

Devika Malkanthi De Costa

B.Sc.Agriculture,Hons.(Peradeniya),M.Sc.(Reading,U.K),Ph.D.(Hiroshima, Japan)



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Teaching Philosophy

My teaching philosophy is best described by *dedication*. I believe that a dedicated teacher has an enormous power to mould the lives in a classroom and bring them to new heights, even the students are with less impressive grades and/or less privileged due to any reason. I always want my students to be equipped with knowledge and skills. I want them to be critical thinkers, situational analysts, innovators, problem solvers and decision makers. I value high quality teaching, strongly value ethics and believe that teaching is a God-given blessing. As a teacher and a research advisor, I am extremely supportive and understanding. However, I am also a constructive critic and I always want the students to maintain high standards of their work. As a university academic I continuously strive to achieve above objectives.

Research Philosophy

I firmly believe that research should be an integral component of a university academic. Without a passion and a deeper-involvement in research, an academic becomes only a preacher. As a researcher, I am curious in elucidating mechanisms and underlying reasons of natural phenomena related to the field of Plant Pathology. My research is more focused on disease diagnosis and non-conventional strategies of plant disease control. I have the desire of finding microorganisms those can be utilized for the betterment of the field of agriculture. To achieve the above objectives, I always try to blend the conventional methods with molecular methods as I believe that I am well-equipped with the knowledge and the skills of both aspects.

Education

🎓 -Doctor of Philosophy – Hiroshima University, Japan (2002)

Thesis title: Structural and functional genome analysis of the left region of the linear chromosome of *Agrobacterium tumefaciens* MAFF301001

🎓 -Master of Science – University of Reading, United Kingdom (1990-1991)

Dissertation title: Efficiency of *Pasteuria penitrens* in controlling *Meloidogyne javanica* in different host plants and some factors affecting its *in vivo* production

🎓 -Bachelor of Science (Agriculture) Hons.- University of Peradeniya, Sri Lanka (1983-1988)

Profile

University lecturer and a researcher in Applied and Molecular Plant Pathology with a special emphasis on disease diagnosis, host-pathogen interactions and biological control of plant pathogens using indigenous microflora

Work experience



- Senior Professor of Plant Protection, University of Peradeniya- from September 2021 onwards



- Professor of Plant Protection (Chair of Plant Protection), University of Peradeniya- (September 2017 to September 2021)



- Professor in Plant Pathology, University of Peradeniya- (September 2013 to September 2017)



- Senior Lecturer in Plant Pathology, University of Peradeniya, (March 2002 to September 2013)



- Lecturer, University of Peradeniya, February 1992 to March 2002



- Technician, University of Reading, United Kingdom (from March 1989 to October 1990)



Expertise

Diagnosis of plant diseases by conventional and non conventional methods, Integrated Disease Management, Elucidation of host-pathogen interactions, Microbial genome analysis and DNA sequencing, Microbial population dynamics and Gene expression

2019 August – 04th International Conference on Biofertilizers and Biopesticides: Integrated Pest Management, Republic of China (ROC)

1997 January- 1997 February- International training on Diagnostic Virology, Haryana Agricultural University, India

1995 March – 1995 July- International training program on Integrated Pest Management, Wageningen, The Netherlands

Research experiences

- Plant disease diagnosis, conventional and molecular identification and characterization of plant pathogens (culturable and unculturable) and integrated plant disease management/Eco-friendly plant disease management
- Biological control of anthracnose disease and other postharvest diseases of dessert banana using antagonistic microflora associated with the fruit skin, Biological control of *Meloidogyne javanica*, a plant pathogenic nematode using *Pasteuria penetrans*, a prokaryotic obligate parasite of the nematode, Biological control of rice (*Rhizoctonia solani* causing sheath blight) and tea pathogens using phyllosphere associated bacterial and yeast antagonists, Biological control of bacterial pathogens using bacteriophage
- Induced host plant resistance through microbial antagonists in crop plant tissues and using plant growth promoting rhizobacteria and phytohormones
- Elucidation of the influence of endophytic microbes on plant disease development and management, Beneficial soil and plant microbiome
- Structural and functional genome analysis of prokaryotic genomes- Genome fingerprinting, construction of genomic libraries, chromosome walking, construction of linking libraries (gene encyclopedia), DNA sequencing and use of bioinformatics, determining functional genomics by transposon mutagenesis of *Agrobacterium tumefaciens* MAFF301001 and *Burkholderia spinosa*, a biological control agent of postharvest fungal pathogens
- Studies on prokaryotic and eukaryotic transcriptome, molecular mechanisms of host plant resistance

Academic Awards

A merit certificate was awarded by the National Research Council, Sri Lanka for publication of 'Aruna Kumara, U.M. and **De Costa, D.M.** (2015) Analysis of differentially expressed gene profiles in a resistant banana cultivar after infection by *Colletotrichum musae*, **Physiological and Molecular Plant Pathology**. 92, 88-100 <http://dx.doi.org/10.1016/j.pmpp.2015.08.011>' in a Science Citation Indexed journal having an impact factor above 1.

Best presentation in the Plant Protection session of the 26th Annual Congress, Postgraduate Institute of Agriculture in 2014 for the paper titled "Isolation of bacteriophages and determination of their efficiency in controlling *Ralstonia solanacearum*, the bacterial wilt pathogen of tomato" by M. D. Kalpage and **D.M. De Costa**.

Best session paper in the international conference on Agricultural, Ecological and Medical sciences held on July 3-4, 2014 at London, United Kingdom for the paper titled “Identification of *Fusarium* species causing leaf twister diseases of onion in Trincomalee district, Sri Lanka by DNA- based molecular technique” by Arumugam Vengadaramana and **D.M. De Costa**.

NSF Research awards-2013- A commendation certificate for the research on “Expression of candidate genes for salt tolerance in Sri Lankan rice germplasm”, funded by National Science Foundation, Sri Lanka, Grant number- RG/2007/BT/01

Best presentation in the Plant-Pathogen interaction session of the 25th Annual Congress, Postgraduate Institute of Agriculture in 2013 for the paper titled “Identification of a set of up-regulated genes due to infection by *Colletotrichum musae* in a dessert banana cultivar, moderately-resistant to anthracnose” by Aruna Kumara, U.M., Jayasundara, N.C.Y. and **De Costa, D.M.**

A merit certificate was awarded by the National Research Council, Sri Lanka for publication of ‘**De Costa, D.M.** and Gunawardhana, H.M.D.M. (2012). Effects of sodium bicarbonate on pathogenicity of *Colletotrichum musae* and potential for controlling postharvest diseases of banana, **Postharvest Biology and Technology**, 68, 54-63’ in a Science Citation Indexed journal having an impact factor above 1.

