, 2011). The area has declined from 2.6 million ha in early sixties to around 1.8 million ha in 2002-2003.However, the annual production is maintained around 2.6 million tones with a productivity of around 1,400kg/ha (Anonymous, 2011). With existing varieties, the yields are low under rainfed situation due to non-availability of drought tolerant varieties. Incidence of leaf and neck blast also reduces the grain yield and fodder quality significantly.

A new high yielding, drought tolerant and blast resistant variety ML365 was developed by the Department of Genetics and Plant Breeding, University of Agricultural Sciences, Bangalore, India to overcome the above problem. This variety can be raised completely under rainfed situation and can tolerate severe stress for long periods without reduction in grain yields. The variety was developed by crossing Indo-

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Author to be contacted :
R. VENKATESH GANDHI, Department of Genetics and Plant Breeding, University of Agricultural Sciences, G.K.V.K., BENGALURU (KARNATAKA) INDIA
Email: gandhisimha@gmail.com

Address of the co-authors:
SHAILAJA HITTALMANI AND N. NARESH BABU, Department of Genetics and Plant Breeding, University of Agricultural Sciences, G.K.V.K., BENGALURU (KARNATAKA) INDIA
Email: shailajah_maslab@rediffmail.com