

Variations, heritability and genetic advance studies in bougainvillea genotypes

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SUMMARY

Present investigation was conducted to study the variations, heritability and genetic advance studies in bougainvillea genotype. The considerable amount of genetic variation in genotype was noticed. A high heritability was found coupled with genetic advance. The best heritability was found in length of floral tube and diameter of branch which showed that influence of environment in different characters was less.

Key Words : Bougainvillea, Variations, Heritability, Genetic advance, Genotypes

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Bougainvillea is an important shrub belongs to the family Nyctaginaceae. Popularity of this plant as a shrub of climbing nature and its capacity for adoptability in various situations alongwith growing behavior are appreciated (Sindhu, 2001). It is a fast growing plant and has the exhaustive range of different colours (Criley, 1977; Kumar *et al.*, 1998; Khoshoo, 1998). Some of the varieties have a great potential for earning to the nurserymen for meeting out the demands of plants in the season (Jayanti, 2000; Kumar and Prasad, 2001; Swarup, 1993). Mathur (2001), Sindhu (2001) and Singh (1996) reported that it is needful and important to study the performance of existing varieties, hybrids and also to test the new ones for superiority of performance and also identify new colour or hybrids and colour combinations

alongwith desirable floral parameters *i.e.* length of branch, sub-branch, more number and better size of bracts increasing its life on a branch or after removal from it and take in use for vaselife. In fact the knowledge of different varital characteristic and magnitude of genetic variability increase immense nature of planning for efficient breeding work to improve the desired potential of different genotypes.

MATERIALS AND METHODS

30 genotypes were selected for the present investigations. Experiment was planned in Randomized Block Design with three replications in D.A.V. College, Kanpur during 2006- 07 and 2007- 08. Observational data were analyzed as per method recommended by Robinson *et al.* (1949).

RESULTS AND DISCUSSION

Results were drawn after data analysis which revealed the significant differences among the genotypes for different component characters. A considerable amount of genetic variation in the genotypes of bougainvillea was noted. A high range of heritability was found to range from 5.90202 to 95.98127 in diameter of thorn and length of branch, respectively. In fact high heritability was found coupled with

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