Maryam Haghighi *Curriculum Vitae*

**Present position:** **Associate Professor, Isfahan University of Technology, Isfahan, Iran**

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**Education**

**PhD:** 10/2003 – 12/2008, on Horticulture- Physiology and Breeding of Vegetable Crops. Department of Horticulture, Faculty of Agriculture, University of Tehran. (Average = 18.4 out of 20).

**PhD Thesis**:The effect of Cd stress on physiological, antioxidant, and enzymatic changes of lettuce (*Lactuca sativa L*) at the presence of humic acid.

**Advanced diploma on Plant Nutrition:** 9/2005 – 7/2006, Zhejiang University, Hangzhou, China

**M.Sc.:** 2002 - 2004, Department of Horticulture, Faculty of Agriculture, Ferdowsi University of Mashhad.), Iran

M.Sc. Thesis: Use of SMC (Spent Mushroom Compost) For Turf culture via Hydromulching Method

**B.Sc.:** 1998 – 2002, Department of Horticulture, Faculty of Agriculture, Isfahan University of Technology, Iran

**Awards and Fellowships**

1- UNESCO research merit fellowship (Great Wall) in China. Zhejiang University, Hangzhou. Sep.2005- Aug. 2006

2- Iranian Ministry of Science research fellowship. Massey University, New Zealand. March 2008- September 2008.

**Publication list**

**Articles submitted**

1. Farajimanesh, A., **Haghighi, M.,** Salinity and Rootstocks Affect Physiological and Photosynthetic Parameters in Grafted Cucumber. **International Vegetable Science.**
2. **Haghighi M.,** Sharifani M.J**.** Physiological changes of sweet pepper in low irrigation regime applied in 3 different phenological stages. **The Modares Journal of Electrical Engineering**.
3. 42. Kohan A. **Haghighi M.,** Ehtemam M.H., Mirghaffari N.,Responses of Lettuce (*Lactuca sativa* var. longifolia) Against to Different Time Exposure of NO2, SO2, CO2, CO, CH4 and O2 Gases. **Iran Agricultural Research.**
4. **Haghighi M.,** Saadat Sh. Exogenous application of amino acids effect on nutraceutical value and growth of cabbage in drought stress. **Functional Plant Biology.**
5. Shafie H., **Haghighi M.** Different responses of growth, physiological and anatomical characteristics of resistant and sensitive cultivars of *Cucumis inodorous* to salt stress. **The Modares Journal of Electrical Engineering.**
6. **Haghighi M.,** Zamani O., Sheibanirad A. The effect of endemic rootstock on N metabolism of grafted cucumber in different NO3/NH4 Ratio. **International Journal of Vegetable Science.**
7. Dezhabad F., **Haghighi M.** Different physiological characteristics of shoot and root of tomato exposed to chilling stress treated with Boron. **Acta Physiologiae Plantarum.**
8. **Haghighi M.,** khosravi, S. The effect of flooding stress on grafted cucumber over time. **Scientia Agricola.**
9. Chenani Saleh N., Goli S.A.H., **Haghighi M.,** Keramat J.The effect of blanching, Freezing and Storage time on quality Properties of frozen Cabbage. **Journal of Food Processing and Preservation.**
10. Mohammadnia, S., **Haghighi, M.** Introducing a new rootstock ‘*Momordica charantia’* for grafted cucumber in low temperature stress. **Advance in Horticultural Science.**
11. **Haghighi, M.,** Abolghasemi, R.Nanotechnology in agriculture. **International Journal of Plant Production.**
12. **Haghighi, M.,** Nikbakht, A. and Pessarakli, M. Growth, photosynthesis and antioxidant changes of gerbera with various combinations of Ca and humic acid. **Culture Agriculture Food and Environment.**
13. H. Shafie, **Haghighi, M.,** A. Farhadi.Effect of salinity on photosynthetic properties and concentration of leaf elements of different accession of melons (*Cucumis melo* L.). **Journal of Plant Production at Hamadan University.** (in Persian with Eng. abstract).
14. Motamadi, M., **Haghighi, M**. Comparison of the ability to recover physiological traits of hot peppers and sweet peppers after high temperature stress. **Journal of Plant Production at Hamadan University.** (in Persian with Eng. abstract).
15. **Haghighi, M.,** Nazarri, Z., Sajedimehr, H. The effect of chilling and high temperature stress on growth and physiological changes of grafted cucumber on Iranian endemic squash and cucumbers. **Journal of Plant Process and Function.** (in Persian with Eng. abstract)
16. **Haghighi, M.,** Sheibanirad, A. Improving Physiological Characteristics of Grafted Cucumber Under Drought Stress. **Production and Processing of Crops and Gardening**. (in Persian with Eng. abstract).
17. **Haghighi, M.,** Sorani, M. The effect of organic riched wood vinegar on greenhouse tomato growth in two soil and soilless media. **Science and Technology of Agriculture and Natural Resources.** (in Persian with Eng. abstract).
18. **Haghighi, M.,** Behboudian, H. The effect of drought stress of PRD on photosynthesis, respiration and qualitative characteristics of processing tomato. **Journal of Plant Production at Hamadan University.** (in Persian with Eng. abstract).
19. Mohammadnia, S., **Haghighi, M.** Farhadi, A. Changes of Growth and Photosynthesis Characteristics of Grafted Cucumber on *Cucurbita moschata* and *Lagenaria siceraria.* **Journal of Plant Production at Hamadan University.** (in Persian with Eng. abstract).
20. Mohammadnia, S., **Haghighi, M.** Farhadi, A. The effect of grafting and temperature on growth and physiological characteristics of grafted cucumber on C. moschata and C. pepo. **Journal of Plant Production at Hamadan University.** (in Persian with Eng. abstract).
21. **Haghighi, M.,** Kazemi, E. Effect of low irrigation and humic acid treatments on growth, yield and blossom end rot of greenhouse tomatoes. **Journal of Plant Production at Hamadan University.** (in Persian with Eng. abstract).
22. **Haghighi, M.,** Najafi. The effect of organic fertilizer: humic acid and amino acid on growth of greenhouse tomato in 4 growth phase. **Greenhouse Science And Technology Of Isfahan University Of Technology**. (in Persian with Eng. abstract).
23. **Haghighi, M.,** Masoumi, Z. Effect of caffeic acid on reducing the destructive effects of salinity on greenhouse cucumber (*Cucumis sativus* var. Super daminos). **Journal of Plant Process and Function.** (in Persian with Eng. abstract).
24. **Haghighi, M.,** Masoumi, Z.**,** Jalali, S.A.H. Changing the Physiological Response and Water Relationships in Sweet Pepper When Stopping the Activity of Root Aquaporin in Drought Stress. **Journal of Plant Process and Function.** (in Persian with Eng. abstract).

