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My research activity is mainly focused on the ecology of field crops production and sustainability of farming systems. I am specifically interested in integrating medicinal plants especially essential oil-bearing plants into farming systems to enhance diversity of food and forage cropping systems and reducing chemical drugs usage in animal industries. This could lead to establish really organic production of animal products in the US.

EDUCATION

Ph.D. Agricultural Ecology/ Agronomy, 2001, University of Tabriz, Tabriz, Iran.

M.Sc. Agronomy, 1996. University of Tehran, Tehran, Iran.

B.Sc. Agronomy and Plant Breeding, 1994, Shiraz University, Shiraz, Iran.

ADMINISTRATION

2023- present Research Director at Sustainable Agriculture Science Center at Alcalde, New Mexico State University, NM, USA.

2006-2008 Associate Dean in Education Affairs, College of Agriculture, University of Tabriz, Tabriz, Iran.

2008- 2012 Associate Dean in Research Affairs, College of Agriculture, University of Tabriz, Tabriz, Iran.

2014- 2016 Head of Plant Ecophysiology department, College of Agriculture, University of Tabriz, Tabriz, Iran.

PROFESSIONAL POSITIONS

2023- present Associate Professor and Research Director, New Mexico State University, NM, USA.

2010 - 2023 Professor, University of Tabriz, Tabriz, Iran.

2006 - 2010 Associate Professor, University of Tabriz, Tabriz, Iran.

2001 - 2006 Assistant Professor, University of Tabriz, Tabriz, Iran.

PUBLICATIONS

Summary:

Books (1), Book Chapters (2), Published refereed journal articles (since 2001) (170), Conference papers/posters (67), Research reports (67).

Peer Reviewed Publications (last five years):

Panahi, Z., R. Khakvar, Aliasgharzad, N., **S. Zehtab Salmasi**, and R. Farshbaf. 2023. Effect of copper nanoparticles on the performance of streptomycin and oxytetracycline antibiotics in the control of bacterial soft rot disease. *Plant Pathology Science*, 12(2)

Shafag- Kolvanagh, J., H. Dehghanian, A. Dabbagh Mohammadi Nasab, M. Moghaddam, Y. Raei, **S. Zehtab Salmasi**, P. Saqmimifar, S. Abdoli and B. Gholizadeh Khajeh. 2022. Machine learning-assisted analysis for agronomic dataset of 49 Balangu (*Lallemantia iberica* L.) ecotypes from different regions of Iran. *Scientific Reports*, 12(1):1-13. Doi: 10.1038/s41598-022-23335-1

Abdollahi, S., N. Aliasgharzad, **S. Zehtab Salmasi** and B. Khoshru. 2022. Effects of endophytic fungus *Piriformospora indica* on growth and essential oil content of *Pimpinella anisum* plant under water deficit conditions. *Water and Soil Science*, 32(3): 47-60. Doi: 10.22034/ws.2021.36333.2298

Zehtab Salmasi, S., A. N. Hamad and M.R. Sarikhani. 2022. The effect of chemical and biofertilizer on grain yield of two dill (*Anethum graveolens* L.) cultivars. *Chemistry Proceedings*, 10,66. [https:// doi.org/10.3390/IOCAG2022-12333](https://doi.org/10.3390/IOCAG2022-12333)

