



TECHNICAL PROGRAMME

International Society for Horticultural Science (ISHS)

Third International Conference on Postharvest and Quality Management of Horticultural Products of Interest in the Tropics.

“Postharvest technological initiatives to improve food security and market access”

July 1-5, 2013. Hyatt Hotel, Port of Spain Trinidad.

<http://sta.uwi.edu/conferences/13/postharvest/References.asp>

SUNDAY 30th JUNE 2013

- 9:00am – 5:00pm Registration, setting up posters, ISHS Board Meeting
- 6:00pm – 9:00pm Opening Ceremony
Welcome Remarks (Prof. Margrethe Serek (ISHS Commission on Quality and Postharvest Horticulture))

MONDAY 1ST JULY 2013

- 7:30 – 9:15 am Registration
- 9:15 – 10:15am Professor C. Sankat’s feature address
- 10:30–11:00am COFFEE BREAK

POSTHARVEST LOSSES AND PRE-HARVEST EFFECTS Regency Room #2 Moderator: Dr. Lynda Wickham Regency Room #2

- 11:00–11:30 am **Keynote address:** Reduction of perishable food losses: Integrating concepts from farm to table. Professor Jorge Fonseca, FAO Postharvest Scientist.
- 11:30-11:45am Auroria: Good Horticultural practices for reducing postharvest losses and enhancing quality of vegetables. Dr. H. Ramirez- Guarrero, J.C. Moyeja-Guarrero and S. Mitra.

- 11:45–12:00pm Effect of some biological fertilizers on productivity and postharvest fruit quality of “Adalia onions growing in UAE. Prof. A.F. El-Shiekh, Suez Canal University Egypt.
- 12:15-12:30pm Variations of reducing and total sugars in bulb onion tissues during growing and bulbing stages. Ms. S. Steen and Prof. N. Benkeblia.
- 12:30-1:00pm DISCUSSION
- 1:00-2:00pm BUFFET LUNCH

PRE-HARVEST EFFECTS
Moderator: Dr. Rohanie Maharaj

- 2:00-2:15pm Effects of curing treatments on physico-chemical and sensory quality attributes of three pumpkin cultivars. Dr. M. Mohammed, Dr. W. Isaac, Ms. N. Mark and L. Solomon.
- 2:15-2:30pm Influence of growth media, cultivars and harvest times on postharvest quality attributes of seven tomato cultivars grown under tropical greenhouse conditions. Mr. J. James Dr. M. Mohammed, Dr. W. Isaac, Ms. N. Mark and Mr. L. Solomon.
- 2:30-2:45pm Breeding multi-purpose hot peppers for increased capsaicinoid content. Dr. Musa Mohamed and Dr. P. Bridgemohan.
- 2:45–3:00pm Rapid qualitative assessment methodology to determine postharvest levels of capsaicinoids content in ornamental hot pepper crosses. Dr. Musa Mohamed and Dr. Puran Bridgemohan.
- 3:00-3:15pm Postharvest quality and nutrient composition of sweet pepper (*Capsicum annuum*) cultivated in different growing media and fertigation. Dr. G. Eudoxie Mr. M. Martin and M. Mohammed.
- 3:15-3:30pm DISCUSSION
- 3:30-4:00pm COFFEE BREAK

MATURATION INDICES
Moderator: Professor Nourredine Benkeblia

- 4:00pm – 4:15pm Correlation of skin colour, firmness, dry matter and maturity of mango cv. East Indian. Mr. B. Diop and Prof. N. Benkeblia.
- 4:15pm – 4:30pm Relationship between skin colour, aril and firmness and dry matter and maturity of ackee fruits. Mr. M. Emmanuel Prof. N. Benkeblia.

- 4:30pm – 4:45pm Horticultural maturity indices of breadnut
Dr. M. Mohammed and Dr. L. Wickham.
- 4:45pm – 5:15pm DISCUSSION/ SUMMARY/ POSTER SESSION
- 6:00pm – 9:00pm Shuttle Service to UWI Principal's Reception**

TUESDAY 2ND JULY 2013
**Symposium on Postharvest Logistic Systems for Horticultural
 Commodities in Latin America and the Caribbean**
Moderator: Dr. L. Roberts-Nkrumah
Regency Room #2

