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CURRICULUM VITAE

Dr. MOSHE KOSTYUKOVSKY

Head of the Inspection Unit, Dept. of Food Quality and Safety, The Volcani Center, ARO, P.O.Box 6, Bet Dagan, 50250, Tel.: 972-3-9683584/53, Mobil: 972-506-220584, Fax: 972-3-9683583, 972-3-9604428, E-mail: inspect@volcani.agri.gov.il

Personal:

1950 Born in Ukraine
1991 Repatriation to Israel
Married +2

Major Research Interests:

Stored product pest insects. Winter wheat pest control. Fumigation, sampling and trapping. The use of essential oils and IGRs for stored product pest control. Quarantine treatments in the cut flowers, spices and dates. IPM in the storage and on the winter wheat. Bread-making quality of the grain and *Eurygaster integriceps* problem

Education:

1967-1972 **M.Sc.** (with honours) in Plant Protection. The Faculty of Plant Protection, the Ukrainian Academy of Agriculture, Kiev, Ukraine.
1982 **Ph.D.** in Agriculture, Plant Protection. The Ukrainian R&D Institute of Plant Protection. Kiev, Ukraine.

Employment:

1992 – present Department of Food Quality and Safety, ARO, the Volcani Center, Israel. Research Engineer (44).
1972 -1991 The Ukrainian R&D Institute of Plant Protection. Kiev, Ukraine. Agronomist, Researcher, Senior Researcher, Leading Researcher.

Research Projects:

1973-1991 IPM on the winter wheat, Ukraine
1992-present Stored product pests control, essential oils, IGRs, quarantine treatments, improvement of the local wheat grain quality by sunnpest control, Israel

Teaching:

Courses on Fumigation, Stored Product Pests Control (Ministry of Health, Tel HaShomer), Grain and Seed Storage (Faculty of Agriculture, Rehovot), Stored Product Pest Control (Ministry of Agriculture, Bet Dagan), Supervisor and Lector for Israelis and foreign postdocs and students.

Publications: 150 scientific publications.

Languages: Hebrew, English, Russian, Ukrainian, Yiddish.

Selected publications

Kostyukovsky, M., Chen, B., Atsmi, S. and Shaaya, E. (2000). Biological activity of two juvenoids and two ecdysteroids against three stored product insects. Insect Biochem. Molec. Biol. 30: 891-897.

Kostyukovsky, M., Shaaya, E, Bin, C. and Trostanetsky, A. (2001). Biological activity of some IGRs on main stored product insect pests. Phytoparasitica 29(1): 59.

Kostyukovsky, M., Shaaya, E and Ravid, U. (2002). The potential use of plant volatiles for the control of stored product insects and quarantine pests in cut flowers. Acta Horticulturae 576: 347-358.

Kostyukovsky, M., Rafaeli, A., Gileadi, C., Demchenko, N. and Shaaya, E. (2002). Activation of octopaminergic receptors by essential oil constituents isolated from aromatic plants: possible mode of toxicity against insect pests. Pesticide Management Science 58:1101-1106.

Kostyukovsky, M., Trostanetsky, A., Carmi, Y., Frandji, H. and Schneider, R. (2003). Activity of Novaluron on the major stored-product insect pests. Phytoparasitica 31(3): 300.

Kostyukovsky, M., Carmi, Y., Trostanetsky, A., Frandji, H. and Golani, J. (2003). Inspection and pest monitoring of stored food and feed emergency stocks in Israel. Phytoparasitica 31(3): 300-301.

