

Curriculum vitae



Personal Detail

Name: Suriyan Supapvanich

Position: Associate Professor in Postharvest Technology

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Educations

1998 B.Sc. (Food Science and Technology), Kasetsart University, Thailand

2001 M.Sc. (Postharvest Technology), King Mongkut's University of Technology Thonburi, Thailand

2009 Ph.D. (Biosciences; Nutritional Science), The University of Nottingham, United Kingdom

Achievement/workshop/scholarship

Oct. 2012-Mar. 2013: Postdoctoral Research Fellowship (Technology Grants) under ASEA-UNINET scholarship at Division of Viticulture and Pomology, University of Natural Resources and Life Sciences, Vienna, Austria

May-Jul. 2015: Research Scholarship under Ernst Mach-Nachbetreuungstipendium program at Division of Viticulture and Pomology, University of Natural Resources and Life Sciences, Vienna, Austria

May-Jul. 2022: Research Scholarship under Ernt Mach-Nachbetreuungstipendium program at Division of Viticulture and Pomology, University of Natural Resources and Life Sciences, Vienna, Austria

Professional Experience

May-Dec. 2001: Lecturer in Food Technology Program, Nongkhai campus, KhonKean University, Nongkhai province, Thailand

Dec.2001-Jul 2013: Lecturer in Food Technology Program, Faculty of Natural Resources and Agro-Industry, Chalermprakiate Sakhon-Nakhon Province campus, Kasetsart University, Sakhon-Nakhon province, Thailand

May 2021 Invited lecturer at Division of Viticulture and Pomology, University of Natural Resources and Life Sciences, Vienna, Austria

Areas of Expertise and Interests

- 1) Postharvest Biochemistry of fruit and vegetables
- 2) Fresh-cut fruit and vegetable Technology
- 3) Chemistry of fresh and processed fruit and vegetables

Text Book

Thompson, A. K., Supapvanich, S., Sirison, J. 2019. Banana ripening science and technology. Springer. Switzerland. 143 p.

Book Chapters

Supapvanich, S., Megia, R., and Ding, P. 2011. Salak (*Salacca zalacca* (Gaertner) Voss), Postharvest Biology and Technology of Tropical and Subtropical Fruits, Vol. 4, Elhadi, Y. (Ed), UK. Woodhead Publishing Limited.

Supapvanich, S., Promyou, S. 2013. Efficiency of salicylic acid application on postharvest perishable crops. Salicylic Acid; Plant Growth and Development, XVIII, Hayat, Shamsul; Ahmad, Aqil; Alyemini, Mohammed Nasser (Eds.), New York, Springer Publication.

Publications

- Youryon, P., Kongchana, J., Anjana, J.A., Tepsorn, R., and Supapvanich, S. 2023. Liposome containing methyl jasmonate incorporated with vitamin B12 alleviates chilling injury of 'Queen' pineapples. *Scientia Horticulturae*. 321, 112263.
- Wen, B., Cui, S., Suo, X., and Supapvanich, S. 2023. Stress response of fresh-cut potatoes to laser irradiation before processing can prevent discoloration and maintain overall quality. *Postharvest Biology and Technology*. 197. 112213.
- Takeungwongtrakul, S., Sai-Ut, S., Waraput, T., and Supapvanich, S. 2022. Thermal processes improving antibrowning potential of mixed Aloe vera and pineapple core extract solution on browning inhibition of fresh-cut apples. *International Journal of Food Science and Technology*. 57 (10): 6881-6889.
- Savoi, S., Supapvanich, S., Hildebrand, H., Stralis-Pavese, N., Forneck, A., Kreil, D. P., and Griesser, G. 2022. Expression analyses in the rachis hint towards major cell wall modifications in grape clusters showing berry shrivel symptoms. *Plants* 11: 2159.
- Nimitkeatkai, H., Techavuthiporn, C., Boonyaritthongchai, P., Supapvanich, S. 2022. Commercial active packaging maintaining physicochemical qualities of carambola fruit during cold storage. *Food Packaging and Shelf Life*, 32: 100834.
- Chimvaree, C., Wongs-Aree, C., Supapvanich, S., Tepsorn, R., and Boonyaritthongchai, P. 2022. Comparison of substrate reactivity of polyphenol oxidase and browning symptom of fresh cut 'Nam Dok Mai Si Thong' and 'Nam Dok Mai No. 4' mango in vitro and in vivo. *Acta Horticulturae*. 1336, 257–262.
- Kebngon, C., Srilaong, V., Penchaiya, P., Supapvanich, S., Tepsorn, R., Boonyaritthongchai, P. 2022. Development of electrospun nanofibers containing methyl jasmonate for applying in postharvest fruit and vegetables. *Acta Horticulturae*. 1336, 343–349.
- Youryon, P., Supapvanich, S. 2022. Quality comparison of naturally and artificially ripened 'monthong' durian (*Durio zibethinus*) fruits harvested at various maturity stages. *Current Applied Science and Technology*, 22 (6): 1-11.
- Supapvanich, S., Sittiprasert, W., Techavuthiporn, C. 2022. Application of ultrasonic incorporated with calcium gluconate maintains physicochemical quality of pink guavas