**Accepted for Publication**

1. **Haghighi, M.,** Barzegar, M.R.Organic Media Compensate the Growth of Sweet Pepper in Low Nutrient Solution. **Journal of Science and Technology of Greenhouse Cultures.** (in Persian with Eng. abstract).
2. **Haghighi, M.,** Bostaki, F. Physiological efficiency of grafted cucumber in different N and Temperature levels. **Greenhouse science and technology of Isfahan University of technology**. (in Persian with Eng. abstract).
3. **Haghighi, M**., Najafi, M.A. The effect of humic acid on alleviating drought stress of tomato in greenhouse. **Journal of Vegetable Science at University of Ilam.** (in Persian with Eng. abstract).
4. **Haghighi M.,** Abdolahipour B. Alternative Nitrogen Fertilization of Cucumber by Mycorrhiza Colonization in a Soilless Growing System. **Iran Agricultural Research.**
5. Dezhabad, F., **Haghighi, M.** The impact of sudden low temperature stress of root and shoot on the recovery of vegetative and physiological traits of tomato. **Journal of Horticulture, Ferdowsi University of Mashhad.** (in Persian with Eng. abstract).
6. Shafiee, H., **Haghighi, M.,** Farhadi, A., Ehtemam, M.H. The effect of salinity on physiological, biochemical and anatomical characteristics of different accession of melons. **Journal of Plant Process and Function.** (in Persian with Eng. abstract)
7. Shahmansouri, E., **Haghighi, M.** Optimization of dry onion sets production in long day and short day types. **Journal of Vegetable Science at University of Ilam.** (in Persian with Eng. abstract).
8. Chenani Saleh, N., Goli, S.A.H., **Haghighi, M.,** Keramat, J., Mehdipour, L. Changes in the nutritional value and quality of celery (*Appium graviolens* var. Dulce) during preparation and freezing stages. **Journal of Food Research.** (in Persian with Eng. abstract).
9. **Haghighi, M.**, Abolghasemi, R.The Effect of High and Low Temperature Stress on Growth, Photosynthesis and Antioxidant Changes of Tomato in Vegetative Growth of Tomato. **Journal of Vegetable Science at University of Ilam.** (in Persian with Eng. abstract).

