

**Robert Edwin Paull** - Professor and Researcher  
2022 October 19, Wednesday - Last five years

**Education:**

1962-1965	University of Sydney, Sydney, Australia B.Sc. Agr. - April 1966, Major - Agronomy
1970-1974	University of California, Berkeley, California PhD - November 1974, Major - Plant Physiology

**Other Training and Certificates:**

Private Pilot Certificate #2118027.  
1983 Short Course; “Postharvest Technology”, University of California, Davis.  
1986 Workshop; “Chairing the Academic Department”, UH - Manoa.  
1997 Workshop; “New Administrators Workshop”, University of Nebraska.  
2001/2002 Leadership Training - ESCOP-ACOP

**Teaching:**

- a) TPSS 473 Postharvest Handling: Lectures and laboratory (Undergraduate course)
- b) TPSS 470 Introductory Plant Physiology (Undergraduate course)
- c) TPSS 470L Introductory Plant Physiology Laboratory (Undergraduate course)

**MS and Doctoral Candidate Advising**

<b>MSc.</b> - <i>Chairman</i>	1
- <i>Member</i>	3
<b>PhD.</b> - <i>Chairman</i>	1
- <i>Member</i>	4

**Cooperating Graduate Faculty Member**

Food Sciences Program in Department of Human Nutrition, Food and Animal Sciences, University of Hawaii at Manoa

**Publications:**

**Editorial Board & Advisor**

Scientia Horticulturae  
Tropical Plant Biology

**Edited Volumes**

- 7. Sanewski, G.M., Bartholomew, D.P. and **Paull, R.E.** eds. (2018). The Pineapple. 2nd Edition Botany, Production and Uses. United Kingdom: CABI, pp. 336.

**Chapters in Books**

- 119. Uthairatanakij, A., Jitareerat, P. and **Paull, R.E.** (2018). Understanding post-harvest deterioration in mangoes. In: V. Galán Saúco, and L. Ping, eds., Achieving sustainable cultivation of mangoes, Cambridge, UK: Burleigh Dodds Science Publishing, pp. 339-376. <https://doi.org/10.4324/9781351114431>

