Message from the new Faculty Dean

Dr Isaac Bekele, Dean, Faculty of Food and Agriculture

The Faculty of the Food and Agriculture began its second year of operation with new management. The task of rebuilding the Faculty for efficient, effective and timely discharge of its mandate, which began with the formation of the new Faculty on August 1, 2012, is being pursued in earnest. The first year of existence was ably managed by the Acting Dean, Prof Carlisle Pemberton, his Deputy Deans and Heads of the three Departments. The Faculty owes its gratitude to the outgoing Dean, for his stewardship of the Faculty. The in-coming management team of the Faculty will continue with the task of putting in place further management and administrative structures needed to enable it to discharge its duties and responsibilities.

Undergraduate Offerings

The Faculty currently offers BSc level programmes in Agricultural Science and Technology, Agribusiness Management, Human Ecology, Geography, Environmental and Natural Resource Management and Tropical Landscaping. In addition, the Faculty is poised to commence offering a two year undergraduate Diploma in Agriculture from August 2014. The new Faculty of Food and Agriculture focuses on disciplines which deal with human sustenance and well-being, welfare as well as human and environmental sustainability. The total number of students enrolled this academic year in the undergraduate programmes is over 910.

Postgraduate Programmes

The number of programmes offered at the postgraduate

Continued on Page 2
message from the new Faculty Dean

Continued

level will increase over time to cater for increasing demand for more specialized training areas. Currently, the Faculty offers postgraduate diplomas, taught Masters, Masters of Philosophy and Doctors of Philosophy both on part-time and full-time bases. This academic year, total enrollment in postgraduate programmes in the Faculty is over 210 students.

Short Courses and Workshops

If there is one area that suffered neglect as a result of the merger of the Faculty of Agriculture with Natural Sciences, it is the platform for short courses. The Faculty’s mission will not be realized wholly if it cannot revive its programme of short courses and offer them in an effective and efficient manner throughout the region.

Undergraduate Diploma in Agriculture

During the pre-merger phase, the Faculty of Agriculture ran a one year pre-agriculture programme as a matriculation exercise admitting students with lower level qualifications. During this phase, students admitted with pre-agriculture qualification formed 50% of enrollment in both the undergraduate and graduate programmes. Following the merger in 1995/96, the pre-agriculture programme was discontinued. During discussions to re-establish an independent and separate academic unit for Agriculture, the need to introduce a special track for students with CSEC qualifications in relevant subjects, who would be interested in pursuing a career in Agriculture, was clearly recognized.

Also, it was further noted that a matriculating programme like the pre-agriculture would be less suitable for the kind of agricultural graduates the Faculty plans to train. From experiences with admissions with pre-agriculture qualifications on the one hand, and Agriculture Diploma on the other, it was clear that a Diploma track would be a better mechanism for preparing high school graduates for an undergraduate programme in agriculture as long as the Diploma Curriculum properly balances the Science and Technology on one hand and the practical skills base on the other.

The Department of Food Production at the time was already involved in review of the BSc Agriculture Curriculum in addition to Diploma/Associate Degree programmes of key regional institutions. Arising out of the discussion to revive a new track for preparing students interested in agriculture, the Department set out to develop a curriculum for a two-year undergraduate Diploma in Agriculture which will prepare CSEC holders for admission to BSc Agriculture with the primary goal of admission to the diploma holders to the second year of a three-year undergraduate programme.
The Faculty Mourns the Loss of Another Icon  Continued

Agriculture. He became a Professor of Soil Science in 1969. He was also a Canada Hall warden for a number of years and mentored many students from across the region.

Professor Ahmad’s work in Tropical Soils is internationally acclaimed. He worked as a consultant in soil and land use worldwide. He authored and co-authored over 200 scientific articles and three soil science books. He was also a Lecturer, Senior Lecturer, Professor and former Head of the Department of Soil Science from 1961 to 1995.

According to Dr H Arlington D Chesney, author of the foreword for Professor’s Ahmad book “Soils of the Caribbean” and one of Nazeer’s postgraduate students, “Dr Ahmad is singular and peculiar. He has contrived to accompany his excellence in teaching with his care for undergraduate and postgraduate students, with equal, perhaps greater, excellence than his research on Caribbean and Tropical soils. I daresay that he is the most outstanding Caribbean Soil Scientist for at least the last 50 years. He would also be ranked among the best for his knowledge and practical experiences utilised in authoring this seminal work on Caribbean Soils”.

He received the title of Professor Emeritus and was a member of the International Society of Soil Science and the International Board for Soil Research and Management. He was awarded the Inter-American Institute for Cooperation in Agriculture (IICA) Gold Medal for his contribution to research in Soil Science in the Caribbean and Latin American region.

Compiled by Prof Lawrence Wilson,
Friend and Colleague

Faculty Celebrates Divali at The University Field Station

Faculty staff and students were treated to a cultural programme and delicious lunch at The University Field Station (UFS), as they joined their Hindu colleagues in celebrations of Divali on 31st October 2013.

According to the Dean, Dr Isaac Bekele, who addressed the gathering, “Light is significant in every religion, signifying purity, cleanliness and understanding”. He added, “for the layman, light is considered knowledge and when there is no light, there is ignorance”.

The programme included singing of religious songs by a group led by Mr Indar Ramroop from the Field Station. There were also some fun activities, including modeling showcasing Indian cultural garments, selection of a king and queen, and audience prizes.

