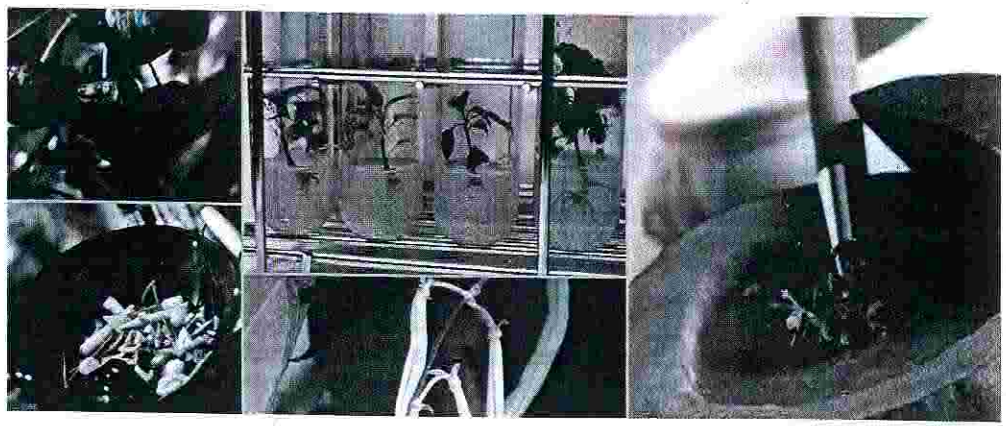


FAV HEALTH 2009

OCTOBER 18/21 - AVIGNON - FRANCE

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

Abstracts book

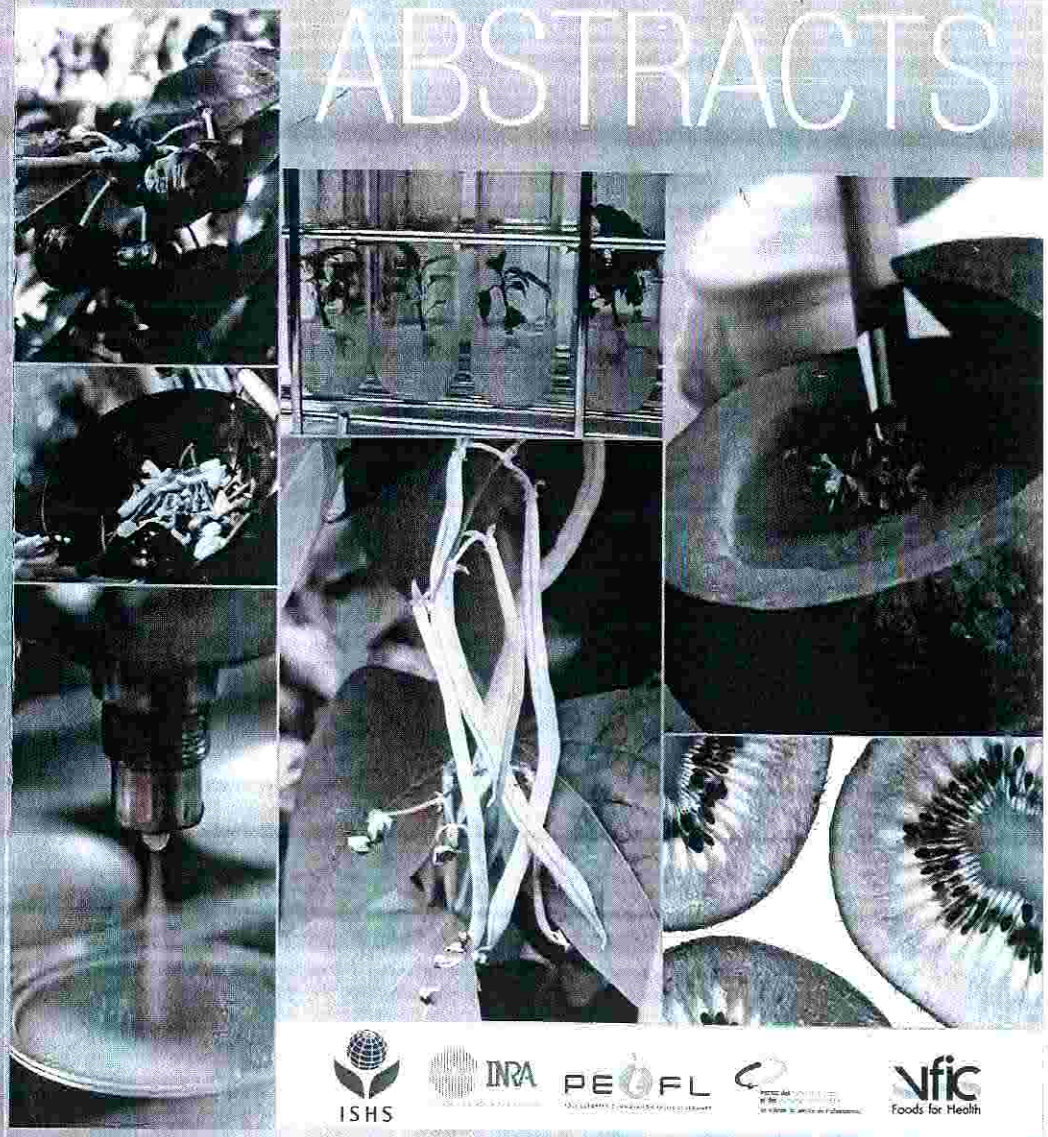
FAV Health 2009 - Avignon

FAV HEALTH 2009

OCTOBER 18/21 - AVIGNON - FRANCE

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

ABSTRACTS



ISHS

INRA

PEFL

Vfic Foods for Health

P2-35 Bioactive Compounds and Antioxidant Activity of CCP-76 and BRS-189 Precocious Dwarf Cashew Apples at Four Stages of Maturation

Delane da Costa Rodrigues, Thiago Gomes Cardoso, Carlos Farley Herbster Moura, Ricardo Elesbão Alves.
Embrapa Agroindústria Tropical, CP 3761, 60511-110, Fortaleza, CE, Brazil, elesbao@pq.cnpq.br

The cashew is an economically and socially important item in Brazilian fruit crops, especially in the Northeast. The cashew apple is rich in Vitamin C, carotenoids and phenolic compounds. In addition, these compounds possess a considerable antioxidant potential. Because antioxidants inhibit the harmful action of free radicals in the human body, they help prevent disease, reduce cholesterol levels and retard aging. The objective of this study was to evaluate the bioactive compounds and antioxidant activity of cashew apples at four stages of maturation. The