

AZADEH FARAZMAND, PhD

Assistant Professor of Agricultural Entomology | Biological Control Researcher

Iranian Research Institute of Plant Protection (IRIPP), Department of Agricultural Zoology Research, Tehran, Iran
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PROFESSIONAL PROFILE

Agricultural entomologist and biological control researcher specialising in predator–prey ecology, phytoseiid predatory mites, integrated pest management, population dynamics, ecological modelling, functional response analysis, life-table analysis, temperature-dependent development, and mass rearing of natural enemies. My research integrates fundamental and applied ecology to develop sustainable biological control strategies for agricultural pests. I have progressed from fundamental studies of functional responses, cannibalism and intraguild predation to the collection and characterisation of native phytoseiid mites, development of biological control agents and semi-mass rearing systems, population modelling, and applied pest-management programmes.

CAREER HIGHLIGHTS

Permanent academic appointment

Assistant Professor at IRIPP since May 2015

Graduate supervision

Supervised or substantially mentored nine graduate researchers, including Ph.D. students

Research leadership

Independent PI and project leader across nationally funded and applied research

International collaboration

Active scientific collaborations with researchers in the Czech Republic, France, the Netherlands, the United States and India

RESEARCH EXPERTISE

- Biological control and integrated pest management
- Predator–prey interactions and multitrophic ecology
- Phytoseiid predatory mites and spider mite ecology
- Intraguild predation, cannibalism and predator interactions
- Functional and numerical response modelling
- Life-table analysis and population dynamics
- Temperature-dependent development and ecological modelling
- Mass and semi-mass rearing of natural enemies
- Evaluation of biological control agents
- Acaricide efficacy and compatibility with biological control

ACADEMIC APPOINTMENT

Assistant Professor of Agricultural Entomology

Iranian Research Institute of Plant Protection (IRIPP), Department of Agricultural Zoology Research, Tehran, Iran
May 2015–Present | Permanent academic appointment

EDUCATION

Ph.D. in Agricultural Entomology – Biological Control

Tarbiat Modares University, Tehran, Iran | 2007–2012

Thesis: *Intraguild interactions among Scolothrips longicornis and the phytoseiid mites Neoseiulus californicus and Typhlodromus bagdasarjani on Tetranychus urticae.*

M.Sc. in Agricultural Entomology – Biological Control

University of Tabriz, Tabriz, Iran | 2003–2006

Thesis: *A comparison of biological parameters of Trichogramma brassicae on Anagasta kuehniella and Plodia interpunctella under laboratory conditions.*

RESEARCH LEADERSHIP AND PROJECT EXPERIENCE

Current Projects

Evaluation of *Amblyseius herbicolus*, *Transeius wainsteini*, and *Neoseiulus longilaterus* for suppression of *Phytonemus pallidus* populations

2025–Present

Evaluation of the efficiency of *Amblyseius herbicolus* on four diets: cattail pollen, corn pollen, two-spotted spider mite, and *Polyphagotarsonemus latus* (Banks), under laboratory conditions

2025–Present

Completed Research Projects

Collecting and preliminary screening of native Phytoseiidae from different regions of Iran for preliminary rearing

2019–2024

Achieving a suitable method for semi-mass rearing of the native predatory mite *Transeius wainsteini* as a biological control agent of the two-spotted spider mite

2020–2024

Oviposition modelling of *Amblyseius swirskii* Athias-Henriot in a prey system with *Tetranychus urticae* Koch

Iran National Science Foundation Grant

Grant No. 94802946

Determining the optimal temperature for mass-rearing of *Amblyseius swirskii*

2016–2018

Modelling temperature-dependent development of *Tetranychus urticae* and *Amblyseius swirskii* for improving biological control in cucumber

2016–2018

Efficacy of acaricides against the two-spotted spider mite *Tetranychus urticae* in greenhouse cucumber

2018–2019

Study of the efficacy of Oberon 24% SC (spiromesifen) compared with common acaricides against *Eotetranychus hirsti* in Estahban and Kharameh, Fars Province, and Dalahoo, Kermanshah Province

2019–2020

Efficiency of Killermite 24% SC (bifenazate) on carnation and Polaris (chlorfenapyr) on rose compared with common acaricides against *Tetranychus urticae*

2018–2020

Investigation of the possibility of preparing capsule suspension formulations of abamectin/sulfur for simultaneous control of cucumber powdery mildew and the two-spotted spider mite

2020–2023

Efficacy of chlorfenapyr (Speed® 24% SC) against the two-spotted spider mite on greenhouse rose

Conducted in commercial rose greenhouses in Varamin, Tehran Province.

