

# Celebrating 100 Years of **Agricultural Legacy**

## Through Teaching, Research and Innovation.

Founded on August 30th 1921, the West Indies Agricultural College was renamed as the famous internationally known, Imperial College of Tropical Agriculture (ICTA) in 1924.

In 1960, it became known as the University College of the West Indies, St Augustine Campus and was the forerunner for the present day Faculty of Food and Agriculture.









## **Congratulatory Greetings from** Dr the Honourable Nyan Gadsby-Dolly, Minister of Education on the **Centennial Legacy Celebration** of Agriculture at the **UWI St Augustine Campus**

ongratulations to The University of the West Indies, St Augustine Faculty of Food and Agriculture as you commemorate the Centennial Legacy Celebration of Agriculture at the UWI St Augustine Campus! This year marks 100 years of excellence, exemplified through teaching, research and innovation; and I am happy to bring greetings on behalf of the Ministry of Education.

The world has arrived at a critical juncture where we face numerous challenges in the production of food. The Government of the Republic of Trinidad and Tobago (GORTT) has identified agriculture as a major pillar of its national development strategy; and continues to make significant strides towards food sustainability and security, economic diversification and entrepreneurship. These plans are clearly outlined in the Vision 2030 National Development Strategy, where the Food Security Development Programme is highlighted as one of the broad areas for national transformation.

The Food Security Programme has positioned agriculture at the forefront, and is directly linked to the Sustainable Development Goals outlined by the United Nations. The GORTT's developmental goals have therefore forged policy postures that are geared towards increasing domestic production capacity to reduce the country's dependence on imported foods. The GORTT is also focused on building a more technologically advanced agricultural system, as there is the need for a shift from historical agricultural practices- which are typically labour and time intensive, high risk and low rewarding- to those that are profitable, technology-driven, and capable of providing sustainable livelihoods in a safe and secure environment. The Faculty of Food and Agriculture, (FFA), is well poised to provide technical support to the GORTT as it continues to work towards enhancing the Agricultural Sector in this stead.

The Ministry of Education and the Government of Trinidad and Tobago understands the major role that education plays in achieving the nation's food security objectives, and as such, we must closely monitor and be guided by the research and development from the UWI.

As the Ministry considers Curriculum Reform and the transformation of the education of our students, a refocus on exposure to sustainable agriculture at the earliest levels must be included.



Dr the Honourable Nyan Gadsby-Dolly, Minister of Education

I applaud the UWI FFA programme, the only one of its kind in the region, as it continues to fulfill its directive to produce the human resources needed for our region to attain food and nutrition security.

Trinidad and Tobago and the rest of the region are fortunate to have a body of competent experts at the UWI's Faculty of Food and Agriculture who have accepted the mantle to train others to take our food sustainability to the next level. The faculty has extended its collaborative network, and maintained a professional relationship with institutes such as CARDI, IICA, FAO, CABI, USDA, and EU, for strengthening agricultural education

It is this type of collaboration and foresight that is needed as we work towards making the economy more resilient; which in turn will shield us to some extent from food supply shortages and supply chain disruptions. The GORTT is confident that our vision is well within reach, because of the institutional and educational grounding of students of the UWI FFA.

On behalf of the Ministry of Education and the Government of Trinidad and Tobago, I commend the UWI FFA on its continuous support and dedication to our efforts in achieving food security.

The nation looks forward to learning and benefitting from your experience and research in the years ahead.

## IMPORTANT DATES IN THE HISTORY OF AGRICULTURAL RESEARCH AND **INNOVATION AT** ST AUGUSTINE

- West Indian Agricultural College (WIAC) formally established
- First students admitted
- WIAC renamed the Imperial College of Tropical Agriculture (ICTA)
- First issue of Faculty journal Tropical Agriculture
- University College of the West Indies (UCWI) established in Jamaica
- Diploma in Tropical Agriculture (DTA) first offered. This was an important qualification for agriculturalists throughout the former British Empire, although not equivalent to a BSc
- Present UWI Field Station at Mount 1950 Hope established
- Female students admitted for the 1951 first time
- UCWI established a presence in Trinidad. ICTA replaced by the **UCWI** Faculty of Agriculture
- UCWI became the University 1962 of the West Indies (UWI)
- UWI Faculty of Agriculture became part of UWI Faculty of Science and Agriculture
- 2012 Current UWI Faculty of Food and Agriculture





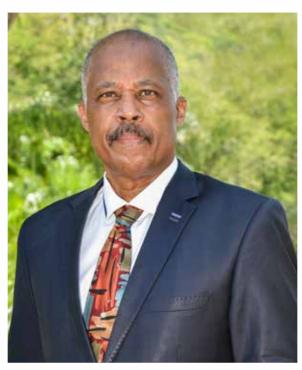
# Message from the Vice-Chancellor on the Centennial Legacy Celebration of Agriculture at The UWI St Augustine

y heartiest congratulations to the leadership of the St Augustine Campus and the Faculty of Food and Agriculture on the attainment of a most significant milestone – a century of dedicated and committed teaching, research and innovation, and support to the agriculture sector across the region. This anniversary provides us with an opportunity to reflect on the role that agriculture has played in our history and the role that it must play in our future. The history of our Caribbean nations cannot be told without reference to the way in which agriculture has featured in the fortunes or misfortunes of colonial powers, enslaved and indentured peoples, and without addressing the legacies that have been left for our contemporary societies to confront as we consider a present and a future in which poverty alleviation and food security or its converse, food insecurity are inextricably intertwined.

#### **An Agrarian Revolution**

Bananas and sugar cane or its extracts molasses, sugar and rum were the backbone of the agriculture industry in the region during the colonial period. Corporations in the empire were built on the exports of these crops. Today the sector is much more diversified and includes coffee and cocoa, and processed food products have made their way into the exports from the region in the wake of the reforms of European Union agricultural policies and global trading arrangements. The impact of those reforms on the sugar and banana industries was a significant downturn in many economies in the Caribbean. The resultant shift towards service economies in particular tourism and financial services contributed to the development of some countries across the region. However, inexorable global influences have continued to change the balance in trade, making imports cheaper than import substitution resulting in an untenable regional food import bill coupled with a legacy of chronic non-communicable diseases caused by poor dietary habits.

The most common NCDs impacting the people of the Caribbean are diabetes, hypertension and cardiovascular disease. These diseases are impacted directly by undernourishment and other forms of malnutrition, specifically poor diets. Other consequences such as obesity, are on the rise. Data show that obesity has increased significantly since 2000, in all Caribbean



Professor Sir Hilary Beckles, Vice-Chancellor, The UWI

countries. This disturbing trend of NCDs and poor dietary habits has its roots in our colonial history and the generational impact is only now being assessed using the scientific techniques available to us. What do you expect if you take a people and entrap them on sugar plantations for 300 years, feed them sugar every day, and tell them they must eat what they grow and what they grow is sugar - every day they eat sugar and on top of that they are fed on salt fish and salt pork every single day for all of their lives? This pandemic of NCDs is 300 years old and we understand now, why at the end of this history, our people are having a difficulty with consumption of salt and sugar. A revolution is required – one of food awareness, attentiveness to dietary habits, and agriculture as a central player.

Another clear and present danger facing the agriculture sector and the Caribbean as a whole is climate change. The deleterious effects of climate change in the region in the past decade include severe storms – Irma and Maria in 2017 that impacted Antigua & Barbuda and Dominica, Dorian in 2019 that wrought so much damage in The Bahamas. Such events have brought heightened attention to the impact of climate change. The need for an informed response to disaster mitigation and even more importantly how to safeguard the agriculture sector from severe damage,

or building in resilience measures has never been more critical, particularly in the face of food insecurity challenges. And now, we have the COVID-19 Pandemic that has laid bare the inequities in societies. Reduced demand for food products as a consequence of reduced incomes has impacted negatively on the agriculture sector, interrupting agro-trade and food processing industries.

The time for an Agrarian Revolution has arrived. The region has come full circle in acknowledging the important role to be played by agriculture in addressing the wealth of our nations, the health of our people and the revenue generating capacity of the sector. For the agriculture sector to become more competitive, inclusive and sustainable, it will be necessary to adopt innovative approaches, policies and coordinated and targeted investment strategies.

