

# **Studies on Genetic Divergence in Safflower (*Carthamus tinctorius* L.)**

**D Shivani and Ch Sreelakshmi**  
Agricultural Research Station, Tandur

## **ABSTRACT**

A field experiment was conducted with eighty safflower germplasm lines to study the diversity among the germplasm lines, which were grouped into twelve clusters revealing the presence of considerable amount of genetic diversity in the material. Cluster II had the maximum number of (23) genotypes followed by cluster I with 22 genotypes and cluster V with 10 genotypes. The intra cluster distance ranged from 0.00 to 133.29. The highest intra cluster distance was observed for cluster XII (133.29) followed by cluster II (85.50) and cluster I (78.48). The inter cluster D2 values ranged from 43.11 to 1506.01. The maximum inter cluster distance was observed between the clusters IV and XII (1506.01) followed by I and XII (1372) and III and XII clusters (1239.96), which indicated that the genotypes included in these clusters will give high heterotic responses and thus produce better segregants. Among the 12 clusters studied, seed yield contributed the most (95%) towards the divergence of genotypes.

**Key words :** Genetic divergence, Safflower.