The large industrial bakery uses more primary energy and contributes more to global warming, acidification and eutrophication than the other three systems. The home review shows a relatively high energy requirement; otherwise, the differences between home baking, the local bakery and the small industrial bakery are too small to be significant. Breads were sampled at download times from each bakery. Response surface methodology was employed to study the influence of four recipe variables (wheat: rye flour ratio, bread acidity, ash content of rye flour and sodium chloride content) on the identity and overall acceptance of two rye bread types (soft and crisp rye bread). The subjects (n=79) rated attribute intensities, the extent to which the salient sensory properties and the overall download to their expectations of rye bread, and the overall acceptance (pleasantness and purchase intentions). The acidity and ash content contributed the most to the extent to which a sample met subjects’ expectations. The NaCl content was not critical. Consumer acceptance was affected by ash content, and by the interactions, NaCl content × acidity and wheat:rye ratio × ash content. The non-significance of NaCl content should encourage the baking industry to put low-salt rye products on the market.

