



Department of Botany
Faculty of Science / University of Peradeniya



Prof. W.A.M. Daundasekera

B.Sc. (Perad.), Ph.D. (Cranfield, UK)

Professor in Botany

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About Me

Graduated from University of Peradeniya, Sri Lanka in 1993, obtained B.Sc. Special degree with a First Class Honours, and joined the Department of Botany, Faculty of Science of the same university as a Probationary Lecturer in June 1994. Having secured an Asian Development Bank-funded Scholarship, I proceeded to Ph.D. degree at the Cranfield University, UK in 1999. Having awarded the Ph.D. in the field of Postharvest Pathology, joined Peradeniya University as a Senior Lecturer in 2003. Promoted to the post of Professor in Botany in 2018. Served as a Visiting Lecturer at the Faculty of Allied Health Sciences at University of Peradeniya, Faculty of Applied Sciences at Rajarata University of Sri Lanka and at the Postgraduate Institute of Science. Served as the Secretary, Chairperson or a member of University and national level committees in the field of Plant Sciences. Authored about 20 peer reviewed journal publications and more than 35 conference papers and have been awarded a Presidential Award for Scientific Research in 2010. My areas of research interest are postharvest physiology/pathology of tropical fruits and vegetables, postharvest technology of cut flowers and decorative foliage, defense mechanisms in tropical plants against pathogens.

Higher Education Qualifications

🎓 **PhD**

Cranfield (England)
(2003)

🎓 **BSc**

Peradeniya (Sri Lanka)
(1993)

Awards, Scholarships, Memberships & Fellowships



Presidential Award for Scientific Research - 2003



ADB-sponsored scholarship for a Split-PhD programme granted by the Ministry of Science and Technology, Sri Lanka, under the Science and Technology Personnel Development Project – 1999



M.D. Dassanayake Gold Medal for Botany -1993



University of Peradeniya Scholarship – 1993



Sub-committee on Civil Works, IRQUE Project, Faculty of Science, University of Peradeniya 2006-2008



Sub-committee on Strengthening of Soft Skills of students, Higher Education for the Twenty First Century (HETC) Project, Faculty of Science, University of Peradeniya 2010 – 2013



Board of Study in Plant Sciences, Postgraduate Institute of Science, University of Peradeniya 2008 – 2017



Coordinating Committee, Postgraduate Institute of Science, University of Peradeniya 2008 – 2014; 2016 – 2017



Board of Management, Postgraduate Institute of Science, University of Peradeniya October 2016 to April 2017



University of Peradeniya Science Alumni Association



Alumni Association, Cranfield University, UK



Life Member, Sri Lanka Association for the Advancement of Science



Sri Lanka Association for Mycology and Plant Pathology 2007 to date



Associate Member, Sri Lanka National Institute of Professional Counselors 2019



Certificate of Commendation for Agriculture and Food Research : National Science Foundation 2019



Excellence in Teaching Award of the Faculty of Science, University of Peradeniya 2021

Positions Held



Treasurer, Botanical Society, University of Peradeniya- (2016 - 2018)



Chairperson, Board of Study in Plant Sciences, Postgraduate Institute of Science, University of Peradeniya- (2016 September – 2017 April)



Secretary, Science Teachers' Association, University of Peradeniya- (2010)



Coordinator, QEF/IRQUE Project Science Study Programme Faculty of Science, University of Peradeniya- (2009-2010)



Deputy Coordinator, QEF/IRQUE Project Science Study Programme, Faculty of Science, University of Peradeniya- (2008-2009)



Programme Coordinator, M.Sc. Programme in Postharvest Technology of Fruits and Vegetables, Postgraduate Institute of Science, University of Peradeniya- (2008-2009)



Treasurer, Sri Lanka Association for Mycology and Plant Pathology- (2007 todate)



Programme Co-coordinator, M.Sc. Programme in Postharvest Technology of Fruits and Vegetables, Postgraduate Institute of Science, University of Peradeniya- (2004 – 2005)









Academic Sub warden, Sangamiththa Hall of residence, University of Peradeniya- (1994)



Chairperson, Curriculum Revision Committee, Faculty of Science, University of Peradeniya- (2020)





My Teachings

-  AS417: Food and Fresh produce Technology (Undergraduate course)
-  BT304: Plant Pathology (Undergraduate Course)
-  BT305: Developmental Physiology and Postharvest Technology (Undergraduate course)
-  BT404: Advanced Plant Pathology (Undergraduate course)
-  BT413: Advanced Plant Developmental Physiology (Undergraduate Course)
-  SE523: Microbiology and Plant Pathology (Postgraduate course)

Research Interests (Research Fields/ Projects)

Postharvest Technology/pathology of tropical fruits, vegetables and ornamental plants.
Natural and induced defence mechanisms against pathogens in tropical plants.

Ongoing Research and Projects

-  **Disease diagnosis, pathogen diversity and modes of genetic resistance of fungal born blast and blight diseases in major cereals of Sri Lanka**
-  **Effect of soil amendment with silicon on preharvest fungal disease and postharvest quality of bitter gourd**
Effectiveness of the use of potassium silicate as an alternative to chemical control of fungal diseases is tested. The mechanisms underlying the disease resistance induced by silicon are also investigated.
-  **Efficacy of soluble silicon in inducing disease resistance against postharvest fungal pathogens in banana**
Effect of postharvest application of liquid silicon in controlling anthracnose and crown rot diseases on banana fruit is investigated.
-  **Use of UV_C radiation to control postharvest pathogens**

Key Publications



Australasian Plant Pathology - (2016)

Some biochemical defense responses enhanced by soluble silicon in bitter melon-powdery mildew pathosystem.



Physiological and Molecular Plant Pathology - (2003)

Ethylene production by *Colletotrichum musae* in vitro.

Conferences



"Plant Health 2019' The First National Symposium of Sri Lanka Association for Mycology and Plant Pathology (SLAMPP)

HELD AT : Kandy, Sri Lanka - (2019)

TOPIC : "Ensuring safer Plant produce for human consumption"



Peradeniya University International Research Sessions (iPURSE)

- (2014, 2016)



PGIS Research Congress

HELD AT : Postgraduate Institute of Science, University of Peradeniya, Sri Lanka - (2014, 2015, 2016)



National Symposium on Floriculture Research (NASFLOR)

HELD AT : Department of National Botanic Gardens, Sri Lanka - (2008, 2009, 2011, 2014)



International Research Symposium on Postharvest technology

HELD AT : Anuradhapura, Sri Lanka - (2014)

My Publications

Please goto the website.

<https://sci.pdn.ac.lk/botany/staff/Malkanathi-Daundasekera>