

EFFECT OF DIFFERENT PLANTING DATES ON PERFORMANCE OF CHINA ASTER (*Callistephus chinensis* Nees.) VARIETIES

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ABSTRACT

In an experiment conducted at RHFRS Bhota (H.P.) during 2004-2006, performance of China Aster (*Callistephus chinensis* Nees.) varieties namely Kamini, Poornima, Shashank and Violet Cushion were planted on 10th February, 10th April, 10th June and 10th August, were study, vegetative and floral parameters were recorded at the time of full bloom, whereas seed yield was recorded after harvesting the dried seed head. Maximum plant height and spread were found in var. Kamini (77.59 cm and 48.75 cm., respectively). April planting produced the plants with maximum height and spread (74.09 cm and 32.93 cm, respectively). In general, August planting hastened flowering in all the varieties and Poornima took minimum days to bloom (96.35 days). Maximum number of flowers per plant (54.07) was recorded in var Violet Cushion when planted in June. June planting also produced the largest flowers (5.49 cm diameter). Maximum seed yield was recorded in Variety Violet Cushion (1.83 g/plant) when planted in August.

Key words: China aster, Planting dates, Quality, Yield parameters

China Aster (*Callistephus chinensis* Nees.) is an important annual belonging to family Asteraceae. Besides their use as loose flowers, asters are commercially important as cut flowers, potted plants, used in flower arrangements and make excellent bedding plants. Asters are widely loved owing to their spectacular blooms in single, double or semi double forms in myriad colours ranging from violet, purple, magenta, pink and white. The half hardy annual is widely adapted to different agro-climatic conditions and can be made to bloom almost throughout the year. Considering the economic importance of the crop, the present studies were designed to study the effect of different planting dates and their suitability for growth and yield characteristics of different varieties of aster in the sub tropical region of Himachal Pradesh.

MATERIALS AND METHODS

The present study was conducted at the experimental farm of RHFRS, Bhota during 2004-2006. Four varieties of Aster (*Callistephus chinensis* Nees.) namely Kamini, Poornima, Shashank and Violet Cushion were selected for the experiment. Seeds were sown one month before planting in well prepared nursery beds. Well grown seedlings at two leaf pair stage were transplanted at 4 different planting dates (D₁, D₂, D₃, D₄ corresponding to 10th February, 10th April, 10th June and 10th August,

respectively). Crop was grown in well prepared raised beds at a spacing of 20x20 cm from row to row and plant to plant, respectively. Intercultural operations like hoeing, weeding, irrigation, fertilization plant protection measures etc. were followed as per standards. Different vegetative and floral parameters were recorded at full bloom stage. Seed yield was recorded after harvesting the dried seed heads. Pooled data for two consecutive years were subjected to analysis of variance using factorial RBD.

RESULTS AND DISCUSSION

Data in the Table 1 and 2 shows that the varieties differed significantly from one another with respect to plant height and spread. Plants of var. Kamini attained a maximum height (77.59 cm) and spread (48.75 cm), whereas these parameters were recorded minimum in var. Violet Cushion (46.77 cm and 22.27 cm, respectively). Further, plants attained a maximum height (74.09 cm) and spread (32.93 cm) when planting was done in the month of April (D₂) as compared to other planting dates. It is further evident from the interaction data that plants of var. Kamini had maximum height (92.18 cm) and spread (51.85 cm) when planted in April (D₂). In general, April planting resulted in maximum plant height and spread among different planting dates in all the varieties. Minimum plant height and spread were recorded in var Violet Cushion from February (D₁) and August (D₄) plantings, respectively. In the present experiment, the data on plant height and plant spread was recorded at the time