Study of the efficacy of Envidorspeed 24% SC (abamectin + spirodiclofen) compared with common acaricides against *Eotetranychus hirsti*

RESEARCH GROUP LEADERSHIP AND GRADUATE SUPERVISION

I have supervised or substantially mentored nine graduate researchers, including doctoral and master's students. My contributions have included experimental design, development of research questions, data analysis, ecological modelling, interpretation of results and scientific publication.

Completed Ph.D. Students

Samaneh Yari – Ph.D.

Tarbiat Modares University

2019–2023

Role: Advisor

Alireza Arjmandi Nezhad – Ph.D.

University of Zabol

2018–2022

Role: Advisor

Maryam Afkhami – Ph.D.

University of Tehran

2022–2025

Role: Primary Supervisor

Mayur Deepak Wabhitkar – Ph.D.

Punjab Agricultural University, India

2023–2025

Role: Scientific Advisor

Completed M.Sc. Students

Zahra Alipour – M.Sc.

Tarbiat Modares University

Role: Advisor

Fatemeh Eghbali – M.Sc.

University of Tehran

Role: Co-supervisor

Roghayeh Jafari – M.Sc.

University of Tehran

Role: Co-supervisor

Current Ph.D. Students

Afsaneh Soltanian – Ph.D.

University of Tabriz

2022–Present

Role: Primary Scientific Supervisor

Jamal Mozaheri Mousavi – Ph.D.

University of Guilan

2026–Present

Role: Co-supervisor

SCIENTIFIC LEADERSHIP AND INTERNATIONAL COLLABORATION

International Collaboration

Dr. Rostislav Zemek

Biology Centre of the Czech Academy of Sciences, Czech Republic

Research collaboration on semi-mass rearing and alternative food sources for *Transeius wainsteini*.

My collaboration with Dr. Zemek originated from my participation in the IOBC Working Group meeting in the Czech Republic in 2011.

Dr. Serge Kreiter and Dr. Stéphane Tixier

France

Collaboration on the collection, taxonomy and identification of Phytoseiidae in Iran.

Dr. Farid Faraji

Netherlands

Collaboration on taxonomic confirmation and identification of phytoseiid mites.

Dr. Arash Rashed

Virginia Tech, United States

Research collaboration in biological control and graduate student research.

International Ph.D. Collaboration

Punjab Agricultural University, India

Scientific mentoring and collaboration with Ph.D. student Mayur Deepak Wabhitkar.

INTERNATIONAL SCIENTIFIC EXPERIENCE

IOBC Working Group Meeting

Third Meeting of IOBC Working Group 13

Cesky Krumlov, Czech Republic

2011

Presented research on functional response and mutual interference of *Scolothrips longicornis*.

Participation in this meeting enabled the development of long-term international scientific connections, including collaboration with Dr. Rostislav Zemek.

AWARDS AND RECOGNITION

Outstanding Ph.D. Thesis Recognition

Tarbiat Modares University

2012

Recognized for the scientific quality of my doctoral dissertation and associated publications.

EDITORIAL AND SCIENTIFIC SERVICE

Persian Journal of Acarology

Member of the Editorial Board

January 2020–Present

Journal Manager

January 2026–Present

Journal of the Entomological Society of Iran

Member of the Editorial Board

February 2024–Present

Archives of Phytopathology and Plant Protection

Member of the Editorial Board

January 2026–Present

BOOK CHAPTERS

Farazmand, A. & Fathipour, Y. (2026). Intraguild predation. In: Omkar & Fathipour, Y. (Eds.), *Behavior of Insect Natural Enemies: Ecology and Applications in Biological Control*. Academic Press, Elsevier, Cambridge, MA, USA, pp. 249–268.

DOI: 10.1016/B978-0-443-24796-5.00007-1

I was primarily responsible for writing and revising the chapter.

Hajiqanbar, H. & Farazmand, A. (2021). Biological control by mites in Iran. In: Karimi, J. & Madadi, H. (Eds.), *Biological Control of Insect and Mite Pests in Iran*, pp. 89–141.

My contributions included the sections on Phytoseiidae, introduction, life-table analysis and functional responses.