## An Intellectual Tradition: Past, Present and Future

There is a solid intellectual tradition of teaching and research in agriculture in the region. One hundred years ago, on August 30, 1921, the importance of agriculture to the development of nascent nations in the British West Indies and across the British Empire, was recognised in the establishment of the Imperial College of Tropical Agriculture (ICTA). The ICTA served as the centre for postgraduate training in tropical agriculture for the Colonial Empire and for the year ending August 31, 1938, records indicated that 159 past students of the College were appointed to the Colonial Agricultural Service and allied services, posts held in thirty different parts of the British Empire. According to Hansard records, at the end of 1941, there were 72 students enrolled in the College and the following year, the drop in numbers to 50 was attributed to the "entry into the Armed Forces of young men who would, under normal circumstances have become students at the College." The same report considered the "advisability of offering scholarships to native-born students." Fast forward to 2020, in the academic year 2019/2020, there were 7,536 students registered in more than 50 undergraduate and postgraduate programmes. What a long way we have come!

There is significant and impactful work being done by members of faculty and students across the Departments within the Faculty.



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Current research addresses issues in the Caribbean agricultural sector with a view to its transformation, the increasingly important challenges of food and nutrition security and agricultural diversification. Work in supporting areas such as coastal geomorphology, hydrology and water resources, meteorology, disaster risk resilience, natural hazards, geographic information science, remote sensing, environmental sustainability, and ecology is also done by the Department of Geography which is part of the Faculty. To disseminate its work, the Journal Tropical Agriculture first published in 1924 has also adapted to technology and is available online in addition to the printed version.

The work of the Faculty of Food and Agriculture reflects the key pillars in The UWI's current Strategic Plan - Access, Agility and Alignment. Through the expansion of its programmes at the undergraduate, graduate and certificate levels, and its research, the

Faculty provides increased access to the breadth of its expertise to a broad spectrum of players in the sector. Alignment with industry and Government needs has also facilitated the development of policies and strategies that have underpinned recent advancements in food processing. The work of the Cocoa Research Unit in the transformation of the chocolate industry in Trinidad and Tobago is a particular area to be celebrated. Work in extension services, crop management, agribusiness all reflect the alignment between the Faculty and players in the sector. The ability to pivot to provide technical assistance and services in areas most needed by regional governments in the wake of natural disasters and crop infestations, represents the agility of the committed members of faculty and the students who we are preparing for the agrarian revolution. The Faculty is committed to continuing on this path. Closer collaboration with our partners along the entire food

production chain will be absolutely critical in areas such as targeted investment from public and private sectors, international partners and full participation from the farmers and other players along the food production chain.

As we look toward the next one hundred years, I salute the Faculty of Food and Agriculture and its leadership past and present, who are all committed to advancing the Faculty and the work being done therein. The revolution has begun. The UWI stands prepared to play a significant part in transforming Caribbean agriculture in ways that ensure that the sector can have a sustainable long-term future in supporting the region's development. To not be attentive to this important sector, would be to our detriment in many stark ways.

Blessings, Professor Sir Hilary Beckles, Vice-Chancellor, The UWI



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# The Centennial Legacy 100 Years of Agricultural Teaching, Research and Innovation

### **Professor Brian Copeland Pro Vice-Chancellor and Campus Principal**

f we are to truly trace the story of The UWI, St Augustine Faculty of Food and Agriculture, we would have to begin in 1898 when the Imperial Department of Agriculture for the West Indies was created in Barbados. Its mission was to conduct research on Caribbean crops, other than sugar, and assist planters and farmers to improve their operations by adopting scientific methods.

Just over 20 years later it was replaced by the West Indian Agricultural College which was formally established August 30, 1921 in Trinidad. So begins the story of agricultural teaching, research, and innovation at St Augustine that has led us to this milestone anniversary.

Indeed, that investment 100 years ago of a lump sum of 50,000 pounds from Trinidad planters, 2000 pounds from government, plus 84 acres of the government estate at St. Augustine for the site of the college, has paid dividends.

In 1924 the name West Indian Agricultural College was changed to the Imperial College of Tropical Agriculture. By the time the Imperial College of Tropical Agriculture served as the foundation for the St. Augustine Campus of The University of the West Indies in 1960, it had already established an internationally renowned reputation for the high quality of research conducted by its top scientists in tropical agriculture. The St. Augustine Faculty of Agriculture, our oldest faculty, unquestionably continues in that tradition.

Fifteen students in 1921 turned into just under 1,000 undergraduate and postgraduate students as at August 2021. Many of those have excelled on the global stage. A recent example, of course, is Dr Shakuntala Haraksingh Thilsted, a 1971 graduate of this Faculty. Her research, innovations, and life-changing impacts saw her becoming the 2021 World Food Prize Laureate. This is an international award which recognises individuals who have made significant contributions to the quality, quantity, and ease of access to food worldwide and highlights the importance of a having sustainable food supply for every human being.

This is in line with the definition of the United Nations' Committee on World Food Security that "all people, at all times, have physical, social, and

economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life." This relates to availability, access, utilisation,

However, the reason and the reasoning that drove the establishment of the College in the early 20th century, remain unchanged. Economies grappled then with the devastating World War I; now, we battle with a pandemic that is equally crippling globally. The basic requirement for food security, food sovereignty, and access are of concern to all governments, but particularly to those emerging economies such as Trinidad and Tobago and the Caribbean.

Part of the problem, of course, is our acquired tastes, honed and developed over generations. As a people, we have moved from apples and grapes as novelties during the Christmas season to all year round expected fare; meanwhile our local, vitamin-enriched wide variety of fruits languish to the point of unavailability.

One hundred years after establishing an agricultural teaching and research institution, we continue to import most of our food. Sixty years after that college became the cornerstone of the St. Augustine Campus of The University of the West Indies, the Dean of the Faculty of Food and Agriculture, Professor Wayne Ganpat, was still acting the part of plaintiff in the May 2020 issue of UWI Today:

"Food sovereignty must be the driving force. It will keep farmers and farm families employed while producing safer and healthier food for the population.

Our farmers in the region can produce small livestock, a range of staples, and a wider range of fruits and vegetables with increased production using a variety of technologies: hydroponics, micro irrigation systems and fertigation methods. Land is no longer a main limiting factor of production with the development and promotion of intensive crop and livestock systems. The need to incentivise farmers is the major limiting factor. Technology is usually costly and both traditional farmers and emerging entrants will need support, entrepreneurs more so. It is critical that the agricultural sector find imaginative ways to encourage them - particularly younger persons -



**Professor Brian Copeland** Campus Principal, The UWI St Augustine

to get into production."

In 2007, at Nyéléni Village in Mali, the first global forum on food sovereignty was held. There were over 500 representatives from more than 80 countries, comprising organisations of peasants/family farmers, artisanal fisherfolk, indigenous peoples, landless peoples, rural workers, migrants, pastoralists, forest communities, women, youth, consumers and environmental and urban movements. The Declaration of Nyéléni stated, in part, that:

Food sovereignty is the right of peoples to healthy and culturally-appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations.

The UWI has a responsibility to advocate for both food sovereignty and security. Outreach, introducing youth to technological innovations in food production as well as public education initiatives, including expos and short courses, are among the ways that the St. Augustine Campus, through the Faculty of Food and Agriculture, is spurring on a positive change in attitudes towards food production.

We are proud of the work that succeeding generations have done in terms of research and innovation. We are proud of our graduates who have gone out in the world and at home to do great things. We are absolutely committed to this country and this region to make food sovereignty and food security a reality.