**Published**

1. Motamedi M., **Haghighi M.,** Goli A.H. 2019. Physiological changes of sweet and hot pepper in vegetative and reproductive growth stage treated by Ca and H2O2 on unforeseen heat stress. **Scientia Horticulture.**249: 306-319.
2. **Haghighi M.,** Barzegar M.R. 2019.Growth, Yield Index, and Photosynthesis Traits of Sweet Pepper Grown in Vermicompost Inoculated with *Arbuscular mycorrhizal.* **Iran Agricultural Research. 37(2).1-13.**
3. Abolghasemi, R**., Haghighi**, **M.,** Solgi, M. Mobini-Khaledi, A. 2019.Rapid and Biological Synthesis of Zinc Oxide Nanoparticles Using Waste Thyme *(Thymus vulgaris L.)*. **International Journal of Environmental Science and Technology.** 16(11).6985-6990**.**
4. **Haghighi M.**, Ramezani MR., Rajaii N.2019. Improving oxidative damage, photosynthesis traits, growth and flower dropping of pepper under high temperature stress by selenium. **Molecular biology report.** 46(1).497-503.
5. Khoshbakht, D., Asghari, M. R. **Haghighi, M.** 2018.Effects of foliar applications of nitric oxide and spermidine on chlorophyll fluorescence, photosynthesis characteristics, element contents and antioxidant enzyme activities of citrus seedlings under salinity stress. **Journal of** [**Photosynthetica**](https://link.springer.com/journal/11099)**.** 56(4): 1313-1325.
6. Khoshbakht, D., Asghari, M.R., **Haghighi, M.** 2018. Influence of foliar application of polyamines on growth, gas exchange characteristics, and chlorophyll fluorescence in Bakraii citrus under saline conditions. **Journal of** [**Photosynthetica**](https://link.springer.com/journal/11099)**.** 56(2):731-742.
7. **Haghighi, M.,** Daneshmand, B. 2018. Beneficial Effect of Titanium on Plant Growth, Photosynthesis and Nutrient Trait of Tomato cv. Foria. **Iran Agricultural Research. 37(1):83-88.**
8. Saraeian, Z., **Haghighi, M.,** Etemadi, N., Hajabbasi, M.A., Afyuni, M. 2018. Phytoremediation effect and growth responses of *Cynodon spp*. and *Agropyron desertorum* in a Petroleum-Contaminated Soil. **Soil sediment contamination.** 27(5):393-407.
9. Taheri, M., **Haghighi, M.** 2018.Benzyl adenine are more effective than potassium silicate on decreasing detrimental effects of heat stress of pepper. **Iran Agricultural Research.** 37(1):89-98.
10. Barzegar, R., **Haghighi, M.** 2017.Effect of amino acid and mycorrhiza inoculation on sweet pepper growth under greenhouse conditions. **Iran Agricultural Research***.*2(36): 47-54.
11. **Haghighi, M.,** Mohammadnia, S., Attai, Z., Pessarakli, M.2017. Effects of mycorrhiza inoculation on cucumber growth irrigated with saline water. **Journal of Plant Nutrition.**40(1):127-137.
12. **Haghighi, M.,** Barzegar, M.H., Teixeira da Silva, J.A.2016.Different ratios of organic substrates (composted and uncomposted municipal solid waste) affect tomato (*Lycopersicum esculentum* Mill.) growth and yield. **International Journal of Recycling Organic Waste Agriculture.** 5: 231-242**.**
13. **Haghighi, M.,** Mohammadnia, S., Pessarakli, M.2016. Effects of mycorrhiza colonization on growth, root exudates, antioxidant activity and photosynthesis trait of cucumber grown in Johnson modified nutrient solution. **Journal of Plant Nutrition**. 39(14):2079-2091.
14. **Haghighi, M**. and JA. Teixeira da Silva.2016. Application of biosolids to soil affects cu and Zn accumulation and antioxidant activity of lettuce (*Lactuca sativa* L.). **Journal of Plant Nutrition**. 39(2):252-260.
15. Nikbakht, A. **Haghighi, M.,** Pessarakli, M.2016. Effects of humic acid on remediation of the nutritional deficiency of gerbera in hydroponic culture. **Journal of Plant Nutrition.**39: 702-713.
16. **Haghighi M.,** Sheibanirad, A., Pessarakli, M.2016. Effects of selenium as a beneficial element on growth and photosynthetic attributes of greenhouse cucumber. **Journal of Plant Nutrition**. 10(39): 1493-1498.
17. **Haghighi M.,** Kafi, M., Pessarakli, M., Sheibanirad, A., Sharifinia, M. R. 2016. Using kale (*Brassica oleracea* var. acephala) as a phytoremediation plant species for lead (pb) and cadmium (cd) removal in saline soils. **Journal of Plant Nutrition**. 10(39): 1460-1471.
18. **Haghighi, M.**, Teixeira da Silva, J.A.2016. Influence of Selenium on Cadmium Toxicity in Cucumber (*Cucumis sativus* cv. ‘4200’) at an Early Growth Stage in a Hydroponic System. **Journal of Soil Science and Plant Nutrition.**2(47):142-155.
19. **Haghighi, M.,** Pessarakli, M. 2016. Copper and Zinc Uptake by Celery Plants Grown on Acidic Soil Amended with Biosolids**. Journal of Plant Nutrition**.39: 655-665.
20. **Haghighi, M.,** Abdolahipor, B. Mozafarian, M. 2015. Effect of Cucumber Mycorrhiza Inoculation under Low and High Root Temperature Grown on Hydroponic Conditions. **Journal of Crop Science and Biotechnology**. 18(2): 89-96.
21. **Haghighi M.,** Fang, P., Pessarakli, M. 2015. Effects of Ammonium Nitrate and Monosodium Glutamate in Waste Water on the Growth, Antioxidant Activity, and Nitrogen Assimilation of Lettuce (*Lactuca sativa* L.). **Journal of Plant Nutrition**. 38:2217-2229.
22. **Haghighi, M**., Z. Afifipour, and JA. Teixeira da Silva.2014. The Effect of Carbon Nanotubes on the Seed Germination of Four Vegetable Species. **Journal of Crop Science and Biotechnology.** 17(4): 201-208.
23. **Haghighi, M**., R. Abolghasemi and JA. Teixeira da Silva.2014. Low and high temperature stress affect the growth characteristics of tomato in hydroponic culture with se and nano-se amendment. Scientia Horticulturae. 178: 231-240.
24. Haghighi, M., A. Afsharikea, M. Mozafareian.2014. Usage of Herbal (Thyme and Chicory) Waste as an Organic Substrate in Cucumber Production. **Communications in soil science and plant analysis**. 45: 2607-2619.
