

Performance of Chilli Genotypes for Growth and Yield Attributing Traits under Hill Zone of Karnataka

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Abstract An experiment was conducted during *kharif* 2014-15 to identify potential genotypes for an seventeen quantitative traits among forty genotypes of chilli (*Capsicum annuum* L.). The analysis of variance revealed significant differences among the genotypes for all the characters indicating the presence of genetic variability among the genotypes. Among the forty genotypes, the genotype DCC-185 (61.1 cm) recorded the maximum plant height, whereas the genotypes DCC – 185 (10.60) recorded the highest number

of branches/plant. The genotype DCC – 185 (33.5) recorded earlier flowering, while the maximum number of fruits per plant was observed for DCC – 172 (275.0). The genotype DCC – 66 (5.45 g) recorded the maximum fruit weight, whereas the maximum fruit length was observed for the genotype DCC – 157 (9.69 cm). The genotype DCC – 86 (4.27) recorded the highest fruit diameter, whereas the genotype DCC – 172 (191.31 g) recorded the highest fruit yield per plant.

Keywords *Capsicum annuum*, Genotypes, Yield, Mean performance, Variability.

Introduction

Chilli is a member of the Solanaceae family, originated from south and Central America. Chilli is an indispensable vegetable as well as spice due to its pungency, taste, appealing color and flavor and has its unique place in the diet as a vegetable cum spice crop. India is the largest producer, consumer and exporter of chilli in the world with an annual production of 1.30 million tonnes from 0.79 million ha with the production share of 22.72% (NHB, 2013-14) [1]. Andhra Pradesh leads the country in its production, productivity and export followed by Karnataka, West Bengal, Madhya Pradesh and Orissa. The alkaloid capsaicin present in placenta of the chilli fruit responsible for its pungency has diverse prophylactic and therapeutic uses in Allopathic and ayurvedic medi-

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Table 1. List of forty chilli germplasm lines used in the experiment.

| Sl. No. | Name of germ-plasm | Sl. No. | Name of germ-plasm | Sl. No. | Name of germ-plasm | Sl. No. | Name of germ-plasm |
|---------|--------------------|---------|--------------------|---------|--------------------|---------|--------------------|
| 1 | DCC-1 | 11 | DCC-27 | 21 | DCC-55 | 31 | DCC-127 |
| 2 | DCC-2 | 12 | DCC-33 | 22 | DCC-66 | 32 | DCC-134 |
| 3 | DCC-5 | 13 | DCC-36 | 23 | DCC-69 | 33 | DCC-135 |
| 4 | DCC-10 | 14 | DCC-39 | 24 | DCC-77 | 34 | DCC-157 |
| 5 | DCC-14 | 15 | DCC-42 | 25 | DCC-82 | 35 | DCC-164 |
| 6 | DCC-15 | 16 | DCC-43 | 26 | DCC-86 | 36 | DCC-167 |
| 7 | DCC-18 | 17 | DCC-44 | 27 | DCC-92 | 37 | DCC-168 |
| 8 | DCC-20 | 18 | DCC-50 | 28 | DCC-103 | 38 | DCC-172 |
| 9 | DCC-24 | 19 | DCC-52 | 29 | DCC-109 | 39 | DCC-185 |
| 10 | DCC-25 | 20 | DCC-53 | 30 | DCC-115 | 40 | DCC-186 |

cine and directly scavenge various free radicals [2, 3] and has wide applications in the food, medicine and pharmaceutical industries. Chilli is a good source of vitamin C (ascorbic acid) used in food and beverage industries [4]. It has also acquired a great importance because of the presence of oleoresin which permits better distribution of color and flavor in foods.

The assessment of nature and magnitude of variability in the available germplasm is the prerequisite of any breeding program. The effectiveness of selection and development of improved varieties depends on the nature of variability expressed for yield and its contributing characters in the gene pool. High yield and yield contributing characters with improved quality parameters have been the major objective of chilli breeding program. The importance of genetically diverse genotypes with desirable combinations has also been realized by several workers [5]. Keeping in view the above facts, the present investigation was undertaken to observe the performance of genotypes of chilli for quantitative traits and to screen the best performing genotypes for utilization in further breeding program.

