CURRICULUM VITAE

K.W.L.K. Weerasinghe (Ph.D)

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Nationality: Sri Lankan
Sex – Male
Age – 47

Education

February 2010 to December 2013	**PhD in Crop Eco-physiology,** Australian National University, Canberra, Australia Thesis title: Impact of abiotic stress on leaf respiration of tropical and temperate tree species.
October 2003 to October 2008	**M.Phil. in Crop Science,** Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka. Thesis title: A comparative analysis of different methods of developing tea (*Camellia sinensis* L.) nursery plants for field establishment.
October 1998 to March 2003	**B.Sc. (Agriculture)**, University of Peradeniya, Sri Lanka. Specialized in Crop Science, 2nd Division Upper Honours

Memberships

1. Life member of the Institute of Biology, Sri Lanka
2. Member of the Australian Society of Plant Scientists
3. Member of the European Geoscience Union

Work Experience

November 2021 to date	Professor**,** Department of Crop Science, Faculty of Agriculture, University of Peradeniya, Sri Lanka.
December 2013 to November 2021	Senior Lecturer, Department of Crop Science, Faculty of Agriculture, University of Peradeniya, Sri Lanka.
January 2006 to December 2013	Lecturer, Department of Crop Science, Faculty of Agriculture, University of Peradeniya, Sri Lanka.
May 2005 to December 2005	Research Officer, Coconut Research Institute of Sri Lanka, Lunuwila.
January 2005 to April 2005	Graduate Trainee, Department of Agriculture, Central Provincial Council, Sri Lanka.
August 2003 to December 2004	Research Assistant, Tea Research Institute of Sri Lanka, Talawakele.
April 2003 to July 2003	Assistant Lecturer, Department of Crop Science, Faculty of Agriculture, University of Peradeniya, Sri Lanka.

Scholarships and Awards

- Research Excellence Award under tier 4* category in 2020; awarded by the University of Peradeniya under the criteria developed by the University Grants Commission of Sri Lanka
- Annual Research Excellence Award 2018 and 2019 (Senior Lecturer Category) Faculty of Agriculture, University of Peradeniya.
- Sri Lanka President's Award for Highly Rated Scientific Publications – 2013, 2014, 2015 & 2016.
- Journal of Tree Physiology Award (Oxford Journal) for the Best Graduate Student Paper 2014.
- Australian Leadership Award 2009 for PhD studies (2010-2013) at the Australian National University, Canberra, Australia.

Teaching

Undergraduate Teaching at Faculty of Agriculture, University of Peradeniya

- CS 1202 - Plantation Crop Production I

- CS 2201 - Plantation Crop Production II
- CS 2102 - Handling of Products from Perennial, Field and Horticultural Crops
- CS 3202 - Management of Rubber, Coconut and Export Agriculture Crops
- CS 3205 - Commercial Nursery Management
- CS 4101 - Tea Plantation Management
- CS 4104 – Scientific Research and Communication in Crop Science

Postgraduate Teaching at Postgraduate Institute of Agriculture, University of Peradeniya

- CS 5101 - Principles of Crop Production
- CS 5130 - Cultivation and Processing of Plantation Crops
- CS 5137 - Agronomy of Plantation Crops
- CS 5141 - Emerging Trends in the Plantation Industry
- CS 5210 - Plant Functional Traits
- CS 5211 - Tree Crop Physiology
- CS 5232 - Physiological Basis of Horticultural Crop Production
- CS 5238 - Yield Physiology of Plantation Crops

Selected Appointments

- Chairperson, Young Scientist Forum (National Science and Technology Commission) of Sri Lanka (2019 & 2020).
- Member of the Steering Committee, Young Scientist Forum, National Science and Technology Commission of Sri Lanka (2017 to 2020).
- Joint Secretary, Young Scientist Forum, National Science and Technology Commission of Sri Lanka (2018).
- Secretary, Board of Study in Biostatistics, Postgraduate Institute of Agriculture, University of Peradeniya (2017 to 2021).
- Member, Board of Study in Biostatistics, Postgraduate Institute of Agriculture, University of Peradeniya (2015 to 2021).
- Senior Student Counsellor, University of Peradeniya (2017, 2018 & 2020)
- Chairperson – Library Committee, Faculty of Agriculture, University of Peradeniya – (2018 to 2020).