- 8:30-9:00am Assessment of food logistics in five countries in Central and South America.
Prof. J. Fonseca, FAO Postharvest Specialist.
- 9:00-9:30am Postharvest logistic management strategies in Jamaica.
Prof. N. Benkeblia.
- 9:30-10:00am Postharvest logistics management strategies in Trinidad and Tobago.
Dr. G. Seepersad, Dr. A. Iton and Mr. N. Felix.
- 10:00-10:15am A model for postharvest extension in the Caribbean. Dr. W. Ganpat.
- 10:45– 11:30am **PANEL DISCUSSION ON POSTHARVEST LOGISTICS**
Panelists: Professor Jorge Fonseca, Professor Nourredine Benkeblia.
Dr. Govind Seepersad, Dr. Ardon Iton, Mr. N. Felix and Dr. W. Ganpat

RIPENING AND SENEESCENCE
Moderator: Dr. Puran Bridgemohan

- 11:30–11.45am Investigating of some maturity and ripening parameters of West Indian
cherry. Mr. R. Richards and Prof. N. Benkeblia.
- 11:45–12:00pm Postharvest physiological changes in tomato. Dr. P. Jeyakumar.
- 12:00–12:15pm Postharvest quality of vine-ripe greenhouse tomato cultivars grown in two
types of media Ms. N. Mark, Dr. M. Mohammed, Dr. W. Isaac and L.
Solomon.
- 12:15 -12:30 pm Cultivar differences in the incidence of fruit rots in breadfruit, Dr. L.
Roberts-Nkrumah and Mr. O. Daley.
- 12:30–1:00pm DISCUSSION

1:00 - 2:00pm LUNCH

ETHYLENE ANTAGONISTS AND POSTHARVEST TREATMENTS

Moderator: Dr. Reynold Stone

2:00-2:30 pm **Keynote address:** Derivatives of 1-MCP interacting with ethylene receptor in plants. Professor Margarete Serek.

2:30-2:45pm Effect of refrigeration and packages with ethylene absorbents on postharvest quality of miniature bananas cv. Bananito. Dr. A. O. Herrera, Dr. H. E. Balaguera, Dr. J.C. Garcia and Dr. F. A. Salamanca.

2:45-3:00pm Effects of postharvest dips on quality and level of decay of mango fruits in storage in Yola Nigeria Dr. V.T. Tame, Dr. T.V. Gungula and Dr. I.I. Yarkwan.

3:00-3:15 pm Conservation of mangoes cv. Palmer treated with UV-C radiation in association with coatings after their transference to environmental conditions. Prof. J. Durigan, Brazil

3:15- 3:30 pm DISCUSSION

3:30 -4:00pm COFFEE BREAK

Moderator: Dr. Wayne Ganpat

4:00 - 4:15pm Studies on preparation and preservation of value-added kinnow-aonia ready to serve. Prof. B. Vickram, Mr. D.V. Persad, V. Bahadur.

4:15- 4:30pm Evaluation of decoction extracts of two types of sour-sop for annonaceous acetogenin. Dr. P. Bridgemohan and Mr. R.S.H. Bridgemohan.

4:30 - 4:45pm In-vitro evaluation of anti-microbial activity of crude extracts of *Pimentia dioica* Mr. F. Boyd and Prof. N. Benkeblia.

4:45 - 5:00pm Evaluation of the quality of mangoes cv. Tommy Atkins stored at injury conditions after their transference to the environment using multi-variate analysis. Prof. J. Durigan, Brazil

5:00 - 5:15pm An assessment of the Caribbean market for pre-packaged vegetables. Dr. A. Iton, Dr. G. Seepersad and Mr. N. Felix

5:15-6:00pm DISCUSSION AND POSTER DISPLAY

WEDNESDAY 3RD JULY 2013

**ALL DAY FIELD TRIP
DEPARTURE FROM HYATT HOTEL AT 9:00AM**

**FIELD TRIP #1: a. Bundoo's Farm (Production and harvesting)
b. Trinidad and Tobago Agribusiness Association
(TTABA) (Postproduction and Marketing)
c. PCS Nitrogen Model Farm (Production,
GAPS, Postproduction).**

**FIELD TRIP #2: a. Institute of Marine Affairs (Aquaculture,
Coastal dynamics)
b. Chaguaramas Agricultural Development
Programme
c. Botanical Gardens.**

**FIELD TRIP #3: Sugar Cane Feed Centre (Livestock Production,
Biogas Technology, Composting).**

THURSDAY 4TH JULY 2013

QUALITY MANAGEMENT OF VALUE-ADDED PRODUCTS

Moderator: Dr. Musa Mohamed

Regency Room #2

- 8:30-9:00am ***Keynote address:*** Value-added products from tropical carbohydrate storage crops and its significance for food security in tropical countries. Dr. Lynda Wickham.
- 9:00-9:15am Quality and HACCP-based compliance for primary processing of fine cocoa beans in Trinidad. Dr. R. Maharaj, Mr. M. Ramdawat and K. Kerr.
- 9:15-9:30am Comparison between chocolate and an analog product from copoazu. Prof. Cucaita, Prof. R.H. Gutierrez and Prof. M.S. Hernandez.
- 10:00-10:15am An assessment of the quality attributes of the Imperial College selections of cocoa lines. Dr. D. Sukha, Dr. D. M. Barath, Ms. N.A. Ali and Prof. P. Umaharan.
- 10:15-10:30am A preliminary investigation of the effect of cocoa pulp on final flavor. Ms. N. Ali, Dr. G.S.H. Baccus-Taylor, Dr. D. Sukha, and Prof. P. Umaharan.

