





Name & Surname: Masumeh Ziaee

 **Address, Suburb, State, Postcode:** Department of Plant Protection, Agriculture Faculty, Shahid Chamran University of Ahvaz, Ahvaz, Iran, Postcode: 61357-43311

 **Phone/Mobile Number:** +98-61-33330079

 **E-mail address:** m.ziaee@scu.ac.ir, masumehziaee@gmail.com

PROFESSIONAL PROFILE:

Associate Professor of Agricultural Entomology in Shahid Chamran University (SCU) of Ahvaz.

EDUCATION BACKGROUND:

Ph.D.: Agricultural Entomology (2013), Tarbiat Modares University, Tehran, Iran

Thesis title:

“The effect of diatomaceous earth in combination with powder, essential oil and oil-loaded nanogels of *Carum copticum* and *Cuminum cyminum* on two species of stored-product pests”

MSc: Agricultural Entomology (2007), Urmia University, Urmia, Iran

Dissertation title:

“Studies on the insecticidal efficacy and persistence of SilicoSec[®], a diatomaceous earth formulation, against adults of *Rhyzopertha dominica* (F.) (Coleoptera: Bostrychidae) and different life stages of *Tribolium castaneum* (Herbst) (Coleoptera: Tenebrionidae)”

BS: Plant Protection (2004), Urmia University, Urmia, Iran

TEACHING AND TRAINING EXPERIENCE:

Entomology and Toxicology for BSc students, Toxicology of pesticides for MSc students, Pesticide formulations technology for PhD students.

HONOURS AND AWARDS:

- Supported by the National Elite Foundation as a top doctoral student
- Best Professor of 2018 in the university

INTERESTS AND RESEARCH FIELDS:

- My primary research interest is in the area of insecticides production and application. A particular focus is on the synthesizing and evaluating the insecticidal toxicity of the eco-friendly and safe products as control strategy, especially for stored products pest control in green space, greenhouses, fields, gardens.
- Production diatomaceous earth and other protectant formulations and investigating their effectiveness for stored products protection.
- Synthesizing different formulations of pesticides and plant products (micro emulsion, Nano capsules etc.) and evaluating their insecticidal and acaricidal activity.

RESEARCH ACTIVITIES:

- Editorial board of Archives of Phytopathology and Plant Protection (Taylor and Francis)
- Editorial board of Plant Protection (Shahid Chamran University of Ahvaz)
- Editorial board of Journal of Entomological Society of Iran (Entomological Society of Iran)

PUBLICATIONS:

PATENTS:

- Ziaee, M. Moharramipour, S., and Mohsenifar, A. 2014. The process of synthesizing essential oils nano-gel for controlling stored products insect pests. Iranian Patent No. 74212, Approved by IROST | Iranian Research Organization for Science and Technology.
- Ziaee, M. and Babamir-Satehi. 2018. The process of synthesizing nanosilica loaded with chemical pesticides to control insect pests. Iranian Patent No. 94620.

CONFERENCE PRESENTATIONS:

- Ziaee, M Shayesteh, N. Safaralizadeh, M.H. and S. Uromchi (2006) Action of SilicoSec[®] formulation of diatomaceous earth against *Tribolium castaneum* (Herbst) (Coleoptera: Tenebrionidae). VIIIth European Congress of Entomology, Turkey-Izmir. Supplementary Book.

