

CURRICULUM VITAE (2013)

ELAZAR FALLIK

Education and Additional Training

1976-1979: B.Sc. The Hebrew University of Jerusalem.
1979-1981: M.Sc. The Hebrew University of Jerusalem.
1981: Diploma in Agricultural Extension. The Hebrew University of Jerusalem.
1984-1988: Ph.D. The Hebrew University of Jerusalem.
1988-1990: Postdoctoral Research, University of Georgia, USA.
1996-1997: Sabbatical leave - University of Kentucky, USA.

Positions held and Academic Status

1981-1984: Research Associate at Biotechnology General, Israel
1990-1994: Research Scientist in ARO-Volcani Center, Dept. of Postharvest Science of Fresh Produce, Bet-Dagan, Israel.
1994 to 1999: Senior Scientist at ARO – ‘B’ rank.
1999 to 2006: ‘A’ rank (equivalent to associate professor).
1998 to date: Lecturer at the Hebrew University, Faculty of Agriculture, Rehovot, Israel.
2003 to date: Chairman of the unit and the committee for Fellowships for Trainees from Overseas, The Volcani Center, Israel.
2004 to 2007: Head – Department of Postharvest Science of Fresh Produce.
2004: Adjunct Professor, The Hebrew University of Jerusalem.
2006 to date: A+ rank (equivalent to full professor).
2007 to 2013: Head – Institute of Postharvest and Food Sciences.
2013 to date: Scientific Coordinator of Israel R & D centers

Awards

1988-1989: Recipient of BARD Postdoctoral Fellowship.
1989-1990: Recipient of UGA Biotechnology/GAES Postdoctoral Awards.
1996: Recipient of the Agritech Award for 1996, Israel (Head of the research group).
1998: Recipient of the 1997/8 Agrexco Distinguished Scientist, Israel.
1998: Recipient of the Kaplan Award for 1997, Israel (Head of the research group).
1998: Recipient of the Ministry of Commerce and Industry Quality Project Award. (Head of the research group).
2001: Recipient of the Inventor Award, State of Israel – Ministry of Justice. (Head of the research group).
2001: Recipient of the Namir Award for Excellency in work. New Histadrut (Israel Union Association). (Head of the research group).
2001: Recipient of an Honorary Scientist Award, The Republic of Korea – The Rural Development Administration.
2007: Award of Appreciation in acknowledgment of the distinguished lecture "Farmer, Extension, Research: the Israeli model system for success". Korea Agro-Fisheries Trade Corporation, Ministry of Agriculture and Forestry, The Republic of Korea.
2009: Top-10 Most Cited Author 2003-2008, Agricultural Sciences, Elsevier. Postharvest Biology and Technology.

Membership in Professional Societies.

The American Phytopathological Society; The American Society for Horticultural Science.

Editorial Responsibility

Reviewer of manuscripts: J. Agric. Food Chem.; Plant Pathol.; Phytoparasitica; Food Microbiol.; Sci. Hortic.; Postharvest Biol. Technol.; J. Food Technol. Biotechnol.; J. Agric. Eng.; Folia Hortic.(Editorial Board); J. Plant Physiol.; J. Food Sci. Technol.; J. Agri. Forestry (Editorial Board)

