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Background

In Benin, 2% of national production of cultivated pineapple varieties (sugarloaf, smooth cayenne) are processed into pasteurized juice (Adossou, 2012). These juices face a competitiveness problem at the national, regional and international markets, due to their quality.

Objectives

The aim of this study was to: (i) identify the different technologies for pasteurized juice production in southern Benin and (ii) Assess the physico-chemical characteristics of the produced pasteurized pineapple juice

Methodology

Technologies were identified through a survey with juice traders at the market level and in-depth interview with juice producers. Production follow up and juice sampling for physico-chemical analyses were implemented in the processing units practicing the most represented technologies. Colour, pH, Titrable acidity, brix value and density were measured using standard methods.

Results

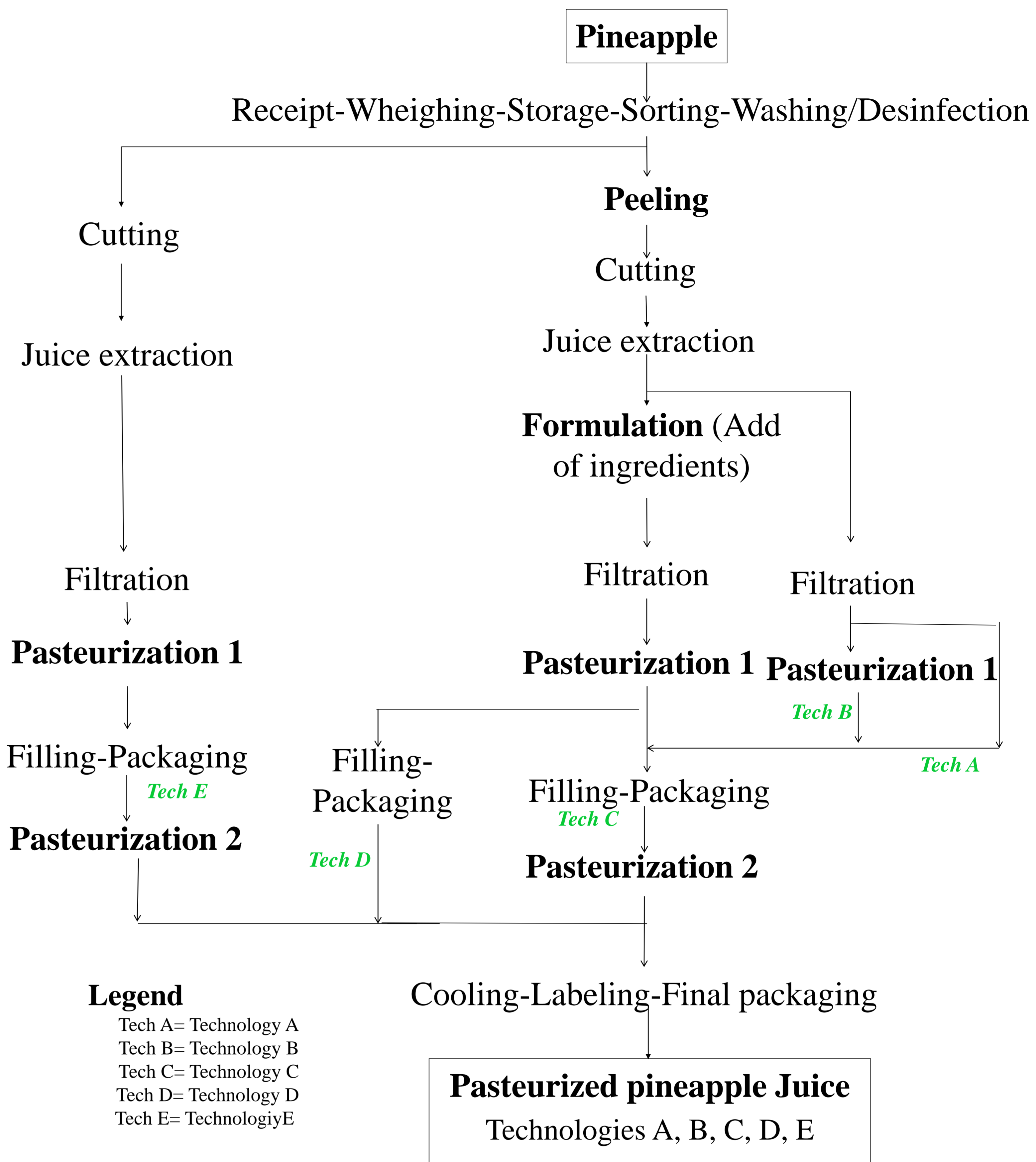
Five technologies were identified for production of pasteurized pineapple juices. They are discriminated by specific process units as follows: peeling, formulation and number of pasteurization (Figure 1). Technologies A, B and C are the most used. Ninety four percent of the processors used the cultivar "Perola" or sugarloaf (Photo 1a) as raw material to produce their juices. The pineapple juice is mostly packed in glass bottles (Photo 1b). The plastic bottle, the doypack, the tetra pack and the ducklings are scarce.



