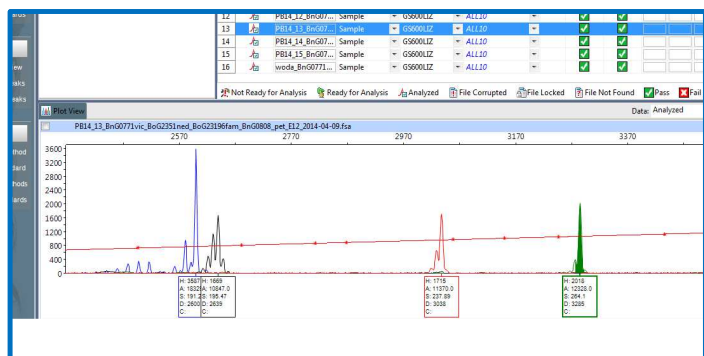


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²⁾ University of Life Sciences in Poznan



- **Broadening genetic diversity accompanied by further improving of agronomically important traits remains one of the main goals of breeding for quality of new winter oilseed rape varieties**
- **Molecular markers make a useful tool supporting for selection and innovative breeding; they also enable determining genetic relationships and degree of similarity among individuals of studied populations**
- **The presented work is concerned with determining DNA profiles of oilseed rape cultivars from genetic resources collection of the IHAR-NRI, Research Division in Poznań**

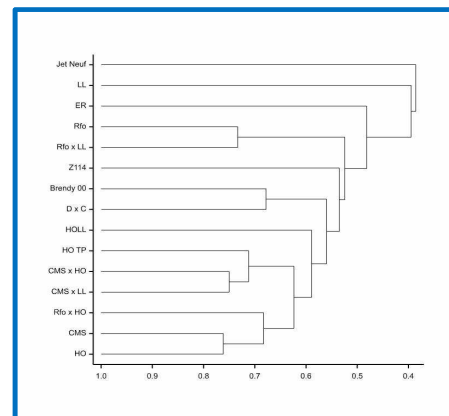
- ❑ Fifteen doubled haploid lines were chosen based on their seed yield and also quality traits, as seed oil and glucosinolate content, fatty acid profiles in seed oil and also protein and fiber content
- ❑ Genomic DNA was isolated and analyzed with a set of 35 microsatellite primer pairs; PCR amplification products were separated by capillary electrophoresis on an ABI Prism 3130XL Genetic Analyser (Applied Biosystems) and scored with the use of the PeakScanner software
- ❑ Genetic relationships and degree of similarity among individuals of the collection were established using the GenStat statistical package



- **Microsatellite (STR) loci analysis was implemented into our study on the *B. napus* breeding lines (Fig. 1)**
- **As a result of analysis with the defined STR loci, 97 markers were identified and subsequently used for determination of degrees of similarity among the *B. napus* lines**
- **The genetic similarity corresponded to the pedigree relationships among the studied lines (Table 1 and Fig. 1)**

[illegible]

- Further analyses will be performed in order to determine DNA profiles as well as the structure of population comprising economically valuable winter oilseed rape cultivars, breeding lines and F1 hybrid
- Association studies will be subsequently undertaken for development of molecular identification test kit for MAS pedigree breeding



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