

Diversity Analysis in Sesame (*Sesamum indicum* L.)

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ABSTRACT

Diversity analysis was carried out using thirty six sesamum genotypes. The genotypes were evaluated for nine characters viz., days to 50% flowering, days to maturity, plant height, number of primary branches/plant, number of capsules per plant, number of seeds per capsule, 1000 seed weight, oil content and seed yield per plant. In the diversity analysis, it was observed that the per cent contribution towards genetic divergence was maximum by the trait, number of primary branches per plant. The genotypes were grouped into seven clusters using Tocher's method and the distribution into seven clusters was at random with maximum number of genotypes in cluster I (12 genotypes). The maximum intra cluster distance was observed in the cluster IV and the inter cluster distance was the highest between clusters V and VI indicating wide genetic diversity between the clusters and crosses can be attempted between the genotypes of these clusters to obtain desirable transgressive segregants. Higher cluster mean values for number of primary branches per plant, number of seeds per capsule, days to maturity and plant height were observed in cluster V while cluster VI recorded minimum number of days to 50% flowering and the highest seed weight and seed yield per plant indicating the importance of this cluster in breeding programmes to generate early maturity types with increased seed yield through seed weight.