during short-term storage at room temperature. *Food Science and Biotechnology*, 31(3): 285–294.

Supapvanich, S., Techavuthiporn, C. 2022. Efficiency of pre-process anoxia treatment on quality of fresh-cut pineapples cv. ‘Phulae’ during storage. *International Journal of Food Science and Technology*. 57(3): 1679–1687.

Wen, B., Li, D., Du, X., Kedbanglai, P., Tang, D., Huang, Z., Ge, Z., Supapvanich, S. 2021. Efficiency of ultrasonic incorporated glutathione treatment in preserving the physicochemical quality and preventing the browning of lotus rhizome slices. *International Journal of Food Science and Technology*. 56(12): 6388-6396.

Youryon, P., Supapvanich, S. 2021. Impact of rainfall rate and temperature during fruit development on chilling injury of Queen pineapples (*Ananas comosus* L.) during cold storage. *Horticulture, Environment, and Biotechnology*. 62: 777–784.

Supapvanich, S., Promyou, S., Techavuthiporn, C. 2021. Efficient comparison of calcium chloride and calcium gluconate immersions on quality maintenance and bioactive compounds of ready-to-cook baby corns. *Current Applied Science and Technology*, 21(3): 254-534.

Youryon, P., Supapvanich, S. 2021. Effects of Preharvest boron, calcium sulfate treatment and postharvest calcium chloride peduncle infiltration on chilling injury alleviation of Queen pineapple cv. sawi fruit. *Current Applied Science and Technology*, 21 (3): 456-466.

Nguyen, H., Boonyarittongchai, P., Buanong, M., Supapvanich, S., Wongs-Aree, C. 2021. Chitosan- and **K**-carrageenan-based composite coating on dragon fruit (*Hylocereus undatus*) pretreated with plant growth regulators maintains bract chlorophyll and fruit edibility. *Scientia Horticulturae*. 281: 109916

Karnjanapratum, S., Supapvanich, S., Kaewthong, P., Takeungwongtrakul, S. 2021. Impact of steaming pretreatment process on characteristics and antioxidant activities of black garlic (*Allium sativum* L.). *Journal of Food Science and Technology*. 58(5): 1869–1876

Ngu Lwin, N.T., Supapvanich, S., Promyou, S. 2021. Ultraviolet-C irradiation maintaining texture and total sugars content of ready to cook baby corn during commercial storage. *Food Science and Biotechnology*. 30(1): 47–54