10:15–10:45am
10:45 -11:15am

DISCUSSION
COFFEE BREAK

QUALITY MANAGEMENT OF VALUE-ADDED PRODUCTS
Moderator: Dr. Gaius Eudoxie

- 11:15-11:30am The impact of processing location and growing environment on flavour in cocoa (*Theobroma cacao* L): Implications of “Terrior and Certification”.
Dr. D. Sukha and Prof. P. Umaharan.
- 11:30- 11:45am Utilization of Amazon seje oil extracted by mechanical and manual methods. Prof. Castillo, Dr. M. Lares and Prof. M.S. Hernandez.
- 11:45-12:00pm Asai (*Euterpe precatoria*) fruit: harvest and postharvest uses. Prof. M. S.Hernandez, Dr. M. Lares, Dr. M. Carillo, Dr. R.O. Diaz, Prof. R.H. Gutierrez and Dr. J.P. Fernandez-Trujillo.
- 12:00-12:15pm Microwave extraction of anti-oxidant compounds from dry copoazu seeds. Prof. Herrera, Prof. R.H. Gutierrez and Prof. M.S. Hernandez.
- 12:15-12:30pm Little – used and neglected species from the American tropics: value chain. Prof. M. S. Hernandez.
- 12:30-1:00pm DISCUSSION
- 1:00-2:00pm LUNCH

METABOLOMICS AND NUTRACEUTICALS
Moderator: Dr. Isaac Bekele

- 2:00–2:30pm **Keynote address:** Metabolomics and postharvest science: Challenges and Perspectives. Prof. N. Benkeblia.
- 2:30–2:45pm Fruit and vegetable juice blending for developing anti-oxidant rich, nutritious and thirst – quenching health drink. Prof. S. Mitra and Dr. H.O.Ramirez-Guerrero.
- 2:45-3:00pm Evaluation of a powdered drink with anti-oxidant properties from asai fruit. Prof Castillo, Dr. M. Lares and M.S. Hernandez.
- 3:00 -3:30pm DISCUSSION

3:30-4:00pm COFFEE BREAK

NUTRACEUTICALS

Moderator: Dr. Govind Seepersad

4:00-4:15pm Extra- Virgin oil: Physico-chemical parameters in deterioration.
Dr. P. Bridgemohan .

4:15-4:30pm The production of a spray-dried pineapple powder. Dr. S. Mujaffar and Ms.
G. Ramtahal-Dhun.

4:30-4:45pm Quality attributes of pumpkin powder via foam-mat drying.
Dr. L. Harrynanan and Professor C. Sankat. University of the West Indies,
Trinidad.

4:45-5:00pm Export potential of Tamil Nadu mangoes to United Kingdom. Mr. A.
Siddick and Dr. S. Ganesh.

5:00-5:15pm DISCUSSION

5:15-5:30pm CLOSING REMARKS

7:00-11:00pm BANQUET AND AWARDS CEREMONY

POSTERS

Antifungal effect and quality evaluations on whole fresh papaya fruit treated with chitosan-based edible coatings. M. Hernandez-Lopez, L.L. Barrera-Necha, S. Bautista-Banos, M. Rufina-Diaz, D. Guillen- Sanchez.

Antioxidant capacity in microencapsulated dehydrated Amazonian fruits. M.S. Hernandez, J. E. C. Cardona , R. O. Diaz, M. Carillo, R.H. Gutierrez and J. P. Fernandez-Trujillo.

Consumer perception and willingness to pay for slow food. G. Seepersad, A. Iton and N. Felix.

Impact of physico-chemical quality attributes of breadnut fruit harvested at different stages of maturity on post-cooking quality. M. Mohammed

Quality changes in cocoa liqueur made from infused beans with or without spices and pulp. A. A. John, L.D. Wickham and M. Mohammed.

Compositional changes in breadnut fruit during ripening. M. Mohammed and L. D. Wickham.

Formulation and assessment of selective physico-chemical, microbiological, nutritional and sensory properties of three snack bars. S. A. Onfry, L. D Wickham, L. and M. Mohammed.