



Associate Professor PAIBOOLYA GAVINLERTVATANA (Ph.D.)

PERSONAL

AGE : 75 Years

NATIONALITY: Thai

LANGUAGES : English, Thai

ADDRESS : 172 Soi Ramindra 67 Yak 6, Khannayao, Bangkok
10230

EDUCATION

Ph.D. (Horticulture), University of Minnesota, USA, 1978

M.Sc. (Horticulture), University of Minnesota, USA, 1975

B.Sc. (Hons.) (Horticulture), Chiangmai University, Thailand 1972

EXPERTISE

Biotechnology in Tissue Culture, Horticulture, Agroforestry and Climate crisis

EXPERIENCE

1991- Present	President of Thai Orchids Lab Co., Ltd.
2021-Present	Chairman of the advisory committees; Agriculture and Forestry Climate Change Research Center, Agriculture Faculty, Chiangmai University, Chiangmai, Thailand
2024	Advisor to the Minister of Natural Resources and Environment
2024	Committees; Coordination center, Plant Genetic Conservation Project under the Royal initiative of Her Royal Highness Princess Maha Chakri Sirindhorn, Rajamangala University of Technology Rattanakosin, Thailand
2020-Present	Academic Council Subcommittees; Rattanakosin International College of Creative Entrepreneurship Rajamangala University of Technology Rattanakosin, Thailand
2020-Present	Academic Council Committees; Rattanakosin International College of Creative Entrepreneurship, Rajamangala University of Technology Rattanakosin, Thailand
2013-2016	Vice-Rector; College of Agricultural Innovation and Biotechnology, Rangsit University, Bangkok, Thailand
1989-1990	Research and Operations Manager; Plantek International (Pte) Ltd., Singapore
1987-1989	Technical Manager; Plantek Interantional (Pte) Ltd., Singapore
1985-1987	Laboratory Manager & Senior Scientist; Plantek Interantional (Pte)Ltd., Singapore
1979-1985	Associate Professor; Kasetsart University, Thailand

AWARDS&RECOGNITION

2023	An Outstanding Alumni Award , Faculty of Agriculture,Chiangmai University, Chiangmai, Thailand.
1992	An Outstanding Achievement Award ; Faculty of Agriculture,Chiangmai University, Chiangmai, Thailand.
1973 - 1978	The Royal Thai Government Scholarship for M. Sc. and Ph.D. degree, studied at the University of Minnesota, USA.
1968 - 1972	The Kennedy Foundation Scholarship for B. Sc. degree, studied at Chiangmai University, Thailand.
1968 - 1972	Sermsook Co., Ltd. Scholarship for B.Sc. degree, studied at Chiangmai University, Thailand.

NATIONAL AND INTERNATIONAL SERVICE

Invited Speaker in the topic related to Climate Crisis and Sustainability	“Effects of Climate crisis/Global Boiling - The beginning of the start” , Rajamangala University of Technology Rattanakosin (September 19, 2024)
	“Adaptation to Climate Change for Sustainability of Organization”, Rattanakosin College for Sustainable Energy and Environment (RCSEE), Rajamangala University of Technology Rattanakosin (August 4, 2024)
	“Preparation of personnel of Rajamangala University of Technology Rattanakosin to head to carbon neutrality of the University”, Rajamangala University of Technology Rattanakosin (June 20, 2024)
	“The role of University to be carbon neutral for the goal of sustainable development of the Rajamangala University of Technology Rattanakosin”, Coordination center, Plant Genetic Conservation Project Under The Royal initiative of Her Royal Highness Princess Maha Chakri Sirindhorn, Rajamangala University of Technology Rattanakosin (February 16-18, 2024)
	“RMUTR Carbon Neutral University”, Coordination center, Plant Genetic Conservation Project Under The Royal initiative of Her Royal Highness Princess Maha Chakri Sirindhorn, Rajamangala University of Technology Rattanakosin (February 16-18, 2024)
	“Carbon Footprint Organization”, Coordination center, Plant Genetic Conservation Project Under The Royal initiative of Her Royal Highness Princess Maha Chakri Sirindhorn, Rajamangala University of Technology Rattanakosin (February 16-18, 2024)
	“Methods of data collection and corporate greenhouse gas release sources”, Coordination center, Plant Genetic Conservation Project Under The Royal initiative of Her Royal Highness Princess Maha Chakri Sirindhorn, Rajamangala University of Technology Rattanakosin (February 16-18, 2024)
Committee of International conference	Chairman of Science and Technology section ; The 4th RMUTR & 3rd RICE/ Sus-LaB 4 International, Theme: Moving Towards Sustainable Development Goals Conference (August 16 – 18, 2023)
	Chairman of Science and Technology section ; The 6th RMUTR National Conference and the 3rd RMUTR International Conference, The 2nd RICE International Conference 2022, Technology and Creativity Integration Toward New Normal of Digital Society (June 22-24, 2022)
Organizing Committees	Secretary General ; World Teak Conference (2013), (March 25-30, 2013), Plant Genetic Conservation Project under the Royal Initiative of Her Royal Highness Princess Maha Chakri Sirindhon, Centara Grand Hotel, Bangkok, Thailand.