- Kordi, S., **S. Zehtab Salmasi**, J. Shafagh Kolvanagh, W. Weisany and D. A. Shannon. 2022. Intercropping System and N₂ Fixing Bacteria Can Increase Land Use Efficiency and Improve the Essential Oil Quantity and Quality of Sweet Basil (*Ocimum basilicum* L.). In: Lucena, C., Zimmermann, S. D., Aroca, R., Wang, J., Eds. Beneficial Microbes and the Interconnection between Crop Mineral Nutrition and Induced Systemic Resistance. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88974-086-4.
- Khoshghadam, V., **S. Zehtab Salmasi** and J. Shafagh. 2021. Effect of Different Planting Patterns on Agronomic Characteristics of two Cultivars of Chickpea (*Cicer arietinum* L.) in Intercropping with Dragon's Head (*Lallemantia iberica*). Journal of Sustainable Agriculture and Production Science, doi: 10.22034/saps.2021.41760.2543
- Zangani, E., **S. Zehtab Salmasi**, B. Andalibi, A.A. Zaman and M. Hashemi. 2021. Exogenous nitric oxide improved production and content of flavonolignans in milk thistle seeds under water deficit system. Acta Physiologiae Plantarum, 43:87. <https://doi.org/10.1007/s11738-021-03257-7>. <https://rdcu.be/ckfDR>
- Zaferanchi, S., **S. Zehtab Salmasi**, S.Y. Salehi Lisar, and M.R. Sarikhani. 2020. Bio-Inoculants and organics influence on mineral nutrition and productivity in Calendula officinalis L. Journal of Medicinal Plants and By-products. 1: 43-50. Doi: 10.22092/jmpb.2020.122073
- Kordi, S., **S. Zehtab Salmasi**, J. Shafagh Kolvanagh, W. Weisany and D. A. Shannon. 2020. Intercropping system and N₂ fixing bacteria can increase land use efficiency and improve the essential oil quantity and quality of Sweet Basil (*Ocimum basilicum* L.). Frontiers in Plant Science, 11:610026. doi: 10.3389/fpls.2020.610026.
- Shafagh Kolvanagh, J., A. Dalaei Milani, **S. Zehtab Salmasi**, Y. Raei and S. Dastborhan. 2020. Effects of intercropping on weeds control and Dragon's head (*Lallemantia iberica* Fischer & C.A. Meyer) yield. Journal of Agroecology, 11(4): 1997-1510. <https://doi.org/10.22067/jag.v11i4.61524>.
- Hatef Heris, H., **S. Zehtab Salmasi** and Arzanlu, M. 2020. Effect of some Trichoderma and mycorrhizal Fungal species on growth properties and grain yield of dill (*Anethum graveolens* L.) under greenhouse conditions. Journal of Sustainable Agriculture and Production Science, 30(1): 191-209.
- Abdollahi, S., N. Aliasgharzad, **S. Zehtab Salmasi** and B. Khoshru. 2020. Effects of endophytic fungus Piriformospora indica on growth indices and nutrient uptake by Anise plant (*Pimpinella anisum*) under water deficit stress conditions. Journal of Sustainable Agriculture and Production Science, 29(4): 51-64.
- Abbasvand, E., S. Hassannejad, **S. Zehtab Salmasi** and S. Alizade Salteh. 2020. Physiological and biochemical responses of basil to some allelopathic plant residues and dodder infestation. Acta Physiologiae Plantarum, 42(1): Doi: 10.1007/s11738-019-2990-y.
- Shirkhani, A., S. Nasrollahzadeh and **S. Zehtab Salmasi**. 2019. Effect of biofertilizers and chemical fertilizers on yield and seed quality of corn under normal irrigation and drought stress conditions. Environmental Stresses in Crop Sciences, 12:781-791. Doi: 10.22077/escs.2018.542.1332.
- Abbasvand, E., S. Hassannejad, **S. Zehtab Salmasi** and S. Alizade Salteh. 2019. Effects of seed priming with salicylic acid on chlorophyll a fluorescence parameters of basil (*Ocimum basilicum* L.) infested by field dodder (*Cuscuta campestris* Yunk.). Journal of Plant Physiology and Breeding, 9(2): 11-18.
- Shannon, D.A., E. Van Santenb, **S. Zehtab Salmasi**, T.J. Murrayd, L.T. Duong, J.T. Greenfield, T. Gonzalesa and W. Foshee. 2019. Shade, establishment method, and varietal effects on rhizome yield and Curcumin content in Turmeric in Alabama. Crop Science, 59: 1-10. doi:10.2135/cropsci2019.04.0262.
- Ghassemi, S., S. Zehtab Salmasi, K. Ghassemi Golezani and S. Alizadeh Salteh. 2019. Morphological traits and yield of Ajowan affected by different irrigation intervals and growth regulators. Advances in Horticultural Science, 33(1): 97-104. DOI: 10.13128/ahs-22618.
- Yeganehpour, F., **S. Zehtab Salmasi**, K. Ghassemi Golezani, J. Shafagh Kolvanagh and S. Dastborhan. 2019. Can application of nitrogen fertilizers and salicylic acid improve growth and fruit yield of coriander under water deficit? Acta Scientiarum Polonorum: Hortorum Cultus, 18(3): 87-97. DOI:10.24326/asphc.2019.3.9.
- Zaferanchi, S., **S. Zehtab Salmasi**, S.Y. Salehi Lisar, and M.R. Sarikhani. 2019. Influence of organics and bio fertilizers on biochemical properties of Calendula officinalis L. International Journal of Horticultural Science and Technology, 6(1): 125-136. DOI: 10.22059/ijhst.2019.266831.258.
- Ghassemi Golezani, K., S. Ghassemi, and **S. Zehtab Salmasi**. 2019. Changes in antioxidant enzymes activities and physiological traits of ajowan in response to water stress and hormonal application. Scientia Horticulturae, 246: 957-964. <https://doi.org/10.1016/j.scienta.2018.11.086>.

