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Susceptibility of Mustard Genotypes to Mustard Sawfly, (*Athalia lugens proxima* Klug.)

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Mustard sawfly is a srious pest of rapeseed and mustard in the seedling stage (Narayanan, 1958). The larva feeds vorasiously on young plants, and the plants either dry up or remain stunted. In case of severe infestation, all the leaves are eaten and plants die (Mathur and Upadhyay, 1996).

Field trials were conducted at the College Farm, College of Agriculture, Gujarat Agricultural University, Junagadh during rab 1995-96 and 1996-97. The experiment was laid in randomized block design with eight genotypes viz. Gujarat Mustard 1, Varuna, Bio 902, MJ-91-149, MJ-93-97, MJ-94-205, SKM-93-46, and SKM-92-66 each replicated three times. The plot size was 4.00 x 0.90 m. Row to row and plant to plant distance were maintained at 45 cm x 25 cm. by thinning at 15 days after sowing. Observations were recorded at weekly interval starting from germination till the maturity of the crop. Ten plants were selected randomly from each net plot to record the larval population of mustard sawfly.

TABLE 1

Population of sawfly, *A. lugens proxima* in different genotypes of mustard (Mean of 1995-96 and 1996-97).

Sr. No.	Genotype	Larval Population / 10 plants at different week after sowing					
		4th	5th	6th	7th	8th	Average population
1.	GM-1	2.62*	2.06*	1.34*	1.31*	0.79*	1.62*
		(6.36)	(3.74)	(1.29)	(1.21)	(0.12)	(2.12)
2.	Varuna	2.48	2.26	1.36	1.37	1.14	1.69
		(5.65)	(4.60)	(1.35)	(1.38)	(0.80)	(2.36)
3.	Bio-902	2.94	2.58	0.79	1.03	0.79	1.76
		(8.14)	(6.15)	(0.12)	(0.56)	(0.12)	(2.60)
4.	MJ-91-149	2.00	1.41	0.71	0.79	0.79	1.04
		(3.50)	(1.49)	(0.00)	(0.12)	(0.12)	(0.58)
5.	MJ-93-197	2.51	2.28	1.20	1.22	0.88	1.58
		(5.80)	(4.70)	(0.94)	(0.99)	(0.27)	(2.00)

1	2	3	4	5	6	7	8
6	MJ-94-205	2.89	2.44	1.53	1.71	0.79	1.90
		(7.85)	(5.45)	(1.84)	(2.42)	(0.12)	(3.11)
7	SKM-93-46	2.69	2.24	1.31	1.25	1.05	1.71
		(6.68)	(4.52)	(1.21)	(1.06)	(0.60)	(2.42)
8	SKM-92-66	2.18	1.72	0.79	1.03	0.79	1.28
		(4.25)	(2.46)	(0.12)	(0.56)	(0.12)	(1.14)
	Treatment S.Em ±	0.17	0.16	0.12	0.14	0.09	0.08
	Treatment C. D at 5%	0.50	0.47	0.36	0.39	0.26	0.24
	Y x T S.Em ±	0.26	0.24	0.19	0.20	0.13	0.12
	Y x T C. D. at 5%	NS	NS	NS	NS	NS	NS
	C. V. %	18.14	19.85	29.27	29.01	26.24	13.01

* $\sqrt{X + 0.5}$ transformation

Figures in parentheses are retransformed values

Pooled data of two rabi seasons (Table-1) revealed that the number of mustard sawfly larvae per 10 plants in different genotypes of mustard showed the gerotype MJ-91-149 recorded significantly lowest sawfly population i.e. 1.04 larvae/10 plants and it was at par with genotype SKM-92-66 (1.28 larvae).

The genotype MJ-94-205 showed significantly higher number of sawfly larvae (3.11 larvae/10 plants) and was at par with the genotype Bio-902, SKM-93-46 and Varuna. It is thus clear that none of the genotypes tested was found resistant to this pest. But, MJ-91-49 and SKM-92-66 were found least susceptible, Whereas, Varuna, bio -902, MJ-94-205 and SKM-93-46 were comparatively more susceptible to mustard sawfly.

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