Kostyukovsky M., Shaaya, E. and Ravid, U. (2005). Essential Oils for the Control of Stored Product Insect Pests in Dry Food. First International Symposium on Natural Preservatives in Food Systems. 30 to 31 March 2005 Princeton, New Jersey, USA. 29

Shaaya, E., Maller R., **Kostyukovsky, M.** and Maller L. (2005). Improving the control of insects in food processing. In: "*Handbook of hygiene control in the food industry*" H.L.M.Lelieveld, M.A.Mostert and J.Holah Eds., Woodhead Publishing Lim. Abington, England. pp.407-425

Kostyukovsky, M. and Trostanetsky, A. (2006). The effect of a new chitin synthesis inhibitor, Novaluron, on various developmental stages of *Tribolium castaneum* (Herbst). J. Stored Prod. Res. 42: 136-148.

Shaaya, E., **Kostyukovsky, M.** (2006). Essential oils: potency against stored product insects and mode of action. Stewart Postharvest Review. An international journal for reviews in postharvest biology and technology [Online], August 2006, Vol. 2, No. 4 (paper no. 5)

Shaaya, E. and **Kostyukovsky, M.** (2007). The potential of phytochemicals, as safe alternatives for the control of stored-product and cut flowers insects. In: Agricultural sustentable: Tecnicas y Productos de Bajo Impacto Ambiental" (Ed. H.L. Saldivar) (in Spanish).

Ogendo O., **Kostyukovsky M.**, Ravid U., Matasyoh J.C., Deng A. L., Omolo E.O., Kariuki S.T., Shaaya E. (2008) Bioactivity of *Ocimum gratissimum* L. oil and two its constituents against five insect pests attacking stored food products. J. Stored Prod. Res. 44:328-334

Trostanetsky, A. and **Kostyukovsky, M.** (2008) Transovarial activity of the chitin synthesis inhibitor novaluron on eggs hatch and subsequent development of larvae of *Tribolium castaneum*. Phytoparasitica 36:38-41

Kostyukovsky M., Trostanetsky, A., Menasherov M, Hazan T. and Hilel M (2008) Phosphine fumigation with speedbox. Effectiveness and advantages. Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reductions. 6-9.11.2008, Orlando, Florida, USA. (81:1-2)

Shaaya, E. and **Kostyukovsky, M.** (2009) The potential of biofumigants as alternatives to methyl bromide for the control of pest infestation in grain and dry food products In: "Recent Advances in Plant Biotechnology" (Kaufman Peter B. and Kirakosyan Ara Eds.)

Ben Jakir D., Hen, M., **Kostyukovsky M.**, Gotlib Y., Israel S. (2009). Development of the methods for the post harvest control of white fly on the solidago flowers. Olam ha-Perah, April-May: 52-55 (in Hebrew).

Kostyukovsky, M., Trostanetsky, A., Menasherov, M., Yasinov, G., Naftaliyahy, U., Zohar, D., Kitain, S. and Melamed Y. (2010). Management of Sunn pest *Eurygaster integriceps* Put. for improvement wheat quality in Israel. *Isragri*.

Kostyukovsky M. and Shaaya E. (2010) Phytochemicals as Natural Fumigants and Contact Insecticides against Stored Product Insects In: “*Natural Products in Plant Pest Management*” (Edited by N K Dubey) **CABI International**

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Kostyukovsky M., Trostanetsky A., Menasherov M., Yasinov G., Hazan T. (2010) Laboratory evaluation of diatomaceous earth against main stored product insects. *Proceedings of the 10th International Working Conference on Stored Product Protection 22-26 July 2010 Estoril, Portugal.*

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J.O. Ogendo, A.L. Deng, **M. Kostyukovsky**, U. Ravid, J.C. Matasyoh, E.O. Omolo1, S.T. Kariuki, A.W. Kamau1, P.K. Bett and E. Shaaya. (2011). Biocontrol potential of selected plant essential oil constituents as fumigants of insect pests attacking stored food commodities. *Baraton Interdisciplinary Research Journal* (1), 13-19

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Kostyukovsky M., Trostanetsky A., Quinn E., Bernstein S., Rafaeli A. (2013) Suppression of *Plodia interpunctella* moth populations infesting wheat warehouses in Israel using mating disruption. IOBC-WPRS Bulletin.

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