

MOLECULAR CHARACTERISATION OF THE *HORDEUM VULGARE* L. MUTANTS WITH THE ALTERED INFLORESCENCE PHENOTYPE

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The objective of this thesis was identifying of the genes controlling the structure and development of the inflorescence in barley (*Hordeum vulgare*). Two malting barley cultivars were used for the research- **Brenda** and **Scarlett**, As well as 10 of the mutants generated from them: **003B, 0066B, 005B, 062B, 017B, 054B** (mutants generated from **Brenda**) **027S, 028S, 006S, 029S** (mutants generated from **Scarlett**). The mutants selected for the research had alerted inflorescence structure. Five semi- specific ISJ primers were employed for the molecular analysis of the genomes of the cultivars and the mutants mentined. In **062B** and **029S** mutants the loci potentially connected with their inflorescences phenotypes (lax and hanging spike and the spike significantly shorter than in the parent cultivar respectively) were detected. No such connectin between the molecular pattern and the inflorescence phenotype was detected in the rest of the mutants researched. An atypical mutation pattern in the **017B** mutant was revealed.