# Professor Indar Ramnarine: From Undergraduate in the Faculty of Agriculture to Deputy Principal, UWI, St Augustine



Professor Indar Ramnarine
Deputy Principal
The UWI St Augustine

any of the graduates from the Faculty of Food and Agriculture and its predecessors have gone on to distinguished careers all over the World. Some have gone on to equally distinguished careers right here in Trinidad and Tobago. A good example is Professor Indar Ramnarine, Deputy Principal, UWI St Augustine Campus. Indar Ramnarine graduated top of his BSc class at the Faculty of Agriculture in 1980 and his first job was a loans officer at the Agricultural Development Bank. He then decided to go for a career in fisheries and graduated from the University of Wales with an MSc in Fisheries Biology and Management in 1985. He then returned to UWI and under the supervision of the late Professor Julian Kenny. Ramnarine obtained his PhD and moved up the Department of Zoology ladder from Assistant Lecturer, to Lecturer, to Senior Lecturer and finally to Professor of Fisheries and Aquaculture in 2008. That was not the end of his move up the ladder as he was the founding Dean of the Faculty of Science and Technology, then University Dean before becoming Deputy Principal in 2017.



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# Propelling the FFA into a future of possibilities

By Dr Mark Wuddivira
Dean, Faculty of Food and Agriculture

he Faculty of Food and Agriculture (FFA) has a rich and interesting history spanning over 100 years that predates the independence of all countries in the English-speaking Caribbean.

The Imperial College of Tropical Agriculture (ICTA) established in 1921 represented the first formal agricultural training institution in the region and laid the foundation for the modern-day FFA and by extension, The University of the West Indies St Augustine Campus.

The Faculty of Agriculture was officially established in 1960 and subsequently underwent numerous transformations before the proclamation of the present-day FFA in 2012. The Faculty and its precursor played a crucial role in the development of regional economies, which were all firmly rooted in Agriculture prior to the 1980s. The onset of the tourism and fossil fuel-based industries together with the loss of preferential trade agreements stymied general interest in Agriculture and Agriculture-related disciplines, which was exacerbated by revised regional developmental agendas. Nonetheless, the faculty evolved accordingly and stood firm to our mandate to support capacity building, and spearhead innovation and research in Agriculture and Agriculture-related disciplines. New programmes were developed, research coverage was widened, and expertise was acquired

to capture evolving regional needs while simultaneously fostering the ideology that Agriculture is much more than production. We strived to ensure that all aspects of the geophysical environment that undoubtedly influence Agriculture were featured in programmes and research alike.

These efforts led to the birth of three distinct but complementary departments namely, the Department of Food Production (DFP), the Department of Agricultural Economics and Extension (DAEE), and the Department of Geography (DoG).

In the last five years, significant effort was placed into improving the institutional profile of the FFA. The FFA continues to respond to regional needs by developing new and innovative programmes and is currently in the process

of numerous revisions to ensure that our offerings are aligned to the modern student as well as regional developmental strategies and agendas. We have also contributed to capacity building in many Caribbean islands, outside of our conventional taught programmes. The interconnectivity in the real world demands that we come out of our traditional cocoons by expressing the endowed strength in our diversity so that we can launch out as one united front for the common good.

Covid-19 was and remains an awakening as it has exposed vulnerabilities of populations throughout the world and more so in small island developing states, like ours, where a myriad of complex geophysical and societal issues hinders our ability to develop effective and sustainable resilience strategies.

The importance of Agriculture, the environment alike in combating the challenges associated with the COVID-19 pandemic were exceedingly obvious. Notably, in the spectrum of calamities, opportunities are plentiful. Agriculture has been propelled into focus and has attracted much needed global and regional attention. For too long the sector has been viewed with some level of disdain, with the remnants of colonial hegemony and negative stereotyping at the forefront.

The sneering approach that Agriculture is the age-old practice that does not require expertise to innovate and develop technologies, which has hitherto placed the FFA at the lowest pecking order, must depart. As the premier



Dr Mark Wuddivira
Dean, Faculty of Food and Agriculture

agri-environmental tertiary level institution in the Caribbean, we will strive to ensure that the FFA becomes a beacon of light in the Caribbean. We will demonstrate the tremendous potential to do groundbreaking research and develop technologies required for the region and the wider world. We will work in making the FFA the first-choice Faculty for student enrolment and stakeholders alike seeking developmental solutions. We will therefore pursue strategic approaches in the development, delivery, formulation, and naming of our programmes and services to make them not only attractive but relevant and impactful. We will continue to work towards developing and delivering globally acclaimed programmes and services, leading innovation efforts, and most importantly serving the needs of regional developmental agendas. Through our teaching and research, we will make plain the driving relevance of a strong and modern local agri-food system in having healthy populations and vibrant economies, and in developing a sustainable, resilient, and quality environment.





# Coming out of the shade to establish firm roots

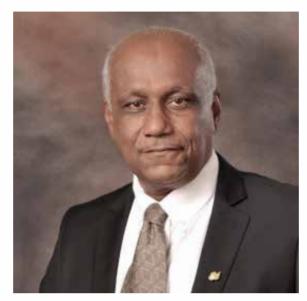
By Professor Wayne Ganpat Former Dean, Faculty of Food and Agriculture (2016 - 2021)

he present Faculty of Food and Agriculture (FFA) became unhinged from the Faculty of Science and Technology in 2012 and emerged from the shade into a new sunlight. What an excellent opportunity to continue the legacy of its world famous predecessor, the Imperial College of Tropical Agriculture. It was indeed a struggle to get going once again as its name, once well-known and trusted in the region, had faded significantly.

As Dean of the Faculty (2016-2021), I made it a priority to revitalise the FFA on the Campus and reestablish it as the premier teaching and research agricultural institution in the region. One of my immediate goals was to make the Faculty and its research programmes much more visible at UWI and in the region. Stakeholders were re-engaged and research refocused to meet some of their needs. Industry needs demanded the FFA accelerate its efforts in research and teaching of modern technologies to transform the sector, and this was prioritised. One of the very early initiatives was the TechAgri Expo, held annually from 2016 to 2019 on the grounds of the Faculty. This national event brought all manner of persons into the very heart of the Faculty to experience new technologies available in Agriculture, as well as to see the work of the Faculty in other areas. Secondary school students in particular, were brought into the various laboratories, both field and traditional, to interact with faculty, students and scientists.

The future of food security lies with the adoption of new technologies within the sector; protected systems of production, precision Agriculture, the increased use of robotics in farming, intensive systems of production to include controlled environment systems and the rapid digitalisation of agriculture. This is the future and it will require well-informed and retooled food producers, comfortable with the use of smart technologies. The FFA is now preparing such persons for the region by the review of programmes to bring them in line with modern advances in technology and the introduction of new programmes to meet current challenges and risks to food production in the Caribbean.

To re-engage our regional and local audiences and get closer to them, several regional seminars, webinars and conferences were held, with the most significant being the International Conference on Climate Change Impacts on Food



Professor Wayne Ganpat Former Dean

and Nutrition Security held in 2018. Other areas of engagement with regional bodies continue in the areas of water and irrigation, nutrition to combat non-communicable diseases, disaster risk resilience and other relevant fields.

A major strategy to increase enrolment in programmes in the last five years was focussed on making Faculty programmes more widely accessible to prospective students with CSEC passes only. To this end, three certificate programmes were developed and made available from 2019. On successful completion, students could start a degree programme. At the post graduate level, the transitioning of all MSc programmes from face-to-face to online delivery in 2021, makes higher level capacity building opportunities available to persons regionally, if not internationally.

The rolling out of the new MSc in Food Security in September 2021 demonstrates that the FFA has its pulse on the needs of regional stakeholders for innovative programmes needed to meet food and nutrition goals for the region. This follows on the heels of the MSc in Value Addition for Food and Nutrition Security started in 2019.

In September 2021, the first fully online professional certificate will start. This initiative with the Open Campus will develop the technical capacities of plant quarantine officers across the region. Virtual training of technical staff in Dominica in Climate Smart Agricultural Technologies and Methodologies will also start in September. The FFA is indeed becoming relevant and once again becoming the first port of call for research and technical development.

The FFA is poised to reap the rewards locally

and regionally, of stronger roots and begin to bear fruit in abundance, fruit that will last. This is expected to be evidenced by the higher numbers of persons trained across the region in degree programmes and professional certificates, the increased use of modern technologies in food production, and the supporting services that will be available from the FFA to farmers across the region, such as soil and water testing and leaf tissue analysis. The Faculty will shortly launch a bio-pesticide, developed and produced in-house, that will transform the way diseases of some of our major crops are treated. Safer vegetables are on the doorstep due to the efforts of researchers at the FFA.

