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SDG 2
ZERO HUNGER

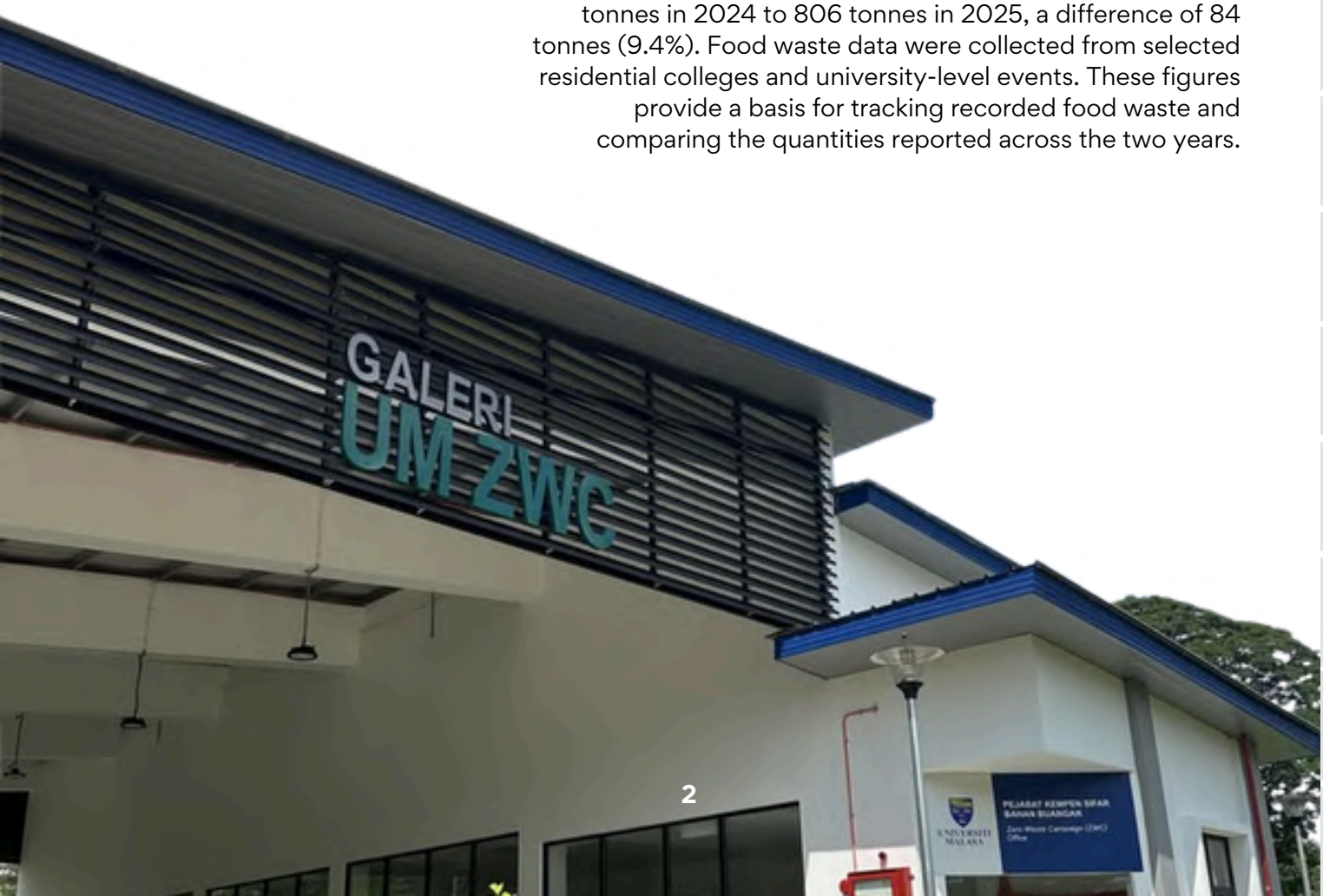
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01 Campus Food Waste Tracking