120. **Paull, R.E.** and Chen, C-C. (2018). Postharvest Physiology, Handling, and Storage of Pineapple. In: G.M. Sanewski, D.P. Bartholomew and R.E. Paull eds., *The Pineapple 2nd Edition Botany, Production and Uses*. United Kingdom: CABI, pp. 295-323. <https://doi.org/10.1079/9780851995038.0253>.
121. Wang, M-L., and **Paull, R. E.** (2018) Genetic transformation of Pineapple. In. R. Ming (Editor) *Genetics and Genomics of Pineapple*. Pp 69-86. Springer Nature Switzerland Cham, Switzerland. <https://www.springer.com/us/book/9783030006136>
122. Ketsa, S., Wisutiamonkul, A., Palapol, Y. and **Paull, R.E.** (2019). The Durian: Botany, Horticulture and Utilization. *Horticulture Reviews* 47, 125-211. <https://doi.org/10.1002/9781119625407.ch4>
123. **Paull, R.E.** and Chen, N. J. (2019) Pineapple. In. Freitas, S. T., and Pareek, S. (Eds) *Postharvest physiology disorders of fruits and vegetables*. Pp. 513-527. Taylor and Francis, Boca Raton, Florida, USA. <https://doi.org/10.1201/b22001>
124. Oliveira, J. G., Morales, L. M. M., Silva, W. B., Gomes Filho, A and **R. E. Paull** (2019) Papaya. In. Freitas, S. T., and Pareek, S. (Eds) *Postharvest physiology disorders of fruits and vegetables*. Pp. 467-493. Taylor and Francis, Boca Raton, Florida, USA. <https://doi.org/10.1201/b22001>
125. Paull, R. E. and Oliveira, J.G. 2020. Chapter 17.3 Tropical Fruits: Papaya. Pp 373-379. In: Maria Isabel Gil and Randolph Beaudry (Eds). *Controlled and Modified Atmospheres for Fresh and Fresh-Cut Produce*, Academic Press. <https://doi.org/10.1016/B978-0-12-804599-2.00024-7>
126. Paull, R. E. and Chen, N.J. 2020. Tropical Fruits: Pineapple. Pp 381-388. In: Maria Isabel Gil and Randolph Beaudry (Eds). *Controlled and Modified Atmospheres for Fresh and Fresh-Cut Produce*, Academic Press. <https://doi.org/10.1016/B978-0-12-804599-2.00025-9>
126. Muda, P., N. J. Chen and R. E. Paull, 2020. Postharvest Handling, Storage and Quality. In. *The Papaya: Botany, Production and Uses*. Edited by S. Mitra. Chapter 16. pp 237-251 CAB International. <http://dx.doi.org/10.1079/9781789241907.0000>
127. Oliveira, JG; Fonseca, MJO; Morales, LMM; Paull, RE; 2020. Colheita e Pós-colheita In: Salomão, LCC; Siqueira, DL; Borém, A (Eds) *Mamão do Plantio à Colheita*. Editora UFV, Viçosa, MG. pp.236-263
139. Paull, R. E. and Oliveira, J.G. 2020. Chapter 17.3 Tropical Fruits: Papaya. Pp 373-379. In: Maria Isabel Gil and Randolph Beaudry (Eds). *Controlled and Modified Atmospheres for Fresh and Fresh-Cut Produce*, Academic Press. <https://doi.org/10.1016/B978-0-12-804599-2.00024-7>
140. Paull, R. E. and Chen, N.J. 2020. Tropical Fruits: Pineapple. Pp 381-388. In: Maria Isabel Gil and Randolph Beaudry (Eds). *Controlled and Modified Atmospheres for Fresh and Fresh-Cut Produce*, Academic Press. <https://doi.org/10.1016/B978-0-12-804599-2.00025-9>
141. Muda, P., N. J. Chen and R. E. Paull, 2020. Postharvest Handling, Storage and Quality. p 237-251. In. S. Mitra (Ed). *The Papaya: Botany, Production and Uses*. Edited by S. Mitra. pp 237-251 CAB International. <https://doi.org/10.1079/9781789241907.0237>
142. Oliveira, JG; Fonseca, MJO; Morales, LMM; Paull, RE; 2022. Colheita e Pós-colheita In: Salomão, LCC; Siqueira, DL; Borém, A (Eds) *Mamão do Plantio à Colheita*. Editora UFV, Viçosa, MG. pp.236-263.

