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**Effect of heat treatment on protein profile of Whey Protein Beverages (WPB)**

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There is interest in the production of heat-stable and clear beverages containing high levels of whey proteins. A challenge of incorporating whey proteins into sports beverages is done by hot-fill treatment (88 °C for 2 min). The objective of this research was studying the effects of whey proteins profile changes on a whey protein beverage (WPB) under thermal treatment. WPB were prepared by mixing 5% whey protein with 0.04% potassium sorbate, and 0.5M H<sub>3</sub>PO<sub>4</sub> was used to adjust pH

to 3.0 and 7.0. The protein particle size and zeta-potential were tested using a spectrophotometer. Lastly, the protein profile of beverages containing whey was determined by SDS-PAGE. Hot-fill treatment had a negative impact on the physicochemical properties of whey proteins. The formation of protein-protein complexes produced an increase in particle size and absolute zeta potential in WPB formulations at both pH 3.0 and 7.0.

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