Indar Ramroop and group perform religious songs

Divali queen and king, Nadia Ramtahal, postgraduate student in the MSc Crop Protection Programme, and Doodnath Persad, employee attached to the UFS
Farmers Recognized

Five Farmers were honoured for their collaboration with the UWI over the past 10 years at the Faculty’s 1st Annual Prizes Award Ceremony, which took place on Monday 21st October 2013. These farmers were Mr Miguel Reyes (Wildlife farmer), Mr Ramdeo Boondoo (Rootcrop farmer), Mr Ramdial Ramtahal (Vegetable farmer), Mrs Shaleeza Ramlogan (Vegetable farmer) and Dr Shango A Alamu (Organic farmer).

In appreciation, farmers were all awarded with a cheque and a commemorative plaque.

The Pro Vice-Chancellor and Principal of The UWI St Augustine Campus, Professor Clement Sankat, who gave the opening remarks at the ceremony, was particularly pleased that the Faculty took the initiative to recognize the farmers.

Mr Barton Clarke, FAO Representative for Trinidad and Tobago and Suriname gave the keynote address at the ceremony.

Meet some of our Outstanding First Class Honours Graduates

Kenson Ricardo Richards grew up with his grandmother in a very poor setting in rural Grenada. From a very early age he recognized the value of education as the impetus for getting out of poverty. He attended the Bonair Government School (Primary) and the St Mark’s Secondary School and later, the Theophilus Albert Marryshow Community College where he excelled. Upon completion of his college programme, he entered the teaching profession and later taught Geography, Principles of Business, Agricultural Science, Wood Work and Technical Drawing from forms 1-5 at his Alma Mater.

Mid-way throughout his teaching life, and after attending teachers college for 2 years, he decided to pursue a Bachelor of Science in Geography and Agribusiness degree at The UWI in September 2010. He was recently awarded a full scholarship to pursue a 2-year Master of Environmental Studies in Planning at the University of Waterloo, Ontario Canada.
Meet some of our Outstanding First Class Honours Graduates

Renold Ramdial

Renold Ramdial is from Princes Town and was born and raised in Tableland. He has always been involved in Agriculture with his father, a retired CARONI 1975 Ltd worker. Renold attended St Stephen’s College and later the Eastern Caribbean Institute of Agriculture and Forestry (ECIAF), where he graduated in 1994. Before entering The UWI in September 2010, Renold attended the Agricultural Teacher Education Center and graduated in 1997 with a Credit Diploma in Agriculture Teacher Education. Renold, who currently works at the Ministry of Food Production as an Agricultural Assistant II, is also a Certified Emergency Medical Technician. Reynold, who delivered one of the Valedictorian’s addresses at the ceremony, urged his fellow graduands to “become leaders in our fields of study, driven to impart changes from the status quo, becoming professionals and creating tangible resources that can be used to create sustainable enterprises that stand the test of time”. Renold hopes to return to The UWI to pursue an MPhil in Crop Science in 2014.

Deeanna Sahadeo

Deeanna Sahadeo completed a Double major in Geography and Environmental and Natural Resource Management. This however, has not been Deeanna’s highest achievement as earlier she received a National Scholarship upon completion of CAPE. She is currently pursuing a Master of Science in Occupational Safety and Health in the Environment at The UWI St Augustine Campus. Ms Sahadeo grew up in the small rural village of Palmiste, where she spends her weekends assisting in the small family-owned poultry shop. She considers her mother the strongest woman she has ever known. Her mother is also her greatest pillar of strength and encouragement ever since she lost her father only 2 months ago.

Shivani Ramoutar

Shivani Ramoutar is one of the youngest graduates of The UWI, having received her BSc in Geography and Agribusiness when she was just 20 years old. While young in age, Shivani’s determination and drive for excellence shows great maturity. Her passion for Geography transcends her academics as she makes real world connections and integrates her learning at The UWI into her daily life. Shivani takes pride in the myriad of cultural expressions which comprise her social, religious and ethnic heritage. She attributes much of her success to the support of God, her family, friends and mentors over the years. As she continues, she does not plan to travel the easy road, for what good would geographers be if they did not go out to find something new?
Meet some of our Outstanding First Class Honours Graduates continued

Alpha Sennon is currently pursuing an MPhil degree in Agricultural Extension. The main focus of his research is youth development in agriculture and privatizing agricultural extension services in the region.

Growing up in a small town of Siparia, his father would always encourage him to accompany him to the garden. He developed a keen interest in rearing animals and in the production of citrus and vegetables. This led him to self-discovery and a realization of his dream – a future in Agriculture.

Alpha is currently the President of the Agribusiness Society of UWI and also serves on several executive membership positions on other Youth Agricultural boards.

In his address to awardees, he quoted from John Dewey, “Failure is instructive; the person, who really thinks, learns quite as much from his failures as from his successes”. He told awardees that “my main focus tonight, however, is for us to challenge ourselves and ask what is our way forward as students? Yes we have attained high academic achievement, we got A’s, A+’s, first class honours etc, but how do we plan to contribute and create an impact or have a positive effect on society. Would the first class on your certificate do it, the answer is no, I urge all of us to pool together and pull all resources together and create a change, leave behind a legacy”.

Other First Class Honours students include: Gabriella Alphonso, Safiya Beckford, Amber Charles, Kezia Dalrymple, Jason Felix, Shaunnelle Hamilton, Zahra Holder, Shenissa Pariag, Nikhail Lutchmedial, Sarita Seepaul, Kafi Warner and Anika Lendor.

