

## Short Communication

## Performance of Mustard Genotypes in Bikaner Region

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Mustard is an important crop among the oilseeds of rabi season in irrigated areas of Bikaner region. In the district, mustard is cultivated in 29,000 ha area with a total production of 14.6 thousand tonnes, with a low productivity level of 496 kg ha<sup>-1</sup>. Being a remunerative cash crop, it is becoming popular in irrigated areas of the region. Presently, very few varieties, i.e., Varuna, Pusa Bold, RH 30 and Pusa Jai Kisan are available for cultivation, which are sensitive to different insect-pests and diseases. Therefore, there is an urgent need to evolve and evaluate better genotypes for the region.

The present investigation was conducted at KVK, RAU, Bikaner farm, during 1998-99 to find out the best genotype in relation to their growth and productivity under irrigated conditions of Bikaner region. The four mustard genotypes, i.e., MCN 114 (Bio 772), MCN 115 (RL 1359), MCN 116

(Kranti) and MCN 117 (Varuna) were tested under Randomized Block Design with four replications. The crop was fertilized with recommended fertilizer dose (60 kg N + 40 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup>) and irrigation was applied as and when required at different critical growth stages. The sowing was done in the first week of November at 30 x 15 cm spacing. All other cultural practices were followed as per recommendation for the crop.

The soil of experimental site was sandy loam in texture with pH 8.90 and 0.15 dS m<sup>-1</sup> of EC. The organic carbon content was 0.31 and 0.21% at 0-15 cm and 15-30 cm soil depths, respectively. The pH of tube well water was 8.30, EC 2.25 dS m<sup>-1</sup> and SAR value of 8.83. During the cropping season there was no rainfall.

The data revealed that the maximum seed yield per plant (9.70 g plant<sup>-1</sup>) and 1000-seed weight (6.15 g) were in Bio 772. The 1000-seed weight of Bio 772 was highest,

Table 1. Varietal performance of mustard at Bikaner during 1998-99

| Genotype | Seed yield<br>(g plant <sup>-1</sup> ) | Seed yield<br>(q ha <sup>-1</sup> ) | Oil content<br>(%) | Test weight<br>per 1000 seeds | Maturity<br>(days) |
|----------|--|-------------------------------------|--------------------|-------------------------------|--------------------|
| Bio-772  | 9.70                                   | 20.27                               | 39.19              | 6.15                          | 123                |
| RL-1359  | 8.84                                   | 19.82                               | 40.37              | 3.95                          | 132                |
| Kranti   | 8.89                                   | 18.34                               | 39.40              | 4.01                          | 132                |
| Varuna   | 7.74                                   | 19.82                               | 38.10              | 4.27                          | 132                |
| SEm±     | 0.748                                  | 1.75                                | -                  | 0.121                         | 1.92               |
| CD (5%)  | NS                                     | NS                                  | -                  | 0.259                         | 4.09               |

followed by Varuna and Kranti. It took significantly less number of days to maturity (123 days) in genotypes Bio 772 in comparison to rest of the genotypes (132 days). The seed oil content was maximum (40.37%) in RL 1359 (Table 1).

The highest yield of 20.27 q ha<sup>-1</sup> was recorded in Bio 772, but differences among varieties were not significant. Similar findings were also reported during 1997-98 at Navgaon (Anonymous, 1997-98).

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### Reference

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