Photo 1a. Sugarloaf



Photo 1b. Pasteurized pineapple juice



Legend

Tech A= Technology A
Tech B= Technology B
Tech C= Technology C
Tech D= Technology D
Tech E= Technology E

Figure 1: pasteurized pineapple juice production technologies

The analysis in principal component revealed four different groups of pasteurized pineapple juice, based on the values of their pH, titrable acidity, Brix, colour (L*, a*, b*), density. The belonging of juice samples to a group don't depend on the technology.

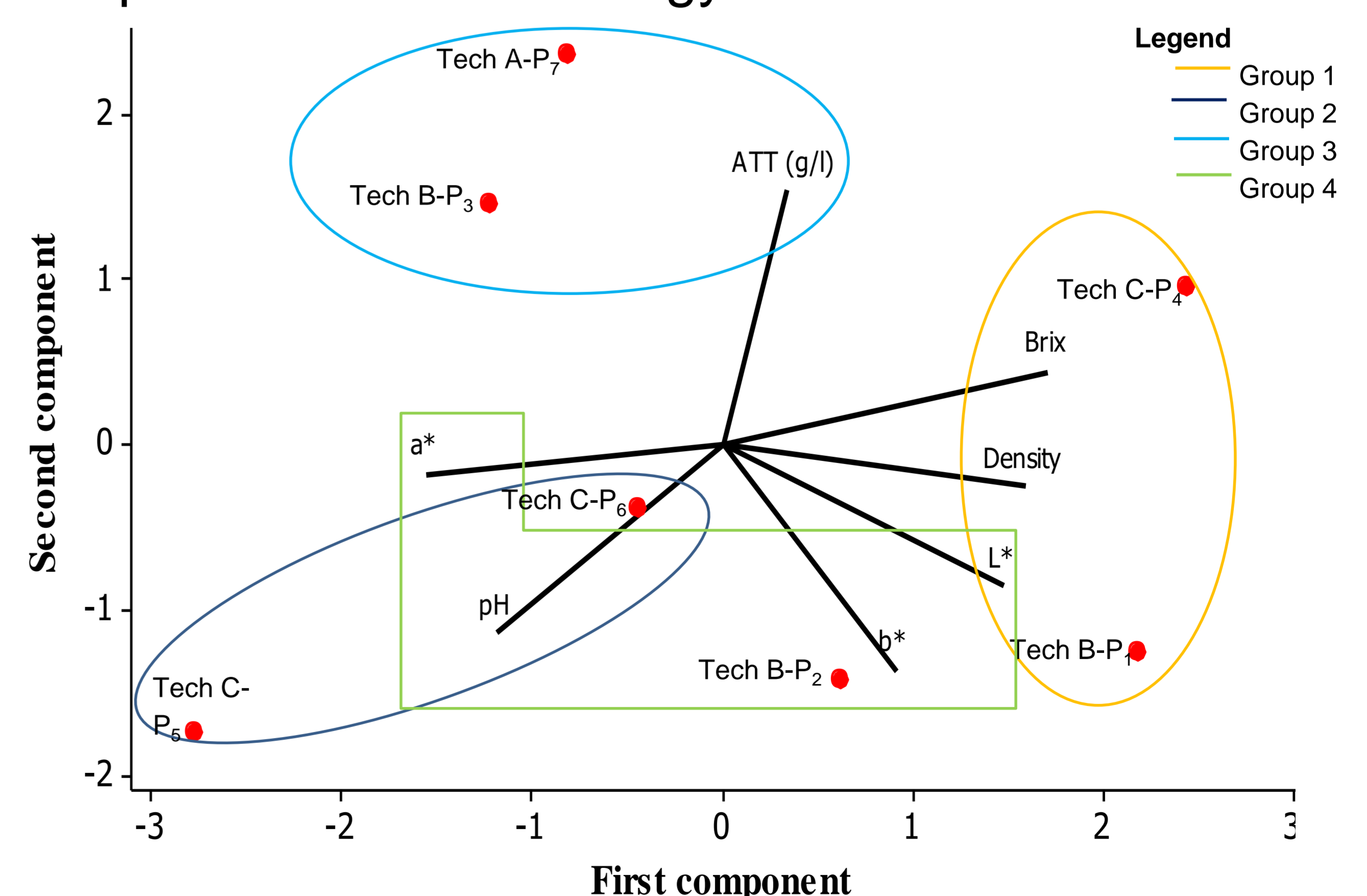


Figure 2: Principal component analysis of physico-chemical analyses results

Conclusion

The current study revealed five technologies used for pasteurized pineapple juices production by Benin processors. Juice samples are significantly different and the recorded physico-chemical values are within the range of standards.

Acknowledgement



TABLE
FILIERE
ANANAS

