# THE EFFECT OF COLD ACCLIMATIZATION AND DROUGHT ON *COR/LEA* GENES EXPRESSION LEVEL IN WINTER WHEAT

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## ABSTRACT

The aim of this study was to detect whether the plant acclimatization will result in changes in activation of drought-related *Cor/Lea* genes and whether this process will affect also the plant reaction on drought stress.

The cold acclimatization effect on the protective reactions of plants to drought stress was studied in two varieties of winter wheat (Etela and Venistar) with different level of drought tolerance.

The plant protective reactions were evaluated on the relative expression level of two *Cor/Lea* genes (*Wdhn13* and *Wrab17*). The plants after acclimatization showed more intensive reaction of *Wdhn13* and *Wrab17* to drought stress. Their survival role after second cycle of drought stress was lower. Higher relative expression of both genes was detected in variety Venistar which can be connected to better drought tolerance.

The immediate effect of cold acclimatization on the regulation of *Wdhn13* and *Wrab17* gene expression was not observed.

**Key words:** winter wheat, drought, cold acclimatization, expresion, *Cor/Lea* genes

**Acknowledgement:** This study was supported by the Internal Grant Agency of Faculty of Agronomy in Mendel University, project SP2100171