



CURRICULUM VITAE

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Academic qualifications:

PhD: Agricultural Entomology, University of Guilan, Rasht, Iran.

MSc: Agricultural Entomology, University of Guilan, Rasht, Iran.

BSc: Plant Protection, Vali-E-Asr University of Rafsanjan, Iran.

Research interests:

- ✓ Biocompatible Nano/micro-Formulation of Pesticides & other Agrochemicals
- ✓ Compatible Combination of Pesticides in Formulations & in Spray Tank
- ✓ Biocompatible Nano/micro-Formulation of Inorganic Compounds
- ✓ Optimization of Conventional Agrochemical Formulations
- ✓ Insect Detoxification and Antioxidant Enzyme Systems
- ✓ Ecotoxicology of Nanoparticles on Biomarkers

Selected research projects:

- ✓ Preparation of biocompatible formulation of Imidacloprid/Sulfur with controlled release feature for control of common pistachio psyllid.
- ✓ Investigation on the possibility of preparation of capsule suspension (CS) formulations of abamectin/sulfur in order to simultaneous control of cucumber powdery mildew and two-spotted spider mite.
- ✓ The effect of modern disinfection methods of cotton seed on germination characteristics and plant establishment, storage and economical evaluation.
- ✓ Effect of extracts and essential oil of some plants on Tomato Yellow Leaf Curl Virus, zucchini yellow mosaic virus and tomato big bud.
- ✓ Study of the role of dendrimers and dendrimers hybrids for the preparation of controlled release nanoformulations (Iran Nanotechnology Initiative Council).
- ✓ Pilot production of photodegradable & biocompatible nano-imidacloprid (Iran Nanotechnology Initiative Council).
- ✓ Investigation of the insecticidal effect of nano-indoxacarb and nano-imidacloprid on *Glyphodes pyloalis* (Iran National Science Foundation).

Selected publications:

- ✓ US Patent (USPTO):
Memarizadeh, N., M. Adeli and M. Ghadamyari. 2016. Photodegradable, biocompatible and efficient nano-encapsulated formulation (2016/0000071A1).
- ✓ BOOK (translation):
Memarizadeh, N. 2021. Avoid Tank Mixing Errors; A Guide to Applying the Principles of Compatibility and Mixing Sequence, Iranian Research Institute of Plant Protection.

Journals papers (ISI):

- Memarizadeh, N., M. Ghadamyari, M. Adeli and Kh. Talebi. 2014. Preparation, characterization and efficiency of nanoencapsulated imidacloprid under laboratory conditions. *Ecotoxicology and Environmental Safety*. 107: 77-83.

- Memarizadeh, N., M. Ghadamyari, M. Adeli and Kh Talebi. 2014. Linear-Dendritic Copolymers/Indoxacarb Supramolecular Systems: Biodegradable and Efficient Nano-pesticides. *Environmental Science: Processes & Impacts*. 16: 2380-2389.
- Memarizadeh, N., M. Ghadamyari, M. Adeli and Kh Talebi. 2014. Biochemical biomarkers of *Glyphodes pyloalis* Walker (Lepidoptera: Pyralidae) in Exposure to TiO₂ Nanoparticles. *Invertebrate survival journal*. 11: 47-53.
- Memarizadeh, N., M. Ghadamyari, R. H. Sajedi and J. Jalali Sendi. 2011. Characterization of esterases from abamectin-resistant and susceptible strains of *Tetranychus urticae* Koch (Acari: Tetranychidae). *International Journal of Acarology*. 37 (4): 271–281.
- Memarizadeh, N., M. Ghadamyari, R. H. Sajedi and P. Zamani. 2013. Biochemical mechanisms of resistance to abamectin in Iranian populations of the two-spotted spider mite, *Tetranychus urticae* Koch (Acari: Tetranychidae). *Acarologia*. 53(3): 235-246.
- Memarizadeh, N., M. Ghadamyari, P. Zamani and R. H. Sajedi. 2014. Purification and characterization of midgut α -glucosidase from larvae of the rice green caterpillar, *Naranga aenescens* Moore. *Journal of Agricultural Science and Technology*. 16: 1229-1240.
- Memarizadeh, N., M. Ghadamyari, M. Adeli and Kh Talebi. 2014. Cellular Energy Allocation of *Glyphodes pyloalis* Walker (Lepidoptera: Pyralidae): Changes Related to Exposure to TiO₂ nanoparticles. *Journal of Entomological Society of Iran*. 33 (4): 1-12.
- Zamani, P., R. H. Sajedi, M. Ghadamyari and N. Memarizadeh. 2013. Biochemical mechanisms of resistance to chlorpyrifos in Iranian populations of the two-spotted spider mite, *Tetranychus urticae* (Acari: Tetranychidae). *Journal of Agricultural Science and Technology*. 16: 277-289.
- Zandvakili, S., N. Memarizadeh, M. Ghadamyari, A. Alizadeh and R. H. Sajedi. 2019. Purification and Biochemical Characterization of Glutathione S-transferases from Common Pistachio Psyllid, *Agonoscena pistaciae* Burckhardt and Lauterer (Hem.: Psyllidae). *Journal of Entomological Society of Iran*. 38 (4): 409-421.
- Memarizadeh, N., M. Ghadamyari, Kh. Talebi, E. Torabi M., Adeli and R. Jalalipour. 2019. Residues and Dissipation Kinetics of Two Imidacloprid