Materials and Methods

The present investigation was carried out at the veg-

Table 2. Analysis of variance (mean sum of square) for growth, yield and quality parameters in chilli genotypes. * & ** indicates Significant @ 5% and 1% level respectively, *DAT: Days After Transplanting.

| Sl. No. | Sources of variation/characters | Repl- cation | Treatments (genotypes) | Error |
|---------|-------------------------------------|--------------|------------------------|--------|
| 1 | Plant height (cm) at 60 DAT | 6.05 | 6.61* | 3.44 |
| 2 | Plant height (cm) at 90 DAT | 301.08 | 40.15** | 10.77 |
| 3 | Number of branches per plant 60 DAT | 1.30 | 0.43* | 0.24 |
| 4 | Number of branches per plant 90 DAT | 110.92 | 3.11** | 1.44 |
| 5 | Leaf area (cm ²) | 0.007 | 1.34** | 0.44 |
| 6 | Leaf Area Index | 0.01 | 0.11* | 0.06 |
| 7 | Days to first flowering | 183.32 | 23.44** | 4.25 |
| 8 | Days to 50% flowering | 187.88 | 18.04** | 1.101 |
| 9 | Days to first harvest | 193.44 | 17.57** | 0.71 |
| 10 | Number of fruits per plant | 2097.16 | 4208.003** | 234.34 |
| 11 | Fruit diameter (cm) | 1.93 | 0.53** | 0.0178 |
| 12 | Fruit length (cm) | 1.39 | 2.73** | 0.0195 |
| 13 | Pedicle length (cm) | 1.97 | 0.68** | 0.0172 |
| 14 | Fruit weight (g) | 1.93 | 1.23** | 0.0175 |
| 15 | Fruit yield per plant (g) | 255.11 | 2307.95** | 244.59 |
| 16 | Fruit yield per plot (kg) | 0.00063 | 0.20* | 0.09 |
| 17 | Fruit yield (t/ha) | 18.49 | 107.17** | 12.36 |
| 18 | Chlorophyll content (mg/100g) | 0.18 | 0.89** | 0.02 |
| 19 | Ascorbic acid (mg/100g) | 2398.48 | 3307.92** | 753.81 |

etable science block in the Department of Horticulture, College of Horticulture, Mudigere, University of Agricultural and Horticultural Sciences, Shivamogga during the *khari*f 2013-14. Forty chilli germplasm lines were taken for the present investigation (Table 1). Experiment was laid out in randomized block design with two replications. 45 days old seedlings were transplanted in 60 × 45 cm spacing and all the recommended agronomic package of practices were followed to raise good chilli crop. The crop was raised by following the recommended package of practice of University of Horticultural Sciences, Bagalkot.

Observation were recorded on five randomly se-

Table 3. Mean performance of growth characters in chilli (*Capsicum annuum* L.) genotypes.

