Mohamed Salah Khalil (B.Sc., M.Sc., Ph.D.)

ORCHID ID:0000-0002-1869-2055 Scopus Author ID: 55199617100 Researcher ID: H-2133-2016

Fungicides, Bactericides & Nematicides Department, Central Agricultural Pesticides Laboratory, Agricultural Research Center, Alexandria, Egypt. Integrated Protection Laboratory, El-Sabaheya, Baquse, 21616, Alexandria, Egypt (+2) 0100-9297-847 <u>melonema@gmail.com</u>

POSITIONS

- **4** (2019 till now)**: Researcher**.
- **4** (2014 2019)**: Assistant Researcher**.
- **4** (2013 2014): **Agricultural Specialist.**
- **4** (2006 2013): **Agronomist**.

EDUCATION

- PhD. in Pesticides from Plant Protection Department, Faculty of Agriculture Saba-Basha, Alexandria University in 2018 under title: "Evaluation of Some Management Practices against Root Knot Nematode in Tomato".
- Master Science in pesticides from Plant Protection Department, Faculty of Agriculture Saba- Basha, Alexandria University in 2009 under title: "Influence of Nematicides and Certain Natural Products on the Infestation of Nematodes Attacking Tomato Plants (Lycopersicon esculentum, Mill)".
- Bachelor of Agricultural Science from Dry land Farming Department, Faculty of Agriculture Saba-Basha, Alexandria University in 2004 with general grade (very good with rank of honor).

RESEARCH EXPERIENCE

Agricultural Research Center, Egypt.

- 4 Management of plant parasitic nematodes with:-
 - ✓ Chemical nematicides.
 - ✓ Organic soil amendments (especially plant wastes / composts/ vermicomposts).
 - ✓ Plant extracts.
 - ✓ Different micro-organisms.
 - ✓ Essential oils.
 - ✓ Bio-pesticides.
 - \checkmark Nano materials
 - ✓ Integrated Nematodes Management programs.
- **4** Extract certain plants with different equipments.
- Plant Parasitic Nematodes (P.P.N) isolation and classification (some).
- Bioassay of chemical, bio-agents and natural compounds against plant parasitic nematodes.
- **4** Evaluation of certain compounds and materials in fields on different pests.
- Management / control of some insect pests under field and laboratory conditions.
- Participated in cotton leaf worm rearing (Plant Protection institute).

Alexandria University, Egypt.

- Environmental toxicology (Pesticides effects on some water modeling).
- Management the experimental field trials for the first legal introduction of genetically modified crops in Egypt (Bt. Corn).
- Study the environmental stress by pesticides *in vitro* and *in vivo*.
- Chemical ecology of certain pesticides against corn borers.
- Evaluated the Pre-harvest interval (PHI) for organophosphates pesticide residues.
- Toxicological study of certain new pesticides in agricultural environments.
- Participated in corn borers and cotton leaf worm rearing under laboratory conditions.
- Bioassay and Toxicity studies of chemical and microbial pesticides against some insects.

International Journals

Reviewer in certain scientific Journals (more than 11 international journals included impacted and indexed journals).

INTERESTING FIELDS

- Plant parasitic nematodes management.
- Classification of plant parasitic nematodes (some genera).
- Insect pests control.
- Control of Public health pests.
- Pesticides residue.
- Pesticides toxicology.
- Mass rearing of some insects.
- Management of stored product insects.
- Plant disease management.
- Integrated pest management (IPM).
- Environmental pollution and pollutants "especially pesticides".
- Plant extracts against agricultural pests.
- Essential oils and monoterpines against pests.

SOME SELECTED PUBLICATIONS

RESEARCH ARTICLES

- Khamis, W. M. and Khalil, M. S. (2019). Comparative toxicity study of different acaricides in laboratory preluding for field efficacy assessment against *Tetranychus urticae* (Acari: Tetranychidae). Egyptian Journal of Plant Protection Research Institute. 2(4): 576-585.
- Radwan, M.A., Saad, A.S.A., Mesbah, H.A., Ibrahim, H.S. and Khalil, M.S. (2019). Investigating the *In vitro* and *In vivo* nematicidal performance of structurally related macrolides against the root-knot nematode, *Meloidogyne incognita*. Hellenic Plant Protection Journal. 12 (1): 24-37.
- Abdelgalil, G.M., Abou-Elnasr, H.S., Khalil, M.S., Abouhamer, M.S., Osman, A.M. and Abdallah, E.A.M. (2018). Molluscicidal toxicity of abamectin against *Eobania vermiculata* and *Theba pisana* in vitro and the estimation of GABA-Transaminase activity by HPLC. Journal of Biopesticides. 11(2):161-168.
- Ibrahim, H.S., Radwan, M.A., Saad, A.S.A., Mesbah, H.A., and Khalil, M.S. (2018). Assessing the potential of some Egyptian plant species as soil amendments in

Meloidogyne incognita management on tomato. Journal of Biopesticides. 11(2): 154-160.