Type of waste	Amount (Metric Tonne) Produced	
	Year 2024	Year 2025
Total organic	**1,714.80**	**1,652.30**
• food waste	890	806
• leaf / small branches	13.8	16.3
• bulky garden waste	811	830

In 2025, Universiti Malaya recorded 1,652.3 tonnes of organic waste over a 12-month period, compared with 1,714.8 tonnes in 2024, representing a difference of 62.5 tonnes (3.6%). Within this total, recorded food waste decreased from 890 tonnes in 2024 to 806 tonnes in 2025, a difference of 84 tonnes (9.4%). Food waste data were collected from selected residential colleges and university-level events. These figures provide a basis for tracking recorded food waste and comparing the quantities reported across the two years.



02 Student Food Security and Hunger Alleviation Initiatives

Universiti Malaya (UM) addresses student food insecurity through a combination of institutional support programmes, affordable meal initiatives and direct food assistance. Food banks across residential colleges and faculties, student-friendly meal pricing and the provision of Menu Siswa Rahmah help improve access to affordable food, while the university's sustainability policy provides a broader framework for addressing hunger and food security.

These efforts are complemented by community-supported initiatives, including daily Ramadan meal distributions, food contributions for students experiencing financial difficulties and free food kit distributions organised by student representatives. Together, these programmes provide practical assistance to students in need and strengthen the university's commitment to alleviating student hunger and promoting student wellbeing.

Examples include:

- **Student Food Security Programme and Affordable Meal Initiative** **(Page 4)**
- **Happy Iftar Ramadan: Sharing Meals with UM Students** **(Page 5)**
- **"Jom Kongsi Rezeki" Contribution** **(Page 5)**
- **Free Food Kits Distributions** **(Page 6)**



Student Food Security Programme and Affordable Meal Initiative

A structured institutional framework has been established to address student food insecurity through coordinated efforts under the Student Affairs Department, UM Student Unions and other responsible centres. Food banks are available across residential colleges and faculties and operate within an organised monitoring system to support students experiencing financial hardship. These food banks form part of a broader student welfare ecosystem, ensuring consistent access to basic food supplies for students in need.

In addition to direct assistance, preventive structural measures are implemented through vendor agreements that regulate food pricing on campus. Food operators within residential colleges and university premises are required to maintain student-friendly prices, including the provision of Menu Siswa Rahmah, which offers affordable meal options to ensure students can access nutritious food at reasonable prices. These efforts are further guided by the UM Sustainability Policy 2021–2030, particularly under the Social pillar, which emphasises hunger eradication initiatives aligned with broader efforts to ensure food security, improve nutrition, and promote sustainable agriculture. This integrated approach reflects a formal programme that combines financial accessibility, policy safeguards, and structured support mechanisms to reduce the risk of student hunger and food insecurity.







Happy Iftar Ramadan: Sharing Meals with UM Students

The Happy Iftar Ramadan initiative, provided 600 meal packs daily to students at the Musolla, Academy of Islamic Studies, for the 2025 session. The programme, led by Dr. Ahmad Faisal bin Abdul Hamid and the PMAPIUM Welfare and Unity Committee, ensured students had access to nutritious meals during Ramadan. Contributions from local mosques, alumni, and generous individuals enabled the initiative to reach a wide number of students, fostering a sense of community while directly alleviating hunger and supporting student wellbeing on campus.



"Jom Kongsi Rezeki" Contribution

Organised by Universiti Malaya's Centre for Counseling & Disability Empowerment (CCDE), the "Jom Kongsi Rezeki" campaign mobilised contributions from university staff and corporate partners to support students in need. The initiative provided food packs containing essential food items to students experiencing financial difficulties, including students from UM's Centre for Foundation Studies. Additional assistance, including books and Hari Raya clothing vouchers, was also provided to help ease students' financial burdens and support their wellbeing.



Free Food Kits Distributions

The Universiti Malaya Students' Union (UMSU) also distributed free food kits, including biscuits, eggs and rice, as well as rice meals, to students at selected locations in the Academy of Malay Studies, Faculty of Science, Faculty of Education and Faculty of Arts and Social Sciences. These initiatives provided direct support for student welfare and demonstrated continued concern for students' daily needs.