.Hiran Tilekeratne award for outstanding postgraduate research-2012 in the field of Agriculture awarded by University Grants Commission, Sri Lanka for the research titled “Screening and identification of defense-related genes against anthracnose in local banana varieties and determining factors influencing their gene activation/expression”.

Presidential awards for research- 2008- for the research publication “**De Costa, D.M.**, A.R.F. Zahra, M.D. Kalpage and E.M.G. Rajapakshe, (2008) Effectiveness and molecular characterization of *Burkholderia spinosa*, a prospective biocontrol agent for controlling postharvest diseases of banana, **Biological Control**, 47, 257-267”.

Presidential awards for research- 2008- for the research publication “**De Costa, D.M.**, Samarasinghe, S.S.T., Dias, H.R.D. and Dissanayake, D.M.N. (2008) Control of rice sheath blight by phyllosphere epiphytic microbial antagonists, **Phytoparasitica**, 36(1), 52-65”.

NSF research award – 2007- A commendation certificate for the research on “Screening indigenous antagonists for development of biopesticides against postharvest diseases of banana, funded by National Science Foundation, Sri Lanka, Grant number- RG/2004/FS/02.

A competitive fellowship awarded by the Japanese Government to former MONBUSHO scholarship holders - Monbusho fellowship JASSO (Japan Student Services Organization) -2007 to undertake a research fellowship at Hiroshima University, Japan.

Presidential awards for research- 2006- for the research publication “**De Costa, D.M.**, Rathnayake, R.M.P.S., De Costa, W.A.J.M., Kumari, W.M.D. and Dissanayake, D.M.N. (2006) Variation of phyllosphere microflora of different rice varieties in Sri Lanka and its relationship to leaf anatomical and physiological characters, **Journal of Agronomy and Crop Science**, 192; 209-220”.

Presidential awards for research- 2005- for the research publication “**De Costa, D.M.**, Erabadupitiya, H.R.U.T. (2005) An integrated method to control postharvest diseases of banana using a member of the *Burkholderia cepacia* complex. ***Postharvest Biology and Technology*** 36, 31-39”.

MONBUSHO scholarship (competitive) awarded by the Japanese Government to pursue Ph.D. degree in Hiroshima University, Japan in 1998.

Best presentation in the Plant Protection section of the Annual Congress, Postgraduate Institute of Agriculture in 1992 for the paper titled “Efficiency in controlling *Meloidogyne javanica* using *Pasteuria penetrans* in different host plants” by **D.M. De Costa** and S.R. Gowen.

Research publications in peer-reviewed indexed journals

Tharangani, H.D.A., De Costa, D.M., Jayasinghe, G.G. and Ananda, E.H.M. (2023). Determining fungal profiles associated at different stages of disease development and confirmation of pathogenicity for deducing etiology of Rough Bark Disease of Cinnamon. *Journal of Phytopathology*. 171(4-5), 189-205. <https://doi.org/10.1111/jph.13169>

Sumedha Thushari, A.N.W. and De Costa, D.M. (2023). Molecular and Genetic Variability of *Sporisorium scitamineum* (Sugarcane Smut Pathogen) in Sugarcane Plantations in Sri Lanka. *Sugar Tech* <https://doi.org/10.1007/s12355-022-01239-8>

De Costa, D.M., De Costa, J.M., Weerathunga, M.T., Prasannath, K. and Bulathsinalage, V.N., (2021) Assessment of management practices, awareness on safe use of pesticides and perception on integrated management of pests and diseases of chilli and tomato grown by small-scale farmers in selected districts of Sri Lanka. *Pest Management Science*. <https://doi.org/10.1002/ps.6542>

Rienzie, R., Sendanayake, L., De Costa, D., Hossain, A., Brestic, M., Skalicky, M., Vachova, P. and Adasooriya, N.M., (2021). Assessing the carboxymethylcellulose copper-montmorillonite nanocomposite for controlling the infection of *Erwinia carotovora* in potato (*Solanum tuberosum* L.). *Nanomaterials*, 11(3), p.802. <https://doi.org/10.3390/nano11030802>

Sumedha Thushari, A.N.W., Wijesuriya, A., Wijesuriya, B.W., Perera, A.M.M. and De Costa, D.M. (2021) Identification of Sugarcane Germplasm in Sri Lanka for Breeding of Varieties Resistant to Smut Disease (c.a. *Sporisorium scitamineum*). *Sugar Tech* **23**, 1025–1036. <https://doi.org/10.1007/s12355-021-00986-4>

Jeyaseelan, T.C., De Costa, D.M. and Shaw, M.W. (2021) Two different begomovirus species are associated with yellow vein mosaic disease of okra in Sri Lanka. *Molecular Biology Reports* . <https://doi.org/10.1007/s11033-021-06213-3>

Jeyaseelan, T.C., **Jeyaseelan, E.C.**, De Costa, D.M. and Shaw, M. W. (2020), Detection and absolute quantification of betasatellites associated with okra yellow vein mosaic disease by qPCR, *Journal of Virological Methods*. 276: <https://doi.org/10.1016/j.jviromet.2019.113789>