Department of Geography celebrates Geography Awareness Week with the following activities

Sunday 17th November, 2013
• Department hike to Turure Water Steps (cost attached) (Book your seat by sending an email to events.gaw@gmail.com)

Monday 18th November, 2013
• Poster display on the ground floor of the Sir Frank Stockdale Building (week long display)
• Artefacts/Specimen display at the Alma Jordan Library Foyer and 2nd Floor geography book display (week long display)
• FREE on-campus movie open to all UWI students and staff (Venue TBA)

Tuesday 19th November, 2013
• Primary schools visit the Geography Department
• FREE on-campus movie open to all UWI students (Venue TBA)

Wednesday 20th November, 2013
• INTERNATIONAL GIS DAY
• Geographic Information Systems (GIS) in Education Workshop for secondary school teachers
• Secondary schools visit the Geography Department
• FREE on campus movie open to all UWI students (Venue TBA)

Thursday 21st November, 2013
• Learn GIS Workshop open to all UWI students and staff (no previous knowledge necessary)
• Geography Forum & Cocktail Reception: “A Place for Geography, Geography in its place” (By invitation only) FREE workshop, but space is limited, RSVP by Nov 18th to events.gaw@gmail.com

Friday 22nd November, 2013
• Fun with the UWI St Augustine Geography Club (geo games and activities open to all UWI students and staff)
• FREE on-campus movie open to all UWI students (Venue TBA)

Saturday 23rd November, 2013
• UWI St Augustine Geography Club field trip to Gasparee Caves (cost attached) (Book your seat by sending an email to events.gaw@gmail.com)
Caribbean Agriculture at the Crossroads

Pro Vice-Chancellor and Principal, UWI St Augustine Campus, Professor Clement Sankat delivered the Sir Arthur Lewis/Professor George Beckford Memorial Lecture to open the joint conference of the Caribbean Agro Economic society (CAES), the Caribbean Food Crops Society (CFCS) and the International Society for Horticultural Science (ISHS). The conference took place at the Hyatt Regency in Port-of-Spain from June 30th to July 5th 2013.

According to Campus News, July 4th 2013, using the theme "Caribbean Agriculture at the Crossroads", Professor Sankat took a critical look at the state of agriculture worldwide, agreeing with Lester Brown of the Earth Policy Institute that “we are entering a new era of rising food prices and spreading hunger. Food supplies are tightening everywhere and land is becoming the most sought-after commodity as the world shifts from an age of food abundance to one of scarcity. The geopolitics of food is fast overshadowing the geopolitics of oil. Armed aggression is no longer the threat to our future. The overriding threats to this century are climate change, population growth, spreading water shortages and rising food prices”.

Professor Sankat suggested that the reasons for this food crisis include population growth, urbanisation, the rapid development in East and South East Asia (China, India, the Philippines, etc.), natural disasters and extreme climate events, rising oil prices, the conversion of food crops to biofuels, neglected support for science technology and innovation through research and development, and too few countries in the world involved in the global trade of staple foods. He also indicated that, in such an environment, countries like Trinidad and Tobago and other Small Island Developing States (SIDS) are vulnerable and threatened by food shortages, noting that the region imports US $4 billion in food.

He stated that an appropriate strategy for agricultural development in the Caribbean would be one that recognises the new global realities of agriculture and its holistic contribution to development and strongly recommended a balanced strategy that recognises both the need for import substitution as well as agricultural diversification and the exports of products that could be described as uniquely West Indian. Such a strategy, Professor Sankat argued, should leverage agriculture’s role as one that is greater than farms and farming but that is at the same time a series of activities interwoven in the socio-economic fabric of our countries.

In addition to the presentations of research papers and a field trip, the participants enjoyed cocktails at the Campus Principal’s office and a banquet and awards ceremony at the Capital Plaza Hotel. President of Guyana, Mr Donald Ramotar, gave the feature address at the banquet and awards ceremony.

Recipients of ISHS Commitment to Excellence Award
Professor Lawrence A Wilson
In recognition of distinguished teaching and research in Postharvest Physiology and Biochemistry

Professor Clement Sankat
In recognition of pioneering research in Controlled Atmosphere Storage of Tropical Commodities

Dr Lynda D Wickham
In recognition of distinguished teaching, research and outreach activities in Post-production Technology of Tropical Commodities

Dr Mario Fortune
In recognition of distinguished research and outreach activities in Plant Pathology

Dr Majeed Mohammed
Medal and Certificate for Meritorious Service in Postharvest Physiology

Recipients of CAES Distinguished Awards
Prof Curtis Jolly
Mr Winston Ramautarsing
The Faculty participates in Caribbean Week of Agriculture in Guyana

The Faculty of Food and Agriculture (FFA) was well represented at the Caribbean Week of Agriculture (CWA) in Guyana (4th to 12th October 2013). The team was led by the newly appointed Dean, Dr Isaac Bekele, and included Dr David Dolly, Dr Wayne Ganpat, Dr Isabella Granderson, Dr Wendy-Ann Isaac, Dr Laura Roberts-Nkrumah, Dr Lynda Wickham, Professor Neela Badrie, Dr Marquitta Webb, Mr Terry Sampson and several graduate students.

Some of the main events in which the Faculty participated were: the Food and Nutrition Security Workshop, Launch of the Caribbean Agricultural Extension Providers Network (CAEPNet), panel discussions on Food and Nutrition Security for the Caribbean Region and Changing Training Paradigms for Increased Youth Engagement in Caribbean Agriculture, Launch of 2nd Caribbean Young Professionals Science and Agriculture Film and Video Competition, COTED meeting and exhibitions.

Food and Nutrition Security Project and Workshop

Improving the nutrition and health of CARICOM is the goal of a 4-year project, Food and Nutrition Security, being implemented by The UWI and the University of McGill, funded by the International Development Research Center (IDRC) with financial support of the Canadian Government. The project is in its third year and is being executed in St Kitts and Nevis, St Lucia, Guyana and Trinidad and Tobago.

On Tuesday 8th October an overview and update on the project’s findings were made to agriculture officials from the region. The officials commended the UWI/McGill Universities for their initiative and thanked IDRC and the Canadian International Food Security Research Fund for supporting this project. In addition, as part of the project, a technical workshop was held at the CWA for scientists and technicians in the region.

