VARIETAL EVALUATION OF GLADIOLUS (GLADIOLUS GRANDIFLORA L.) UNDER THE HILLY CLIMATIC CONDITION OF MAINPAT, CHHATTISGARH

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Abstract: The present investigation was carried out at Potato Research Station, Mainpat, Surguja Chhattisgarh, Indira Gandhi Krishi Vishwavidyalaya. The aim of the study was to evaluate the performance of most suitable cultivar under the climatic conditions of Mainpat, Surguja district. Five cultivars of Gladiolus namely White prosperity, Delhi Local, Juster, Punjab Morning, and Surguja Local were evaluated for their adoptability and performance. Results on vegetative characteristics showed that cultivars White Prosperity and Punjab morning took less number of days for sprouting, White prosperity and Punjab morning produced more plants per corm and White Prosperity obtained maximum plant height with maximum florets. Results on floral characteristics showed that cultivar White prosperity and Delhi Local were earlier for spike emergence, White prosperity and Juster took minimum days to flowering, maximum florets were produced by White prosperity and Juster obtained maximum spike length and White Prosperity remained attractive for longer time. Results on corm and cormels characteristics showed that White prosperity produced more corms, Juster produced maximum cormels and gained maximum corm size, maximum corm weight was recorded in Juster. From the results we conclude that keeping in view the vegetative and reproductive characteristics White prosperity, Juster, Punjab Morning is recommended for general cultivation.

Keywords: Gladiolus, Cultivars, Performance

REFERENCES

Aswath, C., Parathasarathy, V. A., (1996). Evaluation of gladiolus cultivars. *J. Hill. Res.*, **9** (1):147-149.

Bushman, J. C. M., (1990). Gladiolus as a cut flower in subtropical and tropical regions. *International Flower Bulb Center*, Holland.

Chopde, N., Gawali, R. P., Thakre, S., (2012). Evaluation of gladiolus varieties for flower and corm production under vidarbha conditions. Plant Archives, 12 (2): 911-913.

Coetzee, J. H., (2002). Benefit sharing from flowering bulbs: Is it still possible? *Acta Hort.*, 570:21-27.

Goldblatt, Peter, Manning, J., (1998). Gladiolus in Southern Africa. Vlaeberg: Fernwood Pres.

Kamble, B. S., Reddy, B. S., Gangadharappa, P. M., Kulkarni, B. S., (2004). Evaluation of gladiolus varieties for quality parameters, flower and corm yields. *Haryana J. Hort. Sci.*, **33** (1/2): 74-75.

Kem, J. C., Yadav, S. K., Kumar, S., (2003). Performance of gladiolus cultivars under Valley of Uttaranchal. *Progressive Hort.*, 35 (1): 108-110.

Kumar, S K., Chandrashekar, R., Padma, M. Shankar, S. A., (2009). Effect of plant growth regulators on dormancy, corm and cormel production in gladiolus (*Gladiolus grandiflorus* L.). *J. Orna.*

Hort., 12(3): 182-187.

Lal, S. D., Seth, J. N., Daci, N. S., (1984). Studies on varietal performance of gladiolus in U.P. Hills. Progressive Hort., 16: 124-128.

Lewis, G. J., Obermeyer, A. A., Barnard, T. T., (1972). Gladiolus: a revision of the South African species. *J. South African Botany Suppl.*, 10.

Patil, S. S. D., Katwate, S. M., Patil, M. T., Patil, G. K., (1994). Performance of some exotic varieties of gladiolus. *J. Maharashtra, Agri. Universities.*, 19(1):38-40.

Rani, Rupa, Prasad, K. K., Ranjan, R. (2007). Studies on varietal performance in gladiolus. *Orissa J. Hort.*, **35**(2): 35-38.

Ram, R. B., Tomar, K. S., Datta, S. K., (2005). Performance of certain gladiolus varieties under sodic conditions. *J. Orna. Hort.*, **8**(1): 77-78.

Rao, T. M., Janakiram, T., (2006). Performance of exotic Gladiolus and I. I. H. R. gladiolus cultivars. *J. Ornamental Hort.*, 9(1): 61-62.

Steel, R. G. D., Torrie, J. H., Dieky, D. A., (1997). Principals and Procedures of Statistics. 3rd Ed. Mc Graw Hill Book Co, Inc., New York, USA.

Swaroop, K., Singh, A.P., (2007). Screening of new gladiolus hybrids for growth and flower characters. *Orissa J. Hort.*, **35**(1): 1-5.

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