Committee	Development Committee, Faculty of Agriculture, Chiangmai University. Chiangmai, Thailand (1996)
	Technical Committee, National Genetic Engineering and Biotechnology. Bangkok, Thailand. (1995-1996)
	The 6th ASEAN Orchid Congress (1984 - 1985).
	Floricultural & Ornamental Plant Forum of Thailand.
	“Genetic Engineering & Biotechnology Working Group”, Kasetsart University (1984 - 1985).
	Faculty of Agricultural Research (1983 - 1985)
	“Academic Study & Research”, Horticulture Department. Kasetsart University (1980 - 1983)
	“National Agriculture Fair” (1979 - 1985)
	Curriculum Development Committee. Singapore Polytechnic, Singapore. (1988-1989)
President	St. Joseph Foundation for The Ages St. Joseph’s Church, Nakornayork, Thailand. (1992-1997)
Advisor	Rattan Micropropagation. Chitladda Palace, Bangkok, Thailand. (1989-1990)
	Orchid Production in Mauritius. Ministry of Agriculture and Natural Resources, Mauritius. 1997
	Commercial Floricultural Production in North Vietnam. Hanoi Agriculture University, Hanoi, Vietnam.
	Commercial Orchids Cutflower Production in Jamaica. Jamaica Floral Export Limited, Jamaica. (1992-1997)
	Floricultural Production in Jamaica, and Trinidad and Tobago, International Trade Center/UNCTAD GATT, Geneva, Switzerland (1992)
	Floricultural Production and Marketing for The Western Samoa. Forum Secretariat, Fiji (1991)
	Floricultural Production in The Caribbean Countries, International Trade Center/UNCTAD-GATT, Geneva, Switzerland (1991)
	Micropropagation of Bamboo in Selected S.E. Countries, FAO., Bangkok, Thailand (1990)
	Winrock International (Team Leader), Bangkok, Thailand. (1987)
	Floricultural Advisor (Team Leader) FAO, Rome, Italy. (1983)
	Floricultural Advisor to Sri Lanka Government, ITC/UNCTAD-GATT’S Advisor, Sri Lanka. (1981)
	Coordinator
KU-ACNARP, Faculty of Agriculture, Kasetsart University, Thailand. (1984 - 1985)	
Chairman	Departmental Research Group, Horticulture Department, Kasetsart University (1984).
	“Working Group for the Establishment of Plant Tissue Culture Forum of Thailand” (1982).
Secretary General	Committee for a Doctorate Programme at Horticultural Department, Kasetsart University (1983 - 1984).
Secretary	Plant Tissue Culture Forum of Thailand. (1982 - 1985)
Member	Advisory Panel, Singapore Polytechnic (1989)
Head	Thai Delegation for ASEAN-EEC Conference on Horticultural Production and Marketing, Bangkok, Thailand (1982)

