

## عنوان مقاله:

The effect of physical mutation on the life history parameters and ovipositional preference of the *Plutella xylostella*

## محل انتشار:

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## خلاصه مقاله:

Reproductive parameters and ovipositional preference of *Plutella xylostella* were assessed on some mutant genotypes of canola (RGS ۸-۱, RGS ۱۰-۲, RGS ۸-۱۳, Zar ۹-۹ and Talaye ۸-۳) and their cultivars (RGS, Zar, Talaye) under greenhouse condition ( $21 \pm 6$  °C,  $65 \pm 10$  RH and a photoperiod of ۱۶L: ۸D h). Comparison of the reproductive parameters on RGS and its mutant genotypes revealed that mutant genotype RGS ۸-۱ was the most susceptible genotype to the pest, having maximum values of gross reproductive rate (۱۸۲.۷ female eggs/ female), net fecundity rate (۲۴۸.۲ eggs/ female) and mean number of fertile eggs (۸.۹۸ fertile eggs/female/day). The last parameter was the lowest on RGS ۸-۱۳ (۳.۰۵ fertile eggs/ female/day). In no-choice condition, the experiment of ovipositional preference indicated no significant difference among mean number of deposited eggs on the three cultivars compared with their mutant genotypes after ۲۴ h. While, in choice test, mutant genotype, RGS ۱۰-۲ (۱۵۱.۶۷ eggs) was preferred over RGS and the two other mutant genotypes. This study revealed that effect of physical mutation on resistance of canola to *P. xylostella* may vary depending on canola cultivar and different mutant genotypes of the same cultivar. This point should be considered by plant breeders when releasing these mutant plants with appropriate cultural traits for utilizing by farmers.

## کلمات کلیدی:

Mutant canola, *Plutella xylostella*, Reproductive parameters, Ovipositional preference

## لینک ثابت مقاله در پایگاه سیویلیکا:

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