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Address: Department of Horticultural Science, Faculty of Agriculture, Agricultural Sciences and Natural Resources University of Khuzestan, Mollasani, Iran.

RESEARCH INTERESTS

- Stress physiology in plants
 - Genetic variation in vegetables populations
 - Improve shelf-life of vegetable in postharvest
 - Soilless culture
 - Greenhouse productions
 - Molecular and biochemical mechanisms underlying stress response and resilience
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POSITION

- **Assistant Professor of Olericulture**, Department of Horticultural Science, Faculty of Agriculture, Agricultural Sciences and Natural Resources University of Khuzestan, Mollasani, Iran.
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(Ph.D.)

- **University of Guilan (GU)**, Rasht, Iran.
Ph.D. in Physiology and breeding of vegetables (2010-2015)
 Thesis Title: The study of physiological and biochemical responses of greenhouse pepper to NaCl salinity during different growth stages.
 Supervisor: prof. Dr. Gh. Peyvast
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(M.Sc.)

- **University of Guilan (GU)**, Rasht, Iran.
M.Sc. in Horticulture Science (Olericulture) (2004-2007)
 Thesis Title: Effect of silicon on salinity stress in Lettuce (*Lactuca sativa* L.) in NFT system.
 Supervisor: prof. Dr. Gh. Peyvast
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- **Shiraz University**, Shiraz, Iran.
B.Sc. in Horticulture Science (1996.-2000)
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(B.Sc.)

Thesis Title: The Zayanderud, heart of Isfahan's landscape.
Supervisor: prof. Dr. H. Salehi.

TEACHING EXPERIENCES

- **Agricultural Sciences and Natural Resources University of Khuzestan,** 2015-present:

BSc: Principles of vegetable Growing, Vegetable production and growing, Breeding and seed technology of horticultural crops, Vegetable growing in greenhouse.

MSc: Physiology of Vegetable Crops, Practices of vegetable growing, Special methods for vegetable growing, Breeding of vegetable crops, Stress physiology in horticultural crops, Plant nutrition in greenhouse production, Complementary breeding of horticultural crops,.

WORK EXPERIENCES

- **Supervisor of greenhouse.** 2007-2013. Isfahan, Iran.
- **Assistant Professor of Olericulture,** 2015-present. Department of Horticultural Science, Faculty of Agriculture, Agricultural Sciences and Natural Resources University of Khuzestan, Mollasani, Iran.

JOURNAL PAPERS

- Peyvast, G., **Zare-Bavani, M. R.**, & Samizadeh, L. H. (2008). The interaction effect of different levels of silicon and salinity stress on the growth of lettuce under the cultivation conditions in the nutrient film technique (NFT) system. 2017. *Journal of Agricultural Sciences and Industries*. 22 (1), 78-88. (In Persian).
- Peyvast, G., **Zare-Bavani, M. R.**, & Samizadeh, L. H. (2008). The Effect of Silicon on Nutrient and Nitrate Content in Lettuce. *Iranian Journal of Horticultural Science*, 39(1), 1-8. (In Persian).
- Hassanpour Asil., M, Rahaiim J. & **Zare-Bavani, M. R.** (2014). The effect of salicylic acid and sodium nitroprusside on the quality characteristics of tomato fruit during storage. *Iranian Journal of Horticultural Science and Technology*, 15 (2), 153-166. (In Persian).
- **Zare-Bavani, M. R.**, Peyvast, G., Ghasemnezhad, M., & Forghani, A. (2015). Assessment of salt tolerance in pepper using chlorophyll fluorescence and mineral compositions. *Agriculturae Conspectus Scientificus*, 80(3), 153-158.
- **Zare-Bavani, M. R.**, Peyvast, G., Ghasemnezhad, M., & Forghani, A. (2015). Assessment of genotypic variation in salt tolerance of pepper (*Capsicum annuum* L.) cultivars using gas exchange characteristic, growth parameters and chlorophyll content. *South-Western Journal of Horticulture Biology and Environment*, 6(2), 71-90.
- **Zare-Bavani, M. R.**, Peyvast, G., Ghasemnezhad, M., & Forghani, A. (2015). Evaluation of salt tolerance in commercial pepper cultivars at the seedling stage. *Journal of Crops Improvement*, 17(4), 893-909. (In Persian).
- Hosseini, Z., **Zare-Bavani, M.R.** (2017). Phenomenology of factors affecting the attitude of greenhouse farmers in establishing a business, reasons for success and

weakness in this profession (a case study of greenhouse farmers in Isfahan and Khuzestan). *Entrepreneurial research approaches in agriculture*, 1(1), 59-68. (In Persian).