RESEARCH ACTIVITIES

Principal Investigator	Healthy Flour Product Innovation from Thai Native Banana for Commerce; Project Head (Grant source: Biodiversity-Based Economy Development Office (Public Organization); Budget: 2,000,000 Baht; 2017), Completed.
	Prototype Formulation of Prebiotics Instant Noodle from Banana Flour to Accommodate a Healthy Society; Project Head (Grant source: National Innovative Agency (NIA); Budget: 2,075,000 Baht; 2017), Completed.
	Sugarcane Improvement through Tissue Culture. Funded by: Kasetsart University Research and Development Institute, Kasetsart University, Thailand. 1980-1983
	Propagation of Papaya through Tissue Culture. Funded by: Kasetsart University Research and Development Institute, Kasetsart University, Thailand, 1981-1983
	Propagation of Orchids through Tissue Culture. Funded by: Kasetsart University Research and Development Institute, Kasetsart University, Thailand, 1982-1984.
	Tissue Culture of Amaryllis. Funded by: Kasetsart University Research and Development Institute, Kasetsart University, Thailand. 1982-1984
	Tissue Culture Propagation of Good Oil Palm for Thai Growers. Funded by: National Center for Biotechnology and Genetic Engineering. Ministry of Science and Technology, Thailand. 1984-1986
	In vitro Germplasm Collection of Bamboo. Funded by: USAID/PSTC, USAID, Washington. D.C. 1985-1989
	Application of Biotechnology for the Genetic Improvement of Tropical Plantation Crops. Funded by: RDAS programme, Singapore Science Council, Singapore. 1985-1989
	Scale-up of Tissue Culture Processes for Multipurpose Tree Species, and Comparative Field Evaluation of Tissue Cultured and Seed Generated Glants. Funded by: Winrock International, Washington, D.C. 1988-1991
	Cloning of Elite Cashew Trees by Generating Juvenility through Micrograft using Tissue Culture Technology. Funded by: USAID/PSTC, Washington, D.C.
	Commercial Tissue Culture Production of Bamboo and Eucalyptus. Funded By: STDB. Ministry of Science and Technology and Environment. Bangkok, Thailand.
	Scale - up Tissue Culture Production of Banana Using Bioreactor, Funded by: Technology Transfer, Ministry of Science and Technology and Environment. Bangkok, Thailand.
Co-researcher	Increasing Productivity of Bioactive Compound in <i>C. militaris</i> by Solid State Fermentation in Pilot Scale; Co-Researcher (Grant source: National Innovative Agency (NIA); Budget: 2,174,500 Baht; 2017), Completed.
Project manager	Action Plan to Save Orchid Industry in Thailand. Funded by: FAO, United Nations, Rome. Italy. 1983
Project Advisor	Development of Value Added Chained of Non-Timber Resource in Teak Industrial for Supporting National Forest Economy Base Policy; Project Advisor (Grant source: The Thailand Research Fund; Budget: 2,608,000 Baht; 2022), Completed.

PAPERS / PUBLICATIONS

1. Laohaphatanalert, K., **Gavinlertvatana, P.**, Apisittiwong, P. and Boonsiriwit, A. 2024. Potentiality of Using Teak (*Tectona grandis*) Leaf to produce Antioxidant Herbal Tea. *Pakistan Journal of Life and Social Sciences*. 22, pp. (article in press)
2. Laohaphatanalert, K. and **Gavinlertvatana, P.** 2021. Potential of Chinese herb “*Cordycep sp.*” As a Food Medicine. *Rice Journal of Creative Entrepreneurship and Management*.
3. Leardwiriyakool Chaiya, **P. Gavinlertvatana**, N. Teaumroong, W. Pathom-aree, A. Chaiyasen, Rungroch Sungthong and S. Lumyong. 2021. Enhancing Teak (*Tectona grandis*) Seedling Growth by Rhizosphere Microbes: A Sustainable Way to Optimize Agroforestry. *Environmental Science, Agricultural and Food Sciences*. DOI:10.3390/microorganisms9091990.
4. Laohaphatanalert, K., P. Powthong, B. Juntranupakorn and **P. Gavinlertvatana**. 2017. In Vitro Pharmacological Properties of Ethanol Crude Extract from Medicinal Mushroom; *Cordycep militaris* TOLA00 (Abstract only). *International Conferences on Food Science and Nutrition*. 25-26 October. Malaysia.
5. Laohaphatanalert K. Chunkajorn **P. Gavinlertvatana P.** and Wanlapatit S. 2017. Hin banana flour; a revolutionary of preventive health care trend in food industries (Oral Presentation). *Proceeding in International Conferences on Food Science and Nutrition*. 25-26 October. Malaysia. 103-107.
6. Khamsucharit P., K. Laohaphatanalert, **P. Gavinlertvatana**, K. Sriroth and K. Sangseethong. 2017. Characterization of pectin extracted from banana peels of different varieties. *Food Science and Biotechnology*. DOI: 10.1007/s10068-017-0302-0. 1-7.
7. Panchai, T., K. Laohaphatanalert, **P. Gavinlertvatana** and K. Sriroth 2017. Solid State Cultivation of the Selected Fungus Strains for Protein Increment in Fresh Cassava Pulp. *Suranaree J. Sci. Technol.* (Online).
8. A. Chaiyasen, D. Douds, **P. Gavinlertvatana** and S. Lumyong. 2017. Diversity of arbuscular mycorrhizal fungi in *Tectona grandis* Linn.f. plantations and their effects on growth of micropropagated plantlets. *Biology, Environmental Science*. DOI:10.1007/s11056-017-9584-6.
9. A. Chaiyasen, J. P. Young, N. Teaumroong, **P. Gavinlertvatana** and S. Lumyong. 2014. Characterization of Arbuscular Mycorrhizal Fungus Communities of *Aquilaria crassna* and *Tectona grandis* Roots and Soils in Thailand Plantations. *Plos One*. DOI:10.1371/journal.pone.0112591.
10. P. Prutpongse and **P. Gavinlertvatana**, 1992. In Vitro Micropropagation of 54 Species from 15 Genera of Bamboo. *Agricultural and Food Sciences, Biology*. DOI:10.21273/HORTSCI.27.5.453.
11. **Gavinlertvatana, P.** and S. Duangtisan. 1989. Tissue Culture Commercialization. Presented at the Seminar on Commercialization of RD&E in Biotechnology on August 27-30, 1989. Hua Hin. Thailand.
12. Nathan, J. and **P. Gavinlertvatana**. 1989. Clonal Mass Propagation of *Leucaena leucocephala* (Lam.) de wit Using Tissue Culture Technology. *Plantek-winrock Seminar on Forest Tree Tissue Culture* on August 17-18, 1989. Singapore.