Launch of the Caribbean Extension Providers Network (CAEPNet)

The official launch of the Caribbean Agricultural Extension Providers Network (CAEPNet) was held on Wednesday 9th October. The event was chaired by Mr Kuldip Ragnauth, Guyana Rice Development Board with opening remarks by Dr Isaac Bekele, Dean, FFA. The feature address was given by the Minister of Agriculture for Guyana, the Honourable Dr Leslie Ramsammy, who applauded the initiative, emphasised the absolute necessity of a renewed extension service in the current context of food and nutrition security in the CARICOM Region and extolled the potential benefits of the network for the region’s food and agriculture sector. The feature address was followed by a panel discussion, chaired by Dr Lynda Deans of the Faculty of Agriculture and Forestry, University of Guyana, Owen Bovell (left), and of the Faculty of Food and Agriculture, University of the West Indies, Isaac Bekele

Continued on page 9
The Faculty participates in Caribbean Week of Agriculture in Guyana Continued

Wickham, Deputy Dean, Outreach and Internationalisation, FFA. Panellists were Ms Jennifer Maynard, Agrotourism Specialist, Ministry of Tourism, Antigua and Barbuda who spoke on, “New demands on the traditional extension system; Mr Kemuel Jn Baptiste, Chief of Extension, Ministry of Agriculture, St Lucia, spoke on the topic “How does traditional Extension confront current changes in extension” and Mr Barny Callender, Head of Extension, Ministry of Agriculture, Barbados, spoke on “The way forward for traditional extension”.

COTED Meeting

Among the issues discussed by Dean Isaac Bekele at the COTED meeting on 11th October, which was attended by Ministers of Agriculture and country representatives of IICA, FAO, CAFAN, CARDI and UWI, were the establishment of the CARICOM Food and Nutrition Security project, the formation of CAEPNet and the academic programmes being offered by the faculty.

The Dean also outlined decisions of The UWI to establish a Faculty Advisory Board with the main objective of improving linkages with regional stakeholders. The Dean also advised that work would start on agriculture human resource requirements in the region. The Ministers of Agriculture noted all these initiatives and fully endorsed them.

Panel Discussions

On Thursday 10th October, the FFA held two panel discussions on (1) Food and Nutrition Security for the Caribbean Region and (2) Changing Training Paradigms for Increased Youth Engagement in Caribbean Agriculture.

(1) Food and Nutrition Security for the Caribbean Region

This panel discussion sought to identify mechanisms that UWI stakeholders feel are most applicable to yield the desired impact on food and nutrition security, to identify methodologies that are already in place to this end, and to address the challenge of how to change methods of utilisation and consumer taste quickly enough to be ready for potential crisis. The main presenter was Mr Owolabi Elabanjo, Extension Officer, Ministry of Agriculture, Lands, Housing and the Environment, Antigua and Barbuda, and graduate of the MSc Tropical Commodity Utilisation Programme of the FFA. Mr Elabanjo presented the Food Security strategy of Antigua and Barbuda through its backyard gardening programme and that island’s Zero Hunger Challenge initiative of which he is the coordinator. The gathering noted the tremendous success of the programme under the leadership of Mr Elabanjo, its impact on food security, income generation, importation of some food items and on poverty alleviation in the more vulnerable areas.

The discussion concluded that while the approach has proven to be successful in Antigua and Barbuda, it is very likely that some modifications will have to be made for other OECS Member States. The FFA plans to keep abreast of developments with respect to this initiative and to lend support, where necessary, as part of its own outreach activities.

(2) Changing Training Paradigms for Increased Youth Engagement in Caribbean Agriculture

This panel discussion aimed to address the declining interest of youth in training towards pursuing careers in the food and agriculture sector. It sought to obtain

Continued on Page 10
The Faculty participates in Caribbean Week of Agriculture in Guyana Continued

views of relevant stakeholders on how the current approach to education and training needs to be modified to result in increased youth engagement in the sector.

The main speakers for this panel discussion were Dean Owen Bovell of the Faculty of Agriculture and Forestry, University of Guyana and Dean Isaac Bekele and Dr Laura Roberts-Nkrumah of the FFA. The audience included several students of the two faculties whose views greatly enriched the discourse, keeping it relevant and guiding the outcomes of the discussion.

The presentations and discussions made recommendations in areas of (a) training and (b) research for agricultural development as follows:

(a) Training for Agricultural Development
  • Training programmes must keep abreast of topical issues eg climate change, food import bill etc
  • Training must take into account the need for generalists and specialists
  • Training must satisfy the need for a multidisciplinary approach to problem solving
  • Trainees and graduates must be equipped to deal with both agricultural and social issues
  • Use of needs assessment surveys to develop competency–based curricula
  • Specialists should work with one another to provide an integrated approach to students on teaching and research for problem solving
  • Practical experience of students should lead to confidence in agribusiness enterprises

(b) Research Curricula for Agricultural Development
  • Research must be multidisciplinary and establish a closer relationship with the communities served
  • Training groups on research programmes must include participants responsible for effecting change, eg extensionists, policy makers, planners
  • Greater communications must be established between institutions and stakeholders eg student/staff committee, internships, practical projects, up-to-date Technology Advisory Boards.

Launch of 2nd Caribbean Young Professionals Science and Agriculture Film and Video Competition

The 2nd Caribbean Young Professionals Science and Agriculture Film and Video Competition: Adding Value to Local Foods was launched on Thursday 10th October. The FFA was represented by the Dean, Dr Isaac Bekele and Dr Lynda Wickham.

Exhibition and Public Awareness

The Food Security Project showcased a variety of visual displays. There was a game related to Food and Nutrition knowledge which attracted the school children, several videos highlighting the work conducted across the region ran continuously in the booth and factsheets were distributed to visitors. Many newspapers, radio and television interviews were conducted by project staff.