25. **Haghighi, M.,** A. Nikhbakht, Y. Ping Xia, and M. Pessarakli.2013. Influence of Humic Acid in Diluted Nutrient Solution on Growth Nutrient Efficiency and Postharvest Attributes of Gerbera. **Communications in Soil Science and Plant Analysis. 45(2):177-188**.
26. Khoshgoftarmanesh AH, S Khodarahmi, **M Haghighi**.2014. [Effect of silicon nutrition on lipid peroxidation and antioxidant response of cucumber plants exposed to salinity stress](http://scholar.google.com/citations?view_op=view_citation&hl=en&user=eCRK05cAAAAJ&citation_for_view=eCRK05cAAAAJ:7PzlFSSx8tAC)  
    **Archives of Agronomy and Soil Science**, 5(60): 639-653.
27. France, JB., **M. Haghighi**, A. Watson, T. Mills, and M.H. Behbodian.2014. Mineral nutrition of `Petopride processing tomato under partial rootzone drying. **Journal of Plant Nutrition.**37(7): 1056-1062**.**
28. Haghighi, M., JA. Teixeira da Silva.2014. The effect of nano-TiO2 on tomato, onion and radish seed germination. [**Journal of Crop Science and Biotechnology**](https://link.springer.com/journal/12892)**.17(4):221-227.**
29. Haghighi, M. and M. Pessarakli. 2013. Influence of silicon and nano-silicon on salinity tolerance of cherry tomatoes (*Solanum lycopersicum* L.) at early growth stage. **Scientia horticulturea** 161C 111-117.
30. Shirani Bidabadi S, Ashrafi N, **Haghighi M**, Boroomand A and Jafari M. 2013. The Possibility of Applying Effluents in Tomato Soilless Culture. **International Journal of** **Agriculture and Crop Sciences**. 5 (23), 2858-2862.
31. **Haghighi, M**., M. Kafi, and A.H. Khoshgoftarmanesh. 2013. The effect of humic acid application on cadmium accumulation by lettuce leaves**. Journal of Plant Nutrition**. 36:1521–1532.
32. **Haghighi, M.,** J. France, MH. Behboudian, and TM. Mills. 2013. Fruit quality responses of ‘Petopride’ processing tomato (*Lycopersicon esculentum* Mill.) to partial rootzone drying. 2013. Journal of Horticultural Science and Biotechnology. 88 (2): 154–158.
33. **Haghighi, M**., Z. Afifipour, and M. Mozafarian. 2012. The alleviation effect of silicon on seed germination and seedling growth of tomato under salinity stress. **Vegetable Crops Research Bulletin**. 6(16): 87-90.
34. Haghighi, M., J A. Teixeira da Silva, M. Mozafarian, and Z. Afifipour. 2013. Can Si and Nano-Si Alleviate the Effect of Drought Stress Induced by PEG in Seed Germination and Seedling Growth of Tomato? **Minerva Biotecnologica.** 25(1): 17-22
35. Haghighi, M. and A. Pourkhaloee. 2013. Nanoparticles in agricultural soils: Their risks and benefits for seed germination. **Minerva Biotecnologica.** 25(2): 123-132.
36. Haghighi, M. 2013. The effect of humic and glutamic acids in nutrient solution on the N metabolism in lettuce. **Journal of the Science of Food and Agriculture.** 92(15):3023-8.
37. Haghighi, M. and J A. Teixeira da Silva.2013. Amendment of hydroponic nutrient solution with humic acid and glutamic acid in tomato (*Lycopersicon esculentum* L.) culture. **Journal of Soil Science and Plant Nutrition.** 59: 642-648.
38. **Haghighi, M.,** S. Heidarian, and JA. Teixeira da Silva. 2012. The effect of Titanium amendment in N-withholding nutrient solution on physiological and photosynthesis attributes and micro-nutrient uptake of tomato. **Biological trace element research.** 150(1): 381-390
39. Haghighi, M., J A. Teixeira da Silva, M. Mozafariyan, and F. Roustaii. 2012. Humic acid alleviates germination of basil and cumin under salinity and drought stress. **Medicinal and Aromatic Plant Science and Biotechnology.** 6 (1): 63-67
40. Haghighi, M., M. Kafi, and P. Fang. 2012. Photosynthetic activity and N metabolism of lettuce as affected by humic acid. **International Journal of Vegetable Science.** 18 (2):182-189.
41. **Haghighi, M**., Z. Afifipour, and M. Mozafarian. 2012. The effect of N-Si on tomato seed germination under salinity levels. **Journal of Biological and Environmental Science**. 6 (16): 87-90.
42. **Haghighi, M**. and M. Mozafariyan. 2011. The introduction of extinct endemic vegetables of Iran. **Journal of Medicinal Plants Research**. 5 (33): 7085-7107.
43. Pourkhaloee, A., **M. Haghighi,** MJ. Saharkhiz, H. Jouzi, and M.M. Doroodmand. 2011. Carbon nanotubes can promote seed germination via seed coat penetration. **Journal of Seed Technology**. 33 (2): 155-169.
44. **Haghighi, M**. 2011. Sewage sludge application in soil improved leafy vegetable growth. **Journal of Biological and Environmental Science**. 5 (15): 165-167.
45. Etemadi, N., M. Haghighi, A. Nikbakht, and N. Zamani. 2010. Methods to promote germination of Kelussia odoratissima Mozaff., an Iranian endemic medicinal plant. **Herba Polonica**. [56 (2): 21-28](http://nikbakht.iut.ac.ir/Pubs/10.pdf).
46. **Haghighi, M**., M. Kafi, P. Fang, and L. Gui-Xiao. 2010. Humic acid decreased hazardous of cadmium toxicity on lettuce (*Lactuca sativa* L.). **Vegetable Crops Research Bulletin**. 72: 49-61.
47. **Haghighi, M**., A. Tehranifar, A. Nikbakht, and M. Kafi. 2008. Research and current profile of Iranian production of damask rose (*Rosa damascena* Mill.). **Acta Horticulture**. [769: 449-455](http://nikbakht.iut.ac.ir/Pubs/6.pdf).
48. Nikbakht, A., M. Kafi, and **M. Haghighi**. 2008. The abilities and potentials of medicinal plants production and herbal medicine in Iran. **Acta Horticulture**. 790: 259-262.
49. **Haghighi, M**., M. Kafi, and A. Tehranifar. 2006. Effect of decay level of SMC (Spent Mushroom Compost) and media diameters and compound on turfculture in hydromulching method. **International Journal of Agriculture and Biology**. 8 (5): 691-693.