Research Interests: Plantation Agriculture, Eco-physiology

Research Grants Received

1. Title: Exploring phosphorus nutrition dynamics and physiological responses of mung bean to drought conditions. Funded by the University of Peradeniya. Grant number: (URG/2019/44/Ag). As a co-investigator. (Rs: 844,500.00). On-going.

2. Title: Combined effects of heat and soil water stress on agronomy and physiology of selected field, horticultural and plantation crops of Sri Lanka. Funded by the World Bank. Grant number: # 29 from Accelerating Higher Education Expansion and Development (AHEAD) project. As a co-investigator. (Rs: 40 million). In collaboration with Rajarata University of Sri Lanka. Completed.

3. Title: Quantification of the response of tropical rainforests of Sri Lanka to increased atmospheric temperature for prediction of the impact of future climate change on their carbon balance and biodiversity. Funded by National Science Foundation of Sri Lanka (Grant No: NTRP/2017/CC&ND/TA-04/P-01/01). As a co-investigator, (Rs: 20.5 million).

4. Title: Developing sustainable cropping system to minimize the environmental pollution in the fruit and vegetable based cropping system at Kalpitiya, Sri Lanka. Funded by the University of Peradeniya. Grant number: (URG/2016/04/Ag). As a co-investigator, (Rs: 979,000.00). Completed.

5. Title: Evaluation of morphological and phenological characteristics of different accessions of Lablab purpureus (L.): an underutilized vegetable legume. Funded by the University of Peradeniya. Grant number: (URG/2016/99/Ag). As the Principle Investigator. (Rs: 509,640.00). Completed.

6. Title: Optimizing net assimilation rates of two greenhouse vegetable crops through simulation modeling of leaf photosynthesis. Funded by the University of Peradeniya. Grant number: (URG/2014/03/Ag). As the Principle Investigator. (Rs. 673,200.00). Completed. Discontinued the research half way through due to malfunctioning of the major instrument used for the data collection.

7. Title: An alternative method of developing tea nursery plants for field establishment. Funded by the University of Peradeniya. Grant number: (URG/2007/01/Ag). As the Principle Investigator. (Rs. 72,500.00). Completed.

Publications – Peer Review Index Journals

1. Ellsworth, D. S., Crous, K. Y., De Kauwe, M. G., Verryckt, L. T., Goll, D., Zaehle, S., ... **Weerasinghe, K.W.L.K.** & Wright, I. J. (2022). Convergence in phosphorus constraints to photosynthesis in forests around the world. Nature communications, 13(1), 5005.

2. Wijayaraja, I., Piyarathne, M., Alahakoon, T., Devasinghe, U., **Weerasinghe, L**., Kumarathunge, D., ... & Geekiyanage, N. (2022). Acclimation of Ecophysiological and Agronomic Traits to Increasing Growth Temperature in Three Cowpea Genotypes Grown in Anuradhapura, Sri Lanka. International Journal of Agronomy, 2022.

3. Zhu, L., Bloomfield, K.J., Asao, S., Tjoelker, M.G., Egerton, J.J., Hayes, L., **Weerasinghe, L.K**., Creek, D., Griffin, K.L., Hurry, V. and Liddell, M., & Atkin, O. K. (2021). Acclimation of leaf respiration temperature responses across thermally contrasting biomes. *New Phytologist*, 229(3), 1312-1325.

4. Falster, D., Gallagher, R., Wenk, E. H., Wright, I. J., Indiarto, D., Andrew, S. C., O'Sullivan, O. S., ..**Weerasinghe, L.K**., & Ziemińska, K. (2021). AusTraits, a curated plant trait database for the Australian flora. *Scientific Data*, 8(1), 1-20.