- Ziaee, M. Shayesteh, N and M. Hasanzadeh (2007) Toxicity of diatomaceous earth to *Rhyzopertha dominica* (Coleoptera: Bostrychidae). International Conference on Biotechnological Approaches in Bioresources Management (ICBABM-07), India-Tiruchirappalli.p. P: 98.
- Shayesteh, N. and M. Ziaee (2007) Insecticidal efficacy of diatomaceous earth against *Tribolium castaneum* (Herbst) (Coleoptera: Tenebrionidae). International Conference on Biotechnological Approaches in Bioresources Management (ICBABM-07), India-Tiruchirappalli.p. P: 117.
- Hassanzadeh, M. Shayesteh, N and M. Ziaee (2007) An investigation on some heteroptera in Marand region and environ. International Conference on Biotechnological Approaches in Bioresources Management (ICBABM-07), India-Tiruchirappalli.p. P: 101.
- Nikpay, A and M, Ziaee (2010) Citrus scale insects in different regions of Iran; biology and management. XII International Symposium on Scale Insect Studies, 6-9 April 2010, Chania, Hellas. P: 45.
- Ziaee, M. and S. Moharramipour (2011) Comparison of one Iranian diatomaceous earth deposit and a commercial formulation, SilicoSec[®], against *Sitophilus granarius* (L.). Global Conference on Entomology (GCE), March 5-9, 2011, Chiang Mai, Thailand. P: 388.
- Ziaee, M. and S. Moharramipour (2011) Insecticidal activity of *Carum copticum* L. and *Cuminum cyminum* L. against *Tribolium confusum* (Jacquelin du Val.). Global Conference on Entomology (GCE), March 5-9, 2011, Chiang Mai, Thailand. P: 39.
- Ziaee, M. Dadkhahipour, K. and S. Moharramipour (2011) Study of Mamaghan diatoms biophysical properties on plant protection research development in Iran. The First National Conference of Phycology of Iran. Tehran-Iran, p: 194.
- Ziaee, M. Dadkhahipour, K. and S. Moharramipour (2011) Study on the efficacy of Maragheh diatoms geometry on its ability to control storage pests. The First National Conference of Phycology of Iran. Tehran-Iran, p: 54.
- Ziaee, M. and S. Moharramipour (2012) Toxicity of *Carum copticum* and *Cuminum cyminum* on *Sitophilus granarius* (Coleoptera: Curculionidae). National Congress on Medicinal Plants. Kish Island-Iran, p: 49.
- Ziaee, M. and S. Moharramipour (2012) Fumigant toxicity of *Carum copticum* essential oil against *Sitophilus granarius*. 9th International Conference on Controlled Atmosphere and Fumigation in Stored Products, Antalya, Turkey, pp.: 96-100.
- Ziaee, M. and F. Hamzavi (2013). Application of nanoparticles in pest management programmes- a review, International Conference on Green Agro-Industry (ICGAI), Yogyakarta, Indonesia, pp.: 386-393.
- Ziaee, M. and F. Hamzavi (2013). A review of plant essential oils as a component of integrated pest management in stored products protection, International Conference on Green Agro-Industry (ICGAI), Yogyakarta, Indonesia, pp.: 394-402.

- Korunic, Z, Almasi, R, Andric, G, Kljajic, Fields P.G., Wakil, W, Ziaee, M (2014). Variation in the susceptibility of stored-product insects from five locations to two diatomaceous earth based formulations, 11th International Working Conference on Stored-Product Protection, Chiang Mai University - Chiang Mai. pp.: 808-818.
- Ziaee, M. and Z. Ganji. 2015. Effect of grain type on toxicity of silica nanoparticles against *Rhyzopertha dominica* and *Tribolium confusum*. 1st Iranian International Congress of Entomology, 29-31 August 2015. Tehran-Iran.
- Ziaee, M., A. Marouf and M. Atapour. 2015. Insecticidal efficacy of Iranian diatomaceous earths against adults of *Sitophilus oryzae*. 1st Iranian International Congress of Entomology, 29-31 August 2015. Tehran-Iran.
- Shayesteh, N., Ziaee M, and H. Ranji. 2015. Abundance and sex ratio of coccinellids in the apple orchards and wheat fields of Urmia region. 1st Iranian International Congress of Entomology, 29-31 August 2015. Tehran-Iran.
- KaramKiani, N., Seraj A.A, Habibpour B. and Ziaee, M. (2017) Resistance of different citrus species to citrus leaf-miner, *Phyllocnistis citrella* Stainton (Lep.: Gracillaridea) in Ahvaz region, Second Iranian International Congress of Entomology, September 2-4, 2017, p. 183.
- Babamir-Satehi A., and Ziaee M. 2019. Evaluation of Silica nanoparticles loaded with deltamethrin insecticide on the small and large larvae of *Trogoderma granarium*. Third Iranian International Congress of Entomology, Tabriz University, p. 111.