**in Persian with Eng. Abstract**

1. Mohammadnia, S., **Haghighi, M.** Farhadi, A.2018. Mineral nutrient uptake in cucumber grafting on *Lagenaria siceraria and Cucurbita moschata* rotestocks in different temperatures. **Journal of Horticultural Science and Technoloy.** 19(4).459-468**.** (in Persian with Eng. abstract).
2. **Haghighi, M.,** **Mansouri, F.** 2018. The effect Jasmonic acid and salicylic acid on growth and physiological change of tomato under salinity condition. **Greenhouse Science and Technology of Isfahan University of Technology.** 9(4)1-13.(in Persian with Eng. abstract).
3. Abdolahipour, B., **Haghighi, M.** 2019. The Effect of Pine Wood Vinegar on Germination, Growth and physiological Characteristics and uptake of element in Basil. **Journal of Science and Technology of Greenhouse Cultures.** 10(2)11.24. (in Persian with Eng. abstract)
4. Shafiee, H., **Haghighi, M.**, Farhadi, A. 2019. Evaluation of response of Iranian melon cultivars to salinity stress. **Production and processing of crops and gardening**. 9(1): 51-63 (in Persian with Eng. abstract).
5. **Haghighi, M.,** Naghvi, B. 2019.The Effect of Ca and Nano-Ca Spray on Decreasing Salinity Stress Effect of Tomato on Vegetative Growth Stage in Hydro culture. **Journal of Horticulture, Ferdowsi University of Mashhad.**32(4): 507-518 (in Persian with Eng. abstract).
6. **Haghighi, M.,** Sheibanirad, A.2018. Evaluating of Azealic Acid on Tomato Vegetative and Photosynthetic Parameters under Salinity Stress. **Journal of Horticulture, Ferdowsi University of Mashhad.** 32(2)287-300**.**(in Persian with Eng. abstract).
7. **Haghighi, M.**, Abolghasemi, R. 2018. The Effect of High and Low Temperature Stress on Growth, Photosynthesis and Antioxidant Changes of Tomato in Vegetative Growth of Tomato. **Greenhouse science and technology of Isfahan University of technology.** 9(1): 63-77.(in Persian with Eng. abstract).
8. **Haghighi, M.,** S. Mohammadnia. 2018.The effect of different levels of Fe-EDTA on growth and physiological traits of cucumber in different pH of nutrient solution. **Journal of Plant Process and Function.**7(24):93-103.(in Persian with Eng. abstract).
9. Kohan, A. **Haghighi, M.,** Ehtemam, M.H., Mirghaffari, N.2018. The Effect of Gasoline Exhaust Pollution on Some Anatomical, Physiological and Morphological Characteristics of Spinach. Journal of Ecology, University of Tehran.43(4): 683-697. (in Persian with Eng. abstract)
10. Mohammadnia, S., **M. Haghighi**. 2017. The effect of Babol cucumber, Babol and Ferro Rootstocks on growth characteristic of cucumber under diffident temperature. **Journal of Plant Process and Function.**19(6): 339-348.(in Persian with Eng. abstract).
11. Abolghasemi R., Haghighi M. 2017. Investigation of greenhouse tomato changes treated with a useful element in the form of metal and nano-metallic. **Journal of Plant Process and function. 19(6):153-162.** (in Persian with Eng. abstract).
12. Chenani Saleh, N. , Hossein Goli, S. A., Keramat, J. , Mehdipour, L. **Haghighi, M. 2017.** Effect of preparation, freezing and thawing methods on total phenolic and vitamin c content, antioxidant activity, texture and minerals of pepper (*Capsicum annuum*). JFAT. 63(14): 51-62.
13. Farajimanesh, A., **Haghighi, M.,** Mobli, M. 2016. The effect of different endemic rootstocks on water relation, physiological changes of grafted cucumber under salinity stress **Journal of Horticultural Science and Technology. 17(3): 351-368.** (in Persian with Eng. abstract).
14. Saraeian, Z., N. Etemadi, **Haghighi, M**. M.A. HajAbbasi and M. Afyuni. 2015. The effects of petroleum hydrocarbons on morphological and physiological traits of two cultivars of bermudagrass. **Journal of Science and Technology of Greenhouse Culture**. 6(22): 107-119. (in Persian with Eng. abstract).
15. Saraeian, Z., N. Etemadi, **Haghighi, M**. M.A. HajAbbasi and M. Afyuni. 2015. The effects of oil pollution in soil on germination and morpho-physiological characteristics of desert wheatgrass (*Agropyron desertorum*) for use in landscape. **Journal of Plant Process and function**.4(11): 87-98. (in Persian with Eng. abstract).
16. **Haghighi, M.,** M. Mozafariyan, and Z. Afifipour.2014. The effect of superabsorbent polymer and different drought stress level on growth and yield of tomato (*Lycopersicum esculentum).* **Journal of horticulture science. 1(28): 125-133.** (in Persian with Eng. abstract).
17. **Haghighi, M**., B. Daneshmand. 2014. The effect of Ti on growth and nutrient uptake in hydroponic tomato culture. **Iranian Journal of Science and Technology of Greenhouse Culture**.13: 73-79. (in Persian with Eng. abstract).
