



Research Paper

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Evaluation of sunflower germplasm for ornamental cut flower production (*Helianthus annuus* L.)

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Abstract : Fifty genotypes of *Helianthus annuus* L. were evaluated under division of Horticulture, U.A.S., G.K.V.K., Bengaluru for ornamental cut flower production. Experiment was laid out in a Randomized Block Design with five replications. All the growth and flowering parameters were significantly influenced due to germplasm. Based on the plant height, the genotypes were grouped in to three different growth habit *i.e.* tall, medium tall and dwarf. SH-1, SW-1, 1B-19R and GPR-14 exhibited maximum number of leaves per plant, number of flowers per plant, flower stalk length and flower diameter, respectively. Whereas longer vase life was noticed in HAM-196, which was at par with P-70R, M-17R and RHA-284. In general wide variations among the genotypes were noticed for all growth and flowering parameters.

Key words : Sunflower germplasm, Ornamental cut flower, Vase life, Growth parameters

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Sunflower (*Helianthus annuus* L.) is native to North America, where it was grown by indigenous people for food and medicinal purposes. It was first introduced in Europe as an ornamental flower but later years it become a very important oilseed crop around the world. In early 1990s, it regained popularity as a cut flower. Most of the existing Indian sunflower cultivars are suitable for oil extraction and not popular as cut flower or garden flower on commercial scale. Hence, an attempt was made to evaluate the sunflower germplasm for ornamental cut flower production which will not only help the consumer to get better quality flowers but also fetches higher income to grower

RESEARCH METHODS

The present investigation comprised of fifty genotypes (R-lines) of sunflower were grown at AICRP (sunflower), ZARS, U.A.S., GKVK, Bengaluru during 2009-2010. Experimental plot was laid out in a Randomized Block Design

with five replications. Seeds were treated with fungicides before sowing and 2-3 seeds per hill were sown at 4-5 cm depth, 30cm interval between plants and 60cm between the rows. Thinning was done within 10-12 days after sowing to keep one healthy plant per hill as excess plant population adversely affects the growth and yield of the crop. Uniform cultural practices were followed for all genotypes of sunflower. Various growth *i.e.* plant height, number of leaves and flowering parameters *i.e.* number of flowers, flower stalk length, flower diameter and vase life were recorded. The growth parameters were recorded at fifteen days intervals after sowing. Flowers were harvested early in the morning or late evening hours by scateur at one florets open stage to study the postharvest life and results were subjected to statistical analysis.

RESEARCH FINDINGS AND DISCUSSION

The data on plant height at different stages of growth in different genotypes of ornamental sunflower are presented in Table 1. The plant height at different stage of growth varied