Reviewed papers since 2000 (student or postdoc, from total of 88)**

- Fallik, E.**, Aharoni, Y., Copel, A., Rodov, R., Tuvia-Alkalai, S., Horev, B., Yekutieli, O., Wiseblum, A., Regev, R. 2000. A short hot water rinse reduces postharvest losses of 'Galia' melon. *Plant Pathol.* 49: 333-338.
- Lichter, A., Dvir, O., Rot, I., Akerman, M., Regev, R., Wiseblum, A., **Fallik, E.**, Zauberan, G., Fuchs, Y. 2000. Hot water brushing: an alternative method to SO₂ fumigation for color retention of litchi Fruits. *Postharvest Biol. Technol.* 18: 235-244.
- Porat, R., Daus, A., Weiss, B., Cohen, L., **Fallik, E.**, Droby, S. 2000. Reduction of postharvest decay in organic citrus fruit by a short hot water brushing treatment. *Postharvest Biol. Technol.* 18: 151-157.
- Porat, R., Pavoncello, D., Peretz, Y., Weiss, B., Cohen, L., Ben-Yehoshua, S., **Fallik, E.**, Droby, S., Lurie, S. 2000. Induction of resistance against *Penicillium digitatum* and chilling injury in Star Ruby grapefruit by a short hot water brushing treatment. *J. Hort. Sci. Biotechnol.* 75: 428-432.
- Fallik, E.**, Tuvia-Alkalai, S., Feng, X., Lurie, S. 2001. Ripening characterization and decay development of stored apples after a short prestorage hot water rinsing and brushing. *Innovative Food Sci. Emerging Technol.* 2: 127-132.
- Fallik, E.**, Tuvia-Alkali, S., Horev, B., Copel, A., Rodov, V., Aharoni, Y., Ulrich, D., Schulz, H. 2001. Characterization of aroma volatiles in 'Galia' melon after prolonged storage. *Postharvest Biol. Technol.* 22: 85-91.
- Pasternak, H., Schmilovitch, Z., **Fallik, E.**, Edan, Y. 2001. Overcoming multicollinearity in NIR analysis using ridge regression. *J. Test Eval.* 29: 60-66.
- Ilic, Z.**., Polevaya, Y., Tuvia-Alkalai, S., Copel, A., **Fallik, E.** 2001. A short prestorage hot water rinse and brushing reduces decay development in tomato, while maintaining its quality. *Trop. Agric. Res. Ext.* 4: 1-6.
- Fallik, E.**, Chalupowicz, D., Aharon, Z., Aharoni, N. 2002. Modified atmosphere in a water permeable film maintains snap bean quality after harvest. *Folia Hort.* 14: 85-94.
- Fallik, E.**, Ilic, Z., Tuvia-Alkalai, S., Copel, A., Polevaya, Y. 2002. A short hot water rinsing and brushing reduces chilling injury and enhance resistance against *Botrytis cinerea* in fresh harvested tomato. *Adv. Hort. Sci.* 16: 3-6.
- Laykin, S.**., Alchanatis, V., **Fallik, E.**, Edan, Y. 2002. Image processing algorithms for tomatoes classification. *Trans. ASAE* 45: 851-858.
- Lichter A., Dvir, O., **Fallik, E.**, Cohen, S., Golan, R., Shemer, Z., Sagi, M. 2002. Cracking of cherry tomatoes in solution. *Postharvest Biol. Technol.* 26: 305-312.
- Lurie, S., Pre-Aymard, C., Larkov, O., Ravid, U., **Fallik, E.** 2002. Effect of 1-Methylcyclopropene on volatile emission and aroma perception of Anna apples. *J. Agric. Food Chem.* 50: 4251-4256.
- Polevaya, Y.**., Alkalai-Tuvia, S., Copel, A., **Fallik, E.** 2002. Early detection of grey mould development in tomato after harvest. *Postharvest Biol. Technol.* 25: 221-225.
- Ben-Shalom, N., Ardi, R., Pinto, R., Aki, C., **Fallik, E.** 2003. Controlling of gray mould disease caused by *Botrytis cinerea* in cucumber plants by means of chitosan but not chitin oligomers. *Crop Protec.* 22: 285-290.
- Ben-Shalom, N., **Fallik, E.** 2003. Further suppression of *Botrytis cinerea* disease by chitosan-copper complex as compared with chitosan alone in cucumber plants. *Phytoparasitica* 31: 99-102.
- Fallik, E.**, Polevaya, Y., Tuvia-Alkalai, S., Shalom, Y., Zuckermann, H. 2003. A 24 h anoxia treatment reduces decay development while maintaining tomato fruit quality. *Postharvest Biol. Technol.* 29: 233-236.
- Hoberg, E., Ulrich, D., Schulz, H., Tuvia-Alkali, S. and **Fallik, E.** (2003). Sensory and quality analysis of different melon cultivars after prolonged storage. *Nahrung/Food* 47: 320-324.
- Maalekuu, K.**., Elkind, Y., Tuvia-Alkalai, S., Shalom, Y. and **Fallik, E.** (2003). Quality evaluation of three sweet pepper cultivars after prolonged storage. *Adv. Hort. Sci.* 17: 187-191.

