ADAPTATION OF BREAD-BAKING TEST IN SMALL-SCALE FOR WHEAT FLOUR QUALITY EVALUATION

Tatiana Oro\textsuperscript{1}; Martha Zavariz de Miranda\textsuperscript{2}; Pihetra Oliveira Tatsch\textsuperscript{2}, Alicia de Francisco\textsuperscript{1}.
\textsuperscript{1}Universidade Federal de Santa Catarina, Centro de Ciências Agrárias, Rodovia Admar Gonzaga 1346, 88040-900, Florianópolis-SC, Brazil; \textsuperscript{2}Embrapa Trigo, Rodovia BR 285, km 294, Cx. Postal 451, 99001-970, Passo Fundo-RS, Brazil.

Brazilian population consumes about 914,000 tons of bread per year, which includes an increasing consumption of whole wheat products. Applied research in Brazil, aims to develop wheat cultivars adapted for bread production. However, there is a lack of methods for evaluating wheat flour quality up to the final product in the breeding programs where a small amount of wheat grain is available. The objective of this study was to adapt a bread-baking test in small scale using a farinograph with 50g dough to evaluate refined and whole wheat flour quality. Two commercial samples of wheat were used, A and B. They were milled into whole and refined flours, and the flours mixed in proportions of 20, 40, 60 and 80%. Loaves of bread were produced with each flour and flour blends, and the quality criteria was evaluated. For A samples, scores between 54.79 to 83.08 were obtained, all significantly different from each other. For B samples scores ranged from 58.64 and 78.20, also significantly different, except for the refined flour sample and with 20% of whole flour. Both scores obtained for A and B samples, showed a strong tendency to decrease according to increasing contents of whole flour. The results showed that the method was effective in demonstrating the whole, refined, and mixed flours ability for bread production and the capacity to differentiate them from each other using a small amount of sample.