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### Processing and preserving strategies on antioxidant food tablets and supplements

Recently, the potential efficacy of the bioactive phenolics from natural sources has been the focus of great attention owing to their health benefits to human health for reduced risk of coronary heart problems and selected cancers. Food tablets as dietary supplements and/or fortified foods, food byproduct based food powders may be great value-added products for getting healthy bioactive components. Nutraceutical food tablets have been prepared by direct compression method through selected tablet machines and have been manufactured according to established prescription methods. The functional constituents of the foods or some preferable functional foods must be standardized as the nutraceutical product and generate under Good Manufacturing Practices (GMPs). Primarily, a nutraceutical or selected food must be detected for non-toxic food constituent strategy by advanced toxicity analyses, and then it must be detected and analyzed in terms of health benefits including disease treatment and/or prevention. Food tablet is described as unit dose, temper evident, solid preparations including one or more active ingredients or whole food powder. Patient and/or consumer demand, routes of drug delivery, oral utilization capacity, the flexible design of dosage forms as technical manufacturing parameters has been considered; also the bulk density (g/ml), the tapped density (g/ml) as pre-compression parameters have been confirmed while thickness (mm), hardness (kg/cm<sup>2</sup>), % weight variation, % friability, % *in vitro* drug release as post-compression parameters have been carried out as physiochemical properties. The powder blend has been thoroughly mixed with talc and magnesium stearate and compressed into a 300-400 mg tablet using single rotatory punching machine based on tablet processing strategy. Among the trial/serial tablet formulations; mesir effervescent tablet could be more efficacious owing to majorly cinnamaldehyde (as v/v) whereas black mulberry effervescent tablet could be more beneficial due to the presence of morusin and apigenin phenolic anticarcinogenics and also mandarin peel effervescent tablet could be salutary because of its naringenin and hesperidin flavonone phenolic bioactives.

### Biography

Ozlem Tokusoglu has completed her PhD from Ege University, Department of Food Engineering. She is currently working as an Associate Professor, Faculty Member in Celal Bayar University Engineering, Faculty Department of Food Engineering. She was a Visiting Scholar at the Food Science and Nutrition Department, University of Florida, USA. She has published many papers in peer reviewed journals and serving as an Editorial Board Member of selected journals. She has published the scientific edited three international books entitled Fruit and Cereal Bioactives: Chemistry, Sources and Applications and Improved Food Quality with Novel Food Processing by CRC Press, Taylor & Francis, USA Publisher, and third book Food By-Product Based Functional Food Powders by CRC Press.

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