- El-Tanany, M.M., El-Shahaat, M.S. and Khalil, M.S. (2018). Efficacy of three biopesticides and oxamyl against citrus nematode (*Tylenchulus semipenetrans*) and on productivity of Washington navel orange trees. Egyptian journal of Horticulture. 45 (2): 275-287.
- Khalil, M.S. (2013). The potential of five eco-biorational products on the reproduction of root-knot nematode and plant growth. International journal of phytopathology, 2(2): 84-91.
- Khalil, M.S.; Allam, A.F.G. and Barakat, A.S.T. (2012). Nematicidal Activity of some biopesticide agents and microorganisms against root-knot nematode on tomato plants under greenhouse conditions. J. Plant Protec. Res, 52 (1): 47-52.
- Khalil, M.S. and Badawy, M.E.I. (2012). Nematicidal activity of a biopolymer chitosan at different molecular weights against root-knot nematode, *Meloidogyne incognita*. Plant Protection Science, 48(4):170-178.

REVIEW ARTICLES

- Khalil, M.S. and Darwesh, D.M. (2019). Avermectins: The promising solution to control plant parasitic nematodes. Journal of plant science and phytopathology, 3(2): 81-85.
- Yahya, A., Khalil, M.S., Ghorab M.A. (2018). Environmental Pollution by Heavy Metals in the Aquatic Ecosystems of Egypt. Open Acc J Toxicol., 3(1): 555603. DOI: 10.19080.
- Khalil, M.S., Mahmoud, A. E., Ghorab, M. A., Ebrahim, E. (2017). The Parasitism of Root-Knot Nematodes: A Mini review. International Journal of Environmental Sciences & Natural Resources, 5(3): 555664. DOI: 10.19080/ IJESNR. 2017.05.555664.
- Ghorab, M.A. and Khalil, M.S. (2016). The effect of Pesticides pollution on our life and environment. Journal of pollution effects & control. 4(2):159.doi:10.4172/ 23754397. 1000159.

CV

- Ghorab, M.A. and Khalil, M.S. (2015). Toxicological Effects of organophosphates Pesticides. International Journal of Environmental Monitoring and Analysis. 3 (4): 218-220.
- Khalil, M.S. (2013). Abamectin and Azadirachtin as Eco-friendly and Promising Biorational Tools in Integrated Nematodes Management Programs. Journal of Plant Pathology and Microbiology, 4 (4): doi:10.4172/2157-7471.1000174.

BOOKS OR BOOK CHAPTERS

- Khalil, M.S. and W. M. Khamis (Available December 2020). Novel Forecasting, Bio-Indicator, and Bio-Remediation for Pesticides Contamination in Soil. *In*: Pesticide Contamination in Freshwater and Soil Environs: Impacts, Threats, and Sustainable Remediation, Mehmood M.A., Hakeem K.R., Bhat, R.A. and Dar G. H. (eds.), Apple Academic Press publishing, 402 pp.
- Khalil, M.S. (2016). Utilization of biomaterials as soil amendments and crop protection agents in integrated nematodes management. *In*: Plant, Soil and Microbes (Vol. 1): Interactions and Implications in Crop Science, Hakeem K.R., Akhtar M.S. and Abdullah S.N.A. (eds.), Springer international publishing, Chem, Switzerland, P203-224.

CONFERENCE PAPERS

- Ghorab, M. A. and M. S. Khalil (2020). Acute and Sub-chronic toxicity for Three Commonly Used Insecticides, Neonicotinoids, and Phenylpyrazole (Fipronil), in marine crustacean, *Mysidopsis bahia*. Accepted July 2020, SETAC North America Annual meeting, November 2020.
- Ghorab, M.A., J.L. Newsted, A. Abdelmoneim, M.S. Khalil and M.J. Zwiernik (2019). Acute and chronic toxicity of systemic insecticides; neonicotinoids and phenylpyrazole, in embryonic and juvenile zebrafish (*Danio rerio*). Poster presentation during the SETAC North America 40th Annual Meeting of the Society of Environmental Toxicology, November 3–7, 2019 at Toronto, Ontario, Canada.