03 Staff Hunger Intervention

Staff welfare has never been left behind, several initiatives has been organised throughout the year to alleviate food insecurity among staff members and act as intervention for hunger in these time of economic uncertainty.

"1 Staf 1 Barang" Campaign

The "Jom Menyumbang: 1 Staf 1 Barang" campaign, coordinated by the Centre for Counseling & Disability Empowerment, reinforced commitment to staff welfare by encouraging each staff member to contribute at least one essential item such as rice, cooking oil, flour, or other dry goods. The initiative aimed to support staff in need while fostering a culture of care and solidarity within the UM community.

The campaign saw strong participation from staff, with additional support from corporate partners including Maybank Islamic Berhad, AlRajhi Bank Malaysia, Mass Rapid Transit (MRT), and Dato' Ir. Abdul Rashid Musa. Contributions were compiled into food packs, alongside items such as books and festive clothing vouchers.



Ramadan 2025: Bubur Lambuk Distribution

In conjunction with Ramadan 2025, 4,000 packs of bubur lambuk were distributed to the campus community during the Majlis Iftar Perdana UM, reflecting the spirit of togetherness and giving.

Distribution took place across key locations including Universiti Malaya Medical Centre, Dewan Tunku Canselor, and main campus entrances, reaching staff and the wider community. The effort provided accessible meals while reinforcing a culture of wellbeing, inclusivity, and community care.



04 Access to Agricultural and Aquaculture Knowledge for Food Security

Food security is one of the global issues that is threatening progress towards sustainable development. To that end, food production industry must transform to be more reselient in facing the current global climate and environmental challenges.

As the nation's premier research institution, Universiti Malaya act as the frontier in providing solutions as well as advancing the technological paradigm in the industry. Spearheaded by UM Centre of Research and academic personnel, the aim is to bring expertise and knowledge from academic research to local entrepreneurs.

Over the year of 2025, several programmes and events had been conducted to provide access to local farmers and food producers on agricultural and aquaculture knowledge to improve food security.

Examples include:

- **Community Urban Farming & Soil Health Training** (Page 9)
- **Protecting Aquaculture Talk** (Page 9)
- **AquaRover for Sustainable Fish Farming** (Page 10)
- **Empowering B40 Through Sustainable Pineapple Farming** (Page 11)
- **Inspiring Young Minds** (Page 12)



Community Urban Farming & Soil Health Training

Healthy soil is the foundation of a thriving city. At the Kebun Komuniti Sejahtera Rasah Kemayan in Negeri Sembilan, the programme Inovasi Teknologi Hijau Pemangkin Tanah Sihat, Bandar Sejahtera brought communities together to explore how green technology can strengthen food security in urban spaces.

Held in conjunction with World Soil Day, the initiative provided local community members with hands-on exposure to sustainable urban agriculture practices. These included composting from organic waste, organic pest control, eco-friendly fertilisers, water-efficient systems, and integrated crop techniques.

The programme also encouraged two-way knowledge sharing between academics, students, industry partners, and NGOs to strengthen local capacity in managing healthy soil for sustainable food production. It was organised in collaboration with KOBUNISS, Biosense, UM, OUM Negeri Sembilan, the Negeri Sembilan Islamic Religious Council, the Malaysian Society of Soil Science, government agencies, and women's organisations, supporting more inclusive and sustainable urban food systems.





Protecting Aquaculture

At the AgTech International Agro Expo 2025, Prof. Dr. Lim Po Teen was invited by the Malaysia Aquaculture Development Association (MADA) to deliver a talk titled "Harmful Algal Blooms (HABs): A Threat to Sustainable Aquaculture." His session provided industry practitioners and the wider community with valuable insights into how HABs impact aquaculture operations and the importance of adopting sustainable management practices. The outreach helped strengthen community understanding of responsible aquaculture and the need for science-based approaches to ensure long-term fisheries sustainability.