- Prasannath, K., Dharmadasa, N., Menike, N. and **De Costa, D.M.** (2020) Evaluation of the effects of an eco-friendly crop protection system on management of whitefly-vectored chilli leaf curl virus disease in Sri Lanka. *Phytoparasitica*, 48, 117-129. doi:10.1007/s12600-019-00773-8
- Jeyaseelan, T.C., Jeyaseelan, E.C., **De Costa, D.M.** and Shaw, M.W. (2018) Molecular characterization and phylogenetic analysis of betasatellite molecules associated with okra yellow vein mosaic disease in Sri Lanka. *Tropical Plant Pathology*. <https://doi.org/10.1007/s40858-018-0225-1>.
- Tharmila, C.J., Jeyaseelan, E.C., Ihsan, Wetten, A.C., **De Costa, D.M.** and Shaw, M.W. (2017) First report on association of okra yellow vein mosaic virus with yellow vein mosaic disease of okra (*Abelmoschus esculentus*) in Sri Lanka. *Plant Disease*, <https://doi.org/10.1094/PDIS-10-16-1492-PDN>
- Rienzie, K.D.R., Wickramaarachchi, W.A.R.T., **De Costa, D.M.** and Wijesooriya, W.M.G.U. (2016) Molecular detection and characterization of begomovirus causing bean yellowing disease in Sri Lanka, *Journal of the National Science Foundation of Sri Lanka*, 44 (3), 249-255.
- Aruna Kumara, U.M. and **De Costa, D.M.** (2015) Analysis of differentially expressed gene profiles in a resistant banana cultivar after infection by *Colletotrichum musae*, *Physiological and Molecular Plant Pathology*. 92, 88-100 <http://dx.doi.org/10.1016/j.pmp.2015.08.011>
- De Costa, D.M.** and Chandima, A. A.G. (2014) Effects of exogenous pH on anthracnose development on different banana varieties of Sri Lanka, *Journal of the National Science Foundation of Sri Lanka*. 42(3), 203-214.
- Zahra, A.R.F., **De Costa, D.M.** and De Costa, W.A.J.M. (2013) Identification of differentially-expressed genes in response to salt stress in the salt-tolerant Sri Lankan rice variety At354. *Journal of the National Science Foundation of Sri Lanka*, 41(2), 93-112.
- Soe, K. T. and **De Costa, D. M.** (2012) Development of a spore-based formulation of microbial pesticides for control of rice sheath blight. *Biocontrol Science and Technology*, vol. 22(6), 633-657.
- De Costa, D.M.** and Gunawardhana, H.M.D.M. (2012). Effects of sodium bicarbonate on pathogenicity of *Colletotrichum musae* and potential for controlling postharvest diseases of banana, *Postharvest Biology and Technology*, 68, 54-63.
- De Costa, W.A.J.M., Wijeratne, M.A.D. and **De Costa, D.M.** (2012) Identification of Sri Lankan rice varieties having osmotic and ionic stress tolerance during the first phase of salinity stress. *Journal of the National Science Foundation of Sri Lanka*, 40 (3) 251-280.
- De Costa, W.A.J.M., Wijeratne, M.A.D., **De Costa, D.M.** and Zahra, A.R.F. (2012) Determination of appropriate level of salinity for screening of rice for salt tolerance. *Journal of the National Science Foundation of Sri Lanka*, 40 (2), 123-136.
- De Costa, D.M.**, A.R.F. Zahra, M.D. Kalpage and E.M.G. Rajapakshe, (2008) Effectiveness and molecular characterization of *Burkholderia spinosa*, a prospective biocontrol agent for controlling postharvest diseases of banana, *Biological Control*, 47, 257-267.

De Costa, D.M., Samarasinghe, S.S.T., Dias, H.R.D. and Dissanayake, D.M.N. (2008) Control of rice sheath blight by phyllosphere epiphytic microbial antagonists, *Phytoparasitica*, 36(1), 52-65.

De Costa, D.M., Rathnayake, R.M.P.S., De Costa, W.A.J.M., Kumari, W.M.D. and Dissanayake, D.M.N. (2006) Variation of phyllosphere microflora of different rice varieties in Sri Lanka and its relationship to leaf anatomical and physiological characters, *Journal of Agronomy and Crop Science*, 192; 209-220.

De Costa, D.M., Erabadupitiya, H.R.U.T. (2005) An integrated method to control postharvest diseases of banana using a member of the *Burkholderia cepacia* complex. *Postharvest Biology and Technology* 36, 31-39.

De Costa, D. M., Suzuki, K. and Yoshida, K. (2003) Structural and functional analysis of a putative gene cluster for palatinose transport on the linear chromosome of *Agrobacterium tumefaciens* MAFF301001, *Journal of Bacteriology*, 2369-2373.

De Costa, D. M., Suzuki, K., Satou, M. and Yoshida, K. (2001) Genome analysis of *Agrobacterium tumefaciens*: Linkage map and genetic features of the left region of the linear chromosome, *Genes and Genetic Systems*, 76, 363-371.

Research publications in peer-reviewed non-indexed journals

Ranasinghe, T.D., De Costa, D.M. and Dharmakeerthi, R.S., (2021). Evaluation of Some Potential Protocols to Extract DNA from Paddy Soil. *Tropical Agricultural Research*, 32(4), pp.409–417. DOI: <http://doi.org/10.4038/tar.v32i4.8509>

Wijekoon, W.M.S.U.K., Nishantha, K.M.D.W.P. and De Costa, D.M., (2021). Comparison of DNA Extraction Protocols for Molecular Identification of Root Knot Nematode (*Meloidogyne* Spp.) Using Egg Masses. *Tropical Agricultural Research*, 32(3), pp.318–324. DOI: <http://doi.org/10.4038/tar.v32i3.8495>

Kalpani, W.M.P., De Costa, D.M. and Haputhantri, T.R., (2021). Pre-Harvest Finger Rot of Cavendish Banana (*Musa acuminata*) Reported from Moneragala and Badulla Districts, Sri Lanka: Identification and Confirmation of Pathogenicity of the Causal Agent. *Tropical Agricultural Research*, 32(1), pp.27–38. DOI: <http://doi.org/10.4038/tar.v32i1.8439>

Ranasinghe, C. and **De Costa, D.M.**, (2020). Field Performance of Mixtures of *Pseudomonas* and *Bacillus* spp. in Managing Papaya Ringspot Virus Disease and their Effect on Plant Defense Enzyme Activity. *Tropical Agricultural Research*, 31(2), pp.75–85. DOI: <http://doi.org/10.4038/tar.v31i2.8369>

Amarasena, P.G.D.S., Mohotti, K.M., **De Costa, D.M.** and Fosu-Nyarko, J., (2020). Morphometric and molecular characterization of isolates of the root lesion nematode, *Pratylenchus loosi* infecting Tea in Sri Lanka. *Tropical Agricultural Research*, 31(1), pp.57–71. DOI: <http://doi.org/10.4038/tar.v31i1.8344>

Bulathsinghalage, V.N.D., **De Costa, D.M.** and Menike, G.D.N., (2020). Determination of Desirable Attributes of an Indigenous Burkholderia Isolate Towards Biological Control of Plant Pathogenic Fungi and Its Microbial Enzyme Production. *Journal of Agricultural Sciences – Sri Lanka*, 15(1), pp.63–74. DOI: <http://doi.org/10.4038/jas.v15i1.8672>

Jeyaseelan, T.C., Jeyaseelan, E.C., **De Costa, D.M.** and Shaw, M.W. (2019) Selecting and optimizing a reliable DNA extraction method for isolating viral DNA in okra (*Abelmoschus esculentus*). *Vignanam Journal of Science*, 14(1), 7-13.

