CURRICULUM VITAE

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Eshagh Keshtkar

ADDRESS

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EDUCATION

Ph.D. Department of Agroecology - Crop Health, Aarhus Uniersity (www.au.dk), Denmark, Nov 2011 – June 2015

Ph.D. dissertation: Ecological fitness, molecular basis, and selection of resistant blackgrass (*Alopecurus myosuroides*) biotypes

M.Sc. Department of Agronomy and Plant Breeding, University of Tehran (www.ut.ac.ir), Tehran, Iran, September 2005 – September 2007.
GPA: 18.75 out of 20

M.Sc. thesis: Comparing herbigation and conventional method of eradican application in a corn field and characterization of the best time for it in furrow irrigation considering the evenness of distribution.

Score: Excellent, 19.75 out of 20.

B.Sc. Department of Agronomy and Plant Breeding, Islamic Azad University Fasa Branch (www.iaufasa.ac.ir), Fasa, Iran, September 1999- February 2002.
GPA: 17.45 out of 20

SCHOLARSHIP/AWARDS/HONORS

- Awarded the "Dr. Kazemi Ashtiani's Research Grant for Young Assistant Professors" by Iran's National Elite Foundation in April 2017.
- Awarded a Ph.D scholarship for overseas study by the Iranian Ministry of Science, Research, and Technology in September 2010.
- Ranked first in the Ph.D. entrance exam at the University of Tehran, Iran, in 2009 (nominated as an elite student by the University of Tehran, given that more than 60 candidates participated in the exam) in the weed science discipline.
- Ranked second in the nationwide entrance exam for M.Sc. in Iran in 2005 (nominated as an elite student by the Iranian National Organization for Educational Testing, given that 684 candidates participated in the exam) in the weed science discipline.
- Selected as the top teacher among all 80 faculty members at the Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran, based on scores given by students.
- Acclaimed as one of the top five top outstanding faculty members in terms of teaching skills at the Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran.
- Ranked second in B.Sc. program among all classmates with a GPA of 17.45 out of 20.
- Ranked second in M.Sc. program among all classmates with a GPA of 18.75 out of 20.
- Ranked first in the employment test for the Iranian Ministry of Agriculture in Marvdasht County, June 2004.
- Ranked third in the employment test for the Iranian Ministry of Agriculture in Fars Province, June 2004.
- Received an honorary document in 2005 from Golmian Abarj Cooperative Production Company in recognition of efforts related to Iran's Wheat Self-sufficiency Project.
- Received an honorary certificate in 2005 from the City Council of Bidgol Abarj (Marvdasht, Iran) in recognition of contributions to the development of Wheat Field Management.
- Awarded the EWRS Travel Grant (2014) from the European Weed Research Society to participate in the conference on "Herbicide Resistance in Europe: Challenges, Opportunities, and Threats", Frankfurt, Germany, May 19-20, 2014.

WORK EXPERIENCES AND SKILLS

- Experience with agricultural experimental design
- Experience with statistical concepts and data analysis using SAS, R, SPSS software
- Experience with laboratory, field, and greenhouse works and data collection
- Experience with herbicide registration and evaluation of herbicide performance
- Experience with herbicide resistance and dose-response experiments (experimental design, data collection, and data analysis)
- Experience with weed seed germination experiments and data analysis
- Experience with molecular biology (PCR, gell doc, Electrophoresis)
- Experience with teaching, supervising, mentoring students, farmers, and stakeholders
- Experience with grant writing, fund acquisition, and project management
- MS Office (Word, Excel, PowerPoint)

PUBLICATIONS

PEER REVIEWED PAPERS:

Sasanfara H ✉, Keshtkar E, Eskandar Zand, Zamani MH, Khalil Tahmasebie B (2024) Herbicide Resistance Development in Winter Wild Oat (Avena sterilis subsp. ludoviciana) Populations: Field Margins vs. Within Fields. *Advances in Weed Science 42:e020240061*. 10.51694/AdvWeedSci/2024;42:00002

Abdulkareem BM, Mokhtassi-Bidgoli A ✉, Ayyari M, Keshtkar E, Eyni-Nargeseh H (2024) Enhancing cotton sustainabilit: Multi-factorial intercropping, irrigation, and weed effects on productivity, quality and physiology. *Heliyon 10: e27135* 10.1016/j.heliyon.2024.e27135

Zamani MH, **Keshtkar E** ✉, Zand E, Sasanfar H (2023) Seed germination and seedling emergence fitness of clodinafop-propargyl resistant *Lolium rigidum* populations. *Gesunde Pflanzen 75: 1531–1539* 10.1007/s10343-022-00812-1

