

Abstract

The Golden apple (*Spondias cytherea* Sonnerat or *Spondias dulcis* Forst), also called Otaheite apple or ambarella, native to Polynesia, belongs to the Anacardiaceae family, which includes the mango, *Mangifera indica* L., and the cashew, *Anacardium occidentale* L. Although this fruit is widely distributed in the Caribbean region, Asia and Central and South America, the use of mature-green fruits in making a drink is geographically restricted to the French West Indies (Martinique and Guadeloupe) and Grenada. Due to its slight acidity and astringency, and its olive green colour caused by the green pigments from the outer layers of the fruit, this drink is much appreciated by the consumers of these regions. However, in its present formulation, the initial green colour of fruits is poorly recovered and starch induces a detrimental whitish sediment in the food product. In order to improve the visual quality of the mature-green Golden apple drink, two strategies were used. First, for degrading starch and standardizing its content, the juice obtained after grinding and sieving was treated with air amyloglucosidase (AMG 300 L, Novozymes) at various concentrations (200 g/t -700 g/t -2 kg/t) for 15 min at 60°C after starch gelatinisation (64°C or 72°C- 15 min). Then, the treated juice was used to make nectars at 13°Brix, using a green powder prepared from Golden apple peels to enhance the colour of the nectars. These new formulations allowed the production of less sweet nectars with a green colour closer to that of the fresh fruit.