



## Selection of optimum varieties of genus wheat (*Triticum* L.) in organic farming with respect to weed competitiveness

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Regulation of weeds is not easy and smooth thing in the organic farming system, because the methods of the chemical regulation of weeds are limited by the restrictions and legislative regulations. The protection against weeds is based on the complex measures. Current methods of the evaluation of the rate of weeds on the fields are not exact. Each variety may be evaluated from the point of view of the morphological, biological and economic features. After that, the competitiveness of variety to weeds may be evaluated too. Competitive varieties must be chosen for the organic farming system. High costs on the removing of weeds may be reduced by the selection of the competitive varieties (mechanical and thermic regulation of weeds) and we may avoid too high rate of weeds in such way. The method of the direct evaluation of certain features in the agroecosystem in the growing season may be also used for the evaluation of the suitability of wheat varieties (*Triticum* L.). This method is more exact and objective than the subjective method of the rate of weeds. In 2008, the experiments were set up at the location at the Research Institut of the Crop Production in Prague. 59 varieties of wheat were used in the small-plot experiment (einkorn, emmer wheat, spelta wheat, modern varieties of spring wheat, obsolete cultivar, land race). Each feature is evaluated during the growing season (when the crop is growing on the field). These features were evaluated in relation to the weed competitiveness. The data were analysed by STATISTICA programme by Cluster analysis.