Zamani MH, Joumi A, **Keshtkar E** ✉, Mahdavian AR, Sasanfar H (2022) Image processing for seed stainability detection through tetrazolium test. *Iranian Journal of Weed Science 18 (2): 65-73* (in Persian with English abstract) 10.22092/IJWS.2022.127707.1407

Joumi A, **Keshtkar E** ✉; Zand E; Sasanfar H (2022) Evaluation of resistance to mesosulfuron methyl+ idosulfuron methyl and mesosulfuron methyl+ idosulfuron methyl+ diflofenican herbicides in winter wild oat (*Avena sterilis* sub sp. *ludoviciana*) populations collected from wheat fields of Khuzestan province and preparing distribution map of populations. *Iranian Journal of Weed Science 18(1): 115-127* (in Persian with English abstract) 10.22092/IJWS.2022.353809.1387

Keshtkar E ✉, Kudsk P, Mesgaran MB ✉ (2021) Perspective: common errors in dose–response analysis and how to avoid them. *Pest Management Science 77:2599-2608* https://doi.org/10.1002/ps.6268

Minbashi Moeini M ✉, **Keshtkar E** ✉, Sasanfar, H Baghestani M.A (2021) Germination biology and phenological development stages of false jagged-chickweed (*Lepyrodiclis holosteoides*). *Journal of Plant Protection Research 61(4):347–357* 10.24425/jppr.2021.139243

Alizade S, **Keshtkar E** ✉, Mokhtassi-Bidgoli A, Sasanfar H, Streibig JC (2021) Effect of drought stress on herbicide performance and photosynthetic activity of *Avena sterilis* subsp. *ludoviciana* (winter wild oat) and *Hordeum spontaneum* (wild barley). *Weed Research 61:288–297* 10.1111/wre.12477

Sasanfar H, Zand E, Zamani MH, **Keshtkar E**, Joumi A (2021) Resistance of the problematic grass weeds to some commonly used herbicides in canola (*Brassica napus* L.) fields in three provinces of Iran. *Iranian Journal of Weed Science 17 (2) 79-98* (in Persian with English abstract) 10.22092/IJWS.2021.353147.1383

Sasanfar H, Zand E, Jamali M, Sabeti P; Sharifiziveh P; **Keshtkar E**; Zamani MHosein (2021) The efficacy of mesotrione+ nicosulfuron (OD 10.5%) and bentazon+ MCPA (SL 46%), two new herbicides, in comparison with some commonly used herbicides in the control of broad-leaved weeds of corn. *Iranian Journal of Weed Science 17 (2)* 27-44 (in Persian with English abstract) 10.22092/IJWS.2021.343429.1372

Ghafouri Z, **Keshtkar E** ✉, AghaAlikhani M, Mahdavian A (2021) Effect of ultrasound waves, chilling and mechanical abrasion on dormancy-breaking and germination characteristics of Daturastramonium and Convolvulus arvensis. *Iranian Journal of Seed Science and Technology 10: 127-139* (in Persian with English abstract) 10.22034/IJSST.2020.128548.1312

Zamani M.H., **Keshtkar E** ✉, Zand, E Sasanfar H. (2021) Monitoring the resistance status of canarygrass (Phalaris minor) accessions to some commonly used herbicides in wheat fields of five provinces of Iran. *Iranian Journal of Weed Science 17: 111-121* (in Persian with English abstract) 10.22092/ijws.2020.343119.1371

Sadeghi MS, Ahmadi N, Keshtkar E (2021) Evaluation of Morphological and Biochemical Changes in Bellis perennis under Lead-Contaminated Soils. *Journal of Soil and Plant Interactions*. 12(3) 69-86 (in Persian with English abstract)10.47176/jspi.12.3.20301

Keshtkar E ✉, Mathiassen SK, AghaAlikhani M, Kudsk P (2020) Differences in growth, development and innate seed dormancy of susceptible and fenoxaprop-P non-target site resistant black-grass sub-populations. *Crop Protection 129:105022* 10.1016/j.cropro.2019.105022

Alizade S, **Keshtkar E** ✉, Mokhtassi-Bidgoli A, Sasanfar H, Streibig JC (2020) Effect of water deficit stress on benzoylprop-ethyl performance and physiological traits of winter wild oat (*Avena sterilis* subsp. *ludoviciana*). *Crop Protection* 137:105292 10.1016/j.cropro.2020.105292

Jensen SM, Wolkis D, **Keshtkar E**, Streibig JC, Ritz C ✉ (2020) Improved two-step analysis of germination data from complex experimental designs. *Seed Science Research 30:194-198* 10.1017/S0960258520000331

Asadi-Sabzi M, **Keshtkar E** ✉, Mokhtassi-Bidgoli A, Moss SR (2020) Quantifying the detrimental effect of airborne dust on herbicide efficacy. *Weed Research* 60:204-211 10.1111/wre.12413

