

## Preparations of Fruit Nectars from Fresh Fruit Juices-Analyses before and after Storage

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**Abstract :** The consumption of beverages continues to grow worldwide due to increasing demography, but pure fruit juices and high-quality nectars can induce protective effects on human health because of their natural bioactive components. In contrast, sodas and gaseous drinks containing synthetic food additives are considered as responsible for consumers of several pathologies such as obesity, diabetes, and non-alcoholic fatty liver disease. The nutritional and therapeutic virtues of fruit juices are generally a remarkable antioxidant power, anti-cancer activity linked to their richness of indigestible and indigestible sugars, vitamins, mineral salts, carotenoids and phenolic compounds. The main reasons, which led us to produce these fruit derivatives, are the non-availability of the fresh fruits mentioned above all along the year and also the existence of variations in the chemical composition of these different fruits as well as for the major or minor components. We tested, therefore, the physicochemical characteristics of each fruit juice and pulp apart and afterward those of the cocktails formulated. The fresh juices used during our experiments were obtained from the following fruits from north-central Algeria: prickly pear, pomegranate, melon, red oranges. The formulations of these fruit juices were tested after several trials comprising sensorial analysis, physicochemical factors (pH, titratable acidity, Brix degree, formal index, water content, total ash, total and reducing sugars, vitamin C, carotenoids, phenolic compounds) and microbial analysis after a storage period. To the pure juices proportions, citric acid E330, sucrose, and water were added followed by pasteurisation. These products were analysed from the physicochemical, microbial and sensorial viewpoints after a storage period of one month according to national legislation to evaluate their stability. The results of the physicochemical parameters of the prepared beverages had shown good physicochemical results, acceptable sensorial characteristics and microbial stability and safety before and after a storage period. We measured appreciable amounts of minor compounds with health properties.

**Keywords :** fruit juices, microbial analyses, nectars, physico chemical characteristics, sensorial analysis, storage period

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