I end my tenure as Dean, satisfied that under my stewardship, the FFA has indeed come fully out of the shade into the Caribbean sunlight and well on its way to establishing deep, strong roots. I am also confident that the name and work of the Faculty is once more being held in high regard both nationally and regionally.

### New Head of Food Production's vision for the department



Professor Duraisamy Sarayanakumar

o develop agricultural degree programmes based on the latest innovative technologies in agriculture and produce graduates on par with international standards to deal with emerging issues in crop and livestock production, plant and soil health management, climate change and natural disasters with a focus of ensuring regional food security and food safety.

Emphasis will also be to provide quality services in the agro-environmental sector including pest diagnostics, analysis of animal feed and soil properties for the benefit of external stakeholders.





# Innovative, integrative and inclusive research in Crop Science

By Dr Wendy-Ann Isaac, Lecturer, Crop Science

limate change and the COVID-19 pandemic have significantly impacted food security, shifting rainfall patterns and disrupting supply chains respectively. More intense rainfall producing flooding periods, more frequent droughts and offseason precipitations are not uncommon. Offseason rainfall during critical stages of crop growing can lead to a very significant reduction in crop yield and intensify the appearance of diseases. We therefore face the massive challenge of delivering a sustainable and secure food supply over a period of significant climate change. These existential challenges demand that an interdisciplinary and diverse community of crop science researchers are trained during the 21st century.

Today the Department of Food Production's major research pillars are focused on relevant and impactful research with the goals of food and nutrition security and agricultural diversification. The Department supports impacting and innovative research in crop science research with its fully equipped research laboratory facilities (Food Production, Food Biology, Microbiology, Plant Pathology, Plant Tissue Culture and Soil Science) and the University Field Station supported by didactic teaching experts to enhance various areas of crop production and to ensure a sustained food supply. Our research in crop science has the aim of advancing agriculture through research to increase food security while protecting the environment.

The current research portfolio has two major drivers: firstly to mitigate environmental impacts of cropping by improving primary productivity maximising resource-use efficiency and minimising crop protection inputs; Secondly to optimise societal benefits of plant-based food production by improving product quality and nutritional benefits.

Our crop science crosses interdisciplinary boundaries to heighten research capabilities in food science, the humanities, social sciences and engineering, spanning a number of areas in industry:

Crops and soil: Recent research investigating yield, quality and nutritional status of cassava grown on tropical acid soils in response to conjunctive use of nitrogen and lime

Crops and climate: Researchers undertake modelling work to determine impact of climate change on crop production.

Crops and development: Using farmer field school techniques, one researcher has been investigating ways in improving nutrient



Dr Wendy-Ann Isaac

management in cassava through appropriate timing and placement of fertilisers.

Crops and engineering: Collaborative research has been conducted in manufacturing indoor environmentally controlled plant factory modules for cultivating high priced imported crops such as romaine lettuce and strawberries under artificial lighting. New technologies examining nontraditional vegetable production have also been investigated using hydroponics, aquaponic and vertical farming systems.

Crops and society: The research also addresses the challenges to agriculture in the region. One such project explored strategies for the sustainable management of rice blast and sheath blight diseases in Guyana involving resistant germplasm, biologicals and new generation fungicides.

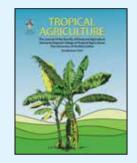
Another research project in St Lucia involved the development of resistance in tomato against wilt disease through innovative grafting techniques. In Jamaica work has been done in developing an innovating certification protocol for production of quality and disease-free planting materials in ginger and tumeric through the introduction of single bud technology and certification standards.

Other noteworthy research in plant pathology includes the development of molecular diagnostics for tropical diseases and development of biological techniques for environment friendly management of vegetable diseases. This is spearheaded by Professor Duraisamy Saravanakumar, the new Head of the Department of Food Production.

As we move into an uncertain future, UWI crop scientists will continue to be more innovative, inclusive and integrative in how they engage with students and in outreach to the farming community to reverse the worrying trends and disruptions in our food supply. We will continue to train the next generation of scientists who will ensure long-term sustainability and health of citizenry through digital agriculture, precision farming and other technological advances.

# Tropical Agriculture Journal:97 Years Old

In 1924, the Imperial Agriculture of Tropical Agriculture (ICTA) published Volume 1 of the Tropical Agriculture Journal. This year, 2021, The UWI St Augustine Faculty of Food and Agriculture is publishing Volume 98 and this marks



97 years of continuous publication with Volume 100 looming in the not too distant future in 2023, with 2024 being the centenary year of the journal.

Tropical Agriculture is by far the oldest academic journal produced in the CARICOM region and its continuous publication over the years contrasts to some other journals which have come and gone. Besides being the oldest journal, Tropical Agriculture is probably the Caribbean journal which attracts the most diverse geographical range of articles submitted. For example in 2021, the journal has received or reviewed papers from the Caribbean Region, Costa Rica, Indonesia, Iran, New Zealand, Nigeria, South Africa, Sultanate of Oman, USA, Vietnam and several other countries.

The first article in Volume 1, Number 1 of Tropical Agriculture in 1924 was entitled "Trinidad cacao" by W Dunlop. In 1934 an article on Trinidad larvicidal fish by P. L. Guppy was published. P. L. Guppy was a descendant of Robert John Lechmere Guppy who first described the Guppy fish in Trinidad in 1866. The 1930s and 1940s saw publication of several studies on soil management including one on soil erosion in the Trinidad Northern Range and another on the fertility of volcanic soils in St Vincent. In 1957, Tropical Agriculture published an article on BBC overseas agricultural broadcasts and in 1962 J. S. Campbell wrote on school gardening in Trinidad.

In recent years, there have been a number of special issues including one on the International Breadfruit Conference held in Trinidad in 2016. A special issue in 2018 on enhanced preservation of fruits reported on research results from a Canadian-led project which was also executed by partners at UWI and in India, Kenya, Sri Lanka and Tanzania. A special issue this year, 2021, will publish some of the landmark papers which the journal has published since 1924.



## Soil Science Knowledge Management at UWI

By Dr Gaius Eudoxie, Lecturer, Soil Science and Deputy Dean, Outreach

eaching, research and development of soil science jointly celebrates 100 years at St Augustine. Internationally, soil science enjoys an enviable history among applied sciences, with St Augustine being recognised as a major hub and developmental node for tropical soils. The Diploma in Tropical Agriculture (DTA) from the Imperial College of Tropical Agriculture (ICTA) was a major conduit for early training and capacity development in soil science in the Commonwealth. Dr Frederick Hardy was one of the first scientists at ICTA and, whether purposive or coincidental, he greeted new students to the DTA programme with an introduction to soil science. A geologist by training, Dr Hardy endeavoured to investigate, understand and document the physical and mineralogical diversity of soils of the Caribbean. While teaching and learning was aligned to plantation agronomy, early insights into soil classification and distribution was central to further development of the science. With the transition from the ICTA to the University of the West Indies (UWI), continued attention was placed on the nature and properties of tropical soils and their capabilities for agriculture. Professor Nazeer Ahmad, Guyanese by birth and Caribbean by nature, significantly advanced research and development of soil science in the region and beyond. He was globally recognised as a leading scholar on tropical soils. During the 1960s and 1970s, focus remained largely on characterising and surveying regional soils, but interest grew with exploration into other sub disciplines including soil chemistry, fertility and management. The regional soil surveys, a collective effort among many stakeholders remains the most significant and only regional scale soil-specific intervention, focused on data and information gathering. The soil maps of each Caribbean country and other narrative outputs remain relevant and useful, although profile updating including exploration of additional informative properties will expand the range of application. Individual Caribbean countries have, to varying levels, digitised the maps, which combined with other environmental datasets have supported decision making at multiple scales.

That era generated baseline information that served as the core and impetus to a transition to research and development on the management of soil resources. It also produced a cadre of professionals, many of whom continue to contribute to regional development. With increased manpower and broader expertise teaching and research expanded into areas



Dr Gaius Eudoxie

such as soil organic matter management, microbiology, fertility and crop nutrition and physical management, still with a central focus on agriculture.