HANDBOOK

Farazmand, A. (2017). Important Species of Phytoseiid Predatory Mites in Agriculture. *Agricultural Research, Education and Extension Organization, Ministry of Agriculture, Iran*. 26 pp. [Persian]

DATA ANALYSIS, MODELLING AND RESEARCH SKILLS

Statistical and Quantitative Methods

R

SAS

Minitab

TWOSEX-MSChart

Life-table analysis

Bootstrap analysis

Functional response modelling

Numerical response modelling

Population growth models

Temperature-dependent development models

General linear models

Experimental design

Statistical analysis of biological experiments

PEER-REVIEWED PUBLICATIONS

2026

Deepak Wabhitkar, M., Brar Bhuliar, M., Singh, A., Farazmand, A., Sharma, S., & Thakur, J. (2026). Impact of factitious food on the life table, functional and numerical response parameters of *Blaptostethus pallescens* Poppius (Hemiptera: Anthocoridae). *Journal of Stored Products Research*, 116, 102888.

Deepak Wabhitkar, M., Brar Bhuliar, M., Farazmand, A., & Singh Sangha, K. (2026). From egg to adult? Not quite: Functional and numerical response constraints of *Blaptostethus pallescens* (Poppius) on a single prey regime. *Phytoparasitica*, 54(2), 25.

Soltanian, A., Saber, M., Farazmand, A., & Sheikhiharjan, A. (2026). Lethal and sub-lethal effects of fluxametamide and Sero-X on dynamic parameters of *Neoseiulus californicus*. *Persian Journal of Acarology*, 15(2), 150209.

Amiri Jami, A., & Farazmand, A. (2026). Functional response and some biological parameters of the predatory mite *Phytoseius corniger* when fed on different life stages of *Tetranychus urticae*. *Journal of the Entomological Society of Iran*, 46(2), 219–229.

2025

Yari, S., Farazmand, A., & Arbabi, M. (2025). Evaluation of additive agents in suppressing mould growth in phytoseiid rearing media and their effects on *Amblyseius swirskii* and *Transeius wainsteini*. *Persian Journal of Acarology*.

Yari, S., Farazmand, A., Zemek, R., & Arbabi, M. (2025). A practical mass-rearing system for phytoseiid mites: A case study with *Amblyseius swirskii*, *Neoseiulus californicus*, and *Neoseiulus barkeri*. *Persian Journal of Acarology*, 14(2), 295–304.

Afkhami, M., Farazmand, A., Rahmani, S., & Zahedi, A. (2025). Functional response of two native species, *Typhlodromus khosrovensis* and *Euseius amissibilis*, feeding on eggs of *Tetranychus urticae*. *Acarologia*, 65(2), 497–504.

Azadi-Qoort, A., Sedaratian-Jahromi, A., & Farazmand, A. (2025). Host-dependent functional response of *Typhlodromus bagdasarjani* feeding on *Tetranychus urticae*. *Persian Journal of Acarology*, 14(1), 225–235.

2024

Afkhami, M., Farazmand, A., & Faraji, F. (2024). Morphological variation and abnormalities in two species of *Typhlodromus* Scheuten. *Systematic and Applied Acarology*, 29(5), 570–578.

Hamed, N., Farazmand, A., Namvar, P., & Farhangi, V. (2024). Efficacy of some acaricides against the two-spotted spider mite *Tetranychus urticae* in cucumber greenhouses. *Journal of Crop Protection*, 13(3), 311–319.

Amir-Maafi, M., Farazmand, A., & Hamed, N. (2024). Spatial distribution and sampling plan for *Tetranychus urticae* in bean crops. *Persian Journal of Acarology*, 13(1), 105–114.

Yari, S., Hajiqanbar, H., Farazmand, A., Fathipour, Y., & Rashed, R. (2024). Damage caused by *Tetranychus urticae* and *Frankliniella occidentalis* on rose plants. *Arthropod-Plant Interactions*, 18(1), 117–127.

2023

Yari, S., Hajiqanbar, H., Farazmand, A., Fathipour, Y., & Rashed, R. (2023). Assessment of *Neoseiulus cucumeris* at different release rates for control of *Frankliniella occidentalis* on rose plants. *Systematic and Applied Acarology*, 28(3), 607–618.

