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International Society for Tropical Root  
Crops-Africa Branch

## Book of Abstracts & Programme

### Tkente

#### "Competitiveness of Root Crops for Accelerating Africa's Economic Growth"

##### Sub-Themes

- African Root Crops Trade & Market Scenario
- Policies favourable to competitiveness of Root Crops in Africa
- African Scenario on Production and Utilization of Root and Tuber Crops
- Business and Investment Scenario on competitiveness of Root Crops in Africa benchmarking Latin America, Asian & European Markets (Learning from Latin America, Asian & European Experience)
- Mobilizing Investors for Sustainable Root & Tuber Crop Research and Development

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## The use of the low dry matter yam bean *Pachyrhizus erosus* storage roots in drinks processing in Benin

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### Abstract

Effluent expelled as waste from fresh yam bean (*Pachyrhizus erosus*) storage roots during processing was used to prepare soft and hard drinks. The storage roots were harvested at six months maturity from the experimental fields of the Agricultural Research Centers of Niaouli and Savè. The processing consisted in peeling, grating and pressing the storage roots to obtain the effluent which was bottled and pasteurized. Sugars in the effluent were identified and quantified using a High Performance Liquid Chromatograph (HPLC). It appeared that yam bean's effluent contained 12.32 mg/ml of sucrose, 21.01 mg/ml of glucose and 14.08 mg/ml of fructose. The table juices processed from the effluent had a good sanitary quality till twelve months storage time as shown by microbiological analyses, and were positively appreciated by panellists. Moreover, analysis showed that the alcoholic drinks obtained following the distillation of the effluent fermented by the yeast *Saccharomyces cerevisiae* contained ethanol. The study demonstrated the usefulness of this waste which allowed to obtain sweet table juice positively appreciated by panellists and a good quality alcoholic liquor.

**Keywords:** Legume-root crop, soft drinks, hard drinks, HPLC, Benin.