

Effect of Different Planting Times and Mulching Materials on Seed Quality and Yield of China Aster Cultivars

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Abstract : The present investigations were carried out at the experimental farm of Department of Floriculture and Landscape Architecture, Dr. Y. S. Parmar University of Horticulture and Forestry, Nauni, Solan, H.P. during 2015 and 2016. The experiment was laid out in a Randomized Block Design (factorial) consisting of 48 treatment combinations of four planting dates viz., D1- mid March, D2-mid April, D3-mid May and D4- mid June and two cultivars namely V1- Kamini and V2 -Poornima with six mulching materials M-0- without mulch, M1- Black plastic mulch (100 μ), M2- Silver plastic mulch (100 μ), M3- Transparent plastic mulch (100 μ), M4- Pine needle (100 μ) and M5- Grass (1 inch layer). Among different planting times, D4 i.e. mid June planting obtained best results for number of seed per flower (179.38), germination percent (83.92 %), electrical conductivity (0.97 ds/m), seedling length (7.93 cm), seedling dry weight (7.09 mg), seedling vigour index I (763.79), moisture content (7.83 %) and 1000 seed weight (1.94 g). However, seed yield per plant (14.30 g) was recorded to be maximum in mid of March. Among the cultivars, cv. 'Poornima' gave best results for number of seed per plant (187.30). However, cv. 'Kamini' recorded the best result for seed yield per plant (12.55), electrical conductivity (1.11 ds/m), germination percent (80.47 %), seedling length (6.39 cm), seedling dry weight (5.11 mg), seedling vigour index I (649.49), moisture content (9.28 %) and 1000 seed weight (1.70 g). Silver plastic obtained best results for number of seed per flower (170.10), seed yield per plant (15.66 g), germination percent (80.17 %), electrical conductivity (1.26 ds/m), seedling length (5.88 cm), seedling dry weight (4.46 mg), seedling vigour index I (616.78), Moisture content (9.35 %) and 100 seed weight (1.97 g).

Keywords : cultivars, mulch materials, planting times, flowers

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