- Promyou, S., Chimsonthorn, V., Kijka, C., Supapvanich, S. 2020. Physicochemical quality improvement of ready cook baby corns using calcium propionate immersion. *International Journal of Agricultural Technology*. 16(4): 949-958
- Nguyen, H.T., Boonyaritthongchai, P., Buanong, M., Supapvanich, S., and Wongs-Aree, C. (2020). "Postharvest hot water treatment followed by chitosan- and *K*-carrageenan-based composite coating induces the disease resistance and preserves the quality in dragon fruit (*Hylocereus undatus*)", *International Journal of Fruit Science*. 20: S2030-S2044.
- Youryon, P., Keereedat W. and Supapvanich, S. 2020. Effects of simultaneous cyanocobalamin and calcium gluconate treatment on chilling injury alleviation of 'Queen' pineapple by using peduncle infiltration. *Fruits*. 75(6): 273-280.
- Wen, B., Li, D., Tang, D., Huang, Z., Kedbanglai, P., Ge, Z., Du, X., and Supapvanich, S. 2020. Effects of simultaneous ultrasonic and cysteine treatment on antibrowning and physicochemical quality of fresh-cut lotus roots during cold storage. *Postharvest Biology and Technology*. 168: 111294,
- Supapvanich, S., Yimpong, A., and Srisuwanwichan, J. 2020. Browning inhibition on fresh-cut apple by the immersion of liquid endosperm from mature coconuts. *Journal of Food Science and Technology*. 57(12): 4424-4431
- Griesser, M., Savoie, S., Supapvanich, S., Dobrev, P., Vankova, R., and Forneck, A. 2020. Phytohormone profiles are strongly altered during induction and symptom development of the physiological ripening disorder berry shrivel in grapevine. *Plant Molecular Biology*, 103, 141-157.
- Promyou, S., Supapvanich, S. 2020. Combinative effect of salicylic acid immersion and UV-C illumination on chilling injury-related factors of Longan (*Dimocarpus longan* Lour.) fruit. *International Journal of Fruit Science*. 20, 133-148.
- Supapvanich, S, Sangsuk, P., Sripumimas, S., and Anuchai, J. 2020. Efficiency of low dose cyanocobalamin immersion on bioactive compounds contents of ready to eat sprouts (sunflower and daikon) and microgreens (red-amaranth) during storage. *Postharvest Biology and Technology*. 160: 111033.
- Sangprayoon, P., Supapvanich, S., Youryon, P., Wongs-Aree, C., and Boonyaritthongchai, P. 2020. Chilling injury alleviation of Queen pineapple cv. 'Sawi' fruit by acetyl salicylate immersion. *Horticulture, Environment, and Biotechnology*. 61, 83-92

- Supapvanich, S., Sungkra, P., and Phunphed, J. 2020. Effects of pre-process elicitor immersion on the physicochemical qualities of fresh-cut papaya fruits cv, 'Holland' during cold storage. *International Journal of Agricultural Technology*. 16(1): 163-174.
- Chimvaree, C., Cumsingnok, T., Wongs-Aree, C., Supapvanich, S., Charoenrat, T., Tepsorn, R., and Boonyaritthongchai, P. 2020. Substrate reactivity of polyphenol oxidase and browning inhibition of fresh-cut 'nam dok mai si-thong' mangoes by protein-based sericin coating. *The Horticulture Journal* 89 (5): 537-544
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- Sangprayoon, P. Supapvanich, S., Youryon, P., Wongs-Aree, C. and Boonyaritthongchai, P. 2019. Efficiency of salicylic acid or methyl jasmonate immersions on internal browning alleviation and physicochemical quality of Queen pineapple cv. "Sawi" fruit during cold storage. *Journal of Food Biochemistry*. 43, e13059.
- Supapvanich, S., Kernprie, Y., Boonyaritthongchai, P., Techavuthiporn, C., Tepsorn, R., Youryon, P. 2019. Physicochemical quality maintenance and bioactive compounds enhancement of Thai guava fruit cv. 'Kim Ju' by using combinative hot water and methyl jasmonate immersion. *Emirates Journal of Food and Agriculture*. 31(5): 395-404.
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- Somsap, J., Kanjanapongkul, K., Chancharoonpong, C., Supapvanich, S., Tepsorn, R. 2019. Antimicrobial activity of edible electrospun chitosan/cellulose acetate/gelatin hybrid nanofiber mates incorporated eugenol. *Current Applied Science and Technology* 19(3). 235-247.
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- Youryon, P., Supapvanich, S. 2019. Effect of canopy positions on physicochemical quality of mandarin fruit cv. 'Shogun' during storage. *International Journal of Agricultural Technology* 15(1), 183-194.
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- Anuchai, J., Chumthongwattana, M., Tepsorn R., Supapvanich, S. 2018. Efficiency of salicylic acid immersion using fine-bubble technique on quality of Musa AAA fruit during ripening. *International Journal of Agricultural Technology* 14(7), 1003-1016.
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- Wen, B., Wu, X., Boon-EK, Y., Xu, L., Pan, H., Xu, P., Wu, Y., Supapvanich, S. 2018. Effect of honey and calcium dips on quality of fresh-cut nectarine (*Prunus persica* L. Batsch). *Agriculture and Natural Resources* 52, 140-145.
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- Youryon, P., Supapvanich, S., Kongtrakul, P., Wongs-Aree, C. 2018. Calcium chloride and calcium gluconate peduncle infiltrations alleviate the internal browning of Queen pineapple in refrigerated storage. *Horticulture, Environment, and Biotechnology* 59, 205-213.
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- Techavuthiporn, C., Supapvanich, S. 2018. Effect of capsicum oleores and garlic oil on sensorial quality and microbial growth of mixed salads for Thai green papaya salad. *International Food Research Journal* 25(3), 936-942.