- Nanoformulations on Bean (*Phaseolus vulgaris* L.) under Field Conditions. Pollution. 5(4): 871-878.
- Memarizadeh, N. and M. Sharifi. 2020. Partial biochemical risk assessment of carbon nanotubes and carbon nanotubes/titanium dioxide nanoparticles on *Glyphodes pyloalis* (Lepidoptera: Pyralidae). Journal of Crop Protection. 9(4): 651-667.
 - Memarizadeh, N. and M. Sharifi. 2020. Biochemical biomarkers of lesser mulberry pyralid, *Glyphodes pyloalis* Walker, in the exposure to some applied nanomaterials in novel pesticide formulations. Plant Pest Research. 10 (1): 69-85.
 - Sharifi, M., Ghadamyari, M. and Memarizadeh, N. 2020. Biochemical properties of digestive carbohydrases and proteases of cereal leaf beetle, *Lema melanopa* (Coleoptera: Chrysomelidae). Journal of Entomological Society of Iran. 40 (3), 323–338.
 - Memarizadeh, N. and M. Sharifi. 2021. Evaluation of insecticidal potential and quantitative structure activity relationship (QSAR) study of Acephate derivatives. Journal of Crop Protection. 10 (3): 585-596.

Journals papers (ISC):

- Sahragard, A., M. Ghadamyari and N. Memarizadeh. 2010. An Investigation on Susceptibility to Permethrin in Two Populations of *Planococcus citri* (Risso) (Hem.: Pseudococcidae). Iranian Journal of Plant Production Science. 40 (2): 15-25.
- Memarizadeh, N., M. Ghadamyari, R. H. Sajedi and J. J. sendi. 2010. An Investigation on Cross Resistance in Abamectin-Resistant Population of *Tetranychus urticae* Koch (Acari: Tetranychidae) to Fumigant Toxicity of Rosemary Essential Oil. Iranian Journal of Plant Production Science. 41 (1): 125-134.
- Memarizadeh, N., M. Ghadamyari, R. H. Sajedi and J. J. sendi. 2011. Mechanisms of Resistance to Abamectin in Two-Spotted Spider Mite, *Tetranychus urticae* Koch (Acari: Tetranychidae). Iranian Journal of Plant Production Science. 42 (1): 75-83.
- Memarizadeh, N. and M. Ghadamyari. 2011. The Study on Fecundity Life Table Parameters of Abamectin-Resistant and -Susceptible Populations of *Tetranychus urticae* Koch (Acari: Tetranychidae). Journal of Plant Protection. 34: 89-100.