The FFA’s booth highlighted its teaching and research activities with major emphasis on ongoing research on breadfruit and wildlife husbandry. Information was distributed on a range of topics in food, nutrition and agricultural production to the general public and proved to be of particular interest to young individuals from visiting high schools, the Guyana School of Agriculture and the Faculty of Agriculture, University of Guyana.

The CAEPNet also had an exhibit, which informed visitors of its functions.

Excerpts from Reports by Drs Lynda Wickham and Wayne Ganpat
Island Producers: Food Processing Constraints and Food Safety Challenges

“It is estimated that US$ 3.5 billion in both fresh and processed foods are imported into the Caribbean. In agriculture, small and medium enterprises (SMEs) account for more than 70% of the main export crops. These SMEs could range from sophisticated state-of-the-art facilities to small artisanal operations producing traditional foods for the local community.”

This was stated by Professor Neela Badrie, Head of the Department of Food Production, who was an invited speaker at the International Association for Food Protection (IAFP) meeting in Charlotte, USA on July 30th, 2013.

Professor Badrie’s speech was titled, ‘Island Producers: Food Processing Constraints and Food Safety Challenges of Small and Medium Enterprises in the Caribbean’.

According to Professor Badrie, “The burden of poor food safety and food-borne diseases associated with processed food products in Caribbean countries could be related in terms of human morbidity and premature mortality and the economic and social costs imposed on developing Caribbean countries. According to the CAREC (now the Caribbean Public Health Agency -CARPHA) surveillance base during the review period 1981-2005, most of the 42,973 cases of food-borne illness were reported from Trinidad and Tobago (38%), Bahamas (34%), Jamaica (8%) and Antigua and Barbuda (7%). In Trinidad and Tobago, an annual average of 633 cases was reported over the period (range: low of 102 cases in 1981 to high of 1,308 cases in 1990). In a recent “Burden of Illness Study (BOI)” conducted in Trinidad and Tobago by researchers from the Faculty of Food and Agriculture, University of the West Indies, St Augustine, the Caribbean Public Health Agency and Public Health Agency, Canada estimated that there were 135,820 acute gastroenteritis (AGE) cases in 2009, with 84% under-reporting, and that for every 1 case of AGE reported, an additional 6.17 cases occurred in the community.

Recently, the headlines in many daily newspapers in Trinidad and Tobago have highlighted the closure of restaurants by public health inspectors. One such headline was “Food court restaurants ordered closed by health inspectors” as reported by the Trinidad Express, August 2013, due to unsanitary conditions.

According to a report by the Food and Agriculture Organisation, in 2005 some of the high risk factors of food-borne illness in 183 food service establishments inspected in 2000 were insects and rodent infestation, lack of food handling medical certificate, potential for cross contamination, lack of hand washing facilities, unsafe food holding temperatures, unsanitary dishware and equipment, improper food handling, poor personal hygiene, improper food storage, chemicals stored near food and infected food handlers.

The presentation at the IAFP meeting also focused on the constraints to agro-processing and food safety challenges in meeting the local, regional and international markets. It highlighted the prevalence of food borne illness in some Caribbean islands, the high risk incidents in hotels/resorts and in food service establishments, constraints to agro-processing, implementation of risk-based food control strategies such as HACCP and Food Safety Modernisation Act (FSMA) and the role of the newly formed Caribbean Agricultural Health and Food Safety Agency.

Submitted by Prof Neela Badrie, Head Department of Food Production
This year’s World Food Day theme was **Sustainable Food Systems for Food Security and Nutrition** and once again the Faculty celebrated by participating in the agricultural exhibition in Port of Spain, (16th October) hosted by the Ministry of Food Production; the agricultural exhibition in Tobago (15th -17th October), hosted by the Tobago House of Assembly; and UWI hosted a candle light vigil on Campus (17th October).

**Candle Light Vigil**

The vigil was a simple ceremony which linked the aspirations of the global community with individual commitments to “Eradicate Extreme Poverty and Hunger”, Millennium Development Goal Number One.

Every year, World Food Day provides a sobering reminder that, in a world of plenty, more than 840 million people go hungry each day.

The venue chosen for the vigil was The UWI Main Administration Building. According to Pro Vice-Chancellor and Principal of the Campus, Professor Clement Sankat, who gave the welcome remarks, “The venue chosen to hold this Candle Light Vigil in celebration of World Food Day 2013 is no coincidence! I feel very proud to say that this venue was deliberately chosen as it holds great significance for agriculture in Trinidad and Tobago, the wider Caribbean region, and yes, the world! The building we are standing in front of, is actually the Administrative Centre and Library of the Imperial College of Tropical Agriculture (ICTA), the forerunner to the UWI St Augustine Campus! In fact, it was right here, that the then Faculty of Agriculture (and the Campus) opened its doors in October 1960 to 67 students (39 undergraduate in the new BSc Agriculture programme, and 28 postgraduates) inherited from ICTA, and the rest is history!”

The Prinical applauded the faculty for hosting the vigil at this site and stated, “…you have given The UWI St Augustine Campus, especially through our new Faculty of Food and Agriculture, an opportunity to re-dedicate ourselves to the mandate of contributing towards a sustainable future for the people of our country and region through teaching and learning, and research and innovation in the areas of food production and agriculture. Indeed, I am a strong proponent that if one’s society is to develop sustainably, one
cannot neglect the importance of developing a strong and sustainable agriculture sector”.

According to the Dean, who served as Chairman of the proceedings, “We live on a planet where each hour approximately 920 persons die due to hunger. This, in a nutshell, means roughly the size of the population of staff and students of UWI in St Augustine perishes each day for lack of food. The irony of it all is that over 1.6 billion persons alive today are overweight and face lifestyle health risks”.