| Germ-plasm | Plant height (cm) | | No. of branches | | Leaf area | Leaf area index |
|------------|-------------------|--------|-----------------|--------|-----------|-----------------|
| | 60 DAT | 90 DAT | 60 DAT | 90 DAT | | |
| DCC-1 | 24.1 | 44.3 | 2.8 | 6.4 | 5.27 | 1.95 |
| DCC-2 | 23.8 | 45.0 | 3.2 | 6.7 | 4.14 | 1.53 |
| DCC-5 | 24.4 | 44.1 | 3.2 | 6.4 | 6.22 | 2.30 |
| DCC-10 | 25.1 | 45.7 | 3.1 | 7.0 | 4.51 | 1.67 |
| DCC-14 | 23.9 | 44.8 | 2.9 | 6.4 | 5.46 | 2.02 |
| DCC-15 | 25.3 | 45.5 | 3.0 | 7.1 | 5.09 | 1.89 |
| DCC-18 | 25.0 | 44.7 | 2.6 | 6.7 | 5.09 | 1.88 |
| DCC-20 | 23.9 | 45.1 | 2.4 | 7.4 | 5.62 | 2.08 |
| DCC-24 | 24.4 | 45.4 | 2.7 | 7.1 | 4.19 | 1.55 |
| DCC-25 | 22.6 | 47.1 | 2.3 | 7.7 | 4.65 | 1.72 |
| DCC-27 | 26.1 | 48.0 | 2.5 | 8.5 | 4.75 | 1.76 |
| DCC-33 | 26.8 | 46.9 | 3.2 | 7.3 | 2.93 | 1.56 |
| DCC-36 | 24.9 | 45.8 | 2.8 | 6.5 | 5.80 | 2.14 |
| DCC-39 | 27.1 | 46.1 | 3.4 | 7.0 | 5.38 | 1.99 |
| DCC-42 | 25.5 | 49.9 | 2.7 | 9.2 | 3.83 | 1.56 |
| DCC-43 | 24.7 | 45.2 | 2.7 | 7.5 | 4.78 | 1.77 |
| DCC-44 | 23.1 | 44.4 | 2.5 | 7.2 | 5.29 | 1.96 |
| DCC-50 | 26.3 | 46.3 | 2.8 | 7.6 | 4.73 | 1.79 |
| DCC-52 | 26.1 | 50.8 | 2.6 | 9.6 | 6.05 | 2.24 |
| DCC-53 | 22.0 | 47.9 | 2.0 | 8.9 | 3.11 | 1.68 |
| DCC-55 | 23.9 | 46.8 | 2.8 | 7.8 | 4.33 | 1.90 |
| DCC-66 | 29.2 | 47.6 | 3.4 | 7.6 | 5.96 | 2.21 |
| DCC-69 | 26.6 | 49.9 | 3.4 | 7.4 | 4.88 | 1.81 |
| DCC-77 | 25.2 | 47.0 | 3.0 | 6.5 | 5.67 | 2.22 |
| DCC-82 | 23.5 | 45.5 | 2.7 | 7.4 | 2.98 | 1.87 |
| DCC-86 | 24.8 | 48.4 | 3.5 | 9.0 | 5.00 | 1.81 |
| DCC-92 | 25.1 | 47.9 | 3.5 | 8.8 | 3.67 | 1.37 |
| DCC-103 | 26.2 | 48.7 | 3.7 | 9.4 | 4.05 | 1.50 |
| DCC-109 | 25.8 | 46.3 | 3.6 | 9.0 | 3.97 | 1.47 |
| DCC-115 | 25.3 | 47.2 | 3.4 | 8.5 | 4.47 | 1.66 |
| DCC-127 | 27.1 | 53.5 | 3.4 | 9.2 | 4.19 | 1.57 |
| DCC-134 | 24.9 | 55.9 | 3.3 | 10.2 | 4.37 | 1.62 |
| DCC-135 | 27.4 | 53.0 | 3.8 | 9.5 | 4.99 | 1.79 |
| DCC-157 | 27.5 | 54.2 | 3.8 | 8.7 | 4.80 | 1.73 |
| DCC-164 | 29.6 | 52.5 | 3.8 | 9.6 | 4.00 | 1.64 |
| DCC-167 | 29.4 | 54.9 | 3.7 | 9.1 | 4.38 | 1.62 |
| DCC-168 | 27.6 | 56.5 | 3.5 | 9.1 | 5.31 | 1.94 |
| DCC-172 | 27.3 | 55.7 | 3.5 | 9.6 | 4.29 | 1.59 |
| DCC-185 | 28.3 | 61.1 | 3.5 | 10.6 | 3.83 | 1.42 |
| DCC-186 | 27.8 | 59.8 | 3.4 | 10.5 | 5.67 | 2.10 |
| Mean | 25.72 | 48.89 | 3.1 | 8.14 | 4.69 | 1.8 |
| SEm± | 1.31 | 2.32 | 0.35 | 0.85 | 0.47 | 0.18 |
| CD@5% | 3.75 | 6.63 | 1.00 | 2.43 | 1.35 | 0.52 |

lected plants in each replication for ten quantitative traits viz., plant height (cm) at 60 DAT, plant height (cm) at 90 DAT, number of branches per plant 60 DAT, number of branches per plant 90 DAT, leaf area (cm²),

leaf area index, days to first flowering, days to fifty per cent flowering, days to first harvest, fruit length (cm), pedicel length (cm), fruit diameter (cm), number of fruits per plant, fruit weight (g), fruit yield per plant, fruit yield per plot, fruit yield (t/ha). Analysis of variance was carried out as per the procedure given by Panse and Sukhatme [6].

Results and Discussion

The analysis of variance (Table 2) revealed significant differences among the genotypes for all the characters studied indicating the presence of genetic variability in the genotypes and considerable scope for their improvement. These results are in conformity with earlier reports [5, 7—11].

