Screening of chrysanthemum genotypes for quality traits under Ayodhya regions of Uttar Pradesh

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ABSTRACT

Fifteen chrysanthemum genotypes were screened under pot conditions in a Completely Randomized Design (CRD) with three replications during 2023–2024 at the Main Experiment Station, College of Horticulture and Forestry, Acharya Narendra Deva University, Ayodhya (U.P.). Significant variations were observed among genotypes for morphological, physiological, qualitative, and yield traits. 'Autumn White' recorded maximum plant height (59.33 cm) and inter-nodal length (4.33 cm), while 'Kusum' and 'Phyllis' showed early bud (71 days) and flower initiation (88 days), respectively. 'Sport' produced the highest number of ray florets (322), largest flower diameter (12.52 cm), and highest flower fresh (8.72 g) and dry weight (0.74 g). 'Liliput' had the highest flower count per plant (164), and 'Sunny' showed maximum leaf area (23.82 cm²). 'Phyllis' also had the highest chlorophyll content (0.31 mg/g). 'Zembla' exhibited maximum stem diameter (3.97 mm), flowering duration (30.33 days), and shelf life (6.67 days). These superior genotypes hold potential for use in cut flowers, loose flowers, and pot plant production, and in future breeding programs.

Keywords: Chrysanthemum, genotypes, morphological traits, quality, yield