The science has continued to expand together with the evolving needs of transitioning agriculture and also developmental issues such as climate change and environmental pollution. Presently, a wide range of subdisciplines are taught and researched contributing to scientific knowledge and regional development. Within The UWI St Augustine Faculty of Food and Agriculture (FFA), soil science is positioned as a subdiscipline of agriculture and environmental science, whilst its history suggests that it should be afforded greater prominence. Notable linkages to the broader remit of soil science are reflected in its key role in the Environmental and Natural Resources Management and Disaster Risk Resilience in Agriculture and the Environment programmes. Academically, advances in soil science are similar to many other core areas in agriculture, natural resource management and environmental sciences; however, public recognition and awareness of its importance is low. Knowledge, research and development on Sustainable Soil Management (SSM) has not been mainstreamed into policy or legal instruments across the region, leaving our soils sensitive to misuse and degradation.

The soil profile represents a functional unit suited to communicate the nature, properties and vertical stratification of soils as relates to their function and management in a visual modality. The capture of soil profiles for major soil classes in Trinidad through soil monoliths represents another significant contribution to soil knowledge management both within structured and unstructured offerings. The museum of monoliths available at UWI, have served as an advocacy tool in arousing interest in the discipline and raising general awareness of "soil as more than dirt". The monoliths were conceptualised and executed

by Dr Gregory Gouveia, a student of the late Professor Ahmad. This effort at broader outreach and awareness is complimented by a resurgence of interest and activity in soil science within the framework of SSM and sustainable land management (SLM). Nationally, the development of AgriMaps, a geospatial soil information app, has increased user access to soil data and information.

With a solid foundation and strong internal capacity, the FFA continues to contribute to soil science knowledge management. Several generations of soil science professionals have graced this institution and the traditional continues to attract the best minds. The discipline, its practitioners and its home at the FFA continue to grow and attain global recognition, with the assurance that the job is not over until soil as a resource is recognised, preserved and conserved.

## Former Distinguished Faculty Members

Professor Holman Williams was a member of the task force that built the Eric Williams Medical Sciences Complex and was instrumental in setting up the School of Veterinary Medicine at Mount Hope. He liaised with colleagues both at UWI and the University of McGill to establish the Sugar Cane Feed Centre in Longdenville, Trinidad. Later he prepared accreditation policies and procedures in Veterinary Medical Education.

**Professor Frank Cope** was an international cocoa scientist who became Editor In Chief of Tropical Agriculture journal.

**Professor John Spence** will be remembered internationally not only for developing new varieties of dwarf pigeon peas, and showing how rooted sweet potato leaves could produce tubers, but also for making the Cocoa Research Centre what it is today.

**Professor Frank Gumbs**, distinguished soil scientist, also served as Editor In Chief of Tropical Agriculture Journal. He was the mentor and supervisor of current Faculty Dean, Mark Wuddivira.

**Professor Lawrence Wilson** was well known for his work in tropical root crop physiology and post-harvest biology. He also served as Editor In Chief of Tropical Agriculture Journal.





# The UWI St Augustine Faculty of Food and Agriculture, a leader in livestock science, teaching, research and outreach

By Dr Martin Hughes, Lecturer, Livestock Science

xcellence in teaching, research and outreach in the livestock science discipline stand firmly among the many successes and pioneering contributions of the Faculty of Food and Agriculture (FFA), The University of the West Indies (UWI), St Augustine campus since its inception. Here are just three examples:

1. The first PhD in Livestock Science at the UWI was awarded to Dr Karl Wellington in 1968. It was from this academic platform that Dr Wellington would distinguish himself as the animal geneticist and livestock development researcher partly responsible for the development, maintenance and conservation of four premiere cattle breeds - Jamaica Red, Jamaica Brahman and Jamaica Black beef cattle and the Jamaica Hope dairy cattle. These breeds have formed the back-bone of the cattle sector in the Caribbean region and many other tropical areas for the past 40 years.

2. The FFA was integral in the development of the Sugarcane Feeds Centre at Pokhor Road Longdenville, through collaborations with McGill University, Canada in 1976. This centre has and is still focussed on applied research, development, demonstration and training in integrated agricultural systems that sustainably optimises utilisation of locally



**Dr Martin Hughes** 

available resources for production of dairy and beef cattle, buffalypso, small ruminants (sheep and goat), monogastrics (rabbits, pigs and poultry), integrated aquaculture of tilapia, cascadura and black river conch, neotropical animal production models and forage production.

3. Since 1996, the FFA, through the visionary work of Professor Gary W. Garcia has distinguished itself as a global leader in teaching and research in neo-tropical wild-life production, conservation and management. This achievement came through pioneering research on agouti, opossum and collared peccary. In 2000, only nine refereed publications were

available in literature on the agouti. Since then, through research efforts the FFA has contributed over 40 refereed publications that expanded the knowledge on the health, social, reproductive and nutritional characteristics of this species. Presently, the FFA neo-tropical wildlife programme has the largest scientifically managed agouti unit in the world.

The FFA through the Department of Food Production, presently offers a variety of exciting, challenging yet rewarding courses of study in livestock science that contribute to the award of bachelor's degrees, diplomas and certificates in general agriculture, agriculture technology and natural resources management. The courses are always evolving to keep pace with and to expose students to the latest advancements and technologies in livestock production science.

The faculty continues to work towards developing successful production models for agouti, opossum and collared peccary through advanced research and study of their reproductive, nutritional requirements and social interactions in captive rearing systems. Much emphasis is also being placed on developing sustainable feeding and nutrition systems for domesticated livestock (cattle, sheep, goat, pigs, poultry and rabbits) with a focus on production and utilisation of available resources including forages.



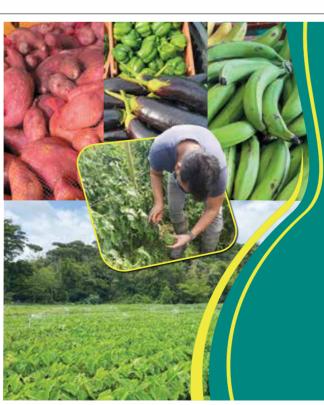
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The National Agricultural Marketing and Development Corporation (NAMDEVCO)

congratulates

the Faculty of Food and Agriculture

at the

University of the West Indies, St Augustine Campus,

100 years of

agricultural legacy

through teaching, research and innovation.

The Food and Agriculture Organization of the United Nations (FAO) warmly congratulates the Faculty of Food and Agriculture (FFA) of the University of the West Indies, Saint Augustine Campus, on the observance of its 100th anniversary.

This is a significant milestone and the FAO has enjoyed a long and productive partnership with the FFA, as we work together to transform agri- food systems in the region that are efficient, equitable, resilient and sustainable. The FFA has done exceptionally well in its education and training, knowledge sharing and human resource development programmes, by graduating quality professionals on an annual basis who contribute to agriculture, economic growth and development within our region.

We look forward to a continued partnership where innovation and digitization will become the game changer in the agri-food systems transformation. Some important recent collaborations have included projects involving Bio-Remediation of Pesticide Contaminated Soils, National Biodiversity Information System,

Baseline Biological Surveys, Disposal of Obsolete Pesticides and the Farmer Field School.



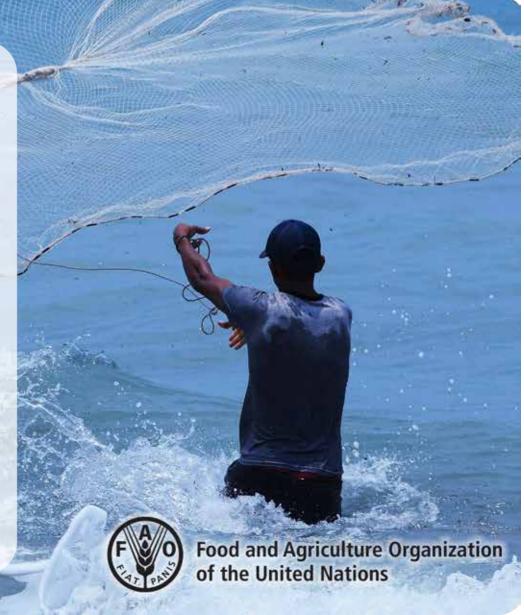
As a global community, we each have a role to play in the transformation of agri-food systems - from governments to private companies, farmers, civil society, academia, and all individuals, including youth! Together we can empower each and every element of our agri-food systems to collaborate more fairly, sustainably and inclusively from farm to table, and beyond.

