RESEARCH ARTICLE

EVALUATION OF ADVANCE BREEDING LINES OF TUBEROSE (*POLIANTHES TUBEROSA* L.) FOR FLOWER YIELD AND QUALITY

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Abstract: Three advance breeding lines 1x6-1, IIHR-12 and An sel-1 were evaluated for two consecutive years along with parents, local check and commercial check for flower yield and quality parameters. Advance breeding line IIHR-12 was found to be superior with better flowering and quality parameters such as the medium tall spike (72.64 cm), longest rachis (28.06 cm), extended flowering duration (190.80 days) number of matured bud on spike (5.31), shorter intermodal length (3.39 cm), low spike weight (54.87 g). IIHR-12 with straight spike buds with pink tinge and attractive star shaped flowers were found to be suitable as cut flower. It was also found to be field tolerant to root knot nematode *Meloidogyne incognita.* Advance breeding line 1 x6-1 was found to be superior to the commercial check Arka Prajwal for traits days to opening of first floret (22.07), flowering duration (185.67), weight of flower spike (79.24g) with straight spikes and flower buds with pink tinge. AN sel-1 has recorded to be superior than the commercial check Arka Prajwal for days to opening of first floret (21.70), number of florets per spike (55.17), diameter of floret (4.69 cm), flowering duration (207.41), number of spikes per clump (5.03). The nature of spike of AN sel-1 was found to be bent with pink tinge on flower buds. The commercial check Arka Prajwal registered superior performance for the traits matured bud weight (1.80g), single flower weight (2.29g) and hundred flower weight (221.04 g).

Keywords: Tuberose, Advance breeding lines, Evaluation, Flower yield, Quality

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