### **Peer Reviewed Journal Articles**

132. Chen, L.-Y., R. VanBuren, M. Paris, H. Zhou, X. Zhang, C. M. Wai, H. Yan, S. Chen, M. Alonge, S. Ramakrishnan, Z. Liao, J. Liu, J. Lin, J. Yue, M. Fatima, Z. Lin, J. Zhang, L. Huang, H. Wang, T.-Y. Hwa, S.-M. Kao, J. Y. Choi, A. Sharma, J. Song, L. Wang, W. C. Yim, J. C. Cushman, R. E. Paull, T. Matsumoto, Y. Qin, Q. Wu, J. Wang, Q. Yu, J. Wu, S. Zhang, P. Boches, C.-W. Tung, M.-L. Wang, G. Coppens d'Veckenbrugge, G. M. Sanewski, M. D. Purugganan, M. C. Schatz, J. L. Bennetzen, C. Lexer and R. Ming (2019). "The bracteatus pineapple genome and domestication of clonally propagated crops." *Nature Genetics* <https://www.nature.com/articles/s41588-019-0506-8.pdf>
134. Kotepong, P., Paull, R. E., and Ketsa, S. (2019) Anthocyanin accumulation and differential gene expression in wild-type and mutant of 'Saraek' Malay apple (*Syzygium malaccense*) fruit during growth and ripening. *Biologia Plantarum* 63, 710-720. <https://doi.org/10.32615/bp.2019.068>
135. Paull, R. E., G. Uruu and N. J. Chen. 2020. Rapid Field Assay for Pineapple Fruit Acidity. *HortTechnology* 30, 593-596. <https://doi.org/10.21273/HORTTECH04664-20>
136. Hobbs, J., P. Prakash, R. Paull, H. Hovhannisyann, B. Markowicz, and G. Rose. 2021. Large-Scale Pineapple Flower Counting through Deep Density-Estimation. *Frontiers in Plant Science*. 11, article #2157. <https://doi.org/10.3389/fpls.2020.599705>
137. Zhou, Lili, Maria Eloisa Q. Reyes, and Robert E. Paull. 2020. Papaya (*Carica papaya* L.) leaf area estimation and single-leaf net photosynthetic CO<sub>2</sub> assimilation rate following leaf defoliation and fruit thinning. *HortScience* 55, 1861-1864 <https://doi.org/10.21273/HORTSCI15345-20>
138. Murai, Kana, Nancy Jung Chen and Robert E. Paull 2021. Pineapple Crown and Slip Removal on Fruit Quality and Translucency. *Scientia Horticulturae* 283, 110087. <https://doi.org/10.1016/j.scienta.2021.110087>
139. Paull, R.E. and Chen, N.J. (2020). Tropical fruit genomes and postharvest technologies. *Acta Hort.* 1299, 113-122 <https://doi.org/10.17660/ActaHortic.2020.1299.18>
140. Paull, Robert E., and Gail Uruu. 2020. Reducing Moringa Leaflet Abscission After Irradiation and During Shipping. *HortTechnology* 31, 74-76. <https://doi.org/10.21273/HORTTECH04738-20>
141. Wang, Diane, Imel, Rachel, Paull, Robert and Kantar, Michael. 2021. An online learning module for plant growth analysis using high-throughput phenotyping data. *Natural Sciences Education*. Article ID: NSE220056, <http://dx.doi.org/10.1002/nse2.20056>
142. Yue J-J, R. VanBuren , J. Liu , JP Fang, XT. Zhang , ZY Liao , CM. Wai , XM. Xu , S Chen, SC. Zhang , XK. Ma , YY. Ma , HY. Yu , J. Lin , P. Zhou, YJ Huang, B. Deng, F. Deng, XB. Zhao, HS. Yan, M. Fatima, D. Zerpa, XD. Zhang , ZC. Lin, M. Yang, N. Chen, E. Mora-Newcomer, P. Quesada-Rojas, DA. Bogantes, V. Jiménez, HB. Tang, JS. Zhang, ML. Wang , RE. Paull, QY. Yu. 2022. SunUp and Sunset genomes revealed impact of particle bombardment mediated transformation and domestication history in papaya. *Nature Genetics* 54:715-724. <https://doi.org/10.1038/s41588-022-01068-1>
143. Guillén, F. J. Medina-Santamarina, M. E. García-Pastor, N. J. Chen, G. Uruu, R. E. Paull. 2021. Postharvest melatonin treatment delays senescence and increases chilling tolerance in pineapple. *LWT Food Science and Technology* 169, 1133989. <https://doi.org/10.1016/j.lwt.2022.113989>