Mr Barton Clarke, FAO Representative for Trinidad and Tobago and Suriname gave the message from the FAO’s Director General and Mr Edric Harry, Policy Analyst and Planning Specialist, IICA, affirmed his institution’s commitment to assist with the eradication of poverty and hunger.

A pledge to contribute to ending hunger in the world and enabling all our fellow human beings to enjoy their right to food was read by Ms Zakita Bethel, President, Agricultural Society of the Faculty of Food and Agriculture (students’ group). Cassava sticks were donated by the Golden Grove Prison, in Arouca to participants. More than 100 people attended the vigil, including UWI staff and students, Ministry of Food Production personnel and members of the general public.

Agricultural Exhibitions

In Tobago the World Food Day Celebrations were held at the Dwight Yorke Stadium. Staff and students from the Departments of Agricultural Economics and Extension, Food Production and the Agribusiness Society interacted with patrons and distributed educational information on programmes offered by the Faculty. Keen interest was generated for the New Diploma in Agriculture, scheduled to begin in August 2014.

Staff and students from the Human Ecology programmes conducted body composition measurements on patrons, including height, weight, waist and hip circumference measurements, body mass index (BMI), bioelectrical impedance analysis (BIA) including body fat percentage, skeletal muscle percentage and visceral fat level. Patrons were given demonstrations on healthy eating by the use of the food models and the “Caribbean six food group charts”.

Patrons enjoyed sampling vegetarian peas and beans patties, and goat cheese making demonstrations.

The Agribusiness Society had a display depicting the value chain process using cocoa and cassava. Hydroponics and aquaponics systems were also on display.

The exhibition at Port of Spain drew large numbers of students and members of the general public. Some expressed fascination with the compost model on display and a few students were brave enough to play with the worms from the compost container. Factsheets and information sheets were distributed on healthy eating, and agricultural production techniques of various crops.
Ninety students registered for the AGRI1000: Practical skills programme in May-June 2013. The theme of the programme was, “Working Smarter Not Harder”.

The practical skills programme, which is normally conducted in the first year of the degree programme, was designed with two aims in mind. First, to allow students to experience, in real time, the challenges and issues that farmers face in the field in the production of crops for market, the rearing of broiler chicken for market and the utilization of waste materials to design a functional peri-urban garden space. The rationale underpinning this first objective was that students were not being equipped with real-world knowledge and skills. The second objective was to provide experiences that would assist these students to develop a marketing strategy for selling their produce and developing an agri-product using only produce grown at The University Field Station (UFS).

In the first week of the programme, students started their own seedling nurseries and established short term crops, prepared pens for arrival of 1-day old chickens and identified waste materials from the UFS to design their peri-urban gardens. They were then required to start working on identifying crops grown at the UFS which can be used to develop a new agri-product. They were also required, within the first week, to develop a marketing strategy which would enable them to generate enough funds to return at least $1,000TTD to the Department of Food Production.

Dr. Govind Seepersad conducted a session with students on developing a business, guided by a facilitator (usually a final year or postgraduate student). They were then required to develop a new product or service that was simple and inexpensive to produce using only material from UFS and with minimal external inputs. Products and services that had been developed and marketed by the students included fresh vegetable produce packages, breadfruit and dasheen punch, coconut and sweet potato flour, foot massages using a unique blend of UFS herbs and several unique dishes.

This practical skills programme attempted to stimulate students to work together collaboratively by integrating production, marketing, accounting, human behaviour, and business environment concepts in management of agricultural businesses. This year they worked closely with other students enrolled in LSDP1000: Practical Skills in Landscaping. Together they mounted a grand sales day event on campus. To strengthen the students’ efforts, an open-day event was planned on the same day. Various stakeholders in the Agricultural Sector of Trinidad and Tobago worked closely with students in these activities. These included:

- The Agriculture Development Bank (ADB) Mobile banking services
- Caribbean Agricultural Research and Development Institute (CARDI)
- Sugarcane Feeds Centre (Aquaculture)
- Marketing and Distribution

The practical skills programme culminated with a cookout competition. Students had the opportunity to practice their innovative culinary skills by preparing dishes using only ingredients from the farm. The students pursuing the “Practical Skills in Landscaping” assisted each group to enhance their general display and presentation.

Students were judged by a panel of expert judges and the UFS Manager’s trophy was given to the winners. Other prizes were sponsored by Nestlé, Associated Brands, Matouks, several supporting staff members and graduate students.

Continued on Page 15
“Working Smarter not Harder”: The Practical Skills in Agriculture Continued

The AGRI 1000: Practical skills programme 2013 was indeed a success as it provided students with ‘hands-on’ experience and the opportunity to apply the theories learnt in the classroom. The students were very inquisitive and enthusiastic about what was presented to them. It was an informative exercise and a beneficial approach to encourage innovation on career opportunities available to them upon graduation.

Practical skills crop and livestock production activities at the UFS

Practical skills open day and sales day events on St Augustine Campus

Practical skills cookout competition and prize giving at UFS

Submitted by Dr Wendy-Ann Isaac, Lecturer, Department of Food Production
Improving food and nutrition security through enhanced technologies: The Basics of Protected Agriculture

The Faculty of Food and Agriculture, Department of Food Production of The University of the West Indies partnered with Caribbean Agricultural Research and Development Institute’s (CARDI’s) Country Office to host a training workshop titled: “The Basics of Protected Agriculture” for producers and key stakeholders within the sector. The workshop was held from June 11th – 13th, 2013 on the St Augustine Campus. The workshop exposed participants to the basic principles and practices of the protected agriculture (PA) technology through lectures and practical demonstrations.

