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Poster Abstract – A.07

RECOGNITION OF GENOTYPES IN DURUM WHEAT SEMOLINA MIXTURE BY AFLP IN FLUORESCENCE

SCIACCA F., FICHERA C., PALUMBO M.

Agricultural Research Council - Mediterranean Crops Research Center (CRA – ACM),
Corso Savoia 190, 95024 Acireale (Italy)

fAFLP, genotype identification, semolina mixture, durum wheat

The DNA extracted from semolina of sixteen Italian durum wheat cultivars were analyzed by in-fluorescence Amplified Fragment Length Polymorphism (fAFLP) in order to obtain the characteristic fingerprintings of genotypes. The aim of this work was to analyze and recognize durum wheat genotypes in semolina mixture.

All sixteen varieties of *Triticum durum* and their semolina mixture were tested with 6 primer combinations, previously selected as inducing the highest polymorphism levels as well as a uniform distribution of peaks in the region analyzed (50 - 600 bp), to evaluate the effectiveness of fAFLP tecnique in revealing the presence of known genotypes and the method sensibility. Amplified fragments were analyzed by capillary electrophoresis with genetic analysis system CEQ8000^{TM} by Beckman & Coulter, according to Beckman-Coulter Protocol (A-2015A, 2005). By using this fAFLP methodology a DNA fingerprinting of each durum wheat cultivar was generated for genotype identification.

In semolina mixture, obtained data revealed some missing peaks which were present as polymorphic marker in each varieties.

The research is in progress in order to clarify which devices imply the loss of polymorphic markers, which allow the recognition of varieties from semolina when they are mixed too, in order to modify and improve the extraction protocol to obtain the expected fAFLP profiles.