Weeraratne, W.A.P.G. and **De Costa, D.M.** (2018). Molecular identification of *Fusarium* spp. from wilt-infected tomato and brinjal plants in selected regions of Sri Lanka and endophytic bacteria as a potential option for disease management. *Tropical Agricultural Research*, 30 (1), 32-43.

Ranasinghe, C., **De Costa, D.M.**, Basnayake, B.M.V.S., Gunasekara, D.M.K.W., Priyadharshani, S. and Navagamuwa, V.N.R. (2018). Potential of Rhizobacterial *Pseudomonas* and *Bacillus* spp. to Manage Papaya Ringspot Virus Disease of Papaya (*Carica papaya* L.) *Tropical Agricultural Research*, 29(4), 271-283.

Kannangara, K.N., **De Costa, D.M.**, Pushpakumara, D.K.N.G. and Wickremasinghe, I.P. (2017). Tri species bridge crosses (*C. annuum* L. x *C. chinense* Jacq.) x (*C. chinense* Jacq. x *C. frutescens* L.) as an alternative approach for introgression of Cucumber Mosaic Virus (CMV) and Chilli Veinal Mosaic Virus (CVMV) resistance from *C. frutescens* L. into *C. annuum* L. *Tropical Agricultural Research*, 28(4), 472-489.

Menike, G.D.N. and **De Costa, D.M.** (2017). Variation of Field Symptoms and Molecular Diversity of the Virus Isolates Associated with Leaf Curl Complex Infected-Chilli Plants in Different Agroecological Regions of Sri Lanka. *Tropical Agricultural Research*, 28 (2), 144 - 161.

Amarasena, P.G.D.S., Mohotti, K.M. and **De Costa, D.M.** (2016) Effects of changing rainfall and soil temperature on population dynamics of *Pratylenchus loosi* in tea lands at different elevation regimes, *Tropical Agricultural Research*, 27 (3), 265-276.

U.M. Aruna Kumara and **De Costa, D.M.** (2015) An efficient protocol for isolation of functional RNA from peel tissue of different banana (*Musa* spp.) cultivars for gene expression studies on anthracnose development, *Tropical Agricultural Research* 26(2), 329-342.

Kalpage, M.D. and **De Costa, D.M.** (2014) Isolation of bacteriophages and determination of their efficiency in controlling *Ralsotina solanacearum*, the bacterial wilt pathogen of tomato, *Tropical Agricultural Research*. 26(1), 140-151.

Vengadaramana, A. and **De Costa, D.M.** (2014) Molecular and pathogenic diversity of the causal agents of onion leaf twister disease in Batticaloa district of Sri Lanka, *Universal Journal of Plant Science* 2(7), 121-127.

Yapa Silva, Y.M.U.K. and **De Costa, D.M.** (2014) Potential of preharvest application of *Burkholderia spinosa* for biological control of epiphytic and pathogenic microorganisms on the phyllosphere of banana, *Tropical Agricultural Research*, 25 (4): 543 – 554.

Abhayapala, K.M.R.D., De Costa, W.A.J.M., Fonseka, R.M., Prasannath, K., **De Costa, D.M.**, Suriyagoda, L.D.B., Abeythilakeratne, P.D. and Nugaliyadde, M. (2014) Response of Potato (*Solanum tuberosum* L.) to increasing growing season temperature under different soil management and crop protection regimes in the up-country of Sri Lanka, *Tropical Agricultural Research*, 25(4):455-469.

Aruna Kumara, U.M., Jayasundara, N.C.Y. and **De Costa, D.M.** (2013) Identification of a set of up-regulated genes due to infection by *Colletotrichum musae* in a dessert banana cultivar, moderately-resistant to anthracnose, *Tropical Agricultural Research*, 25(2) 240-251.

Prasannath, K., Dharmadasa, K.N.P., **De Costa, D.M.** and Hemachandra, K.S. (2013) Variations of incidence and type of virus diseases and insect vector populations of tomato grown in different agroecological regions under two crop management systems, *Tropical Agricultural Research*, 25(3): 376-395.

Vengadaramana, A. and **De Costa, D.M.** (2013) Morphological and pathogenic variations of causal organisms of leaf twister disease of red onion in Jaffna district, Sri Lanka, *Tropical Agricultural Research*, 25(3): 412-431.

Zahra, A.R.F. and **De Costa, D.M.** (2012) Construction and quality assessment of cDNA libraries from rice shoots during two phases of salt stress development, *Sri Lankan Journal of Agricultural Sciences*, 49, 34-45.

Zahra, A.R.F., **De Costa, D.M.** and De Costa, W.A.J.M. (2012) Comparative expression analysis of two selected candidate genes for salt tolerance in rice variety At354 during two phases of salt stress development, *Sri Lankan Journal of Agricultural Sciences*, 49, 75-85.

Gunarathne, L.H.S.N., **De Costa, D.M.** and Dissanayake, D.M.N. (2012) Microbial flora associated with grain discolouration of Sri Lankan rice varieties, *Sri Lankan Journal of Agricultural Sciences*, 49, 14-27.

De Costa, D.M. (2010) Quality retention of dessert banana and other tropical fruits by controlling postharvest diseases using non-chemical methods- **Invited review** - Fresh Produce (4) Special Issue 1, (Ed. Sivakumar, D), Global Science Books Ltd. UK, 1-14.

De Costa, D.M., Kishimoto, N. and De Costa, W.A.J.M. (2010) Effects of elevated CO₂ on culturable epiphytic microbial populations on the phyllosphere of rice, *Sri Lankan Journal of Agricultural Sciences* Vol. 47, 1 – 23.

De Costa, D.M., Sandamali, H.A.J. and Adikari, A.M.P. (2008) Survival efficiency of field-applied microbial antagonists for the control of rice sheath blight, *Sri Lankan Journal of Agricultural Sciences*, 45, 100-115.