AquaRover for Sustainable Fish Farming

AquaRover is a solar-powered robotic water cleaner designed to support sustainable aquaculture and strengthen food security in Malaysia. It helps fish farmers tackle key challenges such as water pollution, algae growth, disease outbreaks, and labour shortages by autonomously removing organic waste, algae, and leftover feed. At the same time, it monitors water quality in real time, including pH, temperature, and ammonia levels, enabling faster and more informed farm management decisions.

Developed in close consultation with fish farmers in Pahang, the system was designed to be practical, community-informed, and scalable. Field trials under the Komuniti@UniMADANI grant showed improved water quality, healthier fish growth, reduced disease cases, and lower labour demands.

Beyond its field impact, AquaRover was also used in educational outreach with secondary school students, introducing them to robotics, sustainability, and modern aquaculture practices.



Empowering B40 Through Sustainable Pineapple Farming

What happens when pineapple farming meets community empowerment? At the Ladang Nanas MPower B40 programme held at the Glami Lemi Biotechnology Research Centre in Negeri Sembilan, agriculture became a platform for learning, collaboration, and opportunity.

The programme focused on strengthening community-based sustainable agriculture while empowering B40 groups through hands-on pineapple farming. It brought together Universiti Malaya entities, including the Universiti Malaya Centre of Addiction Sciences, Faculty of Science, AMMP Centre, Pusat Asasi Sains, and the Academy of Islamic Studies, alongside key partners such as the Ministry of Health and the Malaysian Pineapple Industry Board. This wide participation highlighted a strong collaboration between academia, government agencies, industry, and community stakeholders.

B40 participants, including individuals from the Methadone Treatment Therapy Programme, gained hands-on exposure to pineapple cultivation and sustainable farming practices. Through practical training and knowledge sharing, they developed skills that support agriculture-based livelihoods, strengthen community resilience, and improve long-term economic opportunities.



Inspiring Young Minds

"*Melentur Buluh Biarlah Dari Rebungnya*" is a Malaysian proverb that literally translates to "to bend bamboos, you must start from the shoots". The proverb carries the meaning that education must start at a young age so it would shape their character and personality. The same sentiment is carried by Universiti Malaya in providing events targeted towards primary school students.

Organised by the Glami Lemi Biotechnology Research Centre, Inspiring Young Minds invites Year 6 students from SK Sepri Tengah, Negeri Sembilan to experience attending a farm and gain new knowledge about agricultural biotechnology. During the visitation, they were brought on a guided tour to farms and ponds managed by the Centre where they get involved in seedling planting and feeding livestocks before visiting laboratories to see research done at the Centre.









05 Events for Local Farmers and Food Producers

Local farmers and food producers play a key role in ensuring the sustainment of food supply in the country in lifting food insecurity issues. By building a robust local network of food supply, a system that is resilient to geopolitical issues and global economic can be form.

In doing so, universities as the sources of knowledge should be part of the ecosystem, connecting with the local industries to spearhead development of indigenous innovation. Echoing this aspiration, Universiti Malaya has conducted events for local farmers and food producers with the main focus on connecting with them and transferring knowledge.

Examples include:

- **Soil Classification & Land Suitability Training** (Page 14)
- **Urban Gardening Knowledge Sharing for Low-income Community Members** (Page 15)
- **Community Agro Science Carnival** (Page 16)
- **Hands-on Urban Gardening Programme** (Page 16)
- **Vertical Farming for Kacip Fatimah** (Page 17)
- **Aquaponics Workshop for Youth** (Page 17)
- **Embryo Technology Transfer Workshop** (Page 18)

Soil Classification & Land Suitability Training

Understanding the soil beneath our feet is key to building a more resilient food system. A two-day programme brought together researchers, practitioners, and farmers to create a shared space for learning on soil classification, land suitability, and sustainable soil management, which are essential for improving agricultural planning and food production.





The Soil Classification and Evaluation for Agriculture Course was organised by the Malaysian Society of Soil Science in collaboration with the Department of Agriculture Malaysia and UM. It was held on 25–26 February 2025 and involved 35 participants from 13 organisations, including the Department of Agriculture Sabah, FGV R&D, RISDA Estates, MARDI, FRIM, Carbon Zero Sdn. Bhd., Universiti Putra Malaysia, Universiti Kebangsaan Malaysia, UNA Corp, CTOS Ecofarm, Universiti Malaya, ERAS, and local farmers.