- Ilic, Z.** and **Fallik, E.** (2004). Influence of heat treatment on ethylene production, rate of respiration and quality parameters during the tomato storage. *J. Sci. Agric. Res.* 65: 37-45.
- Maalekuu, K.**, Elkind, Y., Tuvia-Alkalai, S., Shalom, Y. and **Fallik, E.** (2004). The influence of harvest season and cultivar type on several quality traits and quality stability of three commercial sweet bell peppers during the harvest period. *Adv. Hort. Sci.* 18: 21-25.
- Fallik, E.**, Shalom, Y., Alkalai-Tuvia, S., Larkov, O., Brandeis, E. and Ravid, U. (2005). External, internal and sensory traits in Galia-type melon treated with different waxes. *Postharvest Biol. Technol.* 36: 69-75.
- Maalekuu, K.**, Alkalai-Tuvia, S., Sonogo, L. and **Fallik, E.** (2005). A short hot water treatment inhibits ripening-related enzyme activities in sweet pepper during storage and marketing simulation. *Trop. Agric. Res. Ext.* 8: 28-36.
- Maalekuu, K.**, Elkind, Y., Goodwin, S.M., Tuvia-Alkalai, S., Shalom, Y. Jenks, M.A. and **Fallik, E.** (2005). Characterization of physiological and biochemical factors associated with postharvest water loss in ripe pepper fruit during storage. *J. Amer. Soc. Hort. Sci.* 130: 735-741.
- Pre-Aymard, C.**, **Fallik, E.**, Weksler, A. and Lurie, S. (2005). Sensory analysis and instrumental measurements of 'Anna' apples treated with 1-methylcyclopropene. *Postharvest Biol. Technol.* 36: 135-142.
- Gal, S.**, Alkalai-Tuvia, S., Elkind, Y. and **Fallik, E.** (2006). Influence of different concentrations of 1-methylcyclopropene and times of exposure on the quality of 'Galia'-type melon harvested at different stages of maturity. *J. Hort. Sci. Biol.* 81: 975-982.
- Maalekuu, K.**, Elkind, Y., Leikin-Frenkel, A., Lurie, S. and **Fallik, E.** (2006). Effects of postharvest water loss on membrane lipids and other biochemical properties in ripe pepper fruit during storage. *Postharvest Biol. Technol.* 42: 248-255.
- Davidovich-Rikanati, R**., Sitrit, Y., **Fallik, E.**, Carmona, B., Bar, E., Bilenko, N., Dudai, N., Simon, J.E., Tadmor, Y., Pichersky, E. and Lewinsohn, E. (2007). Diversion of the plastidial terpenoid pathway causes profound changes in the aroma and taste of tomatoes. *Nature Biotechnol.* 25: 899-901.
- Gal, S.**, Alkalai-Tuvia, S., Perzelan, Y., Elkind, Y., Ravid, U. and **Fallik, E.** (2008). Sensory evaluation of 'Galia'-type melons treated with 1-methylcyclopropene after prolonged storage. *J. Hort. Sci. Biol.* 83: 589-594.
- Ilić, Z.**, Bar-Yosef, A., Perzelan, Y., Alkalai-Tuvia, S. and **Fallik, E.** (2008). Effects of the 1-methylcyclopropene (1-MCP) pre-storage treatment on the ripening process at different stages of tomato fruit maturation. *J. Sci. Agric. Res.* 69: 5-15.
- Ilić, Z.**, Bar-Yosef, A., Perzelan, Y., Alkalai-Tuvia, S. and **Fallik, E.** (2008). Total antioxidant activity (TAA) of bell pepper during prolonged storage on low temperature. *J. Agric. Sci.* 53: 3-12.
- Bar-Yosef, A.**, Alkalai-Tuvia, S., Perzelan, Y., Aharon, Z., Ilic', Z., Lurie, S. and **Fallik, E.** (2009). Effect of shrink packaging in combination with rinsing and brushing treatment on chilling injury and decay of sweet pepper during storage. *Adv. Hort. Sci.* 23: 225-230.
- Fallik, E.**, Bar-Yosef, A., Alkalai-Tuvia, S., Aharon, Z., Perzelan, Y., Ilic', Z. and Lurie, S. (2009). Prevention of chilling injury in sweet bell pepper stored at 1.5°C by heat treatments and individual shrink packaging – 3 Years of research. *Folia Hort.* 21/2: 87-97.
- Goren, A.**, Alkalai-Tuvia, S., Perzelan, Y., Aharon, Z., Ilic', Z. and **Fallik, E.** (2010). Harvested tomato quality and nutritional levels as affected by high temperatures in Mediterranean wholesale markets, and home or refrigerated temperatures. *Adv. Hort. Sci.* 24: 200-206.
- Tietel, Z.**, Bar, E., Lewinsohn, E., Feldmesser, C., **Fallik, E.** and Porat, R. (2010). Effects of wax coatings and postharvest storage on sensory quality and aroma volatile composition of 'Mor' mandarins. *J. Sci. Food Agric.* 90: 995-1007.
- Tietel Z.**, Weiss, B., Lewinsohn, E., **Fallik, E.** and Porat, R. (2010). Improving taste and peel color of early-season Satsuma mandarins by combining high-temperature conditioning and degreening treatments. *Postharvest Biol. Technol.* 57: 1-5.