De Costa, D.M., Ponnampumarachchi, J. and Weerasinge, W.D.P. (2008) Evaluation of the efficiency of a talc-based formulation of microbial antagonists in controlling rice sheath blight under field conditions, *Sri Lankan Journal of Agricultural Sciences*, 45, 1-10.

De Costa, D.M., Pinto, M.T.C., Geethanjalee, H.D.N. and Dissanayake, N. (2006) Suppression of rice pathogens by phyllosphere associated microflora of different rice varieties in Sri Lanka, *Tropical Science*, 46(2), 97-104.

De Costa, D.M. and Kalpage, M.D. (2006) Differential response of *Colletotrichum* isolates infecting banana to synthetic fungicide and a biological control agent, *Sri Lankan Journal of Agricultural Sciences*, 43, 50-65.

De Costa, D.M., Rathnayake, R.M.S.P. and Balasuriya, A. (2005) Microbial population dynamics of the phyllosphere of tea (*Camellia sinensis*) and its influence on *Exobasidium vexans*, the blister blight pathogen, *Sri Lankan Journal of Agricultural Sciences*, 42, 94-104.

D. De Costa, K. Suzuki, M. Sato and K. Yoshida (2004) Gene search in the left region of the linear chromosome of *Agrobacterium tumefaciens* MAFF301001. *Endocytobiosis and Cell Research* 15 (1) 379-384.

K. Suzuki, M. Uraji, **D. De Costa**, Y. Hattori, N. Ohta, K. Iwata, M. Satou, H. Sonoda, K. Miyahara, A. Masuda, Y. Nagata, H. Urbanczyk, J. Bautista-Zapanta, K. Yoshida (2004) An overview of the *Agrobacterium* genome. *Endocytobiosis and Cell Research* 15 (1): 143-150.

De Costa, D. M. and Subasinghe, S.S.N.S. (1998) Antagonistic bacteria associated with the fruit skin of banana in controlling its postharvest diseases, *Tropical Science*, 38, 206-212.

De Costa, D. M., Wijayagunasekara, H. N. P., Alahakoon, C. P. and Priyantha Bandara, A.M. (1998) Preliminary studies on the prevalence and controlling efficiency of *Pasteuria penetrans*, a parasite of *Meloidogyne* spp. in Sri Lanka, *Journal of The National Science Council of Sri Lanka*, 26(1), 47-57.

De Costa, D. M., Amaradasa, B.S. and Wegiriya, R.N.B.P.M.R.C.L. (1997) Antagonists of *Colletotrichum musae* associated with banana fruit skin, *Journal of The National Science Council of Sri Lanka*, 25(2), 95-104.

De Costa, D. M., Wijayagunasekara, H.N.P. and Priyantha Bandara, A.M. (1996) Prevalence and factors affecting the presence of *Pasteuria penetrans* in Yatinuwara Divisional Secretary Division, Kandy District, Sri Lanka, *Sri Lankan Journal of Agricultural Sciences*, 33, 112-120.

De Costa, D. M. and Gowen, S. R. (1992) Invasion and post-infectious studies of *Meloidogyne javanica* in different host plant species, *Tropical Agriculturist*, 148, 15-22.

De Costa, D.M. and Gowen S.R. (1992) Efficiency in controlling *Meloidogyne javanica* using *Pasteuria penetrans* in different host plants, *Tropical Agriculture Research*, 4, 151-157.

Full-length conference papers

Arumugam Vengadaramana and **De Costa, D.M.** (2014) Identification of *Fusarium* species causing leaf twister disease of onion in Trincomalee District, Sri Lanka by DNA-based molecular technique, International conference on agricultural, ecological and medical sciences (AEMS-2014), 3-4 July, 2014, London, U.K.

De Costa, D.M. and Dissanayake, D.M. (2010) Management of rice sheath blight using indigenous microbial antagonists, Rice Congress-2010, Plant Genetic Resources Centre, Gannoruwa, 2-3 December 2010

Zahra, A.R.F., **De Costa, D.M.**, and De Costa, W.A.J.M. (2010) Candidate genes for salt tolerance in the rice germplasm in Sri Lanka, Rice Congress-2010, Plant Genetic Resources Centre, Gannoruwa, 2-3 December 2010

De Costa, D. M., Suzuki, K. and Yoshida, K. (2000) Towards structural and functional genomics of *Agrobacterium tumefaciens*: Linkage map of the left region of linear chromosome, ***Nucleic Acids Symp. Ser.*** **44**, 97-98. Okayama, Japan.

Books

De Costa, D. M. (2005) Recombinant DNA technology and genetically modified organisms (In Sinhala), Published by the Ministry of Environment and Natural Resources, Sri Lanka. ISBN 955-9120-28-X, 54pp.

De Costa, D.M. (2009) Clinical Plant Pathology: Principals and Laboratory Practices- ISBN 978-955-51849-0-8. 167pp.

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Dassanayake, D.L.A.L.A. and **De Costa, D.M.** (2010) Use of host plant mediated defense by biological control agents for control of rice sheath blight, ***Proceedings of the Undergraduate research***, Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya, vol. (1), 53-56.

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De Costa, D.M. and Kalpage, M.D. (2008) Phenotypic and molecular variations of *Colletotrichum* isolates causing postharvest diseases of dessert banana, ***Journal of Plant Pathology*, vol. 90 (2 supplement) August 2008, Book of Abstracts, 9th International Congress of Plant Pathology**, August 24-29, 2008, Torino, Italy, 507 pages.

De Costa, D.M. and Kishimoto, N. (2008) Diversity and density of microbial populations on the rice phyllosphere under elevated atmospheric carbon dioxide, ***Journal of Plant Pathology*, vol. 90 (2 supplement) August 2008, Book of Abstracts, 9th International Congress of Plant Pathology**, August 24-29, 2008, Torino, Italy, 507 pages.

Nazriya, M.N.F., **De Costa, D.M.** and Azhaar, A.S. (2007) Genomic variations of *Colletotrichum musae* morphotypes infecting banana varieties of Sri Lanka, ***Proceedings of the Peradeniya University Research Sessions***, vol. 12 (1) 1-2.