Thirty-four persons registered for the workshop and included producers, members of the Trinidad and Tobago Greenhouse Growers Association, representatives from the Ministry of Food Production, University of Trinidad and Tobago, Inputs Suppliers and Private Investors. The workshop consisted of six modules, two of which were presented daily:

- Getting started in the protected agriculture business
- Establishment and maintenance of protected agriculture structures
- Crop establishment
- General crop production and management I
- General crop production and management II
- Quality assurance

There was also a practical demonstration session where participants were exposed to the design of fertigation systems and other components of PA that are necessary for successful crop production. The session was greatly appreciated by the first time greenhouse operators.

A cadre of local and regional specialists from UWI, CARDI and persons from the private sector (Trinidad and Jamaica) facilitated the workshop and included Drs Gaius Eudoxie, Majeed Mohammed, Adesh Ramsubhag, Prof Neela Badrie and Mr Antonio De Gannes from the UWI and Mr Jervis Rowe (Jamaican PA Consultant), Mr Simon Bedasie, Mr Aziz Mohammed, Mr Alexander Benn (CARDI CFCS Consultants) and Ms Adanna Piggott, Scientist I (Protected Agriculture Technician and Crop Production Specialist), CARDI.

Sessions were interactive and for each session pre and post knowledge assessments were conducted to determine the changes in knowledge and skill of participants. All participants were given a certificate of participation on completion of the workshop.

The workshop was funded by the Common Fund for Commodities, European Union, the International Development Research Centre, and the Government of Canada, provided through the Canadian International Development Agency.

**Workshop participants and facilitators**

Submitted by Dr Wendy-Ann Isaac, Lecturer, Department of Food Production
**Compost Safety: Compost Microbes, Friends or Foes**

Ms Vidya de Gannes, PhD Student of the Department of Food Production, shares some of her research with us. She is supervised by Dr Gaius Eudoxie, Department of Food Production and Prof William J Hickey from University of Wisconsin.

Composting is a process whereby wastes are converted into a stable/mature product useful for plant growth. Microbes play key roles in this process. Fungi are one type of microbe that contributes to the degradation of plant materials.

While compost is valued as a plant growth substrate, health hazards have been recognized as some fungi that inhabit these materials can cause a range of human diseases. However, not much is known about the presence of fungal human pathogens in compost. A new deep sequencing technique, 454-pyrosequencing was used to obtain a greater depth of fungal pathogens from composting substrates. This technique allowed hundreds of thousands of sequences to be deciphered at once and has revealed fungal communities that were not possible with the older technique.

The composting substrates composed of sugar-cane bagasse, coffee hulls and rice straw composts mixed with either cow- or sheep- manure. Each of the plant material was mixed with either cow – or sheep manure and placed in a separate rotary drum system. These substrates were composted for 82 days. Fifteen human pathogens were identified from these composts from all the three major composting stages i.e. mesophilic, thermophilic and mature. These were Alternaria alternata, Aspergillus fumigatus, Candida tropicalis, Chaetomium funicola, Cladosporium cladosporioides, Fusarium oxysporum, Scytalidium lignicola, Bipolaris spicifera, Fonsecaea pedrosoi, Metarhizium anisopliae, Retroconis fusiformis, Scedosporium apiosperum, Scedosporium aurantiacum, Scedosporium prolificans Cladophialophora arxii.

The clinical spectrum for most of these fungal pathogens is diverse and hence is known to cause a wide range of diseases including infections of the lungs, skin and nails, allergies, asthma and pneumonia.

Prior studies have provided insight about the presence of opportunistic fungal pathogens associated with composts, but the deep sequencing presented in this study revealed the broadest spectrum of potentially pathogenic fungal species yet reported for a composting study and this is a cause for concern for compost use and human health and safety.

This study also revealed that both compost producers and users are at risk since the fungal pathogens were identified throughout the composting process. It is therefore recommended that compost producers and users wear safety protective equipment such as disposable gloves and face protection (goggles and face masks) when handling composts.

It should be noted however, that this present study provided an indicator of the potential health threat in composts but additional bioassays of isolates are needed to assess virulence.

This study has attracted a great deal of international attention because of the human health implications and was selected for a news brief which was published in “Medical News Today” See: http://www.medicalnewstoday.com/releases/261951.php

The paper now ranks first in viewership/ readership in the journal in which it was published, *Frontiers in Microbiology.* Moreover, a service that tracks article-level readership (Altmetric) shows it has done particularly well. To date, Altmetric has tracked more than 1.3 million articles across all scientific journals, and the paper ranks in the 97th percentile i.e. it's in the top 5% of all articles ever tracked by Altmetric.
Two top-performing students in a second-year course in “Urban Geography”, Ms Arielle Maynard and Ms Hannah Sammy, were sponsored to attend the Caribbean Urban Forum (CUF) in Trinidad and Tobago at the Hilton from March 13-15, 2013 by Mr Arnim Cozier and the Trinidad and Tobago Society of Planners (TTSP). The CUF is an annual conference which brings together land use practitioners, policy makers, academics and allied professionals interested in urban and land management issues within the Caribbean.

The CUF provided opportunities for the young geographers to interact with professionals affiliated with planning and development on this year’s conference theme, “[R]Evolution”, and share their geographical perspective pertaining to spatial patterns and processes, and the relationship between people and their environment.

Reflecting on their experiences, Ms Maynard and Ms Sammy identified the balance between urbanization and agriculture as a “mainstay issue in the culture of the Caribbean,” where science and technology can support the innovation required for a “radical overhaul of the agricultural system”. Making the connections between the CUF and the Caribbean Week of Agriculture (CWA), the students recognized that development of the agricultural sector in the region must include government expenditure in agricultural research conducted by regional experts.