Through expert-led sessions and open discussions, participants gained practical insights to improve land use decisions, reduce crop failure risks, and adopt more sustainable agricultural practices that support long-term food security.



Urban Gardening Knowledge Sharing for Low-income Community Members

At PPR Kampung Limau, a shared learning experience brought together low-income community members, students, and researchers through a sustainable urban gardening programme led by Ungku Aziz Centre for Development (UAC) grant recipients. Participants engaged in hands-on activities, from composting and soil care to cultivating urban vegetables, gaining practical skills they could apply directly in their community garden.

With support from industry partners and local NGOs, the initiative went beyond training, nurturing confidence, self-reliance, and a sense of collective responsibility. The programme strengthened food security, sustainable practices, and community cohesion.



Community Agro Science Carnival





The Community Scientist Carnival was held in Kampung Seri Gambut, Tanjung Karang, bringing science and technology closer to local farmers. Organised by the Institute of Biological Sciences, Universiti Malaya, the programme was carried out in collaboration with JPKKP Kampung Seri Gambut, HS Megah Enterprise, Carbon Zero Sdn. Bhd., and local authorities.

Over 200 community participants took part in demonstrations and training on sustainable agriculture, including the use of biofertilisers and drone-based precision farming. Through forums, exhibitions, and hands-on activities, the programme supported knowledge sharing and practical learning. The initiative helped strengthen local farming capacity and encouraged collaboration between the community, university, government, and industry to support more sustainable food production and long-term food security.

Hands-on Urban Gardening Programme



The Suburkan Tanah @ Kobunden programme in Seremban, Negeri Sembilan brought together local communities and international students to explore sustainable urban gardening in a hands-on learning environment. It also provided practical training for 22 Master's students in Environmental Technology Management from UM.

Organised by UM in collaboration with Heritage Environment Sdn. Bhd., KEMAS Seremban, and the local community, the programme focused on soil restoration, composting, organic fertilisers, and urban farming techniques.
Through practical activities and demonstrations, students applied classroom knowledge in real settings, while the community gained exposure to sustainable agriculture practices. The initiative supported local food security, skills development, and meaningful knowledge exchange between students and the community.

Vertical Farming for Kacip Fatimah



Bringing technology into traditional herbal farming, a new initiative introduced a vertical planting system for Kacip Fatimah at FELCRA Seberang Perak. Led by UMCares, the programme aimed to improve productivity while supporting community livelihoods.

Implemented in December 2025 in collaboration with the Ministry of Higher Education under the Social Innovation Fund, the project highlights strong multi-stakeholder partnerships in advancing sustainable agriculture.

The initiative applies research-driven solutions such as vertical farming structures and smart irrigation systems to optimise land use and increase income potential for local communities. It also reflects Universiti Malaya's commitment to translating academic innovation into practical solutions that support environmental sustainability and socio-economic development.

Aquaponics Workshop for Youth



Learning how food is grown can start at a young age. The #GreenDeen 2025 Aquaponics Workshop brought together 40 Form 1 students from INTERSABER and MRSM Ulul Albab Sungai Besar for a hands-on introduction to sustainable aquaponics.

Guided by teachers, the Malaysian Agricultural Research and Development Institute (MARDI), and GRASS Malaysia, participants spent two days exploring fish-tank systems, plant media preparation, and organic nutrient management. The programme connected STEM concepts with Islamic values and food sovereignty. Through this experience, students developed practical skills and a deeper understanding of sustainable food production, encouraging them to play a role in supporting local food security and environmentally responsible agriculture.

Embryo Technology Transfer Workshop

On the 1st to 3rd of July 2025, the Glami Lemi Biotechnology Research Centre had organised a technology transfer workshop focusing on assisted reproductive technology.



The highlight of the event is the successful IVF procedure on Barbados Blackbelly oocytes and sperm which marks the first it is done in the Centre. It is the first reported successful instance of such case in Malaysia, thus strengthening the position of Universiti Malaya as the nation's leading institution on livestock embryo research.