Omar, H., Samir, H., Khalil, M.S., Ghorab, M.A. and Zwiernik, M.J. (2016). Acute water column effects concentrations (LC₅₀, LC₉₀) for three commonly used insecticides, two neonicotinoids (acetamiprid and Imidacloprid), and a recently registered Phenylpyrazole (Fipronil), exposed to common commercially cultured shrimp (*Marsupenaeus japonicus*). poster presentation during the 55th Annual Meeting of the Society of Toxicology, March 13–17, 2016 at the Ernest N. Morial Convention Center in New Orleans, Louisiana, USA.

EDITORIALS

- Khalil, M.S. (2014). Fate of Pesticides in the Agricultural Environment. Biology and Medicine, 6(4): e117. doi:10.4172/0974-8369.1000 e117.
- Khalil, M.S. (2013). Alternative Approaches to Manage Plant Parasitic Nematodes. Journal of Plant Pathology and Microbiology, 4 (1): e105. doi:10.4172/2157-471.1000e105.

PROJECTS

- **2015-2020**: Project Team Member, project # 725, "Evaluation the performance of nematicides to control nematodes' diseases of fruit trees (citrus & banana)" in El-Nobarya zone, Behaira government, **Egypt**.
- **2014-2020**: Project Team Member, project # 581, "Management of Cotton leaf and Boll worms in Alexandria government, **Egypt**".
- **2009-2010**: Project Team Member, project #600, "Production Strawberry Clean in the New Territories Lands in Alexandria and El-Behaira government, **Egypt**.
- **2008-2010**: Project Team Member , project #579, " Evaluation o f Insecticides efficacy in Vegetables against Pests of Family Legume in Agricultural Research Center, The Regional Station in Sabaheya, Alexandria, **Egypt**.
- **2008-2009**: Project Team Member , project #769, " Evaluation of New Insecticides efficacy in Vegetables against field crops insects and Pests in Agricultural Research Center, The Regional Station in Sabaheya, Alexandria, **Egypt**.

TRAINIGS

- **2015:** New strategies to handling pesticides in Egypt and its influence on environmental systematic.
- **2015:** training on the fundamentals of Real Time PCR. National Institute of Oceanography & Fisheries (NIOF), Alexandria, **Egypt**.
- **2014**: "Integrated management of vegetables pests", Plant protection institute, Alexandria, **Egypt**.
- **2014**: "The safe and effective use of agricultural pesticide", by Egyptian Agricultural Pesticides Committee & Syngenta Agro Co., kaha, Kaliobeya governorate, Egypt.
- **2014**: Theoretical and practical training program entitled "Assessing chemical contaminant and analysis of biota on the environment ". National Institute of Oceanography & Fisheries (NIOF), as organizer and lecturer, Alexandria, **Egypt**.
- **2014**: "Integrated pest management for the most important and expected diseases in different field crops and horticultural at Alexandria governorate", by Plant protection institute, Alexandria, **Egypt**.
- **2013**: "Modern trends to evaluate pesticides toxicity and residues", by Central Agricultural Pesticides Laboratory, Alexandria, **Egypt**.
- **2012**: "New Technologies in the field of nematodes diseases", by Faculty of Agriculture, El-Fayoum University, El-Fayoum, **Egypt.**
- **2007**: "Basic training for workers in pesticides fields", Faculty of Agriculture, Alexandria University, Alexandria, **Egypt**.

LECTURES AND SEMINARS

- **2019:** Nematicides: present and future (New nematicides in Egypt).
- **2019:** The importance of plant wastes in pest control (lecture).
- 4 2018: Macrolides: The new generation of nematicides.
- **2018**: Neem oil as a tool in phyto-nematodes management.
- **4 2017:** Abamectin as a new nematicide (lecture).

- **4 2016:** Plant parasitic nematodes (the hidden enemy)
- **4 2015:** Fate of pesticides in agricultural environments.
- **4 2014:** Fate of pesticides in environment (lecture).
- **4 2013:** The Role of Organic Matters in protection from plant Pathogens (lecture).
- **4 2012:** The relationship between composition and potency (lecture).
- **4 2012:** Feeding mechanisms of ectoparasitic nematodes.
- **2010:** Nematicides mode of action (lecture).
- **4 2009:** Pesticides classification.
- **2008:** Controlling of Phyto-parasitic nematodes in vegetables.
- **2007:** Biological control of plant parasitic nematodes.