Ghazali Z, **Keshtkar E** ✉, AghaAlikhani M, Kudsk P (2020) Germinability and seed biochemical properties of susceptible and non–target site herbicide-resistant blackgrass (*Alopecurus myosuroides*) subpopulations exposed to abiotic stresses. *Weed Science* 68:157-167 10.1017/wsc.2020.9

Ghazali Z, **Keshtkar E** ✉, AghaAlikhani M, Kudsk P (2020) Relative Fitness of Susceptible and Acetyl-CoA carboxylase Resistant Alopecurus myosuroides Biotypes: Germinability and Seedling Pre-Emergence Growth under Salinity and Drought Stress Conditions. *Iranian Journal of Weed Science* 16 (1): 66 (in Persian with English abstract) 10.22092/IJWS.2020.1601.1329

Keshtkar E ✉, Abdolshahi, R., Sasanfar, H., Zand, E., Beffa, R., Dayan, F.E., Kudsk, P., (2019). Assessing fitness costs from a herbicide-resistance management Perspective: A Review and Insight. *Weed Science* 67, 137-14 10.1017/wsc.2018.63

Asadi-Sabzi, M., **Keshtkar E** ✉, Mokhtassi-Bidgoli, A (2019) Effect of dust on the growth and physiological properties of wild mustard and wild barley in greenhouse conditions. *Iranian Journal of Weed Science* 15:29-39 in Persian with English abstract) 10.22092/IJWS.2019.1501.03

Keshtkar E ✉, Mathiassen SK, Kudsk P (2017) No Vegetative and fecundity fitness cost associated with Acetyl-Coenzyme A Carboxylase non-target-site resistance in a black-grass (Alopecurus myosuroides Huds) Population. *Frontiers in Plant Science* 8 10.3389/fpls.2017.02011

Keshtkar E ✉, Mathiassen SK, Beffa B, Kudsk P (2017) Seed germination and seedling emergence of blackgrass (Alopecurus myosuroides Huds) as affected by non-target-site herbicide resistance. *Weed Science* 65:732-742 10.1017/wsc.2017.44

Jensen SM., Jensen A., Streibig, J.C., **Keshtkar, E**., and Ritz C .✉ (2017). A note on the analysis of germination data from complex experimental designs. *Seed Science Research*. 27:321-327 10.1017/S0960258517000228

Keshtkar E, ✉, Mathiassen SK, Moss SR, and Kudsk P (2015) Resistance profile of herbicide-resistant *Alopecurus myosuroides* (black-grass) populations in Denmark. *Crop Protection 69, 83-89* 10.1016/j.cropro.2014.12.016

Keshtkar E. ✉, Alizadeh, H. M., and Abbasi, F. (2010). Comparing herbigation and conventional method of eradicane (eptc+dichloroacetamide) application in controlling corn weeds. *Iranian Journal of Field Crop Science 41:* 1-10 (in Persian with English abstract)

Karimmojeni H., **Keshtkar**, E**.** Mashhadi, H. R., Alizadeh, H. M. ✉, and Yaghobi Ashrafi, Z. (2010). Dormancy breaking of cocklebur (*Xanthium strumarium* L.) Seeds. *Iranian Journal of Field Crop Science. 41:*503-511 (In Persian with English abstract)

Karimmojeni H., Mashhadi, H. R., Alizade, H. ✉, **Keshtkar**, E. Yaghobi Ashrafi, Z. and Raofirad, V. (2010). An investigation of environmental factors and plant growth regulators effect on dormancy breaking and stimulation of germination in datur (*Datura stramonium* L.) seeds. *Iranian Journal of Field Crop Science 40:*71-79 (In Persian with English abstract)

Keshtkar E., Kordbacheh, F., Mesgaran, M. B. ✉, Mashhadi, H. R. and Alizadeh, H. M. (2009). Effects of the sowing depth and temperature on the seedling emergence and early growth of wild barley (*Hordeum spontaneum*) and wheat. *Weed Biology and Management. 9: 10–19* 10.1111/j.1445-6664.2008.00313.x

Baziar, M. R. ✉, Zare, A., **Keshtkar, E.** and Ohadi, O. (2009). Studying the effect of crop straw burning on germination and growth of weeds. *Research on Crops. 10:* 210-221.

Keshtkar E. ✉, H. M. Alizadeh and F. Abbasi. (2008). Comparing herbigation and conventional method of eradicane application in a corn field*.* *Crop Research*. 36: 54-59*.*

UNDER PEER REVIEWED PAPERS:

Zare, A. ✉, and **Keshtkar**, E. ✉ (2024). Factors Influencing Germination and Seedling Emergence of Corncockle (Agrostemma githago): Insights for Weed Management in Agricultural Systems. *Acta Physiologiae Plantarum* (under review).

