

**THE DIFFERENT ORDER EFFECT OF COMBINED HIGH HYDROSTATIC
PRESSURE AND MILD HEAT TREATMENT ON THE COLOUR OF
STRAWBERRY PUREE**

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The strawberry made food products are very popular among the consumers due to their attractive appearance, fine aroma and high level of antioxidant content. Several studies have been made about the application of high hydrostatic pressure (HHP) to minimally process these food products to maintain their original freshness and quality. However, since HHP selectively inactivates pathogenic microbes and enzymes which play role in deterioration of quality during storage, it is combined with mild heat treatment in order to achieve better effects. In our research, we were interested to know whether the different order of the combined processing cause any difference in the appearance of strawberry puree, and if so, how it depends on the order of the treatments. For this, strawberry puree was treated with 300, 450 or 600MPa for 5 min and held in water bath at 55, 65 or 75°C for 10 min, in different order. Colour changes were measured after combined treatments immediately and after 2 weeks of cold storage at 2 or 15°C. If we examine the relationship between the different treatment sequence we can conclude, that we got less changes in the colour if first pressure and subsequently mild heat treatment was carried out.

Keywords: high pressure, heat treatment, strawberry, colour