13. Jalil, K. and **P. Gavinlertvatana**. 1989. Development of Micropropagation System for Mature Eucalyptus Camaldulensis. Plantek-winrock Seminar of Forest Tree Tissue Culture on August 17-18, 1989. Singapore.
14. Siew Tin. Lim and **P. Gavinlertvatana**. 1989. In vitro propagation of Acacia auriculiformis A. Cunn. ex. Benth. and Acacia mangium Wild. Plantek-winrock Seminar on Forest Tree Tissue Culture on August 17-18, 1989. Singapore.
15. **Gavinlertvatana, P.** and S.T. Lim. 1989. An Overview of Tissue Culture of Spices: Technology and Perspective. Second Meeting of the International Spice Group. Singapore. 6-11 March 1989.
16. **Gavinlertvatana, P.**, S. Duangtisan and R.C. Barba. 1988. Impact of Biotechnology on Germplasm Introduction. International Symposium on Introduction of Germplasm and plant Quarantine Procedures. Malaysia. 14-15 December 1988.
17. Nathan, J., T. Varghese, E.P. Sim and **P. Gavinlertvatana**. 1988. The Application of Tissue culture Methods in Vegetative Propagation of Citrus, Eucalyptus and Tea Varieties. BIOTROP, 1988.
18. Prutpongse, P. and **P. Gavinlertvatana**. 1987. Tissue Culture of Bamboos. Seminar on Tissue Culture of Forest Species, Kuala Lumpur. 15-18 June. 1987.(in press)
19. **Gavinlertvatana, P.** and A.C. Matheson. 1987. Present Status and Prospects of tissue culture of F/FRED Priority Species in ASEAN Species. Kuala Lumpur, 15-18 June, 1987(key speaker.)
20. **Gavinlertvatana, P.** 1987. Micropropagation: Research and Application for Horticultural and Plantation crops. 2nd Ann. Conf. of the Int. Pl. Biotech. Network, Tissue Culture for Crops Project. Bangkok. 17-16 Jan, 1987. (Key speaker).
21. **Gavinlertvatana, P.**, T. Varghese, T. Yanisarapun and L. Liou. 1986. Factors Affecting Callus Formation in Elaeis quineensis jacq. "Tenera" Leaf Segment Cultured in vitro. 6th Int. Conc. of Pl. Tissue and Cell Culture. 3-8 August, Minnesota, USA.
22. Vasana, N., **P. Gavinlertvatana** and S. Thammit, 1985. Bamboo Seed Germination and Tissue culture. Proc. of the 23rd Nat. conf., Kasetsart University, Bangkok. pp.288-295.
23. Vasana, N., **P. Gavinlertvatana** and S. Thammit. 1984. Technology Development
24. **Gavinlertvatana, P.** and N. Vasana. 1984. Potentials Conservation of Bamboo by Tissue Culture. Proceeding of the Conference on Biotechnology: Present and Future. Department of Agriculture and Cooperatives.
25. **Gavinlertvatana, P.** and T. Yanisarapun. 1984. Potentials Tissue Culture. The 1st Oil Palm Conference. Suratthani Thailand p. 25-32.
26. **Gavinlertvatana, Paiboolya** and Teerapong Yanisarapun. 1984 Propagation Potentials of Oil Palm through Tissue Culture, Proc. of 22nd Nat. Conference, Kasetsart University Bangkok. pp. 112-118.
27. **Gavinlertvatana, P.** and Renu Shuvisithigul. 1984. Relationship of the Growth of Orchid Tissue to Changes in pH of the Growth Medium. Agricultural Research Journal 2(1):31-37