- Goren, A.**., Alkalai-Tuvia, S., Perzelan, Y., Aharon, Z., and **Fallik, E.** (2011). Photosensitive shade nets reduce postharvest decay development in pepper fruits. *Adv. Hort. Sci.* 25: 26-31.
- Ilić, Z.**., Trajković, R., Perzelan, Y., Alkalai-Tuvia, S. and **Fallik, E.** (2011). Influence of 1-methylcyclopropene (1-MCP) on postharvest storage quality in green bell pepper fruit. *Food and Bioprocess Technol* 5: 2758-2767.
- Tietel., Z.**., Plotto, A., **Fallik, E.**, Lewinsohn, E. and Porat, R. (2011). Taste and aroma of fresh and stored mandarines. *J. Sci. Food Agric.* 91: 14-23.
- Tietel., Z.**., Feldmesser, E., Lewinsohn, E., **Fallik, E.**, and Porat, R. (2011). Changes in the transcriptome of 'Mor' mandarin flesh during storage: Reflects on molecular regulation of fruit flavor deterioration. *J. Agric. Food Chem.* 96: 3819-3827.
- Tietel, Z**., Lewinsohn, E., **Fallik, E.**, and Porat, R. (2011). Elucidating the roles of ethanol fermentation metabolism in causing off-flavors in mandarins. *J. Agric. Food Chem.* 59: 11779-11785.
- Fallik, E.**, Perzelan, Y., Alkala-Tuvia, S., Nemny-Lavy, E. and Nester, D. (2012). Development of cold quarantine protocols to arrest the development of the Mediterranean fruit fly (*Ceratitis capitata*) in pepper (*Capsicum annum* L.) fruit after harvest. *Postharvest Biol. Technol.* 70: 7-12.
- Ilic', Z.**., Milenkovic', L., Stanojevic', L., Cvetkovic' D. and **Fallik, E.** (2012). Effects of the modification of light intensity by color shade nets on yield and quality of tomato fruits. *Sci. Hort.* 139: 90-95.
- Ilić, Z.**., Trajković, R., Pavlovic', R., Alkalai-Tuvia, S., Perzelan, Y. and **Fallik, E.** (2012). Effect of heat treatment and individual shrink packaging on quality and nutritional value of bell pepper stored at suboptimal temperature. *Intl. J. Food Sci. Technol.* 47: 83–90.
- Parsons, E.P.**., Popopvsky, S., Lohrey, G.T., Lu, S., Alkalai-Tuvia, S., Perzelan, Y., Paran, I., **Fallik, E.** and Jenks, M.A. (2012). Fruit cuticle lipid composition and fruit post-harvest water loss in an advanced backcross generation of pepper (*Capsicum* sp.). *Physiol. Plant.* 146: 15-25.
- Tietel., Z.**., Lewinsohn, E., **Fallik, E.**, and Porat, R. (2012). Importance of storage temperatures in maintaining flavor and quality of mandarins. *Postharvest Biol. Technol.* 64: 175-182.
- Ilić, Z.S**., Marinković, D., Trajkovic, R., Sunic, L., Perzelan, Y., Alkalai-Tuvia, S. and **Fallik, E.** (2013). Effect of 1-methylcyclopropene on the antioxidant capacity and postharvest quality of tomato fruit. *African J. Biotechnol.* In press.
- Kong, Y**., Avraham, L., Perzelan, Y., Alkalai-Tuvia, S., Ratner, K., Shahak, Y. and **Fallik, E.** (2013). Pearl netting affects postharvest fruit quality in 'Vergasa' sweet pepper via light environment manipulation. *Sci. Hortic.* 150: 290-298.
- Parsons, E.P**., Popopvsky, S., Lohrey, G.T., Alkalai-Tuvia, S., Perzelan, Y., Bosland, P., Bebeli, P.J., Paran, I., **Fallik, E.** and Jenks, M.A. (2013). Fruit cuticle lipid composition and water loss in a diverse collection of pepper (*Capsicum*). *Physiol. Plant.* doi:10.1111/ppl.12035