Hosseini, M. ✉, Mojab, M., Yassaie, M., Zand, E., **Keshtkar, E**., Revolinski, S., VanWallendael, A., & Mamnoie, E. (2024). Wild Barley (*Hordeum vulgare* L. subsp. *Spontaneum* (C. Koch) Thell.): A Noxious Weed Species in Iran and a Genetic Resource for Barley Cultivar Development. *Weed Reseach* (under review).

Sadeghi, M. S., Fazli, M., & Ahmadi, N. ✉, and **Keshtkar, E**., (2024). Assessing germination behavior and tolerance of *Bellis perennis* in soils contaminated with lead and chromium. *Environmental Science and Pollution Research* (in preparation).

TECHNICAL/EXTENSION BOOKLET/BROCHURE:

Sasanfar H., Zand E., Jamali M., Bahmani A., Zamani M. H., Fereidounpour M., Khorsandi H., Valaei A., Saadat M., Khalil Tahmasebi B., **Keshtkar E.**, and Mousavi S. K. (2023, Under press). The occurrence and development of resistance to herbicides in important grass weeds of wheat fields in Fars province. Extension Booklet. Iranian Research Institute of Plant Protection, Knowledge Network and Extension Media Office, Agricultural Research, Education and Extension Organization (AREEO), Agricultural Education and Extension Institute, Agricultural Education Publication. (In Persian).

Keshtkar, E., and Sasanfar H. (2022). Identification and control of weeds in wheat fields of Iran; Extension Guide No. 2: Black-grass (*Alopecurus myosuroides*), a narrow-leaved plant spreading in Iran. Extension Brochure. Knowledge Network and Extension Media Office, Agricultural Research, Education and Extension Organization (AREEO), Agricultural Education and Extension Institute, Agricultural Education Publication. 7 p. (In Persian).

Keshtkar, E., (2019). Biology and Management of Weeds in the Green Spaces of Kish Island. 38 p. Keshtkaran Gol Shiraz Co. 38 p. (In Persian).

Ohadi S., M.B. Mesgaran and **E. Keshtkar**. (2009). Phytotoxicity of nanoparticles: inhibition on seed germination and root growth. (Translation into Persian). Iran Nanotechnology Initiative Council. Journal of Nanotechnology. 134: 545-548. (In Persian).

Kordbacheh F., **Keshtkar** E.**,** Mesgaran **M**. B., Mashhadi H., (2008). Effect of sowing depth and temperature on wild barley (Hordeum spontaneum) seedling emergence. Magezine of Khooshe. 71: 15-17 (In Persian).

BOOK/ BOOK CHAPTERS:

Keshtkar, E., Beffa R, Kudsk P (2023) Fitness and Eco-Physiological Cost of Herbicide Metabolic Resistance. Pages XX in Nandula VK, Beffa R, eds. Herbicide Metabolism and Weed Resistance. USA: John Wiley & Sons, Inc. (under review)

Zand E, **Keshtkar E**, Mousavi SK, Heidari, A (2021) Herbicides and Their Application Technology, 3rd edition. P 865. Iran, Mashhad: JDM Press (in Persian)

Keshtkar E, Zand E, Mousavi SK (2015) Applying herbicides through irrigation systems. Pages 467-492 in Zand E, Mousavi SK, Heidari A, eds. Herbicides and Their Application Methods , 1th and 2nd Edition. Iran, Mashhad: JDM Press (in Persian)

CONFERENCE PRESENTATIONS (TALKS & POSTERS):

Keshtkar, E., Sasanfar, H., Alverdi A., Zand, E. (2023) Broadcast Application of Herbicides using Drone Sprayers: Yes or No? Proceeding of the 10th Iranian National Weed Science Congress. Hamedan. August 27-28, 2023 (Oral presentation). Pages 6 (In Persian with English abstract)

Begri, M., Rezae, M., Sasanfar, H., **Keshtkar, E.,** (2023) Efficacy of Post-emergence Herbicides of Corn for Controlling Wild Groundcherry (*Physalis divaricata*). Proceeding of the 10th Iranian National Weed Science Congress. Hamedan. August 27-28, 2023 (Poster presentation). Pages 5 (In Persian with English abstract)

Zarei, E., **Keshtkar E.**, Mokhtassi-Bidgoli, A., Sasanfar, H. (2023) The effect of some pre-emergence herbicides in controlling *Sinapis arvensis*. Proceeding of the 10th Iranian National Weed Science Congress. Hamedan. August 27-28, 2023 (Poster presentation). Pages 5 (In Persian with English abstract)