apples came from precocious dwarf cashew trees (clones CCP-76 and BRS-189) in Pacajus (Ceará, Northeastern Brazil) and was collected at four different stages of maturation (2, 3, 5 and 7) and processed at the Postharvest Physiology and Technology Laboratory of Embrapa Agroindústria Tropical. Samples were analyzed for vitamin C (VC), total carotenoids (TC), total anthocyanins (TA), total extractable polyphenols (TEP) and total antioxidant activity (TAA) using the ABTS method. The average values for CCP-76 and BRS-189 at stage 7 were: VC=239.9 mg/100g, TC=0.39 mg/100g, and TA=11.5 mg/100g. Differences were significant between stages, not between clones. The analysis of TEP and TAA indicated a significant interaction between clone and stage (TEP was 260.9 mg/100g for CCP-76 and 135.4 mg/100g for BRS-189 at stage 7). TEP levels were stable for CCP-76 during maturation, but declined for BRS-189. However, TAA levels for CCP-76 declined (8.01µM Trolox/g pulp) toward stage 7 when compared to BRS-189 (9.53 Trolox/g pulp). Both clones displayed increasing levels of VC, TC and TA throughout maturation. In conclusion, the results for TAA and bioactive compounds at different stages of maturation were satisfactory.
Acknowledgments: CNPq and EU (INCO-DC 00152279) for financial support.