Chapters, Books and Invited reviews (since 2000, from total 24)

- Hamilton-Kemp, T.R., Archbold, D.D., Loughrin, J.H., Anderson, R.A., McCracken Jr., C.T., Collins, R.W. and **Fallik, E.** (2000). Stimulation and inhibition of fungal pathogens of plants by natural volatile phytochemical and their analogs. *Current Topics in Phytochemistry* 4: 95-104. (**Invited review**).
- Schirra, M., D'hallewin, G., Ben-Yehoshua, S. and **Fallik, E.** (2000). Host-pathogen interactions modulated by heat treatment. *Postharvest Biol. Technol.* 21: 71-86. (**Invited review**)
- Fallik, E.** (2001). Physiology, pathology and methods to maintain the keeping quality of fresh harvested produce. In: *Working in Agriculture and Environmental Protection – Research*

- Projects*. pp. 97-112. (LevZion, T. Ed.). Uveeler Center for Guidance of Research Projects - The Hebrew University and Ministry of Education. (**Invited chapter in Hebrew**).
- Ilic', Z. and **Fallik, E.** (2002). Cuvanje Povrca - (Storage of Vegetables, Serb language) University of Prishtina - Mitrovica, Kosovo 247 p. (**A Book**)
- Fallik, E.** (2002). The keeping quality of fresh harvested and partially processed produce. In: *Food, Nutritions and Health*,. pp. 135-154. (Hopfeld, I. Ed.) Weizmann Institute for Science and Ministry of Education Publishers. (**Invited chapter in Hebrew**)
- Fallik, E.** (2004). Pre-storage hot water treatments (immersion, rinsing and brushing). *Postharvest Biol. Technol.* 32: 125-134. (**Invited review – TOP SITED 2003-2008**)
- Fallik, E.** (2005). Chapter 20: Hot water treatments for control of fungal decay on fresh produce. In: *Microbiology of Fruits and Vegetables*. pp. 461-478. (Sapers, G.M., Gorny, J.R. and Yousef, A.E. Eds). CRC Press, Inc., Boca Raton, Florida. (**Invited chapter**).
- Fallik, E.** and Wilson, C.L. (2006). Chapter 10: Potential Uses of Electronic Nose for Fresh Produce Quality Evaluation In: *Recent Advances in Postharvest Technologies of Horticultural Crops*. pp. 239-250. (Benkeblia, N. and Shiomi, N. Eds.). Research Signpost Publisher. (**Invited chapter**).
- Aharoni, N., Rodov, V., **Fallik, E.**, Afek, U., Chalupowicz, D., Aharon, Z., Maurer, D. and Orenstein, J. (2007). Modified atmosphere packaging for vegetable crops using high-water-vapor-permeable films. In: *Intelligent and active Packaging for Fruits and vegetables*. pp. 73-112. (Wilson, C.L. Ed.). CRC Press, Boca Raton, Florida. (**Invited chapter**).
- Fallik, E.** (2007). Chapter 2: Heat Treatments to Control Fungal Disease. In: *Recent Advances in Postharvest Technologies to Control Fungal Diseases in Fruits & Vegetables* pp. 21-38. (Troncoso-Rojas, R. and Tiznado-Hernández, M.E. Eds). Research Signpost Publisher. (**Invited chapter**).
- Fallik, E.** and Lurie, S. (2007). Chapter 7: Thermal control of fungi to reduce postharvest decay. In: *Heat Treatments for Postharvest Pest Control*. pp 162-181 (Tang, J., Mitcham, E., Wang, S. and Lurie, S. Eds). CABI Publishing. (**Invited chapter**)
