



FACULTY OF FOOD & AGRICULTURE

# RESEARCH DAY

*"Ensuring food and nutrition security in an era of global uncertainty:  
implications for consumer health, local food production,  
the environment and trade."*



## **Themes and thematic tracks with suggested areas of research**

**Theme:** *Ensuring food and nutrition security in an era of global uncertainty: implications for consumer health, local food production and trade.*

### **Thematic track 1: Consumer practice and perception with implications for food safety and health.**

- Label reading behaviours with implications for food safety and health
- Dietary intakes and risk of NCDs
- Food and Nutrition and NCDs
- Cost of consuming a healthy diet - regional perspectives
- Dietary patterns and diversity and risk of process food consumption
- Farming practices and the safety of foods regularly consumed
- Supermarkets and groceries in relation to food and nutrition security
- Food policies in relation to food and nutrition security
- Protein food security - Use of legumes versus meats and fish: economic realities and behavioural challenges
- Bio pesticides and food safety - Implications for consumer health
- Improving food quality and safety

- Non-wheat flours future investments in carbohydrate food security in an era of global trade uncertainties
- Risk of ultra-process food consumption and health in Caribbean populations
- Food importation and the risk of obesity and NCDs
- Utilisation of fruit and vegetables
- Research proposals for future investigations in this domain

## **Thematic track 2: Climate Resilience and Food Systems**

- Extreme events affecting crop, livestock and wildlife production
- Wildlife production: neotropical species as a strategy for protein secure agriculture
- Climate and global shocks relative to grain and edible importation: implications for the Caribbean
- Early climate warning systems in the Caribbean: design, efficacy, policy implications
- Use of big data, artificial intelligence and machine learning to estimate food and nutrition security: does the addition of climate data improve modelling outcomes
- Using remote sensing technologies to reducing food insecurity
- Impact of flooding food production and food systems in the Caribbean
- Tipping points in global food supply of population food and Caribbean farming practices
- Characteristics and design of regional resilient food systems
- Research proposals for future investigations in this domain

## **Thematic track 3: Regional Farm-Led Agricultural, Economics and Trade Practices**

- Impacts of specific critical infrastructure failures on food security
- Guyana, Jamaica and Belize and their importance in regional security
- Modelling the resilience of regional food system sectors to perturbations such as the COVID-19 pandemic and war in Ukraine
- Adapting the use of invasive species to benefit regional agriculture

- Farm practices that increase climate resilience: cost-effectiveness and adaptability strategies
- Effect of crop diversification on pest, drought, and disease resistance
- Increasing crop diversity on smallholder's income potential
- Agricultural entrepreneurial activity during the pandemic: implication for future economic disruptions
- Deploying interventions and increasing adoption of on-farm technologies such as use of new seed varieties, new growth and irrigation technologies etc.
- Maximizing root crop, tubers production, breadfruit etc. in value addition agriculture practice
- Seed technology, preservation of germ plasm seed banks regionally
- Research proposals for future investigations in this domain

#### **Thematic track - 4: Food Security and GIS Modelling**

- Priority for food and nutrition security in SIDS the role of GIS technology
- Monitoring soil fertility and crop health using GIS and drone technologies
- Remote-sensing and GIS model for food security mapping
- Use of Geo-spacious data for predicting hunger, malnutrition and human development
- Geographic hotspots of food production vulnerability with implications for soil fertility
- Research proposals for future investigations in this domain