Sasanfar H., Khalil Tahmasebi, B,. Zand E., Zamani M. H., and **Keshtkar E.** (2023). Cross- and multiple-resistance development in grass weed populations to commonly used herbicides in wheat and canola fields. Proceeding of the 10th Iranian National Weed Science Congress. Hamedan. August 27-28, 2023 (Oral presentation). Pages 5 (In Persian with English abstract)

Zamani M. H., Joumi A., **Keshtkar E.**, Mahdavian A., and Sasanfar H. (2023). Application of image processing for detection of hairy vetch seed stainability through tetrazolium test. Proceeding of the 10th Iranian National Weed Science Congress. Hamedan. August 27-28, 2023 (Poster presentation). Pages 5 (In Persian with English abstract)

Giahchin, M., **Keshtkar, E**., Ahmadi, N. (2021) Response of winter wild oat (*Avena sterilis* subsp. *ludoviciana* Durieu.) and spring wild oat (Avena fatua L.) to increasing doses of clodinafop-propargyl (topic). Proceeding of the 9th Iranian Weed Science Congress. Tehran. November 16-17, 2021 (poster presentation). Pages 1-5 (In Persian with English abstract)

AghaAlikhani, M., Ebrahimi, N., **Keshtkar, E.** (2023) Grain Yield and Quality of Blessed thistle Affected by Plant Density and Nutrition System. The 10th Iranian National Congress on Medicinal Plants. Urmia, Iran. July 12-13 2023 (Oral presentation). Pages 6 (In English)

Zare, A., & **Keshtkar, E**. (2021). Response of corncockle (*Agrostemma githago*) to different temperature regimes. The 6th National Congress of New Findings in Agricultural and Natural Resources, Environment and Tourism. Tehran, Iran. July 22, 2021, (poster presentation). Pages 4 (In Persian)

Giahchin, M., **Keshtkar, E**., Alizadeh, S., & Sasanfar, H. (2020). Investigation of some seed characteristics of winter wild oat (*Avena ludoviciana*) biotypes susceptible and resistant to clodinaphop-propargyl. The 16th National Iranian Crop Scenic Congress, Mollasani, Ahvaz, Khozestan, Iran. January 25-27, 2020, (poster presentation). Pages 5 (In Persian with English abstract)

Iranshahi, A., **Keshtkar, E.**, & Mokhtasi-Bidgoli, A. (2020). Effect of Mixing of Some Herbicides and Insecticides on the Density and Biomass of Weeds in Dryland Wheat Farm. The 16th National Iranian Crop Scenic Congress, Mollasani, Ahvaz, Khozestan, Iran. January 25-27, 2020, (poster presentation). Pages 5 (In Persian with English abstract)

Joumi, A., **Keshtkar, E.**, Zand, E., Sasanfar, H., & Zamani, M. H. (2020). First report of resistance to mesosulfuronmethyl + iodosulfuronmethyl + safner mofenapyridyl ethyl (Atlantis 2/1٪OD) in *Avena ludoviciana* Durieu. from wheat fields of Alborz province. The 16th National Iranian Crop Scenic Congress, Mollasani, Ahvaz, Khozestan, Iran. January 25-27, 2020, (poster presentation). Pages 5 (In Persian with English abstract)

Zamani, M. H., **Keshtkar, E.**, Zand, E., Sasanfar, H., & Joumi, A. (2020). Evaluation of annual ryegrass (*Lolium rigidium*) resistance to mesosulfuron + idosulfuron (Atlantis) in the wheat field of Tehran Province. The 16th National Iranian Crop Scenic Congress, Mollasani, Ahvaz, Khozestan, Iran. January 25-27, 2020, (poster presentation). Pages 5 (In Persian with English abstract)

Keshtkar E, R., Sasanfar, H., Zand, E. (2019). The main challenge to evaluate herbicide resistance fitness cost: Lack of genetic background control of plant materials . *Proceeding of the 8th*

Iranian Weed Science Congress. Mashahd*. August 27-29, 2019 (Oral presentation*). *P.862-869.* (In Persian with English abstract)

Zand E., Sasanfar H.R. , Khalil Tahmasebi B., Forouzesh A., Meighani F., **Keshtkar E**. (2019). An overview of some advances in the area of herbicide resistant weeds. Proceeding of the 8th Iranian Weed Science Congress. Mashahd. August 27-29, 2019 (Oral presentation). P.81-112. (In Persian with English abstract)

Alizadeh, S., **Keshtkar, E.**, Mokhtesi-Bidgoli, A., & Sasanfar, H. (2019). Effect of water deficit stress on Bezoylporop-ethyl performance for controlling of winter wild oat (*Avena ludoviciana* Dur.) in greenhouse conditions. The Proceeding of the 8th Iranian Weed Science Congress, Mashhad, Iran. August 27-28, 2019, (poster presentation). Pages 4 (In Persian with English abstract)