Farazmand, A., Jalaeian, M., Kamali, H., Saboori, A., Tixier, M. S., & Kreiter, S. (2023). Phytoseiidae (Acari: Mesostigmata) in four provinces of Iran. *Persian Journal of Acarology*, 12(1), 21–58.

Yari, S., Hajiqanbar, H., Farazmand, A., Fathipour, Y., & Rashed, A. (2023). Efficacy of single and combined release of *Phytoseiulus persimilis* and *Amblyseius swirskii* at different release ratios for control of *Tetranychus urticae* and *Frankliniella occidentalis* on rose plants. *International Journal of Pest Management*.

2022

Arjmandi Nezhad, A., Ravan, S., Saboori, A., Rakhshani, E., & Farazmand, A. (2022). Biodiversity of phytoseiid mites (Acari: Phytoseiidae) in Sistan Region, Iran. *Iranian Journal of Plant Protection Science*, 53(1), 85–89. [Persian]

2021

Farazmand, A., & Amir-Maafi, M. (2021). Use of functional response modelling to evaluate the effect of temperature on predation of *Amblyseius swirskii* adults preying on *Tetranychus urticae* nymphs. *Journal of Economic Entomology*.

Nateq Golestan, M., Farazmand, A., & Kamali, H. (2021). Study of population relationships and the effects of several acaricides on *Tetranychus urticae* and the predatory mite *Neoseiulus californicus* in greenhouse roses. *Plant Pest Research*, 11(3), 59–69. [Persian]

2020

Farazmand, A., Amir-Maafi, M., & Atlihan, R. (2020). Temperature-dependent development of *Amblyseius swirskii* on *Tetranychus urticae*. *Systematic and Applied Acarology*, 25(3), 538–547.

Farazmand, A. (2020). Effect of temperature on development of *Tetranychus urticae* feeding on cucumber leaves. *International Journal of Acarology*.

Farazmand, A., & Amir-Maafi, M. (2020). Oviposition model of *Amblyseius swirskii* Athias-Henriot in a prey system with *Tetranychus urticae*. *Systematic and Applied Acarology*, 25(10), 1857–1866.

2019

Alipour, Z., Fathipour, Y., Farazmand, A., & Khanamani, M. (2019). Resistant rose cultivar affects life-table parameters of the two-spotted spider mite and its predators, *Phytoseiulus persimilis* and *Amblyseius swirskii*. *Systematic and Applied Acarology*, 24(9), 1620–1630.

2018

Farazmand, A., & Amir-Maafi, M. (2018). A population growth model of *Tetranychus urticae*. *Persian Journal of Acarology*, 7(2), 193–201.

Farazmand, A., Golmohammadi, Gh., Rastegari, N., Yousefi, M., Ghorbani, R., & Tohidi, M. (2018). Studying new acaricide Envidorspeed (24% SC) in comparison with common acaricides against *Eotetranychus hirsti*. *Pesticides in Plant Protection Sciences*, 5(1), 34–41. [Persian]

Fathipour, Y., Karimi, M., Farazmand, A., & Talebi, A. A. (2018). The age-specific functional response of *Phytoseiulus persimilis* on the two-spotted spider mite, *Tetranychus urticae*. *Acarologia*, 58(1), 31–40.

2017

Fathipour, Y., Karimi, M., Farazmand, A., & Talebi, A. A. (2017). The age-specific functional response of *Amblyseius swirskii* on the two-spotted spider mite, *Tetranychus urticae*. *Systematic and Applied Acarology*, 22(2), 159–169.

2016

Alipour, Z., Fathipour, Y., & Farazmand, A. (2016). Age-stage predation capacity of *Phytoseiulus persimilis* and *Amblyseius swirskii* on susceptible and resistant rose cultivars. *International Journal of Acarology*.

2015

Farazmand, A., Fathipour, Y., & Kamali, K. (2015a). Control of the spider mite *Tetranychus urticae* using phytoseiid and thrips predators under microcosm conditions: Single-predator versus combined-predator release. *Systematic and Applied Acarology*, 20, 162–170.

Farazmand, A., Fathipour, Y., & Kamali, K. (2015b). Intraguild predation among *Scolothrips longicornis*, *Neoseiulus californicus*, and *Typhlodromus bagdasarjani* under laboratory conditions. *Insect Science*, 22, 263–272.

