



# Sethmini Wanigasekara

Department of Food Science and Technology,  
Faculty of Agriculture, University of Peradeniya

## RESEARCH EXPERIENCE

### Honours Research Project

Department of Food Science and Technology, Faculty of Agriculture, University of Peradeniya  
| 2025

#### Research: 'Evaluating the Impact of Weight Reduction on Improving Insulin Sensitivity in a Middle-Aged Sri Lankan Adult Population.'

- Designed and carried out an independent research project under academic supervision
- Recruited study participants and collected anthropometric and biochemical data
- Performed dietary assessments, lifestyle intervention monitoring, and data documentation
- Conducted statistical analysis and interpreted results to evaluate clinical outcomes
- Prepared research reports and presented findings to academic staff and peers
- Ensured adherence to ethical guidelines, participant confidentiality, and laboratory safety
- Contributed to drafting research sections for future publication and dissemination

## RELEVANT RESEARCH SKILLS

- Preparation of blanks, standards, and test samples for biochemical assays and measurement of absorbance using a calibrated spectrophotometer/microplate reader for accurate quantification of analytes.
- Administration of validated questionnaires (FFQ, IPAQ, PSQI, DASS-21) for lifestyle and dietary assessment
- Collection of anthropometric data including BMI, waist circumference, body fat and visceral fat
- Handling, storage and preparation of biological samples and reagents according to laboratory guidelines
- Experience in designing and conducting human intervention studies, including participant recruitment, protocol implementation, and data collection
- Statistical analysis of data (descriptive statistics, paired t-tests) and interpretation of results
- Scientific writing, preparation of tables/figures, and presentation of findings

## ACADEMIC AWARDS

- **Winner - Merit Awards for the undergraduate research at the Faculty of Agriculture Undergraduate Research Symposium**

Under the theme: Community, Environment and Management | 2025

- **Best Presenter - of the Poster Presentation Sessions entitled 'Community and Clinical Nutrition: Determinants, Risks and Health Outcomes'**

Annual Scientific Sessions 2026 of the Nutrition Society of Sri Lanka | 2026 Jan

- **1st Runner Up - Oral Presentations at the Faculty of Agriculture Undergraduate Research Symposium**  
Under the theme: Community, Environment and Management | 2025
- **Best Presenter - Department of Food Science and Technology**  
At the final presentations for the undergraduate research | 2025
- **1st Runner Up - 3 Minute Flash Talk Competition**  
Organized by Institute of Food Science and Technology, Sri Lanka | 2025
- **1st Runner Up - Most Innovative Product (University Category) at the Pro Food-Pro Pack Exhibition**
- Selected by Sri Lanka Food Processors Association (SLFPA) for the product: Kathurumurunga Toffee 2024

## OTHER ACHIEVEMENTS

- **1st Runner Up - 3 Minute Flash Talk Competition**  
Organized by Institute of Food Science and Technology, Sri Lanka | 2025
- **1st Runner Up - Most Innovative Product (University Category) at the Pro Food- Pro Pack Exhibition**  
Selected by Sri Lanka Food Processors Association (SLFPA) for the product: Kathurumurunga Toffee 2024

## EDUCATION

### **BSc. Food Science and Technology (Final GPA: 3.87)**

University of Peradeniya, Sri Lanka | 2021-2025

Attached to the Department of Food Science and Technology, Faculty of Agriculture, University of Peradeniya

### **G.C.E. Advanced Level Examination**

Devi Balika Vidyalaya, Colombo 08 | 2019

Biology with A pass

Chemistry with B pass

Physics with C pass

General English with A pass

General Information Technology with B pass

## TEACHING EXPERIENCE

### **Demonstrator**

Department of Food Science and Technology, Faculty of Agriculture, University of Peradeniya | 2025/2026

- Assisting with the delivery of this pre-designed practical courses, helping students to run their experiments and analyze the results

- Provided guidance across multiple subjects, including Biochemistry and Human Nutrition, Food Analysis, Sensory Evaluations, Product Development, Food Engineering, Product Quality and Processing, and Microbiology.
- Evaluated students' practical books and assignments, ensuring accurate record-keeping and adherence to laboratory standards.