5. Guilherme Pereira, C., Hayes, P. E., O'Sullivan, O. S., **Weerasinghe, L. K**., Clode, P. L., Atkin, O. K., & Lambers, H. (2019). Trait convergence in photosynthetic nutrient-use efficiency along a 2-million year dune chronosequence in a global biodiversity hotspot. *Journal of Ecology*, 107(4), 2006-2023.

6. Smith, N. G., Keenan, T. F., Colin Prentice, I., Wang, H., Wright, I. J.,. **Weerasinghe, L. K.,** (2019). Global photosynthetic capacity is optimized to the environment. *Ecology letters*, 22(3), 506-517.

7. Zhu, L., Bloomfield, K. J., Hocart, C. H., Egerton, J. J., O'Sullivan, O. S., Penillard, A., **Weerasinghe, L. K.** & Atkin, O. K. (2018). Plasticity of photosynthetic heat tolerance in plants adapted to thermally contrasting biomes. *Plant, Cell & Environment*, 41 (6), 1251-1262.

8. Liang, L, Arcus V, Heskel MA, O'Sullivan O, **Weerasinghe L.K**, Creek D, Egerton J., Tjoelker M., Atkin O.K., Schipper L. (2018). Macromolecular rate theory (MMRT) provides a thermodynamics rationale to underpin the convergent temperature response in plant leaf respiration. *Global Change Biology*, 24 (4), 1538-1547.

9. Togashi, H. F., Atkin, O. K., Bloomfield, K. J., Bradford, M., Cao, K., **Weerasinghe, L. K.** & Liddell, M. J. (2018). Functional trait variation related to gap dynamics in tropical moist forests: A vegetation modelling perspective. *Perspectives in Plant Ecology, Evolution and Systematics*, 35, 52-64.

10. Fyllas, N. M., Bentley, L. P., Shenkin, A., Asner, G. P., Atkin, O. K., & **Weerasinghe, L. K**. (2017). Solar radiation and functional traits explain the decline of forest primary productivity along a tropical elevation gradient. *Ecology Letters*, 20(6), 730–740.

11. Bahar, N. H., Ishida, F. Y., **Weerasinghe, L. K**., Guerrieri, R., O'Sullivan, O. S., Bloomfield, K. J., & Phillips, O. L. (2017). Leaf-level photosynthetic capacity in lowland Amazonian and high-elevation Andean tropical moist forests of Peru. *New Phytologist*, *214*(3), 1002-1018.

12. O'sullivan, O. S., Heskel, M. A., Reich, P. B., Tjoelker, M. G., **Weerasinghe, L. K**., Penillard, A., .& Bahar, N. H. (2017). Thermal limits of leaf metabolism across biomes. *Global Change Biology*, 23(1), 209-223.

13. Scafaro, A. P., Xiang, S., Long, B. M., Bahar, N. H., **Weerasinghe, L. K**., Creek, D., & Atkin, O. K. (2017). Strong thermal acclimation of photosynthesis in tropical and temperate wet-forest tree species: the importance of altered Rubisco content. *Global Change Biology*, 23(7), 2783-2800.

14. Raveendra, S.A.S.T., Atapattu A.A.J., Senarathne, S.H.S., Ranasinghe, C.S. & **Weerasinghe, K.W.L.K.** (2017). Evaluation of the carbon sequestration potential of intercropping systems under coconut in Sri Lanka. *International Journal of Geology, Earth & Environmental Sciences*. 7(1), 1-7.

15. Heskel, M. A., O'Sullivan, O. S., Reich, P. B., Tjoelker, M. G., **Weerasinghe, L. K**., Penillard, A., . & Sinca, F. (2016). Convergence in the temperature response of leaf respiration across biomes and plant functional types. *Proceedings of the National Academy of Sciences*, 113(14), 3832-3837.

16. Heskel, M. A., Atkin, O. K., O'Sullivan, O. S., Reich, P., Tjoelker, M. G., **Weerasinghe, L. K**., . & Xiang, J. (2016). Reply to Adams et al.: Empirical versus process-based approaches to modeling temperature responses of leaf respiration. *Proceedings of the National Academy of Sciences*, 113 (41) E5996-E5997.