Wijerathna, M.A.D. and **De Costa, D.M.** (2007) Use of Tn5 transposon mutagenesis to screen *Burkholderia spinosa* mutants deficient in antagonism against *Colletotrichum musae*, ***Proceedings of the Peradeniya University Research Sessions***, vol. 12 (1) 3-5.

De Costa, D.M., Kalpage, M. and Zahra, A.R.F. (2006) Molecular identification of a Sri Lankan isolate of *Burkholderia cepacia* complex, a promising biological control agent of postharvest pathogens, ***Proceedings of the Peradeniya University Research Sessions***, Sri Lanka, Vol. 11, November 30. page 5.

Zahra, A.R.F. and **De Costa, D.M.** (2006) Prospects of antagonists on the fructosphere of banana controlling its postharvest pathogens, ***Proceedings of the Peradeniya University Research Sessions***, Sri Lanka, Vol. 11, November 30. page 8.

De Costa, D.M., Wijayagunasekara, H.N.P. and Priyantha Bandara, A.M. (1995) Prevalence of *Pasteuria penetrans* in Kandy District, Sri Lanka, ***Proceedings of Fourth Annual Staff Research Sessions, Faculty of Agriculture, University of Peradeniya, Sri Lanka***. page 13-14.

Major externally-funded, competitive research projects completed as the principal investigator

- Title of the project: Biological control of postharvest diseases of banana using fructosphere antagonists
Funding agency- International Foundation for Science, Sweden
Grant number- E/3349-1 (USD 10000.00)
(Completed in May 2006)
- Title of the project: Screening indigenous antagonists for development of biopesticides against postharvest diseases of banana

Funding agency- National Science Foundation, Sri Lanka
Grant number- RG/2004/FS/02 (Rs. 370,194.00)
(Completed in May 2006)

- Title of the project: Biological control of sheath blight disease of rice using phyllosphere epiphytic microflora
Collaborators- Dr. Nimal Dissanayake, Rice Research and Development Institute, Batalagoda, Sri Lanka
Funding agency- Sri Lanka Council of Agricultural Research Policy
Grant number- 12/544/431- (Rs. 2,031,200.00)
(Completed in January 2006)
- Title of the project: Biological control of *Colletotrichum musae* causing anthracnose disease of banana (*Musa* spp.)
Funding agency- University of Peradeniya, Sri Lanka
Grant number- RG/97/60/Ag
(Completed in December 1998)
- Title of the project: Investigating the prevalence of *Pasteuria penetrans* in Kandy District, Sri Lanka
Funding agency- University of Peradeniya, Sri Lanka
Grant numbers – RG/94/82/Ag and RG/95/11/Ag
(Completed in April 1996) D.M. De Costa was a collaborator of these grants
- Title of the project- Development and evaluation of formulations of microbial antagonists for the control of rice sheath blight
Funding agency- University of Peradeniya, Sri Lanka
Grant number- RG/2007/04/AG (Rs. 55,000.00)
Completed in 2008
- Title of the research project- Evaluation of desirable features of talc-based microbial pesticides for the control of rice sheath blight
Funding agency – University of Peradeniya, Sri Lanka
Grant number – RG/2008/C-1/06/Ag (Rs. 50,000.00)
Completed in 2009
- Title of the research project- Optimizing the endospore production of *Bacillus megaterium* and *Bacillus subtilis* towards the development of a microbial pesticide formulation for controlling rice sheath blight
Funding agency- University of Peradeniya, Sri Lanka
Grant number – RG/2009/C-2/25/Ag (Rs. 50,000.00)
Completed in 2010
- Title of the project- Molecular background of host-pathogen-antagonist interactions in controlling anthracnose of banana
Funding agency- International Foundation for Science- Sweden
Grant number- E/3349-2 (USD 11,100.00)

Completed in April 2011

- Title of the project- Control of tomato bacterial wilt caused by *Ralstonia solanacearum* (*Pseudomonas solanacearum*) using bacteriophages
Funding agency- National Science Foundation of Sri Lanka
Grant number- RG/2007/BT/05 (Rs. 814,000.00)
Completed in 2012
- Title of the project – Screening and identification of defense-related genes against anthracnose in local banana varieties and determining factors influencing their gene activation/expression
Funding agency- National Research Council of Sri Lanka
Grant number – 07-42 (Rs. 4,211,000.00)
Awarded in 2009
- Title of the project: Potential use of *Burkholderia spinosa*, a bacterial antagonist as a pre-harvest treatment to control anthracnose of banana
Funding agency – University of Peradeniya
Grant number- RG/2012/01/Ag
Grant amount- Rs. 85832.40
Awarded in June 2012
- Title of the project- Development of a molecular detection system of causal agents for controlling virus and virus-like diseases of chilli (*Capsicum annum* L.) in Sri Lanka
Funding agency –National Science Foundation
Grant number – RG/2011/BT/01 (Rs. 3,581,997.00)
Awarded in 2011
- Title of the project: Control of rice sheath blight by improving plant resistance through a biotechnological approach
Funding agency- Sri Lanka Council for Agricultural Policy (NARP grant)
Grant number- NARP/12/UP/AG/04
Grant amount- Rs. 1764152.00
Awarded in 2012
- Title of the project - Analyses of pesticide residues and evaluation of some selected beneficial effects along with farmer perception of an eco-friendly crop management package for chilli and tomato'
Funding agency- National Research Council, Sri Lanka
Grant number- NRC 17-010 (Rs. 4,977,908.00)
Awarded in 2017

Major externally-funded, competitive research projects completed as the co-investigator

- Title of the project- Identification of drought resistant varieties in Rice (*Oryza sativa* L.) using physiological and molecular methods
Funding agency- National Science Foundation, Sri Lanka
Grant number- SIDA/2007/BT/04 (Rs. 972,196.00)

Completed in 2011

- Title of the project- Expression of candidate genes for salt tolerance in Sri Lankan rice germplasm
Funding agencies- International Centre for Genetic Engineering and Biotechnology (ICGEB), Italy and National Science Foundation, Sri Lanka
Grant number – SIDA/2007/BT/01 (Euro 36,000.00)
Completed in 2011
- Research aimed at assessing climate resilience of upland cropping systems of Sri Lanka and increasing their adaptation capacity to long-term climate change (one of three research components of a composite project) granted by the Ministry of Higher Education, Sri Lanka through the Higher Education for Twenty First Century (HETC) project (a share of a total grant of Rs. 30.0 million)
Awarded in 2012
- Title of the project - Investigation of aetiology, disease development and management of rough bark disease of cinnamon (*Cinnamomum zeylanicum* Blume)
Funding agency – National Research Council, Sri Lanka
Grant number – NRC 18-012 (Rs. 4,819,325.00)
Awarded in 2018