- Ghassemi, S., K. Ghassemi Golezani. and **S. Zehtab Salmasi**. 2018. Responses of ajowan (*Carum copticum* L.) to abscisic acid application under varying water deficit conditions. *Philippine Journal of Crop Science*, 43(3): 80-85.
- Shafagh-Kolvanagh, J. A. Azadmard-Taleshmikaeel, Y. Raei, **S. Zehtab Salmasi**, S. Azadmard-Damirchi and S. Dastborhan. 2018. Evaluation of morphological traits, yield components and essential oil content of Dragon's Head (*Lallemantia iberica* Fischer & C.A. Meyer) under weed interference periods. *Journal of Sustainable Agriculture and Production Science*, 28(2): 135-150.
- Mostafaei, E., **S. Zehtab Salmasi**, Salehi Lisar, Y. and Ghassemi Golezani, K. 2018. Changes in photosynthetic pigments, osmolytes and antioxidants of mustard by drought and exogenous polyamines. *Acta Biologica Hungarica* 69(3): 313–324. DOI: 10.1556/018.68.2018.3.7
- Zangani, E., **S. Zehtab Salmasi**, B. Andalibi and A.A. Zamani. 2018. Exogenous Sodium nitroprusside application on the antioxidant enzymes activity and active substance yield in milk thistle under drought stress. *Journal of Plant Production Research*, 24(4): 93-110.
- Shafagh-Kolvanagh, J., **S. Zehtab Salmasi**, S. Nasrollahzadeh, S. Dastborhan and N. Amidi-Hashemi. 2018. Changes in grain yield and yield components of winter barley in response to nitrogen supply and weed interference. *Iranian Journal of Field Crop Science*, 48(4): 985-996.
- Zangani, E., **S. Zehtab Salmasi**, B. Andalibi and A.A. Zamani. 2018. Protective effects of nitric Oxide on photosynthetic stability and performance of *Silybum marianum* under water deficit conditions. *Agronomy Journal*, American Society of Agronomy, 110 (2): 555-564. doi:10.2134/agronj2017.07.0396.
- Ghassemi Golezani, K. , S.Ghassemi, and **S. Zehtab Salmasi**. 2018. Changes in essential oil-content and composition of ajowan (*Carum copticum* L.) seeds in response to growth regulators under water stress. *Scientia Horticulturae*, 231: 219–226.
- Zangani, E., **S. Zehtab Salmasi**, B. Andalibi and A.A. Zamani. 2017. Nitric oxide exogenous improves quantitative and qualitative grain yield in milk thistle (*Silybum marianum* L.) under drought stress. *Advances in Bioresearch*, 8 (5) : 87-95.
- Yeganehpour, F., **S. Zehtab Salmasi**, K. Ghassemi Golezani, J. Shafagh Kolvanagh and S. Dastborhan. 2017. Assessment of grain yield correlation with some morphological and physiological traits, yield components and essential oil in Coriander (*Coriandrum sativum* L.). *Advances in Bioresearch*, 8 (3): 180-185.
- Kordi, S., J. Shafagh Kolvanagh, **S. Zehtab Salmasi** and M. Daneshvar. 2017. Evaluation of Yield Quantity and Quality of Forage Corn and Sweet Basil Affected by Biological, Chemical and Integrated Nitrogen Fertilizers in Intercropping. *Journal of Sustainable Agriculture and Production Science*, 27(3): 137-152.
- Zangani, E., **S. Zehtab Salmasi**, B. Andalibi and A.A. Zamani. 2017. Enhancement of drought stress tolerance in two genotypes of milk thistle (*Silybum marianum* (L.) Gaertn.) by exogenous application of sodium nitroprusside. *Iranian Journal of Medicinal and Aromatic Plants*, 33:636-648.
- Mabudi Bilasvar, H. and **S. Zehtab Salmasi**. 2017. Evaluation of Yield and Advantages of Corn (*Zea mays* L.) and Sweet Basil (*Ocimum basilicum* L.) intercropping. *Journal of Sustainable Agriculture and Production Science*, 27(1): 1-11.
- Nasrollahzadeh, S., A. Shirkhani and **S. Zehtab Salmasi**. 2017. Effects of biofertilizer and chemical fertilizer on Maize yield and leaf characters in different irrigation conditions. *Applied Field Crops Research*, 29:72-86.
- Yeganehpour, F., **S. Zehtab Salmasi**, K. Ghassemi Golezani, J. Shafagh Kolvanagh and S. Dastborhan. 2017. The impact of Nitro-kara and salicylic acid on proline content and essential oil composition of coriander under different water supply. *American Journal of Essential Oils and Natural Products*, 5(3): 32-40.
- Rezaei-Arjomand, A., S. Nasrollahzadeh, **S. Zehtab-Salmasi** and J. ShafaghKolvanagh. 2017. Evaluation of yield, yield components and oil production of Dragon's head (*Lallemantia iberica* Fish. et Mey.) in different patterns of intercropping with Dill (*Anethum graveolens*). *Advances in Bioresearch*, 8 (1): 60-64.
- Malekzadeh, M., J. Shafagh Kolvanagh, **S. Zehtab Salmasi**, S. Nasrollahzadeh and A. Dabbagh Mohammadi Nasab. 2017. Yield and yield components of *Lallemantia* (*Lallemantia iberica* Fisch. et Mey) intercropped with Anise (*Pimpinella anisum* L.) under weed infestation. *Journal of Sustainable Agriculture and Production Science*, 27(2): 183-195.