144. Leal, F., & Paull, R. E. (2022). The genus *Annona*: Botanical Characteristics, Horticultural Requirements and Uses. *Crop Science*, 63, 1030–1049. <https://doi.org/10.1002/csc2.20833>
145. Freddy Leal and Robert E. Paull. 2022. The Soursop (*Annona muricata*): Botany, Horticulture and Utilization. *Crop Science*, 63, 362–389. <https://doi.org/10.1002/csc2.20894>
146. Paull, R. E., Zerpa-Catanho, D., Chen, N. J., Uruu, G., Wai, C. M. J., & Kantar, M. (2022). Taro raphide-associated proteins: Allergens and crystal growth. *Plant Direct*, 6(9), e443. <https://doi.org/10.1002/pld3.443>
147. Paull, R. E., B. Wiseman, G. Uruu. 2022. Pineapple Field Establishment Using Slips. *HortScience*. 57 (12) 1540-1546, <https://doi.org/10.21273/HORTSCI16877-22>
148. Benjamin J. Wiseman, Robert E. Paull, Noa K. Lincoln and M. Wall. 2023. 1-methylcyclopropene and Harvest Maturity Impact ‘Ma’afala’ Breadfruit Postharvest Storage. *HortScience* 58 (6) 666-670. <https://doi.org/10.21273/HORTSCI17076-23>
149. Robert E. Paull, Najla Ksouri, Michael Kantar, Dessireé Zerpa-Catanho, Nancy Jung Chen, Gail Uruu, Jingjing Yue, Shiyong Guo, Yun Zheng, Ching Man Jennifer Wai, Ray Ming. 2023. Differential Gene Expression During Floral Transition in Pineapple. *Plant Direct*, 7(11), e541. <https://doi.org/10.1002/pld3.541>

***Conference Presentations, Papers and Abstracts***

128. Guillén, F., Chen, N.J., Uruu, G. and Paull, R.E. (2018). Methyl jasmonate as postharvest treatment enhances quality of pineapple during storage at ambient temperature. POST18 XII Simposio Nacional y Iberico de Maduracion y Postsecha, Badajoz 2018 June 4 -7 Poster S2-P11.
129. Paull, R.E. and Chen, N.J. (2018). Tropical Fruit Genomes and Postharvest Technologies. *Acta Horticulturae*, 1299, 113-122. <https://doi.org/10.17660/ActaHortic.2020.1299.18>
130. Paull, R.E. and Chen, N.J. (2018) Postharvest Losses and Safety of Fruits and Vegetables for Enhanced Sustainability. (Abstract) International Conference on Sustainable Agriculture for Rural Development 2018 (ICSARD-2018), 19-20 October 2018, Purwokerto-Indonesia.
131. Paull, R.E. and Chen, N.J. (2019) Overall Dragon Fruit Production and Global Marketing. pp1-9. In. Y2019 FFTC and VAAS-SOFRI joint workshop. “Dragon Fruit Network: Marketing and the Whole Value Chain”. and Steering Committee Meeting, My Tho city, Vietnam, September 9 to 11, 2019. Vietnam Academy of Agricultural Sciences, Food & Fertilizer Technology Center, and Southern Horticultural Research Institute.
132. Hobbs, J., Paull, R.E., Markowicz, B., Rose, G. 2020. Use of aerial imagery for automated pineapple flower counting. 2020. (Blog-Post) Harvard Center for Research on Computation and Society (CRCS) Workshop on AI for Social Good. In conjunction with the International Joint Conferences on Artificial Intelligence (IJCAI). July 20-21. <https://crcs.seas.harvard.edu/publications/flowering-density-estimation-aerial-imagery-automated-pineapple-flower-counting> (Accessed 2020 August 26)
134. Paull, R. E. 2020. Dragon Fruit Improved Production. 30th Hawaii Tropical Fruit Growers Association Annual Conference. 2020 September 21 Q&A October 2 Online. <https://davedoucette.wixsite.com/htfg/2020-conference>
135. Paull, R. 2020. Pineapple Production, Handling and the Cold Chain. International Symposium on Fresh Fruit and Vegetable Postharvest Handling and Cold Chain

- Application, Taichung, Taiwan, November 04. Reorganized with online presentation. 2020 November 03
136. Wiseman BJ, Lincoln NK, Wall MM, Paull RC. 2022. Influence of Maturity and 1-MCP on Postharvest Ripening of Breadfruit [abstract]. HortScience 57(9S):S111. <https://doi.org/10.21273/HORTSCI.57.9S.S1>