Asadi-Sabzi, M., **Keshtkar, E.**, & Mokhtassi-Bidgoli, A. (2019). Evaluation of some growth indices of wild mustard (*Sinapis arvensis*) and wild barley (*Hordeum spontaneum*) under dust storm. Paper presented at the The Proceeding of the 8th Iranian Weed Science Congress, Mashhad, Iran. August 27-28, 2019, (poster presentation). Pages 4 (In Persian with English abstract)

Joumi, A., **Keshtkar, E.**, Zand, E., & Sasanfar, H. (2019). The first report of resistance to the new herbicide mesosulfuron-methyl+ iodosulfuron-methy sodium+ diflufenican + mofenapyridyl ethyl (Othello) in sterile oat (*Avena ludoviciana* Durieu.) in Iran. The Proceeding of the 8th Iranian Weed Science Congress, Mashhad, Iran. August 27-28, 2019, (poster presentation). Pages 4 (In Persian with English abstract)

Zamani, M. H., **Keshtkar, E.**, Zand, E., & Sasanfar, H. (2019). Cross and multiple resistance of rigid rye grass (*Lolium rigidum*) to common ACCase and ALS inhibitor herbicides in wheat fields of Fras province. The Proceeding of the 8th Iranian Weed Science Congress, Mashhad, Iran. August 27-28, 2019, (poster presentation). Pages 4 (In Persian with English abstract)

Keshtakr, E., AghaAlikhani, M., & Mokhtassi-Bidgoli, A. (2019). Abrasive-weeding using crop residues and agricultural wastes. The 8th National Conference on Food Security, Ideas and Researches in Recycling Engineering and Reducing Agricultural Waste, Tehran, Iran. May 11, 2019, (oral presentation). Pages 5(In Persian)

Alizade, S., **Keshtkar, E.**, Mokhtasi-Bidgoli, A., & Sasanfar, H. (2018). The Effect of Drought Stress on the Performance of Clodinafop- propargyl (Topik) for the Control of *Avena sterilis* subsp. *ludoviciana* under Greenhouse Conditions. The 9th Agricultural and Sustainable Natural Resources Conference, Tehran, Iran. October 17, 2018 (poster presentation). Pages 6 (In Persian with English abstract)

Alizade, S., **Keshtkar, E.**, Mokhtasi-Bidgoli, A., & Sasanfar, H. (2018). The Effect of Drought Stress on the Performance of Mesosulfuron-Methyl+Iodosulfuron-Methyl Sodium (Atlantis) for the Control of *Avena sterilis* subsp. *ludoviciana* under Greenhouse Conditions. The 9th Agricultural and Sustainable Natural Resources Conference, Tehran, Iran. October 17, 2018 (poster presentation). Pages 5 (In Persian with English abstract)

Asadi Sabzi, M., **Keshtkar, E.,** & Mokhtassi-Bidgoli, A. (2018). Effect of Dust Deposition on Total Dry-Matter Production of Wild Mustard and Wild Barley Weeds. Paper presented at the The 2nd

International Conference on Dust. Ilam, Iran. April 25, 2018, (poster presentation). Pages 1592-1594 (in English)

Ghafoori, H., **Keshtkar, E.,** Aghaalikhani, M., & Mahdavian, A. (2018). *Effect of ultrasound on dormancy-breaking and germination characteristics of Alhagi pseudalhagi.* . The 9th Agricultural and Sustainable Natural Resources Conference, Tehran, Iran. October 17, 2018 (poster presentation). Pages 6 (In Persian with English abstract)

Asadi Sabzi, M., **Keshtkar, E**. and Mokhtassi Bidgoli, A. (2017). Paraquat Efficacy on Control of Sinapis arvensis as influenced by Dust. The 2nd National Conference of New Achievements in Agronomy and Plant Breeding, ***Tehran, Iran***. November 30, 2017. P.1-5 (*poster presentation*).

Ghazali, Z., **Keshtkar, E**., Aghaalikhani, M. and Kudsk, P.(2017). Relative fitness of susceptible and resistant (NTSR) phenotypes of *Alopecurus myosuroides* considering to seed germination under drought stress conditions. *Proceeding of the 7th Iranian Weed Science* Congress**. Gorgan***. August 27-29 2017 (poster presentation*). *Vol. 2: Biology of Weeds and Invasive Plants. P.1-4.* (In Persian with English abstract)

Asadi Sabzi, M., **Keshtkar, E**. and Mokhtassi Bidgoli, A. (2017). Effect of dust on efficacy of glyphosate on control of wild mustard and wild barley under a greenhouse condition. *Proceeding of the 7th Iranian Weed Science* Congress**. Gorgan***. August 27-29 2017 (poster presentation*). *Vol. 4: Chemical Weed Control. P.1-4.* (In Persian with English abstract

Bastiaans, L., Panozzo, S., Kudsk, P., **Keshtkar, E**., Werf, W., Holst, N., Mathiassen, S.K., Scarabel, L., Sattin, M. (2016). From field experiments to modelling of herbicide resistance evolution. *Proceeding of 7th International weed* science congress, **Prague, Czech Republic**. *June 19-25, 2016 (Poster presentation*). p.305.