- Ayyari, M., **S. Zehtab Salmasi** and K. Ghassemi Golezani. 2017. Effects of seed priming and gamma irradiation on some physiological traits of *Lallemantia iberica* in rain-fed and supplementary irrigation condition. *Advances in Bioresearch*, 8 (1): 31-34.
- Ghassemi, S., K. Ghassemi- Golezani, **S. Zehtab Salmasi** and S. Alizadeh-Salteh. 2017. Improving essential oil content and yield of ajowan organs under water stress by application of salicylic acid and abscisic acid. *International Journal of Plant Production*, 11 (3): 425-435.
- Nasrollahzadeh, S., A. Shirkhani and **S. Zehtab Salmasi**. 2017. Agronomic responses of maize to deficit and adequate irrigation and levels of chemical and bio fertilizers. *Bioscience Biotechnology Research Communications*, 10(1): 219-229.
- Kordi, S., J. Shafagh Kolvanagh, **S. Zehtab Salmasi** and M. Daneshvar. 2017. Evaluation of yield and some physiological traits of forage corn affected by chemical and biological nitrogen fertilizers intercropped with sweet basil. *Journal of Central European Agriculture*, 18(2):477-493.
- Yeganehpour, F., **S. Zehtab Salmasi**, J. Shafagh Kolvanagh and K. Ghassemi Golezan. 2017. Effects of drought stress, chemical and bio fertilizer, and salicylic acid on yield and yield components of coriander. *Electronic Journal of Crop Production*, 9(4):37-55.
- Yeganehpour, F., **S. Zehtab Salmasi**, K. Ghassemi Golezani, J. Shafagh Kolvanagh and S. Dastborhan. 2017. The effect of water stress, salicylic acid and biofertilizer on quality of leaf and seed essential oil, and oil components of coriander. *Net Journal of Agricultural Science*, 5(2):38-47.
- Yeganehpour, F., **S. Zehtab Salmasi**, J. Shafagh Kolvanagh, K. Ghassemi Golezani and S. Dastborhan. 2017. Evaluation of some morphological traits and oil content of coriander seeds in response to bio-fertilizer and salicylic acid under water stress. *Journal of Biodiversity and Environmental Sciences*, 10(1): 140-149.
- Yeganehpour, F., **S. Zehtab Salmasi** and S. Dastborhan. 2017. Changes in some physiological traits and yield of corn in response to cover crops. *Journal of Biodiversity and Environmental Sciences*, 10(1): 105-114.

TEACHING EXPERIENCE

Undergraduate level: Ecology, Principles of Crop Production, Rangeland Management, Cereal Production, Medicinal Plants and Spice Production, Sustainable Farming.

Graduate level: Advanced Medicinal Plants Production, Agricultural Ecology, Scientific Research Methods, Plant Ecophysiology, Ecology of Cropping Systems, Ecology of Crop Production.