High yield and bread making quality are important features in today’s wheat market. Both of these features can be improved through nitrogen and sulphur fertilization strategies, such as doses, time and sources. The objective of this study was to evaluate the effects and interactions of nitrogen (N), sulphur (S) and genotype on baking quality on the wheat cultivars. N fertilizers were applied early, split at sowing and tillering, and then late at flowering. At the stage of flowering, N was applied separately and together with S, following three treatments: (T1) as urea, (T2) as ammonium sulphate and (T3) as urea + elemental S. The laboratory experiment was carried out with samples of field-grown wheat in a completely randomized design. Statistically significant models were compared by Tukey test at a significance level of 0.95. The analyses of grain yield, protein, sulphur, N:S ratio, gluten strength (W), tenacity (P), extensibility (L) and dough stability were carried out in triplicate. The results have shown that different late treatments had no effect on grain yield, gluten strength and dough stability. The grain sulphur content and N:S ratio did not vary significantly among treatments and cultivars, which showed average S content and N:S ratio of 0.19 g 100 g\(^{-1}\) and 12:1, respectively. Dough tenacity of the three wheat cultivars decreased, and extensibility increased with late N + S (T2 and T3) treatments. While the protein content of Quartzo and Mirante cultivars decreased, the protein content of Onix cultivar was not altered (Acknowledgements: to CNPq for the productivity and scientific initiation scholarship and the Rio Grande do Sul Science and Technology Office for the financial resources).