RESEARCH PROJECTS:

- Ziaee, M. Safaralizadeh, M. H. and Shayesteh, N. (2006). Effects of temperature and exposure interval on the toxicity of SilicoSec[®] against two stored products insects, Pakistan Entomologist, 28: 45-50.
- Ziaee, M. Safaralizadeh, M. H. Shayesteh, N. and S. Uromchi (2007). Initial and delayed mortality of *Rhyzopertha dominica* (Col.: Bostrichidae) and *Tribolium castaneum* (Col.: Tenebrionidae) adults exposed to Silico-Sec[®] formulation of diatomaceous earth. Journal of Entomological Society of Iran. 27 (1): 61-72. In Persian.
- Ziaee, M. Safaralizadeh, M. H. and Shayesteh, N. (2007). Efficacy of SilicoSec[®], a diatomaceous earth formulation against *Tribolium castaneum* (Herbst) (Coleoptera: Tenebrionidae). Pakistan Journal of Biological Sciences, 10 (21): 3841-3846.
- Ziaee, M. Nikpay, A. and Khashaveh, A. (2007). Effect of oilseed type on the efficacy of five diatomaceous earth formulations against *Tribolium castaneum* Herbst (Coleoptera: Tenebrionidae). Journal of Pest Science, 80: 199-204.

- Ziaee, M. and Khashaveh, A. (2007). Effect of five diatomaceous earth formulations against *Tribolium castaneum* (Coleoptera: Tenebrionidae), *Oryzaephilus surinamensis* (Coleoptera: Silvanidae) and *Rhyzopertha dominica* (Coleoptera: Bostrychidae). *Insect Science*, 14: 359-365.
- Khashaveh, A. Ziaee, M. Safaralizadeh M. H. and Attighi F. (2009). Control of *Tribolium castaneum* Herbst (Coleoptera: Tenebrionidae) with spinosad dust formulation in different oilseeds. *Turkish Journal of Agriculture and Forestry*, 33: 203-209.
- Khashaveh, A. Ghosta, Y. Safaralizadeh M. H. and Ziaee M. (2011). The use of entomopathogenic fungus, *Beauveria bassiana* (Bals.) Vuill. in assays with stored grain beetles *Beauveria bassiana* and Stored Grain Beetles. *Journal of Agricultural Science and Technology*, 13: 35-43.
- Khashaveh, A. Ziaee M., Safaralizadeh M. H. (2011). Control of pulse beetle, *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae) in different cereals using spinosad dust in storage conditions. *Journal of Plant Protection Research*, 51 (1): 77-81.
- Ziaee, M. and Moharramipour, S. (2012). Efficacy of Iranian diatomaceous earth deposits against *Tribolium confusum* Jacquelin du Val (Coleoptera: Tenebrionidae). *Journal of Asia-Pacific Entomology*, 15: 547-553.
- Ziaee, M. and Moharramipour, S. (2013). Effectiveness of medicinal plant powders on *Sitophilus granarius* and *Tribolium confusum*. *Journal of Crop Protection*, 2: 43-50.
- Ziaee, M. Moharramipour, S. and Dadkhahipour, K. (2013). Effect of particle size of two Iranian diatomaceous earth deposits and a commercial product on *Sitophilus granarius*. *Journal of Entomological Society of Iran*, 33: 9-17.
- Shafighi, Y. Ziaee, M. and Ghousta, Y. (2014). Diatomaceous earth used against insect pests applied alone or in combination with *Metarhizium anisopliae* and *Beauveria bassiana*. *Journal of Plant Protection Research*, 54(1): 62-66.
- Ziaee, M. Moharramipour, S. and Francikowski, J. (2014). The synergistic effects of *Carum copticum* essential oil on diatomaceous earth against *Sitophilus granarius* and *Tribolium confusum*. *Journal of Asia-Pacific Entomology*, 17: 817-822.
- Ziaee, M. (2014). The effects of topical application of two essential oils against *Sitophilus granarius* and *Tribolium confusum*. *Journal of Crop Protection*, 3, Supplementary: 589-595.
- Ziaee, M. Moharramipour, S. and Mohsenifar, A. (2014). MA-chitosan nanogel loaded with *Cuminum cyminum* essential oil for efficient management of two stored product beetle pests. *Journal of Pest Science*, 87: 691-699.
- Ziaee, M. Moharramipour, S. and Mohsenifar, A. (2014). Toxicity of *Carum copticum* essential oil-loaded nanogel against *Sitophilus granarius* and *Tribolium confusum*. *Journal of Applied Entomology*, 138: 763-771.