The successfull research project is supported through various partnership with local governments and industry players including the Negeri Sembilan Department of Veterinary Services, Innervate Tech Sdn Bhd, Colla Cattle (M) Sdn Bhd, Aliyah Rizq Farm, Yenher Agro and others.



06 University Access to Local Farmers and Food Producers

With the introduction of the National Food Security 2030 by the Ministry of Agriculture and Food Security, it has officially raise food security as a national agenda in Malaysia. In tackling national agenda, one must not work in-silo, instead a collaborative approach towards the same goal should be implemented. This could mean sharing expertise, resources and more for the advancement of the nation.

In line with this agenda, Universiti Malaya has open up the pathway for access towards its technologies and expertise for local industries. Several initiatives has been conducted throughout the year aiming to improve sustainable farming practices among local farmers and food producers.

Examples include:

- **Pilot Rice Cultivation with Tekno Alami** (Page 20)
- **Smart Urban Farming: Rooftop Living Lab** (Page 21)

Pilot Rice Cultivation with Tekno Alami

In Desa Gemalai, a pilot project is introducing a more sustainable way to grow rice. Led by Universiti Malaya's Centre of Excellence: Food Security and Intelligent Farming (CoE FSIF) in collaboration with Yusri Maju Sdn. Bhd., the initiative provides local farmers with access to UM's research and technology, including the use of beneficial *Bacillus salmalaya* bacteria. The bacterium was discovered and researched by Universiti Malaya scientists and is applied to improve soil health, support plant growth, and enhance overall farming sustainability.

The approach combines traditional practices with scientific innovation to enhance yields, restore soil fertility, and reduce reliance on chemical inputs. Early projections show strong potential to increase rice production, contributing to Malaysia's long-term food security goals.

Established in 2025

UM Centre of Excellence for Food Security & Intelligent Farming (CoE FSIF)



Smart Urban Farming: Rooftop Living Lab

Turning unused rooftop space into a productive green hub, the Smart Engineering & Sustainable Urban Farm showcases how urban areas can support food production. Led by Dr. Fathiah Mohamed Zuki, the project combines hydroponics, aquaponics, composting, and solar energy to create a self-sustaining system where plants, fish, and bees coexist.



The rooftop farm serves as a living lab for students and researchers while offering practical insights for local farmers and food producers. It demonstrates how urban and high-efficiency farming methods can be applied to improve productivity, support biodiversity, and strengthen food security through shared knowledge and innovation.

07 Sustainable Procurement Practices

Sustainable Food Sourcing



Under the UM Sustainability Policy 2021–2030 (Pillar 3: Environment), the university emphasises Green Procurement to prioritise sustainable products, including food. The policy encourages the purchase of goods and services that meet ethical and environmental standards, such as durability, energy efficiency, biodegradability, and recyclability. This includes sourcing organic food and responsibly produced agricultural and aquatic products.

UM's Bursary also aligns with the Government Green Procurement (GGP) framework, requiring at least 50% of procurement in selected categories, including catering and food services, to consist of green-certified products or services.

These practices support more sustainable food sourcing, encourage responsible producers, and strengthen UM's commitment to environmental stewardship and food security.

08 Green and Healthy Food Options

Sustainable and Balance Food Choices for All

With a vast campus area housing more than 40,000 staff and students, Universiti Malaya offers a variety of gastronomical experience and services to campus population and visitors.

Universiti Malaya's F&B ecosystem of over 200 vendors provides broad campus-wide food access across residential colleges (KK1–KK13), faculties, and central hubs . The distribution dominated by vending machines (nearly 65%), followed by canteens/cafeterias and shop lots, supports a highly accessible food network.

This aligns with the Healthy and Sustainable Food@UM initiative, which emphasises affordable, accessible, and diverse food options including vegetarian for all campus community, staff and students alike. The widespread presence of vendors across key locations complements UM's efforts in ensuring food availability, affordability, and varied dining experiences as part of its sustainable and healthy food ecosystem.