Edna Pesis, Ph.D. **Dec. 2014**

Address
Dept. of Postharvest Science of Fresh Produce
The Volcani Center, ARO
P.O. Box 6, Bet Dagan 50250, Israel
Tel: 972-3-9683612; Fax: 972-3-9683622
Email: epesis@agri.gov.il
http://www.agri.gov.il/en/people/690.aspx

Education

1966-1969	B.Sc., Biochemistry-Microbiology, The Hebrew University of Jerusalem, Jerusalem, Israel.
1975-1977	M.Sc., Faculty of Agriculture, The Hebrew Univ. of Jerusalem, Rehovot, Israel.
1978-1982	Ph.D., University of Maryland, College Park, Maryland, USA.

Research Interests

- Fruit ripening processes including: cell wall degradation, ethylene metabolism, respiration, anaerobic respiration, color development, aroma and taste.
- Modified atmosphere/humidity packaging and fruit coating in order to maintain subtropical fruit quality.
- Finding solutions for keeping quality of organic fruits without using chemicals
- Application of 1-methylcyclopropane (1-MCP) in order to increase storage duration and to improve subtropical fruit quality.
- Alleviation of chilling injury and decay development in tropical and subtropical fruits including: avocado, mango, papaya, tomato, banana, guava, lychee, longan, date and fig.
- Alleviation of superficial scald in apple and pear by low oxygen pretreatments
- Improving fruit aroma and flavor in stored fruits by various abiotic stresses
- Study aroma volatiles by GC-MS techniques for identification of fruit taste

Selected Publications from 2000

Feygenberg,O., Keinan, A., Kobiler, I., Falik, E., **Pesis, E.,** Lers A., Prusky, D. (2014). Improved management of mango fruit though orchard and packinghouse treatments to reduce lenticel discoloration and prevent decay. Postharvest Biol. Technol. 91: 128-133.

Pesis, E., Feygenberg, O., Sabban-Amin, R., Ebeler, SE., Mitcham, EJ., Ben Arie, R. (2014). Low oxygen pre-storage treatment is effective in reducing chilling injuries of deciduous fruit. Int. J. Postharvest Technology and Inovation 4: 23-32.

Goldenberg, L., Feygenberg, O., Samach, A., **Pesis, E.** (2012). Ripening Attributes of New Passion Fruit Line Featuring Seasonal Non-climacteric Behavior J. Agric.Food Chem. 60: 1810−1821

Sabban-Amin, R., Feygenberg, O., Belausov, E., **Pesis E.** (2011). Low-oxygen and 1-MCP pretreatments delay superficial scald development by reducing reactive oxygen species (ROS) accumulation in stored 'Granny Smith' apples. Postharvest Biol. Technol. 62: 295-304.

Hershkovitz, V., Friedman, H., Goldschmidt, E.E., Feygenberg, O., **Pesis, E.** (2011). Effect of seed on ripening-control components during avocado fruit development. J. Plant Physiol. 168: 2177-2183.

Hershkovitz, V., Friedman, H., Goldschmidt, E.E., **Pesis E.** (2010). Ethylene regulation of avocado ripening differs between seeded and seedless fruit. Postharvest Biol. Technol. 56: 138-146.

Pesis, E., Ebeler S.E., Tonetto SF, Padda, M., Mitcham. E.J. (2010). Short anaerobiosis period prior to cold storage alleviates bitter pit and superficial scald in Granny Smith apples. J. Sci. Food Agric. 90: 2114-2123.

Hershkovitz, V., Friedman, H., Goldschmidt, E.E., **Pesis E.** (2009). The role of the embryo and ethylene in avocado fruit mesocarp discoloration. J. Exp. Bot. 60: 791-799.

Pesis, E., Ibáñez, A.M., Phu, M.L., Mitcham, A.J., Ebeler, S.E., Dandekar, A.B. (2009). Superficial scald and bitter pit development in cold-stored transgenic apples suppressed for ethylene biosynthesis. J. Agric. Food Chem. 57: 2786-2792.

Hershkovitz, V., Friedman, H., Goldschmidt, E.E., Feygenberg, O., **Pesis E.** (2009). Induction of ethylene in avocado fruit in response to chilling stress on tree. J. Plant Physiol. 166: 1855-1862.

Pesis, E, Ben-Arie, R., Feygenberg, O., Lichter, A., Gadiyeva, O., Antilofyev, I., Uryupina, T. (2007). A simple pretreatment with LO2 to alleviate superficial scald in GS apples. *J. Sci. Food Agric*. 87: 1836-1844.

Lurie, S., **Pesis, E.,** Gadiyeva, O., Feygenberg, O., Ben-Arie, R., Kaplonov, T., Zutahy, Y., Lichter, A. (2006). Modified EtOH atmosphere to control decay of table grapes during storage. *Postharvest Biol. Technol.* 42: 222-227.

Pesis, E. (2006). Postharvest treatments prior storage with anaerobiosis or anaerobic metabolites to improve fruit quality. In: Advances in Postharvest Technology of Horticultual Crops.(N. Benkeblia, and N. Shiomi, eds.) *pg.* 251-274.

Pesis, E. (2005). The role of anaerobic metabolites, acetaldehyde and EtOH, in fruit ripening, enhancement of fruit quality and fruit deterioration –Review. (I.B. Ferguson, and R.P. Cavalieri, eds.*). Postharvest Biol. Technol*. 37: 1-19.

Pesis, E., Ben Arie, R., Feygenberg, O., and Villamizar F. (2005). Ripening of ethylene-pretreated banana fruits retarded by use of modified atmosphere and vacuum packaging. *HortScience* 40: 726-731.

Hershkovitz, V., Saguy S., and **Pesis, E.** (2005).Postharvest application of 1-MCP to improve the quality of various avocado cultivars. *Postharvest Biol. Technol*. 37: 215-226.

Pesis, E., Dvir, O., Feygenberg, O., Ben-Arie, R., Ackerman, M. and Lichter, A. (2002). Production of acetaldehyde and ethanol during maturation and modified atmosphere storage of litchi fruit. *Postharvest Biol. Technol*. 26: 157-165.

Pesis, E., Ackerman, M., Ben-Arie, R., Feygenberg, O., Feng, X., Apelbaun, A., Goren, R. and Prusky, D. (2002). Ethylene involvement in chilling injury symptoms of avocado during cold storage. *Postharvest Biol. Technol*. 24: 171-181.

Pesis, E., Copel, A., Ben-Arie, R., Feygenberg, O. and Aharoni, Y. (2001). Low oxygen treatment for inhibition of decay and ripening in organic banana. *J. Hort. Sci. & Biotech.* 76: 648-652.

Pesis, E., Aharoni, D., Aharon, Z., Ben Arie, R., Aharoni, N., Fuchs, Y. (2000). Modified atmosphere and modifie d humidity packaging alleviates chilling injury in mango fruit. *Postharvest Biol. Technol*. 19: 93-101.