Study of Protein Pattern in *Brassica napus* Genotypes under non-stress and Drought Stress Conditions

Kakaei[1]*, M., Zebarjadi[2], A. and Mostafaie[3], A.

Abstract

Protein electriphoresis is one of the method for determinat genetic diversity in plants. In order to investigate protein pattern in rapeseed, sixteen genotypes of *Brassica napus* were studied in a randomized complete blocks design (RCBD) with three replications under drought and non_drought stress conditions. In complete flowering stage, leaves total protein of leaves was extracted in both conditions. The extracted proteins were seprated based on Laemmli method using SDS-PAGE in a 12.5% and 5% resolving and stacking gels, respectively. Mean genetic distance was estimated in normal and drought stress condition ranged from 0.056 - 0.632 and 0.0 to 0.5, respectively. Results of cluster analysis showed that the genotypes, according to protein pattern and based on Jaccard's similarity coefficient were placed in three groups in both conditions. Groups were different in drought and non_drought sites. Results of SDS-PAGE showed that protein pattern bands were almost different among of the genotypes. According to this reasearch results, Banding pattern and grouping genotypes in both normal and drought conditions were different.

Keyword: Canola, Genetic Diversity, Discontinuous Electrophoresis, Cluster Analysis

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1. Agriculture (Plant Breeding and Genetic) Department, Payame Noor University, Tehran.

2. Department Of Plant Breeding and Biotecnology for Environmental Stress, Faculty of Agriculture, Razi University, Kermanshah.

3. Medical Biology Rsearch Center, Kermanshah University of Medical Sciences.

*: Corresponding author

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