- Ilic, Z., **Fallik, E.**, Djurovka, M., Martinovski, D. and Trajkovic, R. (2007). Fiziologija i Tehnologija Cuvanja Povrca i Voca (Physiology and Technology Storage of Vegetable and Fruit). 328 p. (**A Book**)
- Fallik, E.** (2008). Chapter 15: Physical Control of Mycotoxigenic Fungi. In: *Mycotoxins in Fruits and Vegetables*. pp. 297-310 (Barkai-Golan, R. and Paster, N. Eds). Elsevier: Holland. (**Invited chapter**).
- Fallik, E.** (2008). Chapter 14: Postharvest treatments affecting sensory and aroma of fresh and fresh cut products. In: *Post harvest Biology and Technology of Fruits, Vegetables and Flowers*. pp. 301-318. (Paliyath, G., Murr, D.P., Handa, A.K. and Lurie, S. Eds). The Haworth Press Inc. (**Invited chapter**).
- Porat, R. and **Fallik, E.** (2008). Chapter 8: Off flavour of Off-flavours in Fruit and Vegetables under fermentative conditions. In: *Fruit and Vegetable Flavor: Recent Advances and Future Prospects*. pp. 150-166 (Bruckner, B. and Wyllie, S.G. Eds.). Woodhead Publishing Ltd., Cambridge, UK. (**Invited Chapter**).
- Fallik, E.**, Alkalai-Tuvia, S. and Perzelan, Y. (2009). The influence of preharvest practices and postharvest treatments on sensory characteristics of fresh and fresh cut produce. In: *Quality Retention During the Postharvest Handling Chain*. pp. 1-6 (Sivakumar, D. Ed.). Global Science Books (**Invited chapter**).
- Ilic', Z., **Fallik, E.** and Dardic' M. (2009). Berba, sortiranje, pakovanje i čuvanje povrća (Harvest, sorting, packaging and storage of vegetables). Faculty of Agriculture Publisher – Kosovska Mitrovica. 388 p. (**A book**).
- Sela, S. and **Fallik, E.** (2009). Microbial Quality and Safety of Fresh Produce. In: *Postharvest Handling*. pp. 351-398 (Florkowski, W.J., Shewfelt, R.L., Brueckner, B. and Prussia, S.E. Eds). Oxford:Academic Press (**Invited chapter**).
- Fallik, E.** (2010). Hot water treatments of fruits and vegetables for postharvest storage. *Hort. Rev.* 38: 191-212. (**Invited Review**).

Paran, I. and **Fallik, E.** (2011). Chapter 14: Breeding for fruit quality in pepper (*Capsicum* spp.). In: *Breeding for fruit quality*. pp. 307-322. (Bebeli, P. and Jenks, M. Eds). Wiley-Blackwell Publishing (**Invited chapter**).

Fallik, E., Alkalai-Tuvia, S. and Perzelan Y. (2012). Alternative to fungicides in postharvest practices. *Contemporary Agriculture/Savremena Poljoprivreda* 61: 209-224 (**Invited Review**).

Sivakumar, D. and **Fallik, E.** (2013). Influence of heat treatments on quality retention of fresh and fresh-cut produce. *Food Review Intl.* 29: 294-320. (**Invited Review**).

Other papers

Reviewed papers in Acta Horticulturae – 21

Papers in Hebrew (reviewed and non-reviewed) – 42

Students (since 2000):

PhD – 4

MSc – 15

PostDoc – 1

Sabbatical – 1

Research interests: Postharvest disease control of fruit vegetables; Fruit resistance by physical treatments; Sensory analysis (taste and smell) in harvested fresh produce; Mechanism of water loss in fresh vegetables; The use of 1-MCP to inhibit ripening processes; The influence of colored shade nets on postharvest aspects. Fresh produce quality of grafted vegetables