WORKSHOPS

- **2019:** World Tsunami Awareness Day Alexandria University (5/11/2019).
- **2019**: climate change: the effect on pesticides usage and pest management National Research Center (23/9/2019).
- **2019:** The modern trends in controlling plant diseases (10 & 11/2/2019).
- **2018:** Adverse effects of pesticides on professive workers (4/12/2018).
- **2018**: Plant extracts as pest control agents (28&29/10/2018).
- **2018**: Fish Physiology and Biochemistry Workshop (22 & 23 October) National Institute of Oceanography and Fisheries –Alexandria.
- **2017:** Pesticides: the coming dangerous.
- **2016:** Food contamination (9/2016)
- **2016**: Management of documents information, Alexandria, Egypt (5/6/2016).

- **2015:** Cultivation, production and manufacturing of oyster mushrooms and its nutritional value. Plant Pathology Institute, Plant Protection Station, Alexandria, Egypt.
- **2015**: Food Safety & Nutrition interrelations. High Institution for Public Health, Alexandria, Egypt.
- **2015:** Nanotechnology and its biological applications. City of Scientific Research & Technological Applications, Alexandria, Egypt.
- **2015:** Chromatography and new techniques in food science. Faculty of Agriculture Saba Basha, Alexandria University, Alexandria, Egypt.
- **2015**: Detection of mycotoxins in food and feed. City of Scientific Research & Technological Applications, Alexandria, Egypt.
- **2014**: Data analysis and modeling using CoStat statistical software. City of Scientific Research & Technological Applications, Alexandria, Egypt.

CONFERENCES

- **2019:** The first conference of Agricultural Science for post graduate students in Faculty of Agriculture (Saba Basha) – Alexandria University – Egypt (2 May, 2019).
- 2017: The First International Conference and Exhibition on the Sustainable Development of Aquaculture held in Cairo, Egypt, during the period of 20 to 22 November.
- **2014**: Biovasion (New life science: the next decade). Bibliotheca Alexandrina,
 Alexandria, Egypt.
- **2012**: Biovasion (New life science: linking science to society). Bibliotheca Alexandrina, Alexandria, Egypt.

SOCIAL EXPERIANCES

 Supervisor in pest control unit under authority of plant protection department, faculty of agriculture (Saba-Basha), Alexandria University, Alexandria, Egypt (experience of 5 years).

- Pest control Supervisor in certain public health companies in Alexandria, Egypt (experience of 15 years).
- Technical consultant in control of public health pests at certain companies, Alexandria, Egypt.
- Participated in campaigns to raise awareness of the pesticides risks under authority of civil associations in Alexandria Governorate.
- Participated in campaigns under authority of the Egyptian Ministry of Health and Population to control rodents in certain regions of Alexandria Governorate.

MEMBERSHIPS

- **2014-2020**: Member in Egyptian society of pesticides in Central Agricultural Pesticides Laboratory (CAPL), Cairo, Egypt.
- **2014-2019**: Editorial Board Member in World Research Journal of Entomology and Nematology, India.
- **4 2013-2020**: Editorial Board Member in Journal of Biology and Medicine, USA.
- **4 2012 2020**: Editorial Board Member in Journal of Agricultural Science, Canada.

HONORS AND AWARDS

- 4 Awarded a certificate from journal of agricultural science to serve as a reviewer.
- Awarded a certificate from journal of annual research and review in biology to serve as a reviewer.
- Awarded a certificate from journal of agricultural science to serve as editorial board member.
- Awarded a certificate from agriculture, forestry and fisheries to serve as editorial board member.
- Awarded a certificate from American journal of agriculture and forestry to serve as editorial board member.
- Awarded a certificate from journal of plant pathology and microbiology to serve as editorial board member.

- Awarded a certificate from journal of Biology and medicine to serve as editorial board member.
- Awarded a certificate from World research journal of entomology and nematology to serve as editorial board member.
- Awarded a certificate for participation in the training entitled "safe usage of pesticides" under authority of Egyptian pesticides committee and Syngenta Company.
- Awarded a thankfulness certificate from Global pest Control Company (public health services) to work as technical consultant from 2010 till 2013.
- Awarded a certificate for participation in the workshop "New Technologies in the field of nematodes diseases" from El-Fayoum University.
- Awarded a certificate from Egyptian pesticides committee in Basic training for pesticide operators.
- Awarded certain certificates to participate in trainings and workshops from different places.

Best Regards

Dr. Mchamod S. K. halil