Evaluation of gladiolus cultivars under subtropical conditions of Jammu

R.K. PANDEY*, DEEP JI BHAT, SHEETAL DOGRA, ARVINDER SINGH, NOMITA LAISHRAM AND SHIVANI JAMWAL

Department of Vegetable Science and Floriculture, Sher-e-Kashmir University of Agricultural Science and Technology (J), Chatha, JAMMU (J&K) INDIA (E-mail: drkp12@rediffmail.com)

Abstract: Fifty six gladiolus cultivars (32 exotic and 24 Indian) were evaluated for cut flower and corm production at the experimental farm of the Division of Vegetable Science and Floriculture, FOA, Chatha, SKUAST-J, Jammu. The cultivars were evaluated under Jammu conditions during 2007-2008. The analyzed data indicated that four cultivars viz., White Prosperity, Eurovision, Jyotsana and American Beauty proved superior over the others for various parameters of vegetative growth, flowering and corm and cormel production. Eurovision was found superior with respect to plants height (133.00 cm), number of leaves per plant (10.00) and number of florets per spike (19.00). Cultivar White Prosperity recorded maximum length of leaves (55.33 cm), longest spike (91.16 cm), maximum rachis length (76.16 cm), maximum floret diameter (11.36 cm), heavier corms (121.66 g) and size of corm (6.89 cm). Minimum number of days to slipping (66.00 days) and colour breaking (80.33 days) were recorded in cultivar Chandni. Maximum number of daughter corms (3.10 cm) and number of cormels (68.00) were recorded in cultivar Jyotsana.

Key Words: Gladiolus, Cultivars, Corm, Flowering


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INTRODUCTION

Gladiolus belonging to the family Iridaceae is an important bulbous crop both in domestic as well as international market. It is commercially grown in tropical, subtropical and hilly parts of the world. The exquisite and majestic beauty of gladiolus spikes, exhaustive range of colours, different shades, varying number of florets, size and better keeping quality has made gladiolus the most popular bulbous flower crop grown worldwide. The addition of new varieties every year necessitates varietal evaluation to find out suitable variety for specific region. The performance of any crop or cultivar largely depends on genotypic and environmental interaction. As a result, cultivars which perform well in one region may not perform the same in other regions of varying climatic conditions. Hence, the present investigation was, therefore, planned to evaluate 56 gladiolus cultivars suitable for cut flower and corm and cormel production in the subtropical conditions of Jammu.

MATERIALS AND METHODS

An experiment was carried out during the year 2007-2008 to evaluate 56 cultivars (32 exotic and 24 Indian) in a Randomized Block Design (RBD) with three replications at the experimental farm of the Division of Vegetable Science and Floriculture, SKUAST-J, Chatha, Jammu. Chatha is situated at 32°39 ‘N latitude, 74°48’E longitude, 300 m amsl. Healthy and uniform size corms of 4-5 cm diameter were planted in the month of October, at the depth of 6-10 cm with a spacing of 40x20 cm. the soil of the experimental field was sandy loam, having 6-7 pH. The observations on growth, flowering and