2014

Farazmand, A., Fathipour, Y., & Kamali, K. (2014). Cannibalism in *Scolothrips longicornis*, *Neoseiulus californicus*, and *Typhlodromus bagdasarjani*. *Systematic and Applied Acarology*, 19, 471–480.

2013

Farazmand, A., Fathipour, Y., & Kamali, K. (2013). Functional response and mutual interference of *Scolothrips longicornis* on *Tetranychus urticae*. *IOBC-WPRS Bulletin*, 93, 39–44.

2012

Farazmand, A., Fathipour, Y., & Kamali, K. (2012). Functional response and mutual interference of *Neoseiulus californicus* and *Typhlodromus bagdasarjani* on *Tetranychus urticae*. *International Journal of Acarology*, 38, 369–376.

Farazmand, A., Fathipour, Y., & Kamali, K. (2012). Predation of *Neoseiulus californicus* and *Typhlodromus bagdasarjani* on heterospecific phytoseiid mites and *Scolothrips longicornis* in the presence and absence of *Tetranychus urticae*. *Persian Journal of Acarology*, 2(1), 181–188.

2009

Iranipour, S., Farazmand, A., Saber, M., & Mashhadi Jafarloo, M. (2009). Demography and life history of the egg parasitoid *Trichogramma brassicae* on two moth hosts in the laboratory. *Journal of Insect Science*, 9(51), 1–8.

2007

Farazmand, A., Iranipour, S., Saber, M., & Mashhadi Jafarloo, M. (2007). Comparison of biological parameters of *Trichogramma brassicae* on *Anagasta kuehniella* and *Plodia interpunctella* under laboratory conditions. *Journal of Agricultural Science*, 17(3), 175–185. [Persian]

2006

Farazmand, A., & Iranipour, S. (2006). Functional response of *Trichogramma brassicae* to different densities of *Anagasta kuehniella* and *Plodia interpunctella* eggs under laboratory conditions. *Iranian Journal of Plant Protection Science*, 39(1), 67–72. [Persian]

INTERNATIONAL CONFERENCE PRESENTATIONS

Yari, S., Farazmand, A., & Arbabi, M. (2025). Calcium propionate: An effective anti-mould agent for *Amblyseius swirskii* rearing units. 5th Iranian International Congress of Acarology, Kermanshah, Iran.

Yari, S., Farazmand, A., & Arbabi, M. (2025). A simple rearing protocol for generalist phytoseiid mites: A case study with *Amblyseius swirskii*, *Neoseiulus californicus*, and *Neoseiulus barkeri*. 5th Iranian International Congress of Acarology, Kermanshah, Iran.

Farazmand, A. et al. (2017). Studying the new acaricide Envidorspeed (24% SC) against *Eotetranychus hirsti*. 2nd Iranian International Congress of Entomology, Tehran, Iran.

Fathipour, Y., Karimi, M., Farazmand, A., & Talebi, A. A. (2017). The age-specific functional response of *Phytoseiulus persimilis* on *Tetranychus urticae*. 3rd International Persian Congress of Acarology, Karaj, Iran.

Farazmand, A., Maghsoodlou, M., & Amir-Maafi, M. (2015). Reproductive parameters of *Tetranychus urticae* on three leguminous plants. 1st Iranian International Congress of Entomology, Tehran, Iran.

Farazmand, A., Fathipour, Y., & Kamali, K. (2013). Effects of predation activity of phytoseiid mites and *Scolothrips longicornis* on spider mite populations. Second International Persian Congress of Acarology, Karaj, Iran.

Farazmand, A., Fathipour, Y., & Kamali, K. (2011). Intraguild predation among *Scolothrips longicornis*, *Neoseiulus californicus*, and *Typhlodromus bagdasarjani*. First Persian Congress of Acarology, Kerman, Iran.

Farazmand, A., Fathipour, Y., & Kamali, K. (2011). Functional response and mutual interference of *Scolothrips longicornis*. Third Meeting of the IOBC Working Group, Cesky Krumlov, Czech Republic.

Iranipour, S., & Farazmand, A. (2011). Life history of Indian meal moth, *Plodia interpunctella*, under laboratory conditions. Global Conference on Entomology, Chiang Mai, Thailand.

Iranipour, S., Farazmand, A., Saber, M., & Mashhadi Jafarloo, M. (2006). Demography and life history of *Trichogramma brassicae* on two moth hosts. VIIIth European Congress of Entomology, Izmir, Turkey.