17. De Kauwe, M. G., Lin, Y. S., Wright, I. J., Medlyn, B. E., Crous, K. Y., Ellsworth, D. S., **Weerasinghe, L. K**.,. & Domingues, T. F. (2015). A test of the 'one-point method for estimating maximum carboxylation capacity from field-measured, light-saturated photosynthesis. *New Phytologist*, 210 (3), 1130-1144.

18. Atkin, O. K., Bloomfield, K. J., Reich, P. B., Tjoelker, M. G., Asner, G. P., Bonal, D., **Weerasinghe**, **L. K**. ..& Zaragoza-Castells, J. (2015). Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. *New Phytologist*, 206(2), 614-636.

19. **Weerasinghe, L. K**., Creek, D., Crous, K. Y., Xiang, S., Liddell, M. J., Turnbull, M. H., & Atkin, O. K. (2014). Canopy position affects the relationships between leaf respiration and associated traits in a tropical rainforest in Far North Queensland. *Tree Physiology*, *34*(6), 564-584.

20. Gauthier, P. P., Crous, K. Y., Ayub, G., Duan, H., **Weerasinghe, L. K**., Ellsworth, D. S., . & Atkin, O. K. (2014). Drought increases heat tolerance of leaf respiration in Eucalyptus globulus saplings grown under both ambient and elevated atmospheric [CO_2] and temperature. *Journal of Experimental Botany*, 65 (22), 6471-6485.

21. O'sullivan, O. S., **Weerasinghe, K. W. L. K**., Evans, J. R., Egerton, J. J., Tjoelker, M. G., & Atkin, O. K. (2013). High-resolution temperature responses of leaf respiration in snow gum (*Eucalyptus pauciflora*) reveal high-temperature limits to respiratory function. *Plant, Cell & Environment*, 36(7), 1268-1284.

22. **Weerasinghe, K.W.L.K**., Suriyagoda, L.D.B., Weerakkody, W.A.P. (2011). Combined and individual effects of forced-air ventilation, thermal covering and misting on greenhouse environment control. *Sri Lankan Journal of Agricultural Science* 48, 18-28.

23. Abeykoon, A.M.K.C.K., Fonseka, R.M., Paththinige, S., **Weerasinghe, K.W.L.K.** (2010). Fertilizer requirement for densely planted Okra (Abelmoschus esculentus L.). *Sri Lanka Journal of Tropical Agriculture Research* 21: 275-283.

24. **Weerasinghe, K.W.L.K., Wijeratne**, M.A, Sangakkara, U.R. (2007). Growth of nursery plants in tea (*Camellia sinensis* L.) as affected by type of cutting and planting media. Sri Lanka Journal of Tropical Agriculture Research 19: 170-180.
25. **Weerasinghe, K.W.L.K**., Wijeratne, M.A, Sangakkara, U.R. (2007). Impact of type of nursery plant and planting method on early growth of field established tea (Camellia sinensis L.). *Sri Lanka Journal of Agricultural Science* 44: 25-37.
26. Weerakkody, W.A.P., Chandima, T.M., **Weerasinghe, K.W.L.K**., Wahundeniya, K.B. (2007). Growth and yield performances of salad cucumber (*Cucumis sativus* L.) under greenhouse conditions. *Sri Lankan Journal of Agricultural Science* 44: 75-87.

Publications: Book Chapters

Weerasinghe, K.W.L.K., Geekiyanage N. and Kumarathunge M.D.P. (2020). Response of crops to heat stress in a warming world: Adaptation measures under Sri Lankan context. In: Adapting to Climate Change: A Sri Lankan perspective. H.I.U. Caldera and S.A.C.N. Perera (Eds.), Institute of Biology Sri Lanka, Colombo. pp. 51-72.

Peer Review Presentations (Full paper publications)

Karunarathne, C.L.S.M., Chamindika, B.G.L., Weerakkody, W.A.P., **Weerasinghe, K.W.L.K**. and Hettiarachchi, H.A.N.S. (2015). Influence of supplemental lighting on reducing pre-mature fruit drop and increasing fruit yield of greenhouse gherkins. Proceeding of the 2nd International Conference on Agriculture and Forestry, Vol. 1, 2015, pp. 82-89.