We can all learn from nature by acting with nature.

Collective action across 150 countries is what makes World Food Day one of the most celebrated days of the UN calendar. Hundreds of events and outreach activities bring together governments, businesses, NGOs, the media, and general public. They promote worldwide awareness and action for those who suffer from hunger and for the need to ensure healthy diets for all.

#WorldFoodDay 2021 will be marked a second time while countries around the world deal with the widespread effects of the global Covid-19 pandemic. The theme this year is "Grow, nourish, sustain. Together. Our actions are our future."

It's a time to look into the future we need to build together.







## Charting the Future of Geography in Higher Education

By Dr Kegan Farrick, Head, Department of Geography

hat comes to mind when you think of geography? Maps, teaching, the outdoors? Geography is so much more. Climate change, natural disasters, pollution, social and environmental justice, and human migrations are some of the major challenges facing our planet, and geography is designed to deal with them all.

The UWI Geography department is involved in developing many practical solutions for a myriad of current issues locally and across the wider Caribbean. We are researching sustainable coastal and beach management, coastal vulnerability assessment and mitigation. The recent migration of Venezuelans has become a very personal issue to us in Trinidad, and the Geography Department has sought to tackle

these complex social justice issues.

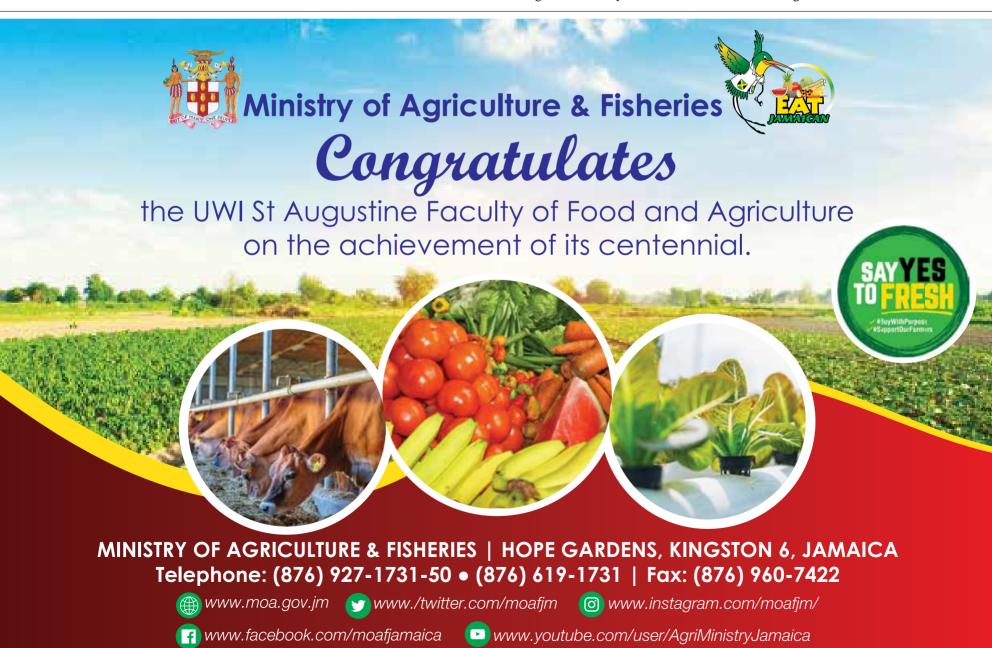
Access to clean and reliable water continues to be an issue throughout the Caribbean, which is expected to worsen under climate change. We are looking at how land use change across Trinidad impacts water resources and what solutions can be applied to ensure that we maintain clean and sustainable supplies of water. During the COVID-19 pandemic, one of our PhD students looked at how food security was impacted by regional public health policies in select countries and an undergraduate student investigated how the pandemic has affected food insecurity in households with children across Trinidad.

Every year we hope to inspire youth through a range of outreach activities which are highlighted by our annual Geography Awareness Week. This brings together high school students from across Trinidad and Tobago for a variety of



Dr Kegan Farrick

activities including photo competitions, games, prizes and on-campus tours. In 2021, we hope to continue this tradition through a virtual platform and aim to make it a regional event.







# Department of Agricultural Economics and Extension offers unique career and research opportunities

ost of the programmes of the Department of Agricultural Economics and Extension (DAEE) are offered both full-time or part-time. The department name hides the many unique opportunities awaiting students. The COVID-19 pandemic has shown us that even in very difficult times, the food sector is extremely robust and critical for our survival. As a result, there are significant job opportunities for persons who wish to gain training in getting the skills needed to become a dietician, a sports nutritionist or a public health nutritionist. As the Caribbean is increasingly burdened by non-communicable diseases such as diabetes and hypertension, our populations require increasing research and advice in this area. This advice is needed by private institutions, gyms, doctors' offices, public hospitals and health centres. The DAEE provides training in these areas.

The DAEE has a long history of excellence. It has graduated thousands of students who now have leadership roles worldwide.

This year, the DAEE is launching new MSc Marketing and Agribusiness and MSc Agricultural Economics programmes in blended format (online with limited practical components)! This is tailored for working persons who need career advancement and overall professional development in the areas of



Dr Sharon Hutchinson, Head, Department of Agricultural Economics and Extension

food policy, food security, international trade, natural resource and environmental economics and agricultural economics.

The DAEE is involved in developing Caribbean health policies and food systems. Recently food databases have been developed for use in current and future nutrition research. Staff are also involved in research which focuses on the food security status of Venezuelan migrants in Trinidad and Tobago.

Another DAEE activity, through a collaboration with Food and Agriculture Organization (FAO), is data collection and analysis of the seabob shrimp value chain in Guyana. This work details the participation of various actors along the value chain, and assesses business opportunities, as well as an assessment of the value chain on the social, environmental and economic goals for Guyana.

The department is actively fostering outreach in early childhood education to teach children about healthy diets and lifestyles, through interactions with teachers, students and parents. The creation of the Caribbean Network in Human Movement and Health is being spearheaded, to engage universities and ministries in the Caribbean to further promote healthy lifestyles.

Extension staff have been engaged in online extension training series via webinars, in collaboration with regional and international extension units, as well as the Caribbean Agricultural Extension Providers Network (CAEPnet).

DAEE plans to continue research in the areas mentioned above, as well as in the areas of food demand, impacts of disasters on local communities and sustainable food systems.



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# Celebrating 100 years of knowledge development at St Augustine: The transition

by Ronald Bartolo, Arlington Chesney and Winston Rudder

n August 2021, St Augustine, Trinidad, is celebrating 100 years of its being a premier location for knowledge development in the Region; with agriculture being the initial focus. During this century, 1960 was a pivotal year. It marked the transition from an extra regionally inspired centre of excellence for agricultural education and research, the Imperial College of Tropical Agriculture (ICTA) to a regional tertiary educational institute, the University College of the West Indies (UCWI), a regionally controlled institute, linked to the University of London.

This transition was influenced by some notable factors (a) the emerging global and regional political trends, (b) the demographics of the major actors – the management (administration and Teaching) and the students, (c) the orientation of the education and research agenda, and (d) the anticipated outcomes and results.

#### **Rise of Nationalism**

Globally, the late 40s, 50s and early 60s saw the rise of nationalism with colonies seeking independence. In the Caribbean, this drive was led by national leaders, such as, Barrow (Barbados), Bird Snr (Antigua and Barbuda), Bradshaw (St Kitts, Nevis and Anguilla), Jagan (Guyana), Manley (Jamaica), and Williams (Trinidad and Tobago). The transition from ICTA to UCWI may be seen as inevitable: a reality of the prevailing political trend.

