

## WHEAT QUALITY IN DIFFERENT COUNTRIES

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Twenty-five (registered wheat varieties – from Romania, China, Hungary) of bread with diverse technological qualities were used in this study. The expected pairs of properties well-known from the practice, such as protein and starch contents (negative correlation), protein and gluten contents, valorigraphic dough softening and the value number, displayed very close ( $r > 0,9$ ) linearity. Close negative correlation occurred between gluten spreading and gluten index, which we have not experienced so far. Grain-size and -volume, the water-absorbing capacity and different forms of proteins of flour, starch and gluten forms (with negative sign) displayed the close correlation ( $r = 0.8-0.9$ ) expected. The characteristics measured on the grain mass with a milling percentage referring to flour yield in flour milling correlated significantly but weakly ( $r = 0.38-0.5$ ) expect for ash and protein content. Protein and gluten contents were of positive whereas starch content was of negative effect on the water requirement of the desired dough consistency ( $r = 0.38-0.8$ ). The multiple variable regression selected starch, and protein content, and the parameters of starch damage, gluten hydration and strength by a determination of 78-79%. The indexes expressing the gluten structure with the indicators of the produced and processed dough in the valorigraph and the falling number were in medium-weak ( $r = 0.38-0.8$ ) correlation. Stepwise statistics selected the dry gluten and spreading features with an influence of 99%.

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