18. Mozafariyan, M. and **M. Haghighi**.2014. The effect of Si and Nano-Si on tomato growth under drought stress in vegetative growth stage. **Iranian Journal of Science and Technology of Greenhouse Culture**. 19: 37-47. (in Persian with Eng. abstract).
19. **Haghighi, M**. and A. Nikbakht.2014. Changes of divalent cation absorption in root, stem and leaf of gerbera as affected by different levels of Calcium and Humic acid. **Iranian Journal of Soil Research. 28(2): 387-396** (in Persian with Eng. abstract).
20. **Haghighi, M.** and M. Mozafariyan.2014. The effect of Si and Nano-Si on growth, morphological and photosynthetic attribute of tomato in hydroponic system. **Greenhouse science and technology of Isfahan University of technology**.5(19):37-47. (in Persian with Eng. abstract).
21. **Haghighi M**, M Mozafariyan, Z Afifipour.2014. The effect of superabsorbent polymer and different withholding irrigation level on some qualitative and quantitative traits of tomato (*Lycopersicum esculentum*(. **Iranian journal of horticulture**, Mashhad.28(1): 125-133. (in Persian with Eng. abstract).
22. **Haghighi, M**. and B. Daneshmand. 2013. Comparing the effects of titanium and nano-titanium on growth and photosynthetic changes of tomato in hydroponic culture. **Greenhouse Science and Technology of Isfahan University of Technology**. Isfahan University of technology. (in Persian with Eng. abstract).
23. Bahman zeyari, H., A. Khoshgoftarmanesh, A. Sanae ostovar, and **M. Haghighi**. 2013. Effect of different levels of nickel in nutrient solution containing NH4NO3 on lipid peroxidation and activity of some antioxidant enzymes in cucumber leaves. **Greenhouse Science and Technology of Isfahan University of Technology**. Isfahan University of technology. (in Persian with Eng. abstract).
24. **Haghighi, M**., M. Kafi, T. Sadat taghavi, and GH. Savabeghi. 2010. The effects of humic acid on cadmium accumulation and changes in antioxidant activity in lettuce. **Iranian Journal of Agricultural Science**, Tehran. (in Persian with Eng. abstract).
25. **Haghighi, M.** and M. Kafi. 2010. Changes of stress indicator under cadmium toxicity in lettuce (*Lactuca sativa* L.). **Iranian Food Science and Technology Research-Horticulture Science journal**, Mashhad. (in Persian with Eng. abstract).
26. **Haghighi, M.,** M. Kafi, T. Sadat taghavi, A. Kashi, and GH. Savabeghi. 2010. Photosynthesis and enzymatic change under cadmium toxicity in lettuce. **Iranian Food Science and Technology Research-Horticulture Science Journal,** Mashhad. (in Persian with Eng. abstract).
27. **Haghighi, M**. and M. Kafi. 2010. The effect of humic acid on N, P and stress indicators of lettuce polluted by cadmium. **Iranian Food Science and Technology Research-Horticulture Science journal**, Mashhad (in Persian with Eng. abstract).
28. **Haghighi, M**. and M. Kafi. 2010. Effect of humic acid on the accumulation of cadmium, nitrate and changes of nitrate reductase activity in lettuce. **Iranian Food Science and Technology Research-Horticulture Science Journal,** Mashhad. (in Persian with Eng. abstract).
29. **Haghighi, M.,** M. Kafi, A. Kashi, T. Sadat taghavi, and GH. Savabeghi. 2010. The effect of humic acid on changes of stress indicators (proline and antioxidants) in polluted lettuce (*Lactuca sativa* L.) with cadmium. **Sustainable Agricultural Science**. Tabriz. (in Persian with Eng. abstract).
30. **Haghighi, M**. 2010. Changes of water potential and osmoregulation in tomato under partial rootzoone dry (PRD). **Journal of Agriculture Science of Tehran University,** Aboryhan, Tehran. (in Persian with eng. abstract).
31. **Haghighi, M**. and MH. Behbodian. 2010. Changes in postharvest quality of tomato under water deficiency. **Iranian Journal of Science and Technology**. Shiraz. (in Persian with Eng. abstract).
32. **Haghighi, M.** 2010. The effect of drought stress of PRD on photosynthesis, respiration and qualitative characteristics (sugar, color….) of processing tomato. **Iranian Journal of Science and Technology**. Shiraz. (in Persian with Eng. abstract).
33. **Haghighi, M.** 2010. The effect of Partial rootzoone drying on water relation and qualitative and quantitative characteristics of tomato. **Greenhouse Science and Technology Of Isfahan University Of Technology**. Isfahan University of technology. (in Persian with Eng. abstract).
34. Kafi, M., **M. Haghighi**, A. Tehranifar, GH. Davarinejad, and H. Nemati. 2010. Introducing the best mulching media and time of culture for hydromulching system and its effect on the quality and quantity aspect of lawn. **Journal of Science and Technology of Agriculture and Natural recourses**. Isfahan University of technology. (in Persian with Eng. abstract).