According to Ms Maynard and Ms Sammy, “society needs to agree that agriculture is a key factor in achieving this seemingly elusive dream of development. We need to re-examine our agricultural policies and evolve them to meet contemporary needs and then revolutionize the way agriculture, and its relation to urbanization and sustainable development, is treated.”

Special thanks to Mr Cozier and the TTSP for this wonderful prize, which afforded students a chance to build experience, networks, knowledge, and confidence, and to share what they learned with their entire class.

The Caribbean Urban Forum is supported by the blueSpace – Caribbean Network for Urban and Land Management. The next conference theme is “Placemaking” and takes place in Barbados from May 14 – 16, 2014.

The Department of Geography offers a core course in Urban Geography, which is part of the Geography Major and BSc Programmes. It inducts students into the patterns and processes of people-place relationships. An essential component of this course is to examine the dynamics between urbanization, environmental sustainability, and agricultural economies. Geography courses are structured to offer students diverse opportunities for inquiry and learning and include lectures, practicals and tutorials, fieldtrips, and guest speakers. Mr Arnim Cozier (Home Construction Limited) was the 2012/2013 Urban Geography course guest speaker.
Students from the newly formed “Agricultural Society” participated in the UWI Guild Fest during the first week of September. They submitted the following article on their experiences.

This year the fest was held at The UWI Rugby Field. Embodying the theme, "I am UWI“, the fest hosted over 82 exhibits including 42 clubs. For the established clubs on campus this was familiar ground, but for the recently established ones, such as the Agricultural Society, this was new territory, but we were still able to win Best Booth.

Anticipating the week of activities as a launch pad for the society's major objectives, preparation began in the summer of 2013. As a re-formed society (the society’s mission is built on the history of the past Harland Society), the society’s executive needed to solidify its identity. We were able to define ourselves as a conduit for bringing about awareness and interest in current issues in food and agriculture, expounding on the need for a food and nutrition secure Caribbean region and to report and engage with new technologies needed to revolutionize agriculture in the Caribbean. These objectives are the pinnacle on which our motto, “Introducing the New Agriculturalist: a Multi-disciplined Thinker and Producer”, stands. It was through the collaborated efforts of the Agricultural Society’s committee and members of staff of the Faculty of Food and Agriculture that the society’s objectives were solidified.

In preparation for the week, members propagated plants from cuttings around campus, prepared calabash gourds to serve as pots for ornamental plants, and feverishly formed strategic partnerships with other societies and departments.

One of the pillars of the Agricultural Society that was emphasized during the week, was the need for collaboration of persons from all disciplines.

Visitors to the booth were inspired by this approach and this gave us the impetus to forge ahead. We found ourselves hauling plants every morning and evening, building much needed muscles, and cleansing our pores from the litres of sweat that we shed everyday underneath the scalding Trinidadian sun. However, any feelings of mental or muscular fatigue were countered by the smiles on enthusiastic faces and the occasional dances to the music that was blasted from the loudspeakers during the day. Albert Einstein once said, “The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking”.

Being aware of the need for regional food and nutrition security, we educated visitors of the importance of growing plants for food, and distributed vegetable seedlings. On Thursday 5th September we demonstrated the innovative use of locally produced commodities in flavorful dishes and as value-added products. Breadfruit pie, cassava pone and breadfruit puffs which the visitors sampled, were well received. Recipes and nutritional factsheets were distributed. Breadfruit in particular gained the participants’ attention because of the many nutritional benefits it offers, of which many were not aware. Other value added products distributed included cassava and tapioca flour, farine, plum and tamarind stew, and guava cheese.

A model gravity-fed bulk fertigation system, constructed by members of the society and Dr Gaius Eudoxie, served as the main instrument in showcasing innovations in agriculture.

Submitted by Alanda Moses, Deshorn Bramble, and Zakita N S Bethel
(Students and Executive Members of the Agricultural Society,2013/2014)
A book titled “History of Agricultural Extension in Trinidad and Tobago” was written by Dr Wayne Ganpat, Lecturer in the Department of Agricultural Economics and Extension, who previously worked for more than 30 years in various positions in the Government Extension service both in Trinidad and Tobago.

The author admits that even though he is not an historian but a professional Agricultural Extensionist, the purpose of writing the book was simply to record the historical development of Agricultural Extension in Trinidad and Tobago.

However, he stated that he recognised the urgent need to write this history simply because “the folks who possessed institutional memory were getting older. In addition, the new professionals at the highest level were quite young and may not see the necessity to record this piece of history”.

According to Dr Ganpat, “the most challenging part of this work was accessing printed information. Documents were difficult to acquire and in many instances, were not properly referenced. Nevertheless, I was able to access sufficient information to assemble the book within a good time line. Personal interviews with past Extension Directors and other past senior staff were the most exciting part of this work.”

He added that another major reason for writing this book was the fact that the history of Agricultural Extension had not been documented in any Caribbean country. This is a shortcoming. According to Dr Ganpat, “Agricultural extension services in the Caribbean have evolved tremendously from its humble origins in the Botanic Gardens, the first in St Vincent and the Grenadines at the beginning of the 20th Century. Countries may have colourful histories and these need to be documented”.

Dr Ganpat hopes that this book will serve as an impetus to others in the Caribbean to write their history of Agricultural Extension. He admitted that “Agricultural Extension” was difficult to define precisely, because “it was organised differently across countries to accomplish a wide variety of objectives”.

Dr Ganpat concluded that the driving force to put this work together was the need to provide future Extension workers with the history of their discipline. He stated that, “the perspective and value of their profession will hopefully be greatly enriched”.

Dr Ganpat may be reached at: wayne.ganpat@sta.uwi.edu