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- Chaishome, J., Supapvanich, S. 2018. Polylactic acid (PLA) based green composites reinforced pineapple leaf fibres: evaluation of processing and tensile performance. MATEC Web of Conferences 192, 03002.
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- Techavuthiporn, C., Boonyaritthongchai, P., Supabvanich, S. 2017. Physicochemical changes of 'Phulae' pineapple fruit treated with short-term anoxia during ambient storage. Food Chemistry 228, 388-393.
- Supapvanich, S., Mitsang, P., Srinorkham, P. 2017. Effects of 'Queen' and 'Smooth cayenne' pineapple fruit core extracts on browning inhibition of fresh-cut wax apple fruit during storage. International Food Research Journal 24 (2), 559-564.
- Supapvanich, S. and Promyou, S. 2017. Hot water incorporated with salicylic acid dips maintaining physicochemical quality of 'Holland' papaya fruit stored at room temperature. Emirates Journal of Food and Agriculture 29 (1), 18-24.
- Supapvanich, S., Mahasap, B., Boonyaritthongchai, P., Techavuthiporn, C., Tepsorn, R., Youryon, P. 2017. Salicylic acid immersion maintains physiochemical quality and enhances bioactive compounds in 'Kimju' guava fruit during cold storage. Emirates Journal of Food and Agriculture. 29 98), 620-628.
- Youryon, P. and Supapvanich, S. 2017. Effect of storage temperature on physicochemical quality and bioactive compounds in 'Leb Mu Nang' Banana (*Musa AA*) fruit. Tropical Agriculture (Trinidad) 94(1), 1-8.
- Supapvanich, S., Mitsang, P. and Youryon, P. 2017. Preharvest salicylic acid application maintains physicochemical quality of 'Taaptimjaan' wax apple fruit (*Syzygium samarangense*) during short-term storage. Scientia Horticulturae 215, 178-183.

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- Supapvanich, S., Mitsrang, P., Srinorkham, P., Boonyaritthongchai P. and Wongs-Aree, C. 2016. Effects of fresh Aloe vera gel coating on browning alleviation of fresh cut wax apple (*Syzygium samarangense*) fruit cv. Taaptimjaan. *Journal of Food Science and Technology* 53 (6), 2844-2850.
- Promyou, S., Supapvanich, S. 2016. Effects of salicylic acid immersion on physicochemical quality of Thai papaya fruit 'Kaek Dam' during storage. *Acta Horticulturae* 1111, 105-112.
- Youryon, P., Supapvanich, S. 2016. Quality and bioactive compounds of ripe 'Kluai Nam Wa' and 'Kluai Khai' bananas during storage. *International Food Research Journal* 23 (3), 1027-1032.
- Supapvanich, S., Boonyaritthongchai, P. 2016. Visual appearance maintenance of fresh-cut 'Nam Dok Mai' mango fruit by honey dip. *International Food Research Journal* 23 (1), 389-394.
- Promyou, S., Supapvanich, S. 2016. Physicochemical changes in 'Kaew Kamin' mango fruit illuminated with ultraviolet-C (UV-C) during storage. *Journal of Agricultural Science and Technology* 18 (1), 145-154.
- Supapvanich, S. 2015. Effects of salicylic acid incorporated with lukewarm water dips on quality and bioactive compounds of rambutan fruit (*Nephelium lappaceum* L.). *Chiang Mai University Journal of Natural Sciences*. 14(1). 23-37.
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