**Selected International Presentations**

1. Haghighi, M and A. Tehranifar. 2004. Environmental therapy by using lawn culture and SMC for decreasing in respiratory and parasite disease. ‍Proceeding of 8th International people plant symposium and international summit on horticulture therapy. Hyogo. Japan.
2. Haghighi, M. and E. Khaleghi. 2004. Aloe vera: A Pharmacy in a plant. Proceeding of 8th International people plant symposium and international summit on horticulture therapy. Hyogo. Japan.
3. Haghighi, M. and E. Khaleghi. 2004. Effects of Building Material and Lawn Culture on the Environmental Temperature of Human Community proceeding of 8th International people plant symposium and international summit on horticulture therapy. Hyogo. Japan.
4. Haghighi, M. and E. Khaleghi. 2004. The Effect of Horticulture Therapy on Alzheimer’s disease. Proceeding of 8th International people plant symposium and international summit on horticulture therapy. Hyogo. Japan.
5. Haghighi, M. and E. Khaleghi. 2004. The ability and potentials of medical plants production and herbal medicine in Iran proceeding of 8th International people plant symposium and international summit on horticulture therapy. Hyogo. Japan.
6. Haghighi, M. and E. Khaleghi. 2005. A study on replacing Municipal Solid Waste (MSW) with spent mushroom compost (SMC) in Iran. International Symposium on Growing Media. Angers, France.
7. Haghighi, M. 2005. The effect of best mulching media and cultivation time on the qualitative and quantitative characteristics of Turfgrass in Hydromulching system. International Symposium on Growing Media. Angers, France.
8. Haghighi, M. and A. Nikbakht. 2006. The research and current situation of Damask rose (*Rosa damascena* Mill.) production and industry in Iran. 27th International Horticultural Congress (IHC). Seoul, South Korea.
9. Haghighi, M. and M. Kafi. 2006. Effects of decay level of SMC (Spent Mushroom Compost), media diameter and compound on Turfculture in Hydromulching method. 27th International Horticultural Congress (IHC). Seoul, South Korea.
10. Haghighi, M. and F. Ping. 2006. Effect of humic acid and monosodium glutamate on the germination of some vegetables. 27th International Horticultural Congress (IHC). Seoul, South Korea (Oral).
11. Haghighi, M. 2005. Organic farming, disadvantage and sustainable agriculture.5th international conference of Asian society of agricultural economics. Iran.
12. Haghighi, M. and M. Kafi. 2009. Toxic effect of cadmium as affected by humic acid on lettuce (*Lactuca sativa* L.) and antioxidant changes. Water, energy, environment and society. India (Oral).
13. Haghighi, M., M. Pessarakli, A. Sheibanirad, and A. Daneshmand. 2013. Wastewater as a Partial Source of Nutrient solution for Tomato Plant Growth. ASA-CSSA-SSSA International Annual Meetings, Tampa, Florida.

**Editorial team**

1-Journal of Horticulture Science, Ferdowsi University of Mashhad

**Teachings**

1. Ecophysiology (PhD). Isfahan University of Technology.
2. Effect of environmental stresses on plant growth (MSc) Isfahan University of Technology.
3. New topics in Horticulture science. (PhD). Isfahan University of Technology.
4. Vegetable Crop Production (B.Sc). Shiraz University, 2010-2011.
5. Hydroponics (B.Sc). Isfahan University of Technology, 2010.
6. Physiology of Vegetable Crops (M.Sc). Shiraz University, 2010-2011.
7. Breeding of Vegetable Crops (M.Sc) Isfahan University of Technology, 2011.
8. Breeding of Ornamental Plants. (MSc)
9. Seed Production of Flowers and Vegetables. (BSc)
10. Fundamentals of Horticulture. (BSc)
11. Warm Season Vegetables. (BSc)
12. Cold Season Vegetables. (BSc)
13. Organic Productions. (BSc)
14. Edible mushroom Production. (BSc)
15. Vegetable production in greenhouse (M.Sc)
16. Physiology of cucurbits (PhD).

