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Evaluation of pollen viability using *in vivo* and *in vitro* test in tuberose

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Abstract

An investigation on pollen viability in tuberose flowers under both *in vitro* and *in vivo* environment was conducted at the Department of Floriculture and Landscaping, Tamil Nadu Agricultural Univeristy, Coimbatore, India during the year 2012-13. The ten single genotypes *viz.,* Calcutta Single, Hyderabad Single, Kahikuchi Single, Mexican Single, Navsari Local, Phule Rajani, Prajwal, Pune Single, Shringar and Variegated Single were used for this study. Among the ten genotypes, Variegated Single showed its superiotity in pollen viability (96.73%) and germination (98.61%) than other genotypes under *in vitro* condition. High level of pollen germination was observed when Phule Rajani was crossed with Hyderabad single, Kahikuchi Single, Mexican Single and Variegated Single under *in vivo*. Likewise, the pollen grain of Calcutta Single, Kahikuchi Single, Navsari Local, Pune Single and Shringar germinated well on the stigma of Variegated Single under *in vivo*.

Key words: Tuberose- pollen studies- *in vitro* & *in vivo*

Biography

P. Ranchana is doing her PhD program in the Department of Floriculture and Landscaping, Tamil Nadu Agricultural University, Coimbatore. She has published more than 10 papers in reputed journals and working as a Senior Research Fellow in the GOI scheme entitled “Validation of DUS testing guidelines for jasmine”. She has attended and presented papers in both national and international conference.