## Research Paper

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# Comparative performance of chilli genotypes and hybrids under Kashmir valley conditions (*Capsicum annum* L.)

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Division of Olericulture, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir, Shalimar, SRINAGAR (J&K) INDIA Abstract: Significant differences were observed for all the characters under study in a experiment carried out at the experimental field of Division of Olericulture, SKUAST-K, Shalimar during *Kharif* 2009. The experimental material consisted of thirteen genotypes and twelve hybrids of chilli, raised in a plot of size 2.4 m x 1.8 m at spacing of 45 cm x 30 cm for chilli genotypes and 45 cm x 60 cm for chilli hybrids. Maximum average fruit weight was recorded by 08/CH 4/B-8 (9.50 g) followed by SH-82 and 08/CH 4/B-6 (6.13 g each) and 08/CH 4/B-5 (6.03 g) while minimum by SH-48 (2.47 g); maximum fruit yield per plant and fruit yield per hectare was recorded by SH-72 (581.60 g/plant and 269.26 q/ha, respectively) followed by 08/CH 4/B-8 (519.40 g/plant and 240.46 q/ha, respectively) and 08/CH 4/B-5 (508.26 g/plant and 235.30 q/ha, respectively) while minimum by SH-48 (204.24 g/plant and 94.55 q/ha, respectively). From the present investigations, it can be concluded that the genotype SH-C-108 exhibited maximum dry fruit of 319.48 q/ha emphasizing its importance with respect to better future prospects for growing under agro climatic conditions of Kashmir valley as compared to hybrids involved in the present investigation.

Key words: Chilli, Comparative performance, Temperate conditions

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Chilli (Capsicum annum L.) is grown throughout the Kashmir valley. It is one of the most valuable and commercial spice of India. There is hardly any vegetable where chilli is not used as a condiment. It is a rich source of vitamin A and vitamin C and known to be stimulant, alternative, carminative and anticoagulant die to presence of capsaicin. Keeping the importance of the crop in view, efforts were made to evaluate various chilli genotypes and hybrids (under release) in terms of yield and attributing traits under agro climatic conditions of Kashmir.

## **RESEARCH METHODS**

The present investigation was carried out at the experimental field of Division of Olericulture, SKUAST-K, Shalimar during *Kharif* 2009. The experimental material consisted of thirteen genotypes and twelve hybrids of chilli, raised in a plot of size 2.4 m x 1.8 m at a spacing of 45 cm x 30 cm for chilli genotypes and 45 cm x 60 cm check for chilli hybrids. All the recommended package of

practices were followed for raising the good crop. Observations were recorded from ten randomly selected plants of each genotype in each replications on various characters *viz.*, plant height (cm), plant spread (cm), number of branches per plant, number of fruits per plant, fruit length (cm), fruit breadth (cm), number of seeds per fruit, average fruit weight (g), fruit yield per plant (g) and fruit yield (q/ha).

### RESEARCH FINDINGS AND DISCUSSION

Significant differences were observed for all the characters under study as given in Table 1 for chilli genotypes and Table 2 for chilli hybrids. Maximum plant height was recorded by the genotype CH-4 (64.30 cm) followed by SH-C-107 (64.00 cm) and SH-C-111 (63.00 cm) while least by CH-2 (46.00 cm); maximum plant spread was recorded by the genotype SH-C-1011 (52.00 cm) followed by SH-C-1154 (49.30 cm) and CH-4 (47.00 cm) while least by SH-C-505 (40.30 cm); maximum