The plant height at 60 DAT ranged from 22 cm to 29.6 cm with a mean of 25.71 cm. The genotype DCC-164 recorded maximum plant height (29.6 cm) followed by 29.4 (DCC-167) while the genotype DCC-53 recorded the minimum plant height (22 cm). The plant height at 90 DAT, ranged from 44.10 cm (DCC-5) to 61.1 cm (DCC-185) with mean of 48.88 cm. The number of branches per plant at 60 DAT was in the range of 2.00 to 3.80 with a mean of 3.10 branches. The genotype DCC-135 recorded the highest number of branches at 60 DAT (3.80) followed by 3.7 (DCC-167) while the lowest was observed for DCC-53 (2.00) (Table 3). The number of branches per plant 90 DAT ranged from 6.40 (DCC-1) to 10.60 (DCC-185) with a mean of 8.14. The leaf area ranged from 2.93 cm² (DCC-33) to 6.21 cm² (DCC-5 with an average of 4.69 cm²). The leaf area index ranged from 1.37 (DCC-92) to 2.30 (DCC-5) with a mean of 1.79. These results are in line with findings of Munshi et al. [12], Janaki et al. [5] and Nehru et al. [13], who also reported highest variability for above traits (Table 3).

The mean number of days to first flowering was 40.92. It had a range of 33.5 (DCC-185) to 50.9 (DCC-39) days. Days to 50% flowering ranged from 55.2 to 69.2 with a mean of 60.67 days. The genotype DCC-39 recorded maximum no. of days to 50% flowering, followed by 55.9 (DCC-168) while DCC-185 (55.2) were the earliest to flower (Table 4). The days to first har-

Table 4. Mean performance of chilli genotypes for yield and yield attributing characters.