Conference proceedings (published as extended abstracts/abstracts)

1. Alahakoon, A.M.T.M., Wijayaraja, I., Piyarathne, M., Devasinghe, D.A.U.D., **Weerasinghe, L.K**., Kumarathunge, D.P., Dissanayake, D.M.D., Sanjeewa, T.A.B. D., Egodawatta, W.C.P., Duminda D.M.S., Rathnayake R.A.A.S., Malawiarachchi, W., Amarathunge, S., De Costa W.A.J.M., Geekiyanage, N. (2020). Seasonal variation of yield and physiological traits of cowpea cultivated in the dry zone of Sri Lanka. Proceedings of the National Conference on Multidisciplinary Research, Young Scientists' Association, National Institute of Fundamental Studies, Sri Lanka. p 12.
2. Wijayaraja, I., Devasinghe, D.A.U.D., **Weerasinghe, L.K**., Kumarathunge, M.D.P., Dissanayake, D.M.D., Herath, U.S., Sanjeewa, T.A.B.D., Egodawatta, W.C.P., Weerasinghe, P.A., De Costa, W.A.J.M., Geekiyanage, N. (2020). Yield determining physiological and agronomic parameters of three cowpea varieties grown in Anuradhapura, Sri Lanka. Proceedings of Annual Sessions, Young Scientist Forum of National Science and Technology Commission, Sri Lanka. p 217- 222.

3. **Weerasinghe, L.K**., Ishida, Y., Guerrieri, R., O'Sullivan, O.S., Asner G.P., Cosio, E.G., Domingues, T.F., Lloyd, J., Malhi, Y., Martin, R.E., Patrick Meir, P., Phillips, O.L., Salinas, N. and Atkin, O.K. (2019). Leaf respiration in tropical forests along a phosphorus and elevation gradient in the Amazon and Andes. ATBC-Asia Pacific Chapter Meeting, Sri Lanka. p.151-152.

4. Wijayaraja, I., Kumarathunge, D.P., **Weerasinghe, L.K**., Goodale, U.M., Wijesundara, S., Iqbal, M.C.M., and Geekiyanage, N. (2019). Future of leaf photosynthesis in tropical warm climates: A case study from a tropical dry forest in Sri Lanka. *Proceedings of Research Symposium on Dry Zone Forests,* BMICH, Colombo, Sri Lanka. p.15

5. Gunaratne, L. H. P., Hemachandra, K.S., Kumudumali, Y.M.K., Manawasinghe, N.K.G.K.R., Sathischandra, H. G. A.S., Soorasena, J. M., Thelasinghe, T. H. M. U. M., Upali, W. S. P. Y., Weerakkody, W. A. P., **Weerasinghe, K. W. L. K.** and Weerawarna, S. B. A. (2019). Comparative assessment of vegetable crop performances and ecological indicators during transition from conventional to ecological agriculture. *Proceedings of the Peradeniya University International Research Sessions (iPURSE).* University of Peradeniya, Peradeniya, Sri Lanka. p.36

6. Togashi, H.F., Prentice, I.C., Atkin, O.K., Bloomfield, K.J., Bradford, M., **Weerasinghe, L.K.,** Harrison, S.P., Evans, B.J., Liddell, M.J., Wang, H., Cao K.F., and Fan, Z. "Plant functional types are more efficient than climate in predicting spectrums of trait variation in evergreen angiosperm trees of tropical Australia and China." 2015 AGU Fall Meeting. 14-18 December 2015, San Francisco, USA.

7. Heskel, M., Atkin, O.K., O'Sullivan, O.S., Reich, P.B., Tjoelker, M.G., **Weerasinghe, L.K**., Penillard, A., Egerton, J.J.G., Creek, D., Bloomfield, K.J., Xiang, J., Sinca, F., Stangl, Z., la Torre, A.M., Griffin, K.G., Huntingford, C., Hurry, V., Meir, P. and Turnbull, M. (2015) "Global Patterns in Leaf Respiration and its Temperature Response." AGU Fall Meeting, San Francisco, USA.

