

## FIELD PERFORMANCE OF DIFFERENT CULTIVARS OF TUBEROSE (*POLIANTHES TUBEROSA* L.) UNDER AGRO-CLIMATIC CONDITIONS OF PUNE

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**Abstract:** Adaptation and acclimatization of different tuberose cultivars under agro-climatic conditions of Pune are to be confirmed for obtaining better performance. The present investigation was conducted to evaluate the performance of tuberose cultivars during 2018- 2019. Thirteen single and eight double cultivars of tuberose were evaluated at the research farm of ICAR - DFR, Pune. Among the single cultivars evaluated highest plant height (121.33 cm), spike length (110.45 cm), plant spread (108.63 cm), number of leaves (16.52), leaf length (68.57 cm), number of spikes (6.3), number of florets per spike (41.863) and floret length (7.56 cm) was recorded in cv. Prajwal. Whereas, rachis length was found maximum in cv. Phule Rajani (37.63 cm) among single type varieties. Among the double cultivars, highest number of florets per spike (39.75), number of leaves (17.32), and floret length (7.65 cm) were recorded in cv. Suvasini. While number of spikes (6.62) and leaf length (58.32 cm) was superior in cv. Vaibhav. Plant height (121.70 cm) and spike length (110.56) was highest in cv. Swarna Rekha. Whereas cv. Hyderabad Double recorded highest rachis length (42.56 cm) and cv. Phule Rajat recorded highest plant spread (102.49 cm). Considering all the floral qualities and yield, cv. Prajwal and Phule Rajani among single types and cv. Suvasini, Vaibhav, Phule Rajat and Hyderabad double among double types could be recommended for commercial cultivation under agro-climatic conditions of Pune.

**Keywords:** Tuberose, Single, Double, Evaluation

### REFERENCES

Ashish, S., Anil, K. S., Anjana, S. and Minakshi, P. (2018). Performance of Tuberose varieties for flowering and flower yield parameters under Indo-gangetic plains of eastern Uttar Pradesh, India. *Int. J. Curr. Microbiol. App. Sci.*, **7**(8): 1129-1133.

Chawla, S. L., Desai, R. J., Singh, A., Patel, M. A. and Dhaduk, B. K. Assessment of Tuberose (*Polianthes tuberosa* L.) varieties for commercial cultivation under south Gujarat condition. *J. Orn. Hort.*, **22**(1&2): 58-61.

Gawande, M. B., Ganjure, S. L., Patil, D. A., Budhvat, P. K., Kedar, D. P. and Gollivar, V. J. (2017). Field performance of Tuberose varieties for growth, flowering and yield parameters under Nagpur (Maharashtra) conditions. *Trends in Biosciences*, **10**(4): 1198-1200.

Krishnamoorthy, V. Assessment of Tuberose (*Polianthes tuberosa* L.) varieties for growth and yield characters. *The Asian Journal of Horticulture*, **9**(2): 515-517.

Lalthawmliana, A., Kreditsu, R., Buchem, Y. A. and Bagang, L. (2017). Evaluation of Tuberose (*Polianthes tuberosa* L.) cultivars under the foothill conditions of Nagaland. *J. Orn. Hort.*, **20** (1&2): 69-74.

Madhumathi, C., Bhargav, V., Srinivasa Reddy, D., Sreedhar, D. and Naga Lakshmi, T. (2018). Evaluation of Tuberose genotypes for vegetative, flowering and yield traits. *Int. J. Chem. Stud.*, **6**(6): 88-90.

Mahawer, N. L., Bairwa, H. L. and Anil, K. S. (2013). Field performance of Tuberose cultivars for

growth, floral and economic characters under sub-humid southern plains and Aravalli hills of Rajasthan. *Indian J. Hort.*, **70**(3): 411-416.

Panase, V. G. and Sukhatme, P.V. (1985). Statistical Methods for Agricultural Workers, ICAR, New Delhi, 4th edition.

Patil, V. S., Munikrishnappa, P. M., Shantappa, T. (2009). Performance of growth and yield of different genotypes of tuberose under transitional tract of north Karnataka. *J. Ecobiology*, **24**(4): 327-333.

Ramachandrudu, K. and Thangam, M. (2009). Performance of Tuberose (*Polianthes tuberosa* L.) cultivars in Goa. *J. Hortl. Sci.*, **4**(1): 76-77.

Ranchana, P., Kannan, M. and Jawaharlal, M. (2015). Evaluation of Tuberose (*Polianthes tuberosa* L.) genotypes (double) for yield and genetic variability. *Trends in Biosciences*, **8**(7): 1766-1769.

Safeena, S. A., Thangam, M. and Singh, N. P. (2019). Evaluation of different cultivars of Tuberose (*Polianthes tuberosa* L.) under humid agro-climatic conditions of Goa. *J. Hortl. Sci.*, **14**(2): 109-114.

Satya, P., Arya, J. K., Singh, R. K. and Singh, K. P. (2015). Varietal performance of tuberose in Muzaffarnagar under western plain zone condition. *Asian. J. Hort.*, **10**(1): 149-152.

Singh, K.P. and Uma, S. (1995). Studies on ratoon crop in tuberose Cv. Single and Double. *Indian Perfumer*, **39**(4): 158-160.

Tiwari, J. K. and Singh, R. P. (2002). Effect of pre planting GA3 treatment on tuberose. *J. Orn. Hort.*, **5**(2): 44-55.

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