- Ziaee, M. (2015). Influence of grain type on the susceptibility of *Tribolium confusum* adults to three diatomaceous earth formulations. *Journal of Crop Protection*, 4: 113-119.
- Shayesteh, N. Ranji, H. and Ziaee, M. (2015). Abundance and diversity of aphids (Hemiptera: Aphididae) and ladybirds (Coleoptera: Coccinellidae) population in wheat fields of Urmia, northwestern of Iran. *Biharean Biologists*, 9: 63-65.
- S. Mohammadi, Ziaee, M. and A. A. Seraj. (2016). Sublethal effects of Biomite® on the population growth and life table parameters of *Tetranychus turkestanii* Ugarov and Nikolskii on three cucumber cultivars. *Systematic & Applied Acarology*, 2: 218 – 226.
- Ziaee, M., Atapour, M. and Marouf, A. (2016). Insecticide effectiveness of Iranian diatomaceous earths on adults of *Oryzaephilus surinamensis*. *Journal of Agricultural Science and Technology*, 2: 361 – 370.
- Shayesteh, N. Ziaee, M. and Ranji, H. (2016). Species diversity of aphids (homoptera: aphididae) and coccinellids in apple orchards of Urmia, Northwest of Iran. *ACS-Agriculturae Conspectus Scientificus*, 3: 163 – 167.
- Bahrami, R., Kocheili, F. and Ziaee, M (2016). Effects of asafoetida, geranium and walnut leave essential oils on nutritional indices and progeny production of *Rhyzopertha dominica* adults (Coleoptera: Bostrychidae). *Journal of Crop Protection*, 5(3): 369-375.
- Bahrami, R. Kocheili, F. and Ziaee, M. (2016). Fumigant toxicity and persistence of essential oils from asafoetida, geranium and walnut on adults of *Rhyzopertha dominica* (Col.: Bostrichidae). *Toxin Review*, 35(3–4): 63–68.
- Ziaee, M., Atapour, M. and Marouf, A. (2016). The insecticidal efficacy of Iranian diatomaceous earth deposits against adults of *Callosobruchus maculatus* F. (Coleoptera: Chrysomelidae). *Plant Protection (Scientific Agriculture Journal)*, 39 (3): 51-60. (In Persian).
- Ziaee, M., Nadimi, A., and Ganji, Z. (2016). Impact of temperature on cumin fumigant toxicity and locomotor activity of *Sitophilus granarius* and *Tribolium confusum* adults *Plant Protection (Scientific Agriculture Journal)*, 38 (2): 91-101. (In Persian).
- Ziaee, M., and Ganji, Z. (2016). Insecticidal efficacy of silica nanoparticles against *Rhyzopertha dominica* and *Tribolium confusum*. *Journal of Plant Protection Research*, 56(3): 250-256.
- Ziaee, M. and Nikpay, A. (2016). Effect of mite damage on chlorophyll content of commercially cultivated sugarcane varieties using spad meter. *Journal of Sugarcane Research*, 6 (1): 59 – 62.
- Ziaee, M., Nikpay, A., Koozad-Mohammadi, P. and Behnam-Oskuyee, S. (2017). The toxicity of Biomite®, GC-mite®, Oberon® and Envidor® acaricides against sugarcane yellow mite, *Oligonychus sacchari*, *Persian Journal of Acarology*, 6 (2): 137-141.
- Babamir Satehi, A. Ziaee, M., and Ashrafi, A. (2017). Toxicity of chlorpyrifos against *Rhyzopertha dominica* and *Tribolium confusum* adults on different surfaces. *Toxin Review*, 36 (1): 57-62.