## **English Language Teacher**

### **Panda Club | 2023 - Present**

- Teaching English language to Chinese students.
- Gained valuable experience in cross-cultural communication and online English language instruction, enhancing skills in teaching, patience, and cultural adaptability.

## **ADDITIONAL SKILLS & COURSES**

### **ISO 9001 Certification Training Workshop | 2024**

Conducted by Halcyon PVT Ltd.

### **Food Allergy and Intolerance Training | 2023**

Offered by Food Standards Agency, United Kingdom.

Successfully passed the online Food Allergy and Intolerance Training Assessment.

### **Lean Six Sigma White Belt Course | 2022**

Offered by Skill Gates PVT Ltd

## **MEMBERSHIP OF PROFESSIONAL SOCIETIES**

### **Vice President for International Affairs**

#### **International Association of Students in Agriculture and Related Sciences**

##### **(IAAS Peradeniya Sri Lanka) | 2024-2025**

Was responsible for coordinating international collaborations, organizing exchange programs, and facilitating communication between local and global IAAS committees. Contributed to project planning, event management, and promoting cross-cultural engagement among agriculture students worldwide.

### **Joint Secretary**

#### **Society of Food Science and Technology - University of Peradeniya | 2022**

Society of Food Science and Technology is the most prominent society related to Department of Food Science and Technology. Under our leadership we organized many activities such as 'Future Food Tech' School Quiz Competition, an initiative created, in order to promote the field of Food Science and Technology among school children.

Under our leadership in 2023, the society was nominated along with four other student societies for 'The Aquatic Resources Development Project Scholarship for the Best Student Society, in Faculty of Agriculture, University of Peradeniya.

## PUBLICATIONS

### Thesis

**Wanigasekara, S. G. (2025). *Evaluating the Impact of Weight Reduction on Improving Insulin Resistance in a Middle-Aged Sri Lankan Adult Population.***

Honours Year Research Thesis, Department of Food Science and Technology, Faculty of Agriculture, University of Peradeniya, Sri Lanka.

### Book Chapters

**Wanigasekara, S. G. (2025). *Application of Polysaccharide-Based Films in Fruit and Vegetable Preservation.***

Chapter submitted to Springer Nature (in press).

### Journal Articles / Manuscripts (In Preparation / Under Review)

**Wanigasekara, S. G. (2025). *Application of Raman Spectroscopy, SERS, and SORS in Food Analysis.***

Manuscript prepared as part of BFST 4101: Review on Modern Food Technology (in preparation).

**Wanigasekara, S. G. (2024). *Quality and Safety Review on Cereals and Legumes.***

Review manuscript (in preparation).

### Technical and Study Reports

**Wanigasekara, S. A. (2023). *Kitul (Fishtail Palm, Jaggery Palm, Toddy Palm, and Wine Palm)***

Market Food Processing Potential of an Agricultural Commodity. Study report.

**Wanigasekara, S. A. (2023). *Food Insecurity Around South Asia and Solutions Through Sustainable Agriculture.***

Seminar report, BFST 2102: Seminar in Food Science and Technology.

### Conference Papers

**Wanigasekara, S. G. (2025). *Evaluating the Impact of Weight Reduction on Triglyceride Glucose (TYG) Index as a Biomarker of Insulin Sensitivity in a Middle-Aged Adult Population in Central Province.***

The Colombo Conference (The 3<sup>rd</sup> International Conference on University- Industry Collaborations for Sustainable Development/ IDSC 2026)

**Wanigasekara, S. G. (2025). *Evaluating the Impact of Weight Reduction on Insulin Resistance in Middle-Aged Sri Lankan Adults***

NSSL Annual Scientific Sessions 2026.

## NON- RELATED REFEREES

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