| Germplasm | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|-----------|-------|------|-------|--------|------|------|------|------|--------|------|-------|
| DCC-1 | 44.3 | 65.3 | 60.0 | 189.3 | 3.88 | 9.37 | 4.38 | 5.00 | 132.05 | 1.94 | 28.53 |
| DCC-2 | 44.8 | 64.4 | 58.7 | 159.8 | 2.88 | 7.17 | 2.95 | 2.71 | 86.51 | 2.11 | 22.47 |
| DCC-5 | 40.7 | 61.3 | 55.9 | 142.2 | 2.82 | 7.71 | 4.53 | 2.69 | 76.42 | 1.53 | 16.51 |
| DCC-10 | 40.1 | 59.6 | 55.3 | 147.8 | 3.53 | 6.40 | 2.82 | 2.34 | 69.12 | 1.98 | 14.93 |
| DCC-14 | 43.2 | 59.9 | 55.4 | 125.4 | 2.78 | 6.57 | 2.77 | 2.91 | 73.04 | 1.24 | 15.78 |
| DCC-15 | 38.9 | 58.1 | 53.8 | 116.3 | 2.77 | 6.37 | 3.50 | 2.45 | 57.05 | 1.40 | 12.33 |
| DCC-18 | 41.0 | 60.7 | 54.6 | 113.2 | 3.09 | 8.85 | 3.85 | 3.78 | 85.47 | 1.31 | 18.47 |
| DCC-20 | 44.4 | 62.5 | 56.7 | 119.1 | 2.56 | 5.91 | 4.17 | 2.24 | 53.31 | 1.09 | 11.51 |
| DCC-24 | 41.2 | 61.2 | 55.6 | 126.2 | 2.53 | 5.42 | 4.15 | 2.45 | 61.86 | 1.17 | 13.36 |
| DCC-25 | 41.7 | 58.7 | 53.3 | 120.6 | 3.60 | 7.86 | 3.53 | 4.14 | 99.67 | 1.70 | 21.53 |
| DCC-27 | 46.7 | 63.1 | 57.4 | 115.7 | 2.96 | 7.39 | 3.84 | 3.89 | 90.04 | 1.49 | 19.45 |
| DCC-33 | 40.5 | 61.3 | 57.1 | 107.5 | 3.44 | 6.70 | 3.89 | 3.47 | 74.64 | 1.24 | 16.12 |
| DCC-36 | 41.5 | 64.6 | 60.0 | 171.9 | 3.51 | 9.39 | 4.22 | 3.85 | 132.33 | 0.93 | 28.59 |
| DCC-39 | 50.9 | 69.2 | 64.4 | 168.7 | 2.54 | 6.31 | 3.23 | 2.18 | 73.99 | 1.52 | 15.98 |
| DCC-42 | 43.4 | 62.6 | 57.7 | 170.9 | 2.43 | 7.95 | 3.15 | 2.16 | 73.87 | 1.52 | 15.96 |
| DCC-43 | 43.6 | 61.9 | 56.7 | 169.5 | 2.63 | 7.43 | 3.89 | 1.76 | 59.58 | 1.42 | 12.87 |
| DCC-44 | 40.1 | 59.9 | 55.1 | 167.1 | 3.00 | 6.80 | 2.84 | 2.60 | 86.83 | 1.02 | 18.76 |
| DCC-50 | 39.3 | 58.2 | 54.4 | 157.0 | 3.39 | 6.35 | 2.42 | 3.29 | 103.21 | 1.72 | 22.30 |
| DCC-52 | 38.3 | 56.9 | 54.1 | 178.1 | 2.85 | 5.53 | 3.29 | 2.40 | 85.35 | 1.60 | 18.44 |
| DCC-53 | 42.2 | 63.3 | 58.4 | 173.5 | 2.50 | 6.49 | 3.12 | 3.08 | 101.9 | 1.11 | 22.01 |
| DCC-55 | 41.6 | 61.8 | 58.0 | 178.0 | 3.10 | 6.18 | 3.76 | 2.54 | 98.90 | 0.99 | 21.37 |
| DCC-66 | 40.7 | 60.3 | 55.8 | 150.4 | 3.81 | 7.47 | 3.79 | 5.46 | 78.41 | 0.94 | 16.94 |
| DCC-69 | 38.7 | 59.8 | 56.8 | 173.8 | 3.43 | 3.41 | 3.23 | 2.28 | 180.05 | 1.26 | 38.90 |
| DCC-77 | 40.4 | 58.6 | 53.9 | 176.4 | 2.49 | 6.66 | 3.38 | 2.10 | 73.97 | 1.24 | 15.98 |
| DCC-82 | 45.6 | 64.3 | 59.8 | 141.7 | 4.14 | 6.52 | 3.38 | 2.61 | 73.60 | 0.92 | 15.90 |
| DCC-86 | 45.9 | 65.7 | 60.9 | 143.8 | 4.28 | 7.31 | 3.38 | 3.32 | 94.65 | 1.00 | 20.45 |
| DCC-92 | 39.5 | 59.9 | 58.8 | 176.7 | 3.44 | 7.11 | 4.25 | 3.38 | 118.82 | 0.85 | 25.67 |
| DCC-103 | 40.4 | 60.4 | 54.7 | 177.4 | 3.22 | 6.81 | 3.40 | 2.64 | 92.31 | 1.12 | 19.94 |
| DCC-109 | 42.3 | 63.3 | 57.8 | 163.0 | 3.57 | 6.67 | 3.32 | 3.70 | 119.78 | 0.89 | 25.88 |
| DCC-115 | 43.8 | 63.4 | 58.0 | 196.0 | 2.49 | 6.00 | 3.43 | 2.44 | 92.20 | 0.66 | 19.92 |
| DCC-127 | 37.1 | 57.2 | 51.2 | 207.6 | 4.23 | 6.34 | 3.48 | 3.63 | 136.31 | 1.37 | 29.45 |
| DCC-134 | 38.7 | 60.2 | 53.5 | 230.8 | 3.21 | 6.86 | 4.32 | 3.18 | 146.48 | 1.20 | 31.64 |
| DCC-135 | 37.3 | 57.5 | 51.7 | 273.3 | 2.54 | 6.39 | 3.67 | 2.75 | 148.95 | 1.28 | 32.18 |
| DCC-157 | 38.6 | 58.9 | 54.4 | 248.9 | 2.89 | 9.70 | 4.85 | 3.03 | 133.19 | 0.94 | 28.77 |
| DCC-164 | 41.5 | 59.4 | 55.3 | 235.0 | 3.04 | 7.90 | 3.89 | 3.36 | 158.24 | 1.08 | 34.19 |
| DCC-167 | 37.6 | 58.3 | 53.7 | 256.4 | 3.09 | 7.13 | 3.74 | 2.86 | 147.91 | 1.13 | 31.95 |
| DCC-168 | 35.7 | 55.9 | 52.4 | 249.9 | 3.54 | 5.24 | 3.50 | 2.48 | 122.85 | 1.33 | 26.54 |
| DCC-172 | 36.1 | 56.0 | 51.7 | 275.0 | 3.35 | 7.68 | 3.56 | 3.50 | 191.31 | 1.14 | 41.33 |
| DCC-185 | 33.5 | 55.2 | 50.7 | 242.5 | 2.71 | 7.25 | 4.31 | 2.08 | 100.55 | 1.31 | 21.72 |
| DCC-186 | 35.5 | 58.3 | 51.7 | 167.2 | 3.77 | 6.68 | 5.26 | 2.67 | 87.77 | 1.05 | 18.96 |
| Mean | 40.93 | 60.8 | 55.89 | 175.09 | 3.15 | 6.93 | 3.66 | 2.98 | 101.81 | 1.27 | 22.09 |
| SEm ± | 1.45 | 0.74 | 0.59 | 10.82 | 0.09 | 0.09 | 0.09 | 0.09 | 11.05 | 0.22 | 2.48 |
| CD @ 5% | 4.17 | 2.12 | 1.71 | 30.96 | 0.27 | 0.28 | 0.26 | 0.26 | 31.63 | 0.63 | 7.11 |