Ongoing, competitive research projects as the principal Investigator

- Title of the project _ Development of fungal elicitor-based products to trigger plant immunity as a safer strategy to control selected soil-borne plant diseases caused by fungal pathogens
Funding agency – University of Peradeniya, Sri Lanka
Grant number- Multidisciplinary grants 315 (Rs. 2,500,000.00)
Awarded in 2023

Major externally-funded, competitive research projects ongoing as a co-investigator

- Title of the project – Development of eco-friendly farming technologies to minimize inorganic fertilizer usage while maintaining adequate productivity and improving soil fertility
Funding agency- National Research Council, Sri Lanka
Grant number- NRC TO 16-07 (Rs. 49,920,000.00)
Awarded in 2016

Postgraduate supervision - as the senior supervisor

Ph.D. degrees –

Kay Thi Soe, “Impact of microbial biopesticides on host-pathogen interactions of *Rhizoctonia solani* pathosystem of rice (*Oryza sativa* L.)” Ph.D. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2012

A.R.F. Zahra, "Identification of candidate genes for salt tolerance in the Sri Lankan rice variety AT 354 based on gene expression profiles" Ph.D. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2012

U.M. Aruna Kumara, "Screening and identification of defense-related genes against anthracnose in local banana cultivars and determining factors influencing their gene activation/expression" Ph.D. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2015

A.Vengadaramana, "Host-Pathogen interactions of Leaf Twister Disease of Onion"- Ph.D. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2017

C.J. Tharmila, "Molecular characterization of begomoviruses infecting okra varieties grown in different locations in Sri Lanka and development of effective and eco-friendly approaches for its' management "- Ph.D. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2020

C. Ranasinghe, "Potential of use of Plant Growth Promoting Rhizobacteria for control of Papaya Rings Spot Virus in Papaya through Induced Systemic Resistance"- Ph.D. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2022

M.Phil. degrees-

K. Prasannath, "Impact of climatic parameters and crop management practices on induction of host plant resistance and population dynamics of beneficial insects towards management of viral diseases of chilli and tomato" M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2015

M.D. Kalpage, "Biological control of *Ralstonia solanacearum* causing bacterial wilt of tomato using bacteriophages" M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2015

G.D.N. Menike, "Molecular variations of viruses infecting Chilli (*Capsicum annuum* L.) and Tomato (*Lycopersicon esculentum*) and insect vectors involved with virus transmission in different agroecological zones of Sri Lanka" "- M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2017

K.N.P. Dharmadasa, "Impact of climatic parameters and Integrated Pest Management (IPM)-based cultivation practices on diversity of insect-transmitted virus diseases in Chilli (*Capsicum annuum* L.) and Tomato (*Solanum lycopersicum*)" – M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2017

W.A.P.G. Weeraratne, “Potential of Endophytic Bacteria to Manage *Fusarium* spp. causing *Fusarium* wilt of Tomato and Brinjal crops grown in Sri Lanka”- M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2019

Y.M.U.K.Yapa Silva, “Host pathogen relationships due to preharvest treatment of *Burkholderia spinosa*, a biocontrol agent of banana (*Musa acuminata*) anthracnose”- M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2019

M. Kuruppu, “Management of white root disease of perennial fruit trees (Jak, Durian, Avocado, Rambutan) through integrated approaches”- M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2019

Postgraduate supervision - as the supervisor

M.Phil. degrees-

R. Eeswaran, “Evaluation of a climate-resilient agronomic package for selected upland annual crops under farmers’ field conditions of the Northern Province of Sri Lanka” – M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2018

Ph.D. degrees-

D. Amarasena, “A comparative polyphasic study on variations of morphological, molecular, reproductive fitness and pathogenicity of *Pratylenchus loosi* populations owing to changing soil temperatures in tea plantations of Sri Lanka” – M.Phil. degree awarded by the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Degree awarded in 2019

Postgraduate supervision (ongoing) - as the senior supervisor

Ph.D. degrees-

A.N. W. Sumedha Thushari, “Determination of Host-pathogen interactions of sugarcane- Smut (*Sporisorium scitamineum*) pathosystem towards development of an integrated disease management program”

M.Phil. degrees-

Tharangani, H.D.A., “Determination of possible succession during pathogenesis and genomic variations of the causal organism/s of cinnamon rough bark disease (RBD)

Perera, H.D.D., “Effect of Eco-Friendly Technologies (EFTs) applied to rice on bacterial and actinomycete population of rhizosphere, plant growth performance and resistance to pests and diseases”

Postgraduate supervision (ongoing) - as the supervisor

Ph.D. degree-

K.M.D.W. Prabath Nishantha, “Development of an efficient management system for *Meloidogyne* spp. infesting tomato in Sri Lanka through elucidation of the host –nematode interactions with special reference to survival mechanisms and reproductive efficiency”

Outreach activities and academic responsibilities

- As a coordinator of workshops

- Coordinator of the 1st Postgraduate Certificate Programme in Practical Molecular Biology held in 2004 organized by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- Coordinator of the 2nd Postgraduate Certificate Programme in Practical Molecular Biology held in 2005, organized by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- Coordinator of the 3rd Postgraduate Certificate Programme in Practical Molecular Biology held in 2006, organized by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- Coordinator of the 4th Postgraduate Certificate Programme in Practical Molecular Biology held in 2008, organized by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- As the coordinator of the training programme on ‘Short course on Plant Protection Techniques’ conducted for research officers of the Department of Agriculture and offered through the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 24th November to 4th December 2014
- As the coordinator of the training programme on ‘ Postgraduate Certificate Course on Techniques and Applications in Molecular Microbiology’ held in November – December 2018, offered by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka

- As a resource person of workshops and training programmes

- Workshops-

- As a resource person of public awareness workshops organized by National Biosafety Framework Development Project of Sri Lanka, Ministry of Environment and Natural Resources during the period of May 2003 – December 2004.
- As a resource person in the workshop on Biosafety: Risk assessment and management of genetically modified organisms, food, feed and processed products (GMO/FFPs) on 7th September 2010 at the Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- As a resource person of workshops on ‘Impacts of climate change on plant disease development and environmentally-friendly management measures of plant diseases’ conducted for farmers and

agricultural instructors of the Department of Agriculture, Sri Lanka, conducted as a dissemination of research findings of the HETC/QIG/PGIA/Win3 project at Mahailuppallama, Jaffna and Rahangala on 31 July 2014, 07 October 2014, 11 November 2014 and 28 May 2015 respectively

- As a resource person of the symposium on 'Fundamentals of biological safety for academics and practitioners' organized by National Science Foundation, Sri Lanka on 1st September 2015

- Training programmes-

- Resource person of the 1st Postgraduate certificate programme in Practical Molecular Biology held in 2004, organized by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- Resource person of the 2nd Postgraduate certificate programme in Practical Molecular Biology held in 2005, organized by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- Resource person of the 3rd Postgraduate certificate programme in Practical Molecular Biology held in 2006, organized by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- Resource person of the 4th Postgraduate certificate programme in Practical Molecular Biology held in 2008, organized by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka
- Resource person of the short course on 'Integrated Pest Management' for the field officers of the Ministry of Economic Development, Sri Lanka held from 10th – 12th February 2013.
- Resource person of the training programme on Molecular Diagnostics organized by the Agricultural Biotechnology Centre, University of Peradeniya, Sri Lanka held from 17th -19th November 2014.
- Resource person of the training programme on 'Short course on Plant Protection Techniques' conducted for research officers of the Department of Agriculture and offered through the Board of Study in Plant Protection, University of Peradeniya, Sri Lanka from 24th November to 4th December 2014
- Resource person of the training programme on ' Postgraduate Certificate Course on Techniques and Applications in Molecular Microbiology' held in November – December 2018, offered by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka

- As programme coordinator of M.Sc. degree programmes

- Programme coordinator of M.Sc. degree programme in Molecular and Applied Microbiology offered by the Board of Study Plant in Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 2003 onwards.

- As course coordinator of postgraduate degree programmes

- As the coordinator of Practicum in Molecular and Applied Microbiology course of the M.Sc. degree in Molecular and Applied Microbiology offered by the Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 2003 onwards.

- **As a member of the teaching panels of postgraduate degree programmes**

- Member of the teaching panels in the Board of Study in Plant Protection, Board of Study in Agricultural Biology and Board of Study in Soil Science, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka

- **As an office bearer of the Board of Study/Coordinating committee/Board of Management of Postgraduate institutes**

- Secretary, Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 2003 to 2010
- Chairperson, Board of Study in Plant Protection, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 2010 onwards
- Member, Coordinating committee, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 2003 onwards
- Member, Board of Management, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 2014 to 2016
- Member, Board of Management, Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 2019 onwards

- **As an office bearer of subcommittees of the Faculty of Agriculture or appointee by the Faculty of Agriculture to national committees**

- Secretary of the Research & Development and Ethical Review subcommittee, Faculty of Agriculture, University of Peradeniya, Sri Lanka in 2007.
- Representative of the Faculty of Agriculture, University of Peradeniya, Sri Lanka to the organizing committee of Peradeniya University Research Sessions (PURSE) – 2007.
- Chairperson, TEC committee for chemical procurement, Faculty of Agriculture, University of Peradeniya, Sri Lanka 2013
- Appointed as a member to the National committee on Plant Protection, Sri Lanka Council for Agricultural Research Policy – from 2013 to date

- Chairperson of the Research & Development and Ethical Review subcommittee, Faculty of Agriculture, University of Peradeniya, Sri Lanka - 2015
- Representative of the Faculty of Agriculture to the Senate Research Committee, University of Peradeniya, Sri Lanka – 2015
- Committee member of the Biopesticide subcommittee appointed by the Director General, Department of Agriculture, Sri Lanka – 2017
- Faculty Board appointed Member of the Editorial committee – publication of special issues of review articles to celebrate the 70th anniversary of the Faculty of Agriculture, University of Peradeniya, Sri Lanka- 2018
- Chairperson of the Biopesticides subcommittee appointed by the Director General, Department of Agriculture, Sri Lanka- 2021
- As a subject expert (Plant Pathology/Nematology) in the task force of investigating possible causes of yellowing in rice in Sri Lanka- appointed by the Dean, Faculty of Agriculture, University of Peradeniya - 2023

- **As an external examiner/moderator of other universities/educational institutes**

- External examiner and moderator of the Faculty of Applied Sciences, Sabaragamuwa University, Sri Lanka from 2002 onwards.
- External examiner and moderator of the Faculty of Agriculture, Rajarata University, Sri Lanka from 2008 onwards.
- External examiner and moderator of Faculty of Science, University of Jaffna, Sri Lanka
- Examiner of Final examination, Department of Technical Education and Training, Sri Lanka in 2005.
- External examiner of the Postgraduate Institute of Science, University of Peradeniya, Sri Lanka
- Examiner of M.Phil. and Ph.D. thesis – University of Colombo, Sri Lanka , University of Ruhuna, Sri Lanka

- **As a reviewer of scientific journals/competitive research grants/institutional progress**

- Reviewer of the journals/publications of Crop Protection, Physiological and Molecular Plant Pathology (Elsevier, The Netherlands), Journal of the National Science Foundation (Sri Lanka), Peradeniya University Research Sessions (University of Peradeniya, Sri Lanka), Tropical Agriculture Research (Post Graduate Institute of Agriculture, University of Peradeniya), ASDA (Department of Agriculture, Sri Lanka).
- Reviewer of competitive research grants, progress reports and terminal reports of National Science Foundation (Sri Lanka) and Sri Lanka Council for Agricultural Research Policy.
- Reviewer of the research team, Field Crops Research and Development Institute, Department of Agriculture, Sri Lanka 2013
- Reviewer of the Plant Pathology working group of Department of Agriculture, Sri Lanka in 2014, 2015, 2016

- **Positions held**

- Head of the Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya, Sri Lanka from 13 September 2013 to 13 September 2016
- As a senate member of the University of Peradeniya, Sri Lanka from 13 September 2013 onwards
- As a senate appointed member of Selection panels and selections committees in University of Peradeniya, University of Colombo, University of Ruhuna, Wayamba University of Sri Lanka, Rajarata University of Sri Lanka and Eastern University, Sri Lanka from 2013 onwards