- Mahdavi Moghadam, M., M. Ghadamyari, Kh. Talebi and N. Memarizadeh. 2012. Effect of Artemisia Essential Oil on the Resistant Populations of Two-Spotted Spider Mite, *Tetranychus urticae* Koch. Journal of Plant Protection. 26 (3): 233-242.
- Zamani, P., R. H. Sajedi, M. Ghadamyari and N. Memarizadeh. 2015. Toxicological and Biochemical Characterizations of Acetylcholinesterases in Chlorpyrifos-Susceptible and Resistant Populations of Two Spotted Spider Mite, *Tetranychus urticae* Koch. Iranian Journal of Biology. 28 (4): 65-75.
- Sharifi, M., Jafari S. N., Memarizadeh, N., Mobasheri, M. T. and Rajaei, A. R. 2021. Comparing the Efficacy of Different Insecticides on the Control of White Peach Scale, *Pseudaulacaspis pentagona* on Peach Trees. Pesticides in Plant Protection Sciences. 9 (2): 97-108.

Conference papers:

- Memarizadeh, N., M. Ghadamyari, J. Jalali Sendi and R. H. Sajedi. 2011. Comparative study on life table parameters and energy allocation of abamectin-resistant and -susceptible populations of *Tetranychus urticae* Koch (Acari: Tetranychidae). Global Conference on Entomology (GCE 2011).
- Memarizadeh, N., M. Ghadamyari and R. H. Sajedi. 2011. Biochemical mechanisms of resistance to abamectin in Iranian populations of the two-spotted spider mite, *Tetranychus urticae* Koch (Acari: Tetranychidae). Global Conference on Entomology (GCE 2011).
- Memarizadeh, N., M. Adeli and M. Ghadamyari. 2012. Insecticidal efficiency and stability of new nano-imidacloprid encapsulated by Poly(citric acid)-block-poly(ethylene glycol) copolymers. 10th International Seminar of Polymer Science and Technology (ISPST 2012).
- Memarizadeh, N., M. Adeli and M. Ghadamyari. 2013. Preparation, Characterization and Insecticidal Efficiency of Photodegradable Nano-Indoxacarb Molecular Self-Assemblies. 16th congress of chemistry.
- Memarizadeh, N. and M. Ghadamyari. 2011. Biochemical characterization of esterase enzymes in the gut of *Hyphantria cunea* Drury (Lep.: Arctidae) and *Glyphodes pyloalis* Walker (Lep.: Pyralidae). The 16th National & 4th International Iranian Biology Conference.

- Memarizadeh, N., M. Ghadamyari and P. Zamani. 2012. Evaluation of some biochemical properties of glutathione S-transferase and lipase enzymes in *Hyphantria cunea* Drury (Lep.: Arctidae) and *Glyphodes pyloalis* Walker (Lep.: Pyralidae). First National Congress of Science and Technology in Agriculture.
- Memarizadeh, N. and M. Ghadamyari. 2013. Study and comparison of some features of the lipase enzyme in the gut of *Arga rosae* and *Allantus viennensis* .20rd Iranian Plant Protection Congress.
- Zandvakili, S., N. Memarizadeh, M. Ghadamyari, A. Alizadeh and R. H. Sajedi. 2015. Study of biochemical characteristics of glutathione S-transferase in *Pistachio Psylla*. Third National Conference on Pest Control.
- Memarizadeh, N., M. Ghadamyari, K.H. Talebi and. M. Adeli. 2015. Residue and degradation trend of Imidacloprid using two nano formulations compared with commercial formulation for bean (*Phaseolus vulgaris* L) in the field conditions. First Iranian International Congress of Entomology (IICE).

Software and E-publications:

- ✓ Gene Discovery and Sequence:

Nargess Memarizadeh, Mohammad Ghadamyari, Parichehr Zamani and Reza H. Sajedi, glutamate gate channel genes with accession numbers:

- 1) JX898522.1
- 2) JX898521.1

Other achievements:

- ✓ National Elites Foundation's award (entitled: Dr. Kazemi Ashtiani) in 2016.
- ✓ University of Guilan's award for best research paper in 2011 and 2013.
- ✓ University of Guilan's award for top PhD student in 2014.
- ✓ Entomological society of Iran's award (entitled: Dr. Morteza Esmaeli) for one of the best PhD theses in 2014.
- ✓ Iran National Science Foundation selected the project obtained from thesis as a valuable project in 2014.
- ✓ Iran Nanotechnology Initiative Council selected the project obtained from thesis as an innovative nanotechnology project in 2015 & 2017.
- ✓ IPIEC Global competition selected the product obtained from thesis as one of the semi-final products in China in 2017.