The major actors at St Augustine were the staff and students. The former, who were responsible for all activities were generally European with entrenched practices and modalities. Even when the Faculty of Engineering began in 1961, the composition of the professors remained unchanged. However, even though their attitudes could have been influenced by their colleagues in the Faculty of Agriculture, the staff/student relationship in that Faculty was much more humane and less aloof. In 1960 there were two groups of students. Firstly, the residual undergraduates and postgraduates from ICTA. They were primarily European with few Caribbean. Secondly, there were UCWI undergraduates in both Faculties (first intakes, Agriculture

and Engineering, 25 and 23, respectively), all young Caribbean nationals and graduates of premier secondary schools in their respective countries, where equality was already a buzz word. There existed challenges, relative to culture, understanding and approach with respect to the charting of a methodology to facilitate achievement of the primary objective of providing and receiving sound tertiary educated regional professionals.

ICTA was established by Britain "as a college that would do fundamental research in tropical agriculture and train men for service in tropical conditions". ICTA had global reach only limited by the boundaries of the British Empire and range of commodities which supported the industrial development of Britain. It also had the freedom to develop its own teaching curricula and research programmes, albeit of high quality and very appropriate for meeting its given objectives.

With the advent of UCWI, the geographical area and trainees were confined to the Caribbean and its nationals. Further, the teaching staff lost some of its independence as it had to discuss with the university authorities on the content and sequencing of the curriculum. For the first two years of the Faculty of Agriculture, there were some flaws in the choice of the tropical crops that were of current or projected economic importance to the region. For example, rubber not rice was a crop of choice. The teaching staff also experienced challenges in adjusting from a continuous assessment system to one that had only two key assessments: at the end of first and third years.

#### **Challenges**

The challenges of producing tertiary educated professionals for regional development were considered to be of a "teething nature", presenting mutable handicaps and allowing for meaningful and tangible adjustments with time. These adjustments, which generally occurred without much robust conversations, were accelerated when some regional professionals assumed senior technical and managerial positions. By the end of the 1961 academic year the adjustments were substantially completed, in time for the first intake of engineering students. Unfortunately, this was not in time to stop a significant loss from the first intake of agricultural students

to other areas of Caribbean development. Notwithstanding, it can very safely be concluded that the transition from ICTA to UCWI to UWI at St Augustine was a major success. Two developments verified this success.

#### **Regional Human Capital**

Firstly, a St Augustine and Caribbean, as opposed to a national, community. With a "small" student body there was inevitable intermixing of "ICTA" and "UCWI" students on and off campus. Similarly, there was the "revelation" that Bahamas and Belize were nearer to Guyana than Britain. This revelation nurtured "Caribbeaness". Secondly, there was a professional community. The first wave (1960 to 1963) students have made significant contributions to regional human capital. Academically, there were many individuals from this wave who gained post graduate qualifications. This led to Caribbean professors in regional and North American universities.

In the public sector from this wave there have been: a Speaker of a National Assembly; a Deputy Prime Minister; three Ministers (Caribbean and Pacific); three Permanent Secretaries; and three Chief Technical Officers and a plethora of Departmental Heads in the Ministries of Agriculture, Hydraulics and Works particularly. One member contributed significantly to the economic restructuring of an oil and gas sector in the region. In the private sector, there have been many owners/managers of successful commercial entities, including farms, brewery, engineering consulting and contracting and IT firms of regional and non regional registration.

At the regional and multilateral level, there were very senior managers at the World Bank, United Nations Food and Agricultural Organization, InterAmerican Institute for Cooperation on Agriculture (IICA) and Caribbean Agricultural Research and Development (CARDI). It is obvious that the transition from ICTA to UCWI/UWI in 1960 laid the foundation for the development of St Augustine as a leading site for knowledge creation and expansion in the Caribbean and beyond.

Arlington Chesney and Winston Rudder were admitted to UCWI in 1960, the first year of the University at St Augustine. Ronald Bartolo was admitted in 1961.





# DTA graduates have fond memories of Trinidad

erhaps the best known qualification which used to be awarded by the former Imperial College of Tropical Agriculture (ICTA) was the Diploma in Tropical Agriculture (DTA). The DTA was awarded from 1949 until the 1970s. There were also West Indian students who completed the DTA, but by the 1970s, the Faculty of Agriculture, UWI had developed a range of undergraduate and postgraduate programmes.

As it is now about 50 years since the end of the DTA programme, there are only a diminishing number of graduates, and all of these are retired either partially or completely. Nevertheless, many of these retirees have very fond memories of studying in Trinidad.

Dr Andrew MacMillan writes from the UK "After getting a degree in agriculture at Cambridge, I was lucky to be selected by the British government to take a DTA at UWI in 1964. I ended up staying there for three and a half years, leaving with a

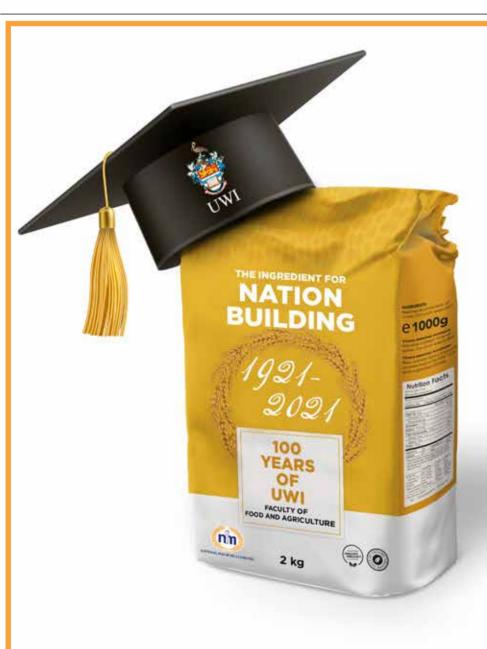
PhD in agricultural economics. In retrospect, I think that the DTA course was the most influential element in my education. My doctoral research, was conducted in the Aranjuez community. The respect for small farmers that I learnt through my close engagement with them shaped."

Dr Andrew Bennett, although retired is President of the Tropical Agriculture Association, which has members worldwide. He states "My year in Trinidad (1965/66) was the start of my career in tropical agriculture and international development. On our first evening in St Augustine we were advised that it was essential that we remember the recipe for rum punch - one of sour, two of sweet, three of strong and four of weak, angostura bitters and nutmeg to taste - a cure for all challenges and inspiration for many opportunities."

Another with fond memories of Trinidad is Dr David Wendover. "My DTA year at ICTA

was a wonderful introduction to life in the tropics and provided a sound base for a career in international development specialising in livestock production and project management. I particularly remember the vibrancy of Trinidad and warmth of the people, Carnival, the humour of Mighty Sparrow and watching leatherback turtles nesting on the beach."

Before ICTA became the University College of the West Indies in 1960, there were a number of Caribbean students who obtained DICTA, which was higher than DTA, and the AICTA which was a postgraduate qualification. Dr Patrick Alleyne who is now in his 90s, obtained the AICTA. He is a former Permanent Secretary, Ministry of Agriculture, Trinidad and Tobago and he went on to be FAO (Food and Agriculture Organization) Head of Mission, Barbados and Eastern Caribbean and also FAO Head of Mission, Tanzania.





## CENTENNIAL ANNIVERSARY

The Management and staff of National Flour Mills Limited warmly congratulate

The Faculty of Food and Agriculture of The University of the West Indies (UWI)
St. Augustine Campus

on achieving 100 years in education, science and innovation.

Your centennial celebration is a source of pride for the region. May your legacy inspire many more generations of agricultural pioneers and environmental thought leaders as you continue to contribute to the development and sustainability of food and agriculture resources in Trinidad and Tobago.







# Seychelles official remembers his study years in Trinidad



Mr Antoine Mustache

n my boyish teens growing up in the then unknown Seychelles of the late 1960s, the only local radio station often aired French singer Sacha Distel's Scandale dans la famille. The lyrics of the song strangely got stuck on my mind for years and left me with a sense of wonder not about the societal complexity of the subject being addressed in the song but rather of the evocation of a distant, exotic land. As fate would have it, I landed in Trinidad in late September 1979 for an undergraduate degree course in tropical agriculture.