- Hajivar, B., & **Zare-Bavani, M. R.** (2019). Alleviation of salinity stress by hydrogen peroxide and nitric oxide in tomato plants. *Advances in Horticultural Science*, 33(3), 409-416.
- Heydari, M., **Zare-Bavani, M. R.**, Eftekhari, A. (2019). The effect of stratification on the seed germination and initial growth of seedlings in native Iranian spinach populations. *Journal of Seed Research*, 9(1), 70-83. (In Persian).
- Hajivar, B., & **Zare Bavani, M. R.** (2020). The alleviation of the adverse effects of salinity stress in the tomato (*Solanum lycopersicum* L. cv. Mobin) by application of ascorbic acid. *Plant Productions*, 43(3), 349-362. (In Persian).
- Hosseini, Z., **Zare-Bavani, M. R.**, & Zare, A. (2020). Investigation of Salinity Tolerance in Onion (*Allium cepa* L.) Cultivars Using Stress Tolerance Indices. *Journal of Vegetables Sciences*, 3(2), 43-61.
- Hajivand-Ghasemabadi, S., **Zare-Bavani, M. R.**, & Noshad, M. (2021). The influence of gelatin, aloe gel and chitosan coatings on physicochemical characteristics of fresh-cut persian shallot during storage. *Journal of food science and technology (Iran)*, 18(119), 169-182. (In Persian).
- Hosseini, Z., **Zare-Bavani, M. R.**, & Zare, A. (2021). The effect of salt stress on yield and accumulation of some minerals in two salt-tolerant and susceptible onion cultivars. *Desert*, 26(2), 157-171.
- Hosseini, Z., **Zare-Bavani, M. R.**, & Zare, A. (2021). Investigation of some biochemical responses to salt stress in edible onion (*Allium cepa* L.) cultivars. *Iranian Journal of Plant Biology*, 13(2), 101-118. (In Persian).
- Rajabpour, A., & **Zare-Bavani, M. R.** (2021). Aquatic extract of *Camellia sinensis* L. as the inducer of cucumber systemic resistance to *Bemisia tabaci* Gennadius (Hem.: Aleyrodidae). *Journal of Agricultural Science and Technology*, 23(3), 559-574.
- Negaresh, K., **Zare-Bavani, M. R.**, & Neisi, M. (2022). Nomenclatural notes on *Allium atrovioleaceum* (Amaryllidaceae) from Iran. *Taxonomy and Biosystematics*, 14(51), 75-84.
- Zoufan, P., **Zare-Bavani, M. R.**, Tousi, S., & Rahnama, A. (2023). Effect of exogenous melatonin on improvement of chlorophyll content and photochemical efficiency of PSII in mallow plants (*Malva parviflora* L.) treated with cadmium. *Physiology and Molecular Biology of Plants*, 29(1), 145-157.
- Tamjidi, R., Rahmati, M., & **Zare-Bavani, M. R.** (2023). Evaluation of the effect of edible coating based on Shahri Balangu (*Lalelemantia iberica*) seed mucilage containing cinnamon essential oil on physicochemical, microbial, and sensory properties of strawberry during storage. *Journal of food science and technology (Iran)*, 20(135), 59-68. (In Persian).