**International Work Experience**

1. Researcher in British Colombia University, Vancouver, Canada, 2017
   1. Silica accumulates in non-glandular trichomes and sites of powdery mildew infection in *Cannabis sativa* L.
2. Researcher in Arizona University, USA in 2012
   1. Effects of mycorrhiza inoculation on cucumber growth irrigated with saline water
   2. Effects of selenium as a beneficial element on growth and photosynthetic attributes of greenhouse cucumber
   3. Effects of Ammonium Nitrate and Monosodium Glutamate in Waste Water on the Growth, Antioxidant Activity, and Nitrogen Assimilation of Lettuce (*Lactuca sativa* L.).
3. Research officer in Zhejiang University, China, 2005-2006 on:
   1. Effect of humic acid on cadmium absorption, antioxidant activity and physiological characteristics of lettuce (*Lactuca sativa*).
   2. Effect of humic acid and amino acid usage in nutrient solution on lettuce physiology and biochemistry
   3. Effect of humic acid and amino acid on the physiological and N metabolism of tomato
   4. Effect of humic acid and monosodium glutamate on the germination of some vegetable crops
4. Researcher in University of Cordoba, Spain on effect of salinity and pH on cadmium absorption by tomato (2008).
5. Researcher in University of Massey, New Zealand in 2007
   1. The effect of PRD (Partial rootzone irrigation) on processing tomato production (2008).
   2. on effect of biosolid on toxicity of leafy vegetable (lettuce, celery, parsley) and changes of defensive system of them by Copper and Zinc

**Some Researches topics**

1. The effect of Salt and Melatonin on Growth and Physiology of Sweet pepper(supervisor).
2. Comparison the Effect of Abrupt Low Temperature Stresses of Root and Shoot on the Recovery Rate of Vegetative and Physiological Traits of Tomato(supervisor).
3. The effect of melatonin application on the physiology and growth of sweet pepper (*Capsicum annuum* L.) under salt stress (supervisor).
4. The Effect of some Growth Enhancing factors on the Yield of the Mushroom and its Post-Harvest Life (supervisor).
5. The Effect of Vehicle Exhaust Pollution on Some Morphological and Physiological Characteristics of Lettuce and Spinach (supervisor).
6. Comparison the effect of short term and gradual drought and flooding stress on water relation and physiological change of sweet pepper(supervisor).
7. The Effect of Pine Wood Vinegar on Germination, Vegetative Growth and Photosynthetic Characteristics of Cucumber and Basil(supervisor).
8. Comparison the effect of short low temperature low stress on root and shoot on the recovery rate of vegetative and physiological traits of tomato. (supervisor)
9. Changes in K and Fe Release from Phlogopite in Alfalfa Rhizosphere Under Calcareous Conditions as Affected by OM Treatment(supervisor).
10. Effect of exogenous spermidine and nitric oxide on growth and gas exchange parameters in Iranian mandarin Bakraii (*Citrus reticulata × Citrus limetta*) under salinity stress (Co supervisor)
11. The Effect of Vehicle Exhaust Pollution on Some Morphological and Physiological Characteristics of Lettuce and Spinach(supervisor)
12. The effect of different endemic rootstock of cucurbits on low temperature stress of grafted cucumber ‘Super daminos’(supervisor)
13. The effect of short term temperature stress with H2O2 and CaCl2 on two pepper species (Hot and Bell pepper) in different growth stage(supervisor)
14. Effect of Salinity Stress on Iranian Melons (*Cucumis melon*) Iandvaces(supervisor)
15. A Comparison of Physiological Parameters and Expression of PSY Gene in Green and Yellow Bell Pepper, Affected by Salinity Stress(supervisor)
16. The Effect of some Growth Enhancing factors on the Yield of the Mushroom and its Post-Harvest Life(supervisor)
17. The Effect of Root Zone Temperature on N Metabolism, Growth and Physiological Characteristics of Lettuce and Sweet Pepper in 3 N Withholding Levels in Early Growth Stage
18. The effect of carbon nanotubes on the seed germination of four vegetable species
19. Study the effect of TiO2 on seed germination of tomato, onion and radish
20. Carbon nanotubes (CNTs) could promote seed germination in three horticultural crops
21. The effect of Si and Nano-Si on tomato production in salinity stress in hydroponics
22. The effect of using super absorbent in media under deficit irrigation on the quantity and quality characteristics of tomato
23. The effect of humic acid in nutrient solution on element absorbtion of lettuce
24. The effect of Si and Nano- Si on germination and seedling growth of tomato under drought and salinity stress
25. The effect of Ca spray under deficit irrigation regime on the quantity and quality characteristics of tomato. (supervisor)
26. Study of absorbtion potential of Pb and Cd by ornamental kale (*Brassica oleracea* var. acephala).( Co-supervisor )
27. Effect of silicon nutrition on antioxidative response of two cucumber genotypes to salinity stress and cadmium toxicity. (Co-supervisor)
28. The effect of salinity and cadmium on spinach growth. (Co-supervisor)
29. Phytoremediation potentials of alkylated polycyclic aromatic hydrocarbons of Isfahan refinery with some ornamental endemic plants. (Co-supervisor)
30. The potential of two endemic cultivars of *Sisymbrium irio* in Zn, Cd, Pb remediation. (Co-supervisor)

**Workshop Organized**

Workshop of Initiating Hydroponic System of Vegetable, held at Isfahan University of Technology, Isfahan, Iran, 2010.

Workshop of Hydroponic System for Vegetable and Strawberry Culture, held at Shiraz University, Shiraz, Iran, 2010.

Workshop of Hydroponic System and Nutrient Solution Production for Tomato, held at Hormozgan University, Hormozgan, Iran, 2011.

**Languages**

1. Persian (Native)
2. English