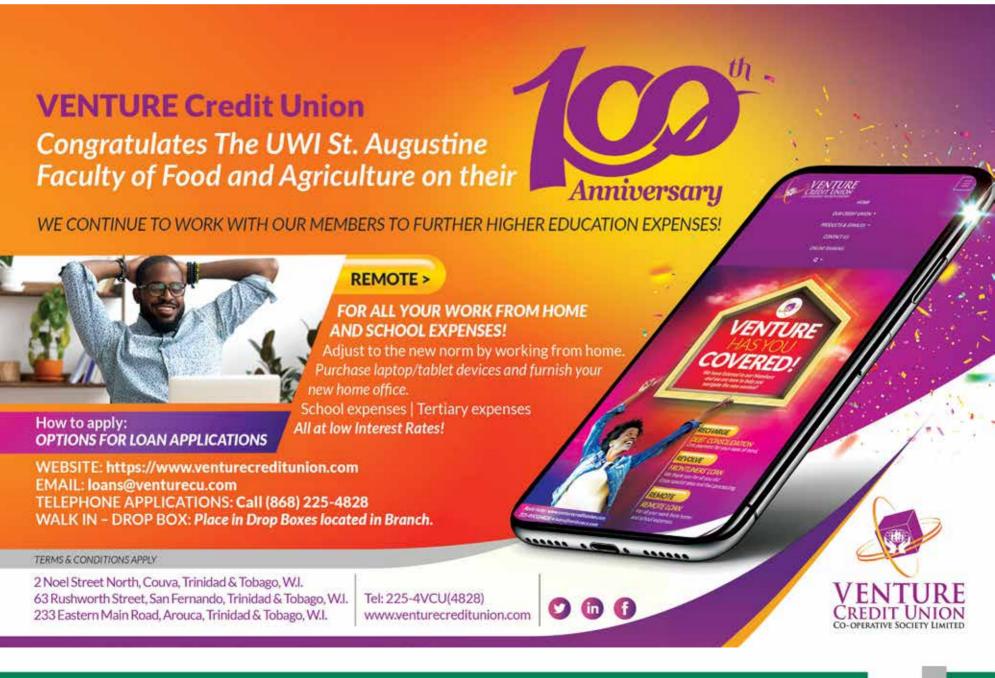
I finished the pre-agriculture year and went on to the three year BSc in agriculture. It felt like a marathon with 12 subject courses per year in three semesters of 12 weeks each.

At first interpersonal communication was

frustratingly difficult as I could not understand the Caribbean accents of fellow students, but after a while I got to travel throughout Trinidad and several other CARICOM countries thanks to the many true friends that I made.

In October, 1983 I had an agriculture degree certificate from UWI, St Augustine in one hand and one of matrimony from the Red House in the other. I obtained my degree and married a Trinidadian lady from San Fernando.

I returned to UWI for MPhil studies between 1988 and 1991. My postgraduate qualification from St Augustine has led to my being selected for board membership in the centres of agricultural research of the Southern African Development Community and of the Common Market for Eastern and Southern Africa.







## Testimonials from current students and past graduates



Cais Baptiste
BSc Agribusiness Management

In my three years of study at UWI in the Faculty of Food and Agriculture, I have been equipped with essential and lifelong skills of critical thinking and effective communication. This allows me to be an asset to any room I walk into.



Jameelah Castillo MPhil Human Ecology Student

My time in this Faculty was very rewarding even though the studies were challenging. The lecturers and staff are very helpful and they encourage you to always push harder.



**Shaquana Osario**MPhil Agricultural Economics

The interactions with lecturers was the best part as a student. They are very down to earth, they don't sugar coat how hard the course can be, they always want you to excel and they recognised the effort when you do. The entire UWI experience as well was one of the best. We did a lot of group work that allowed us to bond

and get to know each other's cultures and we also had class games and activities that really helped us as students to be more open and interactive.



Lee-Ann Rasool
Current student. Major in Agribusiness
and Entrepreneurship

I appreciate that the Faculty of Food and Agriculture has opened my mind to the vast potential our country has in the Agribusiness sector and the opportunities that exist for individuals such as myself.



Kashan Williams
Current student Major in

Current student. Major in Agribusiness and Entrepreneurship

These past few years at UWI have prepared me for almost anything life can throw at me. The friends and memories I have made will stay with me for a lifetime.



#### Candida Khan

I am a registered Dietitian Nutritionist, Wellness Coach and Lifestyle Expert. I completed my BSc Human Nutrition and Dietetics in 2014, then my Diploma in 2015 and completed my Masters in Nutrition in 2017. My entire background is nutrition based and it was only through the degree that I realised my passion for the field! I operate a nutrition consultancy and have written recipe books and developed nutrition products.



#### Tariq Ali

I spent 7 years pursuing my BSc in Agriculture with specialisation in crop science and production and my postgraduate degree in tropical crop protection. The programmes were wonderful, informative, interesting to say the least. What made this experience more enjoyable was that there were amazing lecturers who used various teaching styles to deliver the content while having that connection to their student as that of a parent and as a friend. The first and the best faculty that would ever be, the FFA, my home away from home and a second family to many.



#### Mervin St Luce

I am proud to have graduated in 2003 with a BSc in General Agriculture (First Class Honours). During my time at UWI, St Augustine as an undergraduate, I developed such a profound interest and love for Agriculture and Soil Science in particular. This ultimately culminated in a MPhil degree in Soil Science at UWI, St. Augustine in 2010 and PhD in Soil Science at McGill University in 2013. Without a doubt, my experience and qualifications gained at UWI laid the foundation for my future success. I'm immensely thankful and proud of UWI, St Augustine, and honoured to have passed through its doors.





# Formatted by the Faculty of Agriculture to positively impact humanity

By Dr Paul Ivey

In 1987, I was among eight graduates from the then College of Agriculture (COA) in Jamaica admitted to UWI's St Augustine campus on a trial basis after a hiatus that resulted from the closure of the Jamaica School of Agriculture (JSA) and its replacement by the COA. Our job was to prove that the COA was a worthy successor to the JSA whose graduates traditionally were accorded advanced placement into second year of the UWI's Faculty of Agriculture's three-year programme of study. I still have among my prized memorabilia my UWI letter of acceptance, signed by then Registrar, Carmen Redhead, and my identification card.

My first class was in the course, Soil Physics, taught by Dr Joseph Lindsay, a Jamaican and graduate of the JSA and UWI, St Augustine. Before classes began, Dr Lindsay was our chaperone helping us getting settled in the country. In class, he was professional as he delivered the course material. When his first lecture ended, Dr Lindsay gave an assignment that required solving a set of problems concerning bulk density, porosity, water holding capacity and other parameters related to soil condition. The problems were interrelated and

the answer for one was needed to proceed with another. This was my introduction to Universitylevel work! At first, I was completely at sea with the assignment! I was in the throes of experiencing UWI's legendary reputation as a demanding institution.

Self-doubt became a menace and I began to question whether I could successfully manage this highly challenging academic work. Well, as Marcus Mosiah Garvey, Jamaica's first national hero, said, "Without confidence one is twice defeated in the race of life." Besides, the world is neither this nor that, but all things at once, and to each according to his vision of it. I told myself that there was no way I was going to fail. So, I adopted a death before dishonour attitude, tackled the assignment and broke the back of it. This buoyed my confidence and I took on Soil Physics, and all the other courses, with this same determination.

What was happening psychologically was that the Faculty of Agriculture, UWI, at the very onset, was challenging me to think and problem solve. And this formatting enabled me to complete my degree with Honours in 1989. The Faculty's cognitive formatting also became the scaffolding for my post-graduate studies and my professional career. Over its 100 years of existence, the Faculty of Food and Agriculture



**Dr Paul Ivey** 

UWI, St Augustine and its predecessors have formatted and empowered thousands of individuals to become productive citizens who have made significant, positive contributions to human society. I am one of those grateful individuals, who, over the past 30 years have been a researcher and lecturer in Entomology and Environmental Science, a curriculum developer, a research manager, and a higher education administrator. I salute my alma mater Faculty for a well-played century!

Former President, College of Agriculture, Science & Education, Jamaica.

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# Still bearing fruit!

The importance of agriculture and food security cannot be stated enough. We need to remain sustainable and we need champions who will continue the good work. Happy 100th Anniversary to The UWI St. Augustine Faculty of Food and Agriculture.













