

## Evolution of Bioactive Components of Prickly Pear Juice (*Opuntia ficus indica*) and Cocktails with Orange Juice

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**Abstract :** The valuation of juice from prickly pear of *Opuntia ficus indica* inermis as cocktails appears an attractive alternative because of their nutritional intake and functional compound has anti-radical activity (polyphenols, vitamin C, carotenoids, Betalaines, fiber and minerals). The juice from the fruit pulp is characterized by a high pH 5.85 which makes it difficult for its conservation and preservation requires a thermal treatment at high temperatures (over 100 °C) harmful for bioactive constituents compared to juice orange more acidic and processed at temperatures < 100 °C. The valuation as fig cocktails-orange is particularly interesting thanks to the contribution of polyphenols, fiber, vitamin C, reducing sugar (sweetener) and betalaine, minerals while allowing lower temperature processing to decrease pH. The heat treatment of these juices: orange alone or in cocktails showed that the antioxidant power decreases by 12% in presence of 30% of juice treated by the heat and of 28 and 32% in the presence of 10 and 20% juice which shows the effect prickly pear juice of *Opuntia*. During storage for 4 weeks the loss of vitamin C is 40 and 38% in the presence of 10 and 20% juice and 33% in the presence of 30% pear juice parallel, a treatment of stabilization by heat affects relatively the polyphenols rate which decreases from 10.5% to 30% in the cocktail, and 6.11-6.71pour cocktails at 10% and 20%. Vitamin C decreases to 12 to 24 % after a heat treatment at 85°C for 30 minutes respectively for the orange juice and pear juice; this reduction is higher when the juice is in the form of cocktails composed of 10 to 30 % pear juice.

**Keywords :** prickly pear juice, orange cocktail, polyphenol, *Opuntia ficus indica*, vitamin

**Conference Title :** ICABBBE 2015 : International Conference on Agricultural, Biotechnology, Biological and Biosystems Engineering

**Conference Location :** Istanbul, Türkiye

**Conference Dates :** May 21-22, 2015