8. Atkin, O.K. and the **GlobResp Team** (2015). Global variability in leaf respiration in relation to climate and leaf traits. European Geosciences Union - General Assembly Center, 12-17 April, 2015, Vienna, Austria.

9. Bahar, N.H., **Weerasinghe, L**., O'Sullivan, O., Guerrieri, R., Ishida, Y., Salinas, N., Cosio, E., Domingues, T., Meir, P., Lloyd, J., Malhi, Y., Asner, G., Martin, R., Evans, J. and Atkin, O. (2013). The influence of nutrient gradients on the photosynthesis-leaf nitrogen relationship in Peruvian Andes tropical forests. 98th Annual Meeting Ecological Society of America, Minneapolis, Minnesota, USA. PS 84-142.

10. **Weerasinghe, L**., Creek, D., Crous, K., Xiang, S. and Atkin, O. Assessing the contribution of leaf respiration to the carbon economy of tropical rainforest tree species. European Geosciences Union - General Assembly Center April 7-12, 2013, Vienna, Austria.

11. **Weerasinghe, K.W.L.K**., Creek, D., Crous, K.Y., Xiang, S., Egerton, J.J.G., Ng, D. and Atkin. O.K. (2012). Assessing the impact of latitudinal variations in growth temperature on the carbon economy and associated leaf traits of tropical and temperate tree species. ComBio-2012 Adelaide, Australia. SYM-42-05.

12. Gauthier, P.G., Bahar, A.N., Gauthier, J., **Weerasinghe, K.W.L.K**., Tjoelker, M.G., Evans J.R. and Atkin, O.K. (2012). Exploring the impacts of drought on leaf gas exchange of 20 evergreen broadleaved tree species: lessons from climate models. ComBio-2012, Adelaide, Australia. SYM-48-02.

13. **Weerasinghe, K.W.L.K**., Bloomfield, K., Lloyd, L., Meir, P, Atkin, O.K. Response of leaf respiration and photosynthesis of seven tropical tree species to phosphorus deficiency. (2010). IUFRO Canopy Processes Conference - Canopy Processes in a Changing Climate. Victoria and Tasmania, Australia. P 141.

14. Weerakkody, W.A.P., Chandima, T.M., **Weerasinghe, K.W.L.K**., Wahundeniya, K.B. (2006). Growth and yield of Salad Cucumber (Cucumis sativus L.). 10th Anniversary International Symposium of Sabaragamuwa University of Sri Lanka, p 20.

15. **Weerasinghe, K.W.L.K**., Mohotti K.M., Herath, C.N.P., Hitinayake, H.M.G.S.B. (2005). Biological and chemical properties of "Vermiwash", a natural plant growth supplement for Tea, Coconut and Horticultural Crops. 10th Annual Forestry and Environment Symposium, Thulhiriya, Sri Lanka, p 70.

16. Mohotti, K.M., Herath, C.N, **Weerasinghe, K.W.L.K**., Navaratne, N. (2004). Nematicidal properties of "Vermiwash": A case study with root lesion and root knot nematodes. Africa Asia and South America Regional Symposium on Natural Products, Kandy, Sri Lanka, p 28.

Research Student Supervision - PhD students:

1. R.K.R.M. Ajith Gunasena (PGIA/19/004): The influence of the growing environment, varietal variations and extraction methods on value added Coco pith products. Postgraduate Institute of Agriculture, University of Peradeniya (Co Supervisor) - Ongoing.

2. D.P. Karunananda (PGIA/18/236): Evaluation of agronomic and physiological characters of *Lablab purpureus* (L.): a potential vegetable legume crop under different temperatures and soil moisture regimes. Postgraduate Institute of Agriculture, University of Peradeniya (Co Supervisor) - Ongoing.

Non Related Referees

1. Prof. S. Samita

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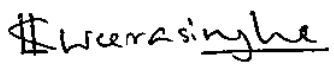
I hereby certify that the particulars provided above are true and accurate to the best of my Knowledge.



L.K. Weerasinghe
01/05/2023.