



## Selection of bread wheat varieties for organic farming, baking quality parametres being emphasized

KONVALINA P. - University of South Bohemia, České Budějovice, Czech Republic

CAPOUCHOVÁ Ivana - Crop Research Institute, Praha, Czech Republic

MOUDRÝ Jr.J., ZDRHOVÁ Ivana, ŠRÁMEK J., MOUDRÝ J., ŠTĚRBA Z. - University of South  
Bohemia, České Budějovice, Czech Republic

Organic methods growing bread wheat may have negative effects on the technological value, especially in the case of the crucial crude protein content. The aim of paper is to identify differences in quality of 8 varieties recommended in conventional or organic conditions in Austria and 2 strains. Obvious effect of year on the quality, set up in statistics, was confirmed for qualitative parametres. The correlation analysis also provides similar figures. Effect of the year in a negative correlation to crude protein content ( $r=-0,66$ ), whereas in a positive correlation to starch content ( $r=0,78$ ) and falling number ( $r=0,86$ ). Effect of the variety is represented by unclear correlation coefficients. Correlation analysis of selected qualitative parametres of wheat shows an obvious relation between crude protein content and wet gluten content ( $r=0,93$ ) and Zeleny - sedimentation value ( $r=0,82$ ). On the other hand, starch content is in a negative correlation to crude protein content ( $r=-0,71$ ), wet gluten content ( $r=-0,75$ ) and Zeleny - sedimentation value ( $r=-0,62$ ). According to the test results, any effect of the variety on the qualitative parametres was not obviously proved in statistics carried out in low-input systems (organic farming systems). It may be noted it is suitable to choose the content and quality of protein as selective criteria of the selection of varieties. Level of the qualitative parametres is never reduced below the quality level of worse-quality varieties grown in the same (similar, low-input) conditions. On the other hand, elite varieties provide grains characterized by better baking quality, but lower yield level than the other ones. This fact has to be taken into account, when suitable varieties for different use purpose being selected (food, feed and industry processing).