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- Tamjidi, R., Rahmati-Joneidabad, M., & **Zare-Bavani, M. R.** (2023). Evaluation of the effect of edible coating based on Shahri Balangu seed mucilage containing cinnamon essential oil on physicochemical, microbial, and sensory properties of strawberry during storage. *Journal of Research In Plants Secondary Metabolits* fa59-fa68. (In Persian).
 - Tamjidi, R., Rahmati-Joneidabad, M., & **Zare-Bavani, M. R.** (2023). Investigation of effective compounds, total phenol and flavonoid content, antioxidant effect, and antifungal activity of cinnamon essential oil on molds cause spoilage of strawberries. *Research in Plant Metabolites*, 2(4), 5-15. (In Persian).
 - Behzadipour, F., Ghasemi Nezhad Raeini, M., Abdanan Mehdizadeh, S., Taki, M., Khalil Moghadam, B., **Zare-Bavani, M. R.**, & Lloret, J. (2023). A smart IoT-based irrigation system design using AI and prediction model. *Neural Computing and Applications*, 35(35), 24843-24857.
 - Behzadipour, F., Ghaseminezhad, M., Abdanan Mehdizadeh, S., Taki, M., Khalili Moghadam, B., & **Zare-Bavani, M. R.** (2023). Predictions of greenhouse soil moisture using artificial neural network and wireless network sensing. *Iranian Journal of Biosystems Engineering*, 53(4), 341-356. (In Persian)
 - Dinarvand, S., & **Zare-Bavani, M. R.** (2023). Effects of salicylic acid and sweet basil mucilage on some postharvest quality indices of okra (*Abelmoschus esculentus* L.). *Journal of food science and technology (Iran)*, 20(141), 112-127.
 - Nadafzadeh, M., Banakar, A., Abdanan Mehdizadeh, S., **Zare-Bavani, M. R.**, & Minaei, S. (2023). Automatic Detection of Plant Cultivation Rows Robot using Machine Vision (Case Study: Basil Plant). *Journal of Agricultural Machinery*, 13(4), 453-475. (In Persian).
 - Nadafzadeh, M., Banakar, A., Mehdizadeh, S. A., **Zare-Bavani, M. R.**, Minaei, S., & Hoogenboom, G. (2024). Design, fabrication and evaluation of a robot for plant nutrient monitoring in greenhouse (case study: Iron nutrient in spinach). *Computers and Electronics in Agriculture*, 217, 108579.
 - Pagard, A., **Zare-Bavani, M. R.**, & Eftekhari, S. A. (2024). Effects of Fertigation and Foliar Application of Boron on Fruit Yield and Several Physiological Traits of Bell Pepper. *International Journal of Horticultural Science and Technology*, 11(4), 423-436.
 - Booali, S., Zoufan, P., & **Zare-Bavani, M. R.** (2024). Effect of biofertilizer containing *Thiobacillus* bacteria along with different levels of chemical sulfur fertilizer on growth response and photochemical efficiency of small radish plants (*Raphanus sativus* L. var. shushtari) under greenhouse conditions. *Scientia Horticulturae*, 327, 112835.
 - Fakorzadeh, S., Daneshvar, M. H., & **Zare-Bavani, M. R.** (2024). Postharvest application of chitosan and putrescine on maintaining the quality and extend shelf-life of cucumber (*Cucumis sativus* L.). *Journal of Food Science & Technology*, 20(144). (In Persian).
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CONGRESS ARTICLES

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- **Zare-Bavani, M. R.**, Rahmati, M., & Jooyandeh, H. (2024). Reducing the effects of oxidative stress in sweet pepper fruit during storage by using an edible coating of gum Arabic. *Journal of food science and technology (Iran)*, 20(145), 122-138. (In Persian).
 - Dosti mirghaed, M., & **Zare-Bavani, M. R.** (2024). Combination effects of calcium chloride and chitosan on the postharvest quality of okra (*Abelmoschus esculentus* L.) during storage. *Journal of food science and technology (Iran)*, 20(145), 149-169. (In Persian).
 - Alidadi, M., Rahmati-Joneidabad, M., Sobhani, S. M. J., & **Zare-Bavani, M. R.** (2024). Evaluation of biological sustainability indicators of smart greenhouses. *Journal of Environmental Science Studies*, 9(2), 8265-8275. (In Persian).
 - Alidadi, M., Rahmati-Joneidabad, M., Sobhani, S. M. J., & **Zare-Bavani, M. R.** (2024). Development of Smart Greenhouses: A Strategy for Sustainable Agriculture in Isfahan province. *Geography and Human Relationships*, 6(3), 213-222. (In Persian).
 - **Zare-Bavani, M. R.**, Rahmati-Joneidabad, M., & Jooyandeh, H. (2024). Gum tragacanth, a novel edible coating, maintains biochemical quality, antioxidant capacity, and storage life in bell pepper fruits. *Food Science & Nutrition*.
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- Hajivand-Ghasemabadi, S., **Zare-Bavani, M. R.**, & Noshad, M. (2021). The effect of temperature, packaging and storage time on the quality after harvesting of Iranian shallot (Hamadan native population). First National Conference on Agricultural and Environmental Sciences of Iran, Bavai, Iran.
 - Hajivar, B., & **Zare-Bavani, M. R.**, & Naserin, A. (2021). Investigation of drought tolerance in some eggplant cultivars. First National Conference on Agricultural and Environmental Sciences of Iran, Bavai, Iran.
 - Hosseini, Z., **Zare-Bavani, M. R.**, & Zare, A. (2018). The response of some imported onion cultivars to different levels of salinity stress. The second national conference on salinity stress in plants and developing strategies for saline agriculture, Uromieh, Iran. (In Persian)
 - Klivand, Z., Eftekhari, S.A. & **Zare-Bavani, M. R.** (2021). Investigation of drought tolerance in some eggplant cultivars. First National Conference on Agricultural and Environmental Sciences of Iran, Bavai, Iran.
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