Evoluția ph-ului şi a unor componente proteice din produse vegetale sub influența procesării culinare

AVRAMIUC M., LEAHU Ana, FĂRTĂIŞ L. - Universitatea „Ştefan cel Mare" Suceava

The modification of the pH, crude protein and free aminoacid values in some vegetable species (potato, cabbage, carrot, onion, garlic, peas and beans) during culinary processing was the purpose of this work. The vegetable products have been subjected to wetting, boiling, frying and pickling, determining the values of pH, crude protein and free aminoacids before and after processing. It also has analysed the water in which the legumes were introduced and maintained, for a period of time (before thermic processing), as well as the water where all studied vegetable products have been boiled. The thermic processsing, depending on its type (boiling or frying) and on analysed vegetable products, has determined modifications of the pH and of the crude protein values, in the sense of increasing of the first one and reducing of the second one. Thus, comparing to raw potatoes, the pH of boiled potatoes has registered increased values, ranged between 3,35% (in boiled tubers) and 5,52% (in fried tubers). At onion samples, the initial pH, determined to raw samples, increased with 3,6% in boiled samples, with 5% in onion boiled water and with 5,65% in fried onion. The evaluation of pH in carrot, cabbage and garlic, has also shown increases of its values in thermic processed samples, less at carot (3,44%) and garlic (4,53%) and more at cabbage (8,08%). The conservation of cabbage through pickling process has led to a pH decrease of some 8%. The content in crude protein of the analysed legumes reduced during the thermic processing. Thus, comparing to raw samples, at boiled peas and beans the crude protein reduced with 2,6% and 3,64%, and at boiled carrots and onion with 11,4% and 8,55%. The simple contact with water (immersion) or boiling of peas, beans, carrot and onion has led to a transmembrane efflux of aminoacids within the mass of liquid, whose values has depended both on the length of contact and on the legume species.