### ***Research & Extension Reports***

#### ***Extension Publications***

50. Wong, K., Motomura, S. and **Paull, R.E.** (2018). Postharvest Handling and Food Safety – Layers of Protection. Food Safety and Technology Series. FST-66. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FST-66.pdf>.
51. Love, K., Gasik, L. and **Paull, R.E.** (2019). Durian. University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources. Fruit, Nut, and Beverage Crops, F\_N-53. [https://www.ctahr.hawaii.edu/oc/freepubs/pdf/F\\_N-53.pdf](https://www.ctahr.hawaii.edu/oc/freepubs/pdf/F_N-53.pdf)
52. Love, K., and Paull, R.E. (2020). Finger Limes. University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources. Fruit, Nut, and Beverage Crops, FN-56 <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FN%2056.pdf>
53. Love, K., and Paull, R.E. (2020). Bush Tucker in Hawaii. University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources. Fruit, Nut, and Beverage Crops, FN-57. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FN-57.pdf>
58. Paull, Robert E. and Nancy J. Chen (2020). Pineapple Production and Fruit Quality. Web-Presentation. Queensland Pineapple Grower Association, November 30. <https://drive.google.com/file/d/16EHc24CASX3w3eEEkI4XPg3omMQpQ1N2/view?usp=sharing>
59. Wiseman, Ben, Nancy J. Chen, Nao Linclon and Robert E. Paull. 2021. ‘Ulu – Breadfruit Postharvest Handling and Quality Maintenance Guidelines. University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources. Fruit, Nut, and Beverage Crops, FN-58. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FN-58.pdf>
60. Paull, Robert E. and Gail Uruu. 2021. Major Weeds in Pineapple Fields of Hawai’i. University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources. Fruit, Nut, and Beverage Crops, FN-60. <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FN-60.pdf>
61. Wiseman, Ben., Robert E. Paull, Noa Lincoln, & Marisa Wall. 2022. When to harvest? - Intersegment-space color and skin color indicate harvest maturity in Ma’afala breadfruit. Poster at 2022 Hawaii Ag Conference (Sep 27-28) at Hawaii Convention Center, Honolulu.
62. Kirk, E., K. Tavares, T. Radovich, K. Flanagan, J.P. Bingham, J. Calpito, S. Wages, A. Ahmad, J. Uyeda, R. E. Paull, J. Silva, E. Collier, J. Sugano. 2022. Hawai’i Turmeric Production Guidelines. Fruit, Nut, Beverage Crops (In Press)
63. Uyeda, J., K. Tavares, R. E. Paull, S. Wages & L. Baligad. 2022. Garlic Production Guidelines for Hawai’i. University of Hawaii at Manoa, College of Tropical Agriculture and Human Resources, Vegetables and Root Crops VC-8, <https://www.ctahr.hawaii.edu/oc/freepubs/pdf/VC-8.pdf>
64. Wiseman, B. R. Paull, N. Lincoln & M. Wall. 2023. Ma’afala Breadfruit: When to Harvest? University of Hawaii at Manoa, College of Tropical Agriculture and Human

Resources. Fruit, Nut, and Beverage Crops, FN-66.  
<https://www.ctahr.hawaii.edu/oc/freepubs/pdf/FN-66.pdf>

### **Awards & Recognition**

- 2014 Elected Fellow of the International Society for Horticultural Science  
<http://www.ishs.org/ishs-awards>
- 2014 Elected Fellow American Society for Horticultural Science  
<http://db.ashs.org/awards/winners2/listing.lasso>
- 2015 Outstanding Research Leader and Scientist in Quality and Postharvest Horticulture. 2015 August 15. ISHS Southeast Asia Symposium on Quality Management in Postharvest Systems. Apsara Angkor Resort and Conference Center, Siem Reap, Cambodia.
- 2019 UHM-CTAHR - College Award for Excellence in Research