Keshtkar E., Mathiassen, S. K., Beffa, R. and Kudsk, P. (2015) Non-target site resistant *Alopecurus myosuroides* phenotypes associated with ecological fitness cost: Influence of sowing depth and temperature on seedling emergence. *Proceeding of the 6th Iranian Weed Science Conference***. Birjand***. Septemper 1-3 2015 (Oral presentation*). *Vol. 2: Weed Biology & Ecology. P.290-293.* (In Persian with English abstract)

Keshtkar, E., Mathiassen, S. K., and Kudsk, P. (2015). Decreased fitness of herbicide resistant weeds suggests options for management Case study, *Alopecurus myosuroides*. *IPM Innovation in Europe. **Poznań, Poland**. January 14–16, 2015 (Oral presentation*) Book of Abstracts: p56

Keshtkar E., P. Kudsk and S.K. Mathiassen. (2014). Germination and dormancy of susceptible and non-target site fenoxaprop resistant phenotypes in a single Danish blackgrass population. *Herbicide resistance in Europe: Challenges, opportunities and threats:* **Frankfurt, Germany**, May 19-20, 2014 *(Poster presentation).*

Keshtkar E, S.K. Mathiassen and P. Kudsk. (2013). Evaluation of blackgrass *(Alopecurus myosuroides)* populations' resistance to fenoxaprop-P-ethyl, cycloxydim, flupyrsulfuron-methyl and mesosulfuron-methyl+iodosulfuron-methyl. *Proceeding of the Global Herbicide Resistance Challenge Conference,* **Fremantle, Australia***, p.59 (Poster presentation).*

Keshtkar, E., Alizadeh, H., Abbasi, F., Zareh, A., & Keshtkar, F. (2010). The effect of applying eradicane through irrigation on grain yield and yield components of corn. The Proceedings of 3rd Iranian Weed Science Congress, Babolsar, Iran. February 17-18, 2010, (poster presentation). Pages 397-340 (In Persian with English abstract)

Keshtkar E., H. M. Alizadeh, F. Abbasi. (2008). The effect of eradicane application using herbigation in comparison to conventional method for weed control in corn (*Zea mays* L.). *Proceeding of the 2nd Iranian Weed Science Congress***. Mashhad**. *Vol.1: Weed Management & Herbicides. P.334-337.* (In Persian with English abstract)

Keshtkar E., F. Kordbacheh, M. B. Mesgaran, H. R.Mashhadi. (2008). Comparing the early growth of wheat and wild barley (*Hordeum spontaneum*) at different thermal regimes and sowing depths. *Proceeding of the 2nd Iranian Weed Science Congress***. Mashhad***. Vol. 2: Weed Biology & Ecophysiology. P.75-80.* (In Persian with English abstract)

Kordbacheh F., **E. Keshtkar**, M. B. Mesgaran, H. R. Mashhadi. (2008). Effect of sowing depth and temperature on seedling emergence of wild barley (Hordeum spontaneum) and wheat. *Proceeding of the 2nd Iranian Weed Science Congress***. Mashhad***. Vol.2: Weed Biology & Ecophysiology. P.132-137*. (In Persian with English abstract)

Keshtkar E., H. M. Alizadeh, F. Abbasi and M. Mesgaran. (2008). Corn yield and weed control as affected by method and rate of eradicane. *Proceeding of 5th International weed science congress,* **Vancouver, Canada.** *p.187.*

Kordbacheh F., **E. Keshtkar**, M. B. Mesgaran, H. Mashhadi, H. Alizadeh. (2008). Effect of sowing depth and temperature regime on wild barley (*Hordeum spontaneum*) and wheat seedling emergence and early growth. *Proceeding of 5th International weed science congress,* **Vancouver, Canada***. p.113.*

Keshtkar E., H. M. Alizadeh, F. Abbasi and H. R. Mashhadi. (2008). Evaluation of evenness distribution of eradicane herbicide in herbigation method**.** *Proceeding of the 2nd Seminar on Improving and Rehabilitation of Surface Irrigation Systestms.* **Karaj, Iran***. Publication Issue:129. p. 75-82.* (In Persian)

TEACHING & MENTORING

PHD AND MSC SUPERVISED PROJECTS:

Efficacy of herbicides and physiological responses of weeds under global climate change factors including dust storm and drought stress (*MSc students: Mr. Saeid Alizade and Mr. Masoud Asadi-Sabzi*)

Relative fitness of susceptible and non-target-site resistant (NTSR) biotypes of black-grass (*Alopecurus myosuroides*) concerning to seed germination in laboratory conditions. (*MSc student: Ms. Zahra Ghazali*)

Detecting and mapping of ACCase- and ALS-resistant seed canary grass (*Phalaris minor*), wimmera ryegrass (*Llium rigidu*.) and winter wild oat (*Avena luduviciana*.) populations collected within wheat (*MSc students: Mr. Mohammad H. Zamani and Mr. Ali Jomi*)

Investigation of possible seed dormancy breaking of four broadleaf weed species using ultrasonic waves (*MSc students: Ms Hajar Ghafouri*)

Evaluation of efficacy and compatibility of some herbicides with sunn pest (*Eurygaster integriceps*) insecticides in dryland winter wheat (*Triticum aestivum*) (*MSc students: Mr. Ayoub Iranshahi*)

Investigation of chemical control of weeds in false flax (*Camelina sativa*)

SUPERVISED AND CO-SUPERVISED GRADUATE STUDENTS:

GRADUATED STUDENTS:

Masoud Asadi-Sabzi	MSc in Weed Science (2015-2017)
Zahra Ghazali	MSc in Weed Science (2015-2017)
Saeid Alizade	MSc in Weed Science (2016-2018)
Hajar Ghafouri	MSc in Weed Science (2016-2018)
Ayoub Iranshahi	MSc in Weed Science (2017-2019)
Houshang Mehrfam	MSc in Agronomy (2017- 2019)
Mohammad S. Sadeghi	MSc in Horticulture (2017-2019)
Mohammad H. Zamani	MSc in Weed Science (2018- 2020)
Ali Jomi	MSc in Weed Science (2018- 2020)
Faranak Mehrazin	MSc in Weed Science (2019- 2022)
Mohammad Giahchin	MSc in Weed Science (2019- 2022)
Basem Abdulkareem	PhD in Agronomy (2018- 2023)

CURRENT STUDENTS:

Ebrahim Zarei	PhD in Agronomy (2019- present)
Fatemeh Azad	MSc in Weed Science (2020- present)
Mehdi Hosseinzadeh	PhD in Agronomy (2023- present)
Kimiya Amiri hoseini	MSc in Agronomy (2024- present)

POSTGRADUATE TAUGHT COURSES:

Herbicides and Application Methods	(fall, 2015-2018, 2020, 2022)
Herbicides Modes of Action	(spring, 2016-2019, 2021, 2023)
Integrated Weed Management	(spring, 2020, 2022, 2024)
Seed Ecology	(fall, 2018, 2021, 2023)

INVITED REVIEWER FOR SCIENTIFIC JOURNALS

INTERNATIONAL JOURNALS:

Weed Science, Weed Research, Crop Protection, Pest Management Science, Agronomy Journal, Scientific Reports, Ecology and Evolution, Plant Species Biology, OCL - Oilseeds and Fats, Crops and Lipids, Journal of Agricultural Science and Technology, Journal of Crop Protection, Spanish Journal of Agricultural Research, Agronomy Research, Plant Protection Science, Frontiers in Agronomy, Journal of Plant Protection Research

PERSIAN JOURNALS:

Journal of Crops Improvement, Iranian Journal of Field Crop Science, Iranian Journal of Weed Science, Journal of Crop Production and Processing

PROFESSIONAL SOCIETIES

Member of Iranian Society of Weed Science (2005-present)

Member of European Weed Research Society (2014-2015, 2022-present)

Members of Agricultural & Natural Resources Engineering Organization of Fars Province, Iran (2002-present)

Member and Co-founder of Iranian Herbicide Resistance Action Committee (2020-present)

COMMITTEES

Scientific Committee Member, The 25th Iranian Plant Protection Congress, Tehran, Iran, Sepetember 7-10, 2024

Scientific Committee Member, The 10th Iranian Weed Science Congress, Hamedan, Iran, August 27-28, 2023

Scientific Committee Member, The 9th Iranian Weed Science Congress, Tehran, Iran, November 16-17, 2021

Scientific Committee Member, The 8th National Conference on Food Security, Ideas and Researches in Recycling Engineering and Reducing Agricultural Waste, Tehran, Iran. May 11, 2019

Assessment Committee Member, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran. 2016-present

Executive Manager, The 1st Symposium on Weed Resistance to Herbicides, Iranian Society of Weed Science & Iranian Research Institute of Plant Protection, February 21, 2023, Tehran, Iran

Head of Herbicide Resistance Working Group, Iranian Society of Weed Science, 2021-present