

## Research Paper

# Path coefficient analysis in floribunda rose genotypes

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### Abstract

Experiments were conducted on 27 floribunda rose genotypes for studying the direct and indirect effect of different traits in flower development. Path coefficient results revealed positive and direct effect of a parameter contributing relationship with other characters. Significant effect was found in length of shoot, length of flower bud and number petals per flower. Vegetative aspects showed positive and direct response to flower development in floribunda genotypes.

**Key words:** Floribunda rose, genotypes, path-coefficient, relationship.

### Introduction:

Rose research in India has got tremendous development which resulted a great achievement for the development of new varieties (Chadha, 1993; Singh *et al.* 2000). Roses have acquired top position in world trade for its attractive colours, freshness, fragrance etc. (Pal, 1968, 1991; Singh, 1999). The available varieties of Rose have created a great entrepreneurial venture and impact for industrial and value added products (Singh, 2009). Moreover, export of flowers and products gained a momentum for earning foreign exchange in different international markets (Janakiram *et al.*, 2013, 2013a, Chauhan *et al.*, 1993). In fact, export potential of commercial varieties increasingly creating a great scope in floriculture industry in India (Prasad *et al.* 1998; Swarup and Bhargava, 1972; Singh, 2009; Jankiram, 2010).

Production of desired quality flowers depends upon the vegetative and reproductive traits, which contribute directly and indirectly for developing a new improved seed variety. Different traits in a correlation and path analysis may come out indicating its role, positive or negative, for making improvement (Misra and Saini, 1990, Nair and Shiva, 2003; Misra *et al.*, 2003). Floribunda roses are more appealing to minds because of more number of flowers per bunch (Pal, 1968; Singh and Sharma, 2000). Considering flower quality of different parameters, present investigations were taken up to assess the contributing extent of a particular character for making improvement leading to flower production in floribunda roses.



Floribunda Rose varieties

### Materials and Methods:

Twenty seven floribunda genotypes were selected for plant material for experimental trials. Uniform, healthy one year old plants were selected and planted in experimental plots, which were laid out in randomized block design with three replications at Chandra Shekhar Azad University of Agriculture and Technology, Kanpur during 2014-15 and 2015-16. Cultural operations and application of nutrients were made equally to all treated plants to eliminate other influence. Data were recorded for different characters following standard experimental procedure and the same were subjected to statistical analysis with the method as recommended by De Wey and Lu, 1959. Numerical data





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