



FAV HEALTH 2009

OCTOBER 18/21 - AVIGNON - FRANCE

3rd International Symposium on Human Health Effects of Fruits and Vegetables

Abstracts book

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ABSTRACTS



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P2-36 Quality Bioactive Compounds of *Cajupurpureum* from Native Genotypes of coastal Vegetation, Piauí, Brazil.

Maria do Socorro Moura Rufino (1), Jairo de Igeu de Almeida (2), Maria Pinheiro Fernandes Correa (2), Ricardo Elesbão Alves (2), Carlos Fátima Herbster Moura (2); Francisco José de Seixas Santos (3).

1Faculdade Integrada do Ceará, Rua Eliseu Uchoa B. água Fria, 60210-270, Fortaleza, CE, Brazil, marisrufino@yahoo.com.br;

2Embrapa Agroindústria Tropical, Rua Dra. Sara Mesquita, 2270, Pici, 60511-110, Fortaleza, CE - Brazil, elesbao@pq.cnpq.br;

3Embrapa Meio-Norte, UEP-Parnaíba, CP 341, 64200-970, Parnaíba, PI, Brasil, seixas@cpamn.embrapa.br.

This work aimed to evaluate the quality of cajupur apple from Piauí State coastal vegetation, Brazil, to fresh consumption or industrialization. It was selected and georeferenced 23 genotypes of native cajupur trees in the municipalities of Ilha Grande and Parnaíba, Piauí, Brazil. It was used a genotype cajupur (*Anacardium microcarpum*) as a control. This genotype belongs to the Germplasm Bank of Cashew (BAG-Caju) and is located at Embrapa Agroindústria Tropical Experimental Station in Pacajús, Ceará, Brazil. The cajupur apples harvested from the 23 genotypes were evaluated considering the following characteristics: Soluble Solids (SS), Titratable Acidity (TA), SS/TA, pH, Vitamin C, Soluble Sugars, Reducing Sugars, Phenolics, Pectin, Anthocyanin, Yellow Flavonoids, Anthocyanin/Flavonoids and Carotenoids. The experiment was carried out as completely randomized design with 3 repetitions. Each repetition was composed by the pulp obtained from at least 20 apples. The results obtained from the apples characterization of different genotypes of cajupurs shows that it exist a great variability of this species in Piauí coastal vegetation. The apples of the majority of the cajupur tree genotypes presented superior quality (SS, sugars, vitamin C and phenolics) when compared to cashew apples (*A. occidentale*), especially related with the patterns established by the Brazil Agriculture Ministry, indicating a potential for the fresh fruit market. The main bioactive compounds found in the apples were vitamin C, carotenoids and phenolics.

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P2-37 Changes of Phenolic Compounds in Apple Fruits during Shelf Life.

Robert Veberic, Valentina Schmitzer, Ana Likozar, Maja Mikulic Petkosek, Franci Stampar
University of Ljubljana, Biotechnical Faculty, Chair for fruit-growing, Jamnikarjeva 101, SI-1000 Ljubljana, Slovenia, e-mail: robert.veberic@bf.uni-lj.si

Secondary plant metabolites particularly phenolics supposed to play important roles in the prevention of degenerative diseases e.g. cardiovascular diseases and cancer. Apple fruit are an important source of secondary plant metabolites and one of the major phenol sources being consumed during the whole year. The present investigation was undertaken to determine how individual phenolics change during the shelf life of the fruits (fruits kept under room storage conditions at 22 °C) in selected apple cultivars. The fruits have been left on the room temperature for up to 21 days and sampled continuously. The fruits were analyzed on their phenolic content with the help of HPLC-PDA system. For the analysis pulp and peel of 'Golden Delicious' and 'Jonagold' fruits were taken. There were differences in the content of all phenolics when fruit peel and pulp were compared. The amounts were several times higher in the apple peel. The phenolics in the peel and the pulp remained quite stable during the whole 21 days of sampling with some lower values after one week of exposure to room temperature. This was noticed in both cultivars especially in the fruit peel. However other quality parameters like firmness decreased more noticeably resulting in consumer less acceptable fruit.