28. Yanisarapun, Teerapong and **Paiboolya Gavinlertvatana** 1983. Oil Palm Tissue culture. Newsletter of Plant Tissue Culture Forum of Thailand Vol. 3(1):6-17.
29. Phongsuphasamit, Chalit and **Paiboolya Gavinlertvatana**. 1983. Propagation of Alocasia through Tissue Culture. The Kasetsart Journal 17(1):37-41
30. **Gavinlertvatana, Paiboolya**. 1983 Amaryllis Tissue Culture and Virus Determination. Proc. of the 21st Ann. Conf. Plant.
31. Dejkumron, P. and **P. Gavinlertvatana**. 1983. Papaya Tissue Culture. Proc. of the 21st Ann. Conf. Plant Science. Kasetsart University, Bangkok. pp. 704
32. Pornpradupkiat, Tanong and **Paiboolya Gavinlertvatana**. 1982. Callus Induction and Growth of Zea mays L. var. saccharata (super Sweet Corn) Through Tissue Culture. The Kasetsart Journal 16(2): 1-13
33. Phunsiri, Salux, **Paiboolya Gavinlertvatana** and Preedee Akavipat. 1982. Propagation of Amaryllis through Tissue Culture, The Kasetsart Journal 16(10):44-51.
34. **Gavinlertvatana, P.** 1982. Horticultural Production and Marketing in Thailand. In : Proc. of the ASEAN-EEC Seminar.
35. **Gavinlertvatana, P.**, Paul E. Read, H.F. Wilkins and R. Heins. 1982. Ethylene Levels in Flask Atmospheres of Dahlia Pinnata Cav. Leaf Segments and Callus Cultured in vitro. J. Amer.soc. Hort. Sci 107(1):3-6.
36. **Gavinlertvatana, P.** B. Bhojarern and U. Jaranasri. 1981.Sugarcane Tissue Culture: I. Influences of Growth Regulators on Tissue Growth and Development. The Kasetsart Journal 15(1):14-21.
37. **Gavinlertvatana, P.**, P.E. Read and H.F Wilkins. 1980. Control of Ethylene Synthesis and Action by Silver Nitrates and Rhizobitoxine in Petunia Leaf Sections Cultured in vitro. J. Amer.Soc.Hort.Sci 105(3):304-307.
38. Read, P.E., **P. Gavinlertvatana**, P. Suriyajantratong, S. Garton and M.L. Brenner. 1979. Stock Plants Affect Tissue Culture Success. (Abstract only). Proc. Symposium: Propagation of higher plants through tissue culture. Knoxville, Tennessee. 249. Conf.- 7804111. Tech. Int. Ser. U.S. of Energy.
39. **Gavinlertvatana, P.**, Paul E. Read , H.F. Wilkins and R. Heins. 1979. Influence of Photoperiod and Daminozide Stock Plant Pretreatments on Ethylene and CO₂ Level and Callus Formation from Dahlia Leaf Segment Cultures. J Amer. Soc.Hort. Sci. 104(6):849-852.
40. Read, P.E., **P. Gavinlertvatana**, P. Suriyajantratong, S. Garton and M.L. Brenner. 1978. Influence of Stock Plant Pretreatments on the Response of Explants Cultured in vitro. 4th International Congress of Plant Tissue and Cell Culture, Calgary Alberta, Canada.

INTELLECTUAL PROPERTY

Patent, Production process of Cordyceps militaris by grow in Solid medium (February 27, 2019)