

3-Evaluation of Genetic diversity and heritability of some rapeseed (*Brassica napus*) genotypes using agronomical and molecular traits

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Abstract

High level of heritability and variability were estimated for all traits among genotypes. The genetic similarity of nine genotypes *Brassica napus* was estimated by random amplified polymorphic DNA (RAPD), which ranged from 69 % to 94%. The phylogenetic tree resulted in two different clusters; the first including two genotypes which also showed high similarity in agronomic traits and the second included the rest of the genotypes. The genetic diversity was discussed in relation to molecular and agronomical traits. High and positive correlation was recorded for all traits. The high coupled of heritability and variability is considered as a powerful source for the selection of donors in the breeding program, where the genetic gain depends on the availability of genetic variation and high heritability.

Key words: Brassica napus, heritability, genetic diversity, RAPD-PCR.