

## M8 rapeseed (*Brassica napus* L.) mutants: evaluation for earliness with higher seed yield

### ABSTRACT

An experiment was conducted with four rapeseed mutants, their mother variety Binasarisha-4 and early maturing variety Tori-7 during November 2012 to February 2013 at four different rapeseed growing areas of Bangladesh to study their agronomic performances and to select early maturing and high yielding mutants. Analysis of variance revealed significant differences for most of the characters among the mutants and checks in both of individual location and combined over locations. All the mutants showed shorter plant height and produced higher number of seeds/silique than the mother variety. Two mutants, MM-51 and MM-64 produced statistically similar seed yield (1667 and 1644 kg/ha, respectively) with Binasarisha-4 (1663 kg/ha) and matured one week earlier than Binasarisha-4. These two mutants also had non-significantly different maturing period (88 and 87 days, respectively) with the early maturing variety, Tori-7 (86 days). Both mutants (MM-51 and MM-64), because of their higher number of seeds/silique and higher seed yield potential along with early maturity can be selected for further trials both at research station and farmers' field. These results suggest that gamma rays irradiation can be fruitfully applied for improved agronomic traits like shorter plant height and early maturity in oleiferous Brassica without compromising seed yield.

**Keyword:** Evaluation; Higher yield; Rapeseed mutants; Selection