vest was ranged from 50.7 (DCC-185) to 64.40 (DCC-39) days with a mean of 55.88 days. Bharadwaj et al. [14], Tembhumne et al. [15] and Arup et al. [16] reported same trends of flowering in chilli.

The number of fruits per plant ranged from 107.5 to 275.0 with a mean of 175.09. This trait exhibited maximum mean value for the genotype DCC-172

(275.0) followed by DCC-135 (273.3) while the minimum mean value was recorded for DCC-33 (107.5) preceded by DCC-18 (113.2). The fruit length had the range of 3.40 cm to 9.69 cm with a mean of 6.92 cm. The maximum fruit length was observed for the genotype DCC-157 (9.70 cm) followed by DCC-1 (9.37 cm) while the minimum was recorded by DCC-69 (3.41) preceded by DCC-168 (5.24) (Table 4). Padhar and

Zaveri [17], Arup et al. [16] and Vijaya et al. [18] also reported same trend of range for number of fruits and fruit length.

The range of fruit diameter varied from 2.43 cm to 4.28 cm with a mean of 3.14 cm. The maximum diameter was recorded by the genotype DCC-86 (4.28) followed by DCC-127 (4.23), whereas the minimum diameter was recorded by DCC-42 (2.43) preceded by DCC-115 (2.49). The length of the pedicel was ranged from 2.42 cm (DCC-50) to 5.26 cm (DCC-186) cm with a mean of 3.65 cm. The range of fruit weight varied from 1.75 g to 5.45 g with a mean of 2.98 g. The maximum fruit weight was noticed in DCC-66 (5.46 g) followed by DCC-1 (5.00) and DCC-25 (4.14) and the minimum was in DCC-43 (1.76 g) preceded by DCC-185 (2.08), DCC-77 (2.10) and DCC-(2.16) (Table 4). These findings were in accordance with earlier reports of Singh et al. [19] and Gupta et al. (2009) [9].

Fruit yield per plant ranged from 53.31 g (DCC-20) to 191.31 g (DCC-172) with a mean of 101.81 g. A mean of fruit yield per plot of 1.26 kg with a range of 0.66 kg (DCC-115) to 2.11 kg (DCC-2) was observed. The mean of fruit yield per hectare noticed was 22.09 t/ha with a range of 11.51 t/ha (DCC-20) to (DCC-172) 41.33 t/ha (Table 4). Similar range was reported by Shirshat et al. [20] and Arup et al. [16].

Conclusion

In the present study, a high range of variability was observed for all the characters. It was maximum for plant height (44.10–61.10 cm), number of branches per plant (6.40–10.60), days to first flowering (33.5–50.9), number of fruits per plant (107.5–275.0), fruit diameter (2.43–4.27 cm), fruit length (3.40–9.69 cm), pedicel length (2.42–5.26 cm) and fruit weight (1.75–5.45 g). These results are in accordance with those reported by earlier workers like Arup et al. [16] and Vijaya et al. [18]. The characters showing wide range of variation provide an ample scope for selecting superior types and the selected genotypes can be used in further crossing program for introgression of their desired genes and to obtain heterotic hybrids.

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