- Ziaee, M., Atapour, M. and Marouf, A. (2017). Persistence and efficacy of four Iranian diatomaceous earths against three stored grains beetles. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*, 88(1): 411-419.
- Babamir Satehi, A. Ziaee, M., and Ashrafi, A. (2017). Synthesis and toxicological evaluation of silica nanoparticles as chlorpyrifos carrier to control *Rhyzopertha dominica* and *Tribolium confusum*. *Journal of Entomological Society of Iran*, 37 (2): 235-247.
- Koohzad-Mohammadi, P., Ziaee, M., and Nikpay, A. (2017). Insecticides from different classes impact on *Neomaskellia andropogonis* population under sugarcane field conditions. *SugarTech*, 19(6): 623-631.
- Almasi, A., Rasekh, A., Esfandiari, M., AskariSeyahooei, M., Ziaee, M. (2017). An investigation of the toxicity of primicarb and imidacloprid insecticides in different growth stages of melon aphid, *Aphis Gossypii* Glover. *Plant Protection (Scientific Agriculture Journal)*, 39 (2): 71-83. (In Persian).
- Almasi, A., Rasekh, A., Esfandiari, M., AskariSeyahooei, M., Ziaee, M. (2018). Evaluation of the efficiency of parasitoid wasp, *Lysiphlebus fabarum* (Marshall) (Hym., Braconidae), reared on *Aphis fabae* Scopoli, against the melon aphid, *Aphis gossypii* Glover. *Applied Research in Plant Protection*, 6 (3): 83-95. (In Persian).
- Almasi, A., Rasekh, A., Esfandiari, M., AskariSeyahooei, M., Ziaee, M. (2018). The prospect of using sub-lethal imidacloprid or pirimicarb and a parasitoid wasp, *Lysiphlebus fabarum*, simultaneously, to control *Aphis gossypii* on cucumber plants. *Journal of Asia-Pacific Entomology*, 21: 161-167.
- Koohzad-Mohammadi, P., Ziaee, M., and Nikpay, A. (2018). Studies on survival of sugarcane whitefly, *Neomaskellia andropogonis* on two sugarcane varieties treated with various insecticides. *Journal of Entomological Society of Iran*, 38 (2): 219-234.
- Babamir Satehi, A. Ziaee, M., and Ashrafi, A. (2018). Silica nanoparticles: a potential carrier of chlorpyrifos in slurries to control two insect pests of stored products. *Entomologia Generalis*, 37: 77-91.
- Behnam-Oskuyee, S., Ziaee M. and Shishehbor P. (2019). Effect of field application of three insecticides on sugarcane whitefly, *Neomaskellia andropogonis*: Preliminary results. *International Sugar Journal*, 121 (6): 447-451.
- Behnam-Oskuyee, S., Ziaee M. and Shishehbor P. (2020). Evaluation of different insecticides for the control of sugarcane whitefly, *Neomaskellia andropogonis* Corbett (Homoptera: Aleyrodidae). *Journal of the Saudi Society of Agricultural Sciences*, 19: 255-260.
- Delgarm, N., Ziaee, M. and McLaughlin, A. (2019). Enhanced-efficacy Iranian diatomaceous earth for controlling two stored-product insect pests. *Journal of Economic Entomology*, 113 (1): 504-510.
- Ziaee, M., Babamir Satehi, A. (2019). Characterization of nanostructured silica as carrier for insecticides deltamethrin, pyriproxyfen and chlorpyrifos and testing the insecticidal efficacy against

Trogoderma granarium (Coleoptera: Dermestidae) larvae. Journal of Economic Entomology, 113 (1): 511-517.

- Ebadollahi, A., Ziaee, M., and Palla, F. (2020). Essential oils extracted from different species of the lamiaceae plant family as prospective bioagents against several detrimental pests. *Molecules*, 25 (7): 1-15.
- Tabebordbar, F., Shishehbor P, Ziaee M, Sohrabi F. (2020) Lethal and sublethal effects of two new insecticides spirotetramat and flupyradifurone in comparison to conventional insecticide deltamethrin on *Trichogramma evanescens* (Hymenoptera: Trichogrammatidae). *Journal of Asia-Pacific Entomology*, 23: 1114-1119.
- Ziaee, M., Ebadollahi, A and Wakil, W. (2021). Integrating inert dusts with other technologies in stored products protection. *Toxin Reviews*, In press.
- Koohzad-Mohammadi, P., Ziaee, M., and Nikpay, A. (2021). Insecticidal efficacy of deltamethrin, dinotefuran and spiromesifen against the sugarcane whitefly *Neomaskellia andropogonis* on CP69-1062 sugarcane cultivar. *Hellenic Plant Protection Journal*, 14: 39-46.
- Saed, B., Ziaee, M., Kiasat, A. and Jafarinasab, M. (2021). Evaluation of Iranian diatomaceous earth in combination with nanosilica from sugarcane bagasse ash applied on three different storage surfaces against two insect pests of stored products. *International Journal of Tropical Insect Science*, In press.
- Saed, B., Ziaee, M., Kiasat, A. and Jafarinasab, M. (2021). Preparation of nanosilica from sugarcane bagasse ash for enhanced insecticidal activity of diatomaceous earth against two stored-products insect pests. *Toxin Reviews*, In press.

PROFESSIONAL MEMBERSHIPS:

- Member of Iranian Entomological Association and head of the entomological association in the Persian Gulf region.
- Member of Entomological Society of America

LANGUAGES:

- Persian (native)
- English (medium)