



**Dr. Maryam Afrousheh**

Born, Sep, 1980

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**Current Address:** Assistant Professor in Pistachio Research Center, Horticultural Sciences Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Rafsanjan, Iran.

### Achievement

- **Top graduates of Vali-e-Asr University of Rafsanjan, 2003.**
- **First Rank of Pistachio Startup weekend Program in Vali-e-Asr University of Rafsanjan. March 7-9, 2018.**
- **Award winner of Pistachio Products Festival in healthy products. Kar Higher Education Institute in Rafsanjan. January 31, 2019.**
- **Award winner of Pistachio Products Festival in a superior healthy product. Kar Higher Education Institute in Rafsanjan. January 31, 2019.**

### Memberships in professional Association

- **Member of Iranian Horticulture Society**
- **Member of Iranian Science and Technology**
- **National Citation Database of Iran**

### Professional Training and Education

Education	Course	University	Year
PhD	Horticulture	Ferdowsi University of Mashhad	2011-2015
M.Sc.	Soil Chemistry and Fertility	Tehran University, Iran	2005 - 2007
B.Sc.	Agriculture-Soil Science	Vali-e-Asr University of Rafsanjan, Iran	1999 - 2003

### Project title

1. The comparison of growth and yield in two commercial pistachio cultivars (“Ahmadaghaei” and “Akbari”) on “Bademi Zarand” rootstock from seeding and tissue culture.
2. Pistachio rootstocks breeding and improvement for abiotic stresses tolerance: With an emphasis on collecting and preserving the detected genetic materials (The first phase: Identification and selection, creating artificial diversity and preliminary evaluations)

3. Investigation of different temperatures of cold and freezing in different rootstocks of domestic and wild pistachio species to study the morphological, physiological and biochemical traits .
4. The effect of Zarkooh-mine sulfur spraying in pistachio orchards on psyllium control, leaf and fruit possible damage, horticulture, the quality characteristics of production and its economic investigation.
5. Investigation of the effect of “Barish” micronized spraying in pistachio orchards on leaf and fruit possible damage.
6. Investigation of the effect of Zarkooh mine sulfur spraying in pistachio orchards on leaf and fruit possible damage.
7. The effect of perlite, humic acid and irrigation frequency on pistachio seedlings growth parameters.
8. Effect of potassium humate and application time on vegetative and reproductive traits of pistachio trees cv. Fandoghi.
9. Comparison of vegetative indicators on UCB1 and Badami pistachio rootstocks in salinity stress.
10. Economic investigation and farmers' satisfaction for Zarkooh mineral sulfur application to control the common pistachio psylla.
11. Investigation of the Zarkooh mineral sulfur on Soil chemical properties, Leaf nutrient concentration and growth and yield of pistachio trees.
12. Study of the effect of irrigation water acidity on growth and yield of pistachio trees in different soils and its economic evaluation.
13. Investigation of the effect of refinery sulphur foliar application on the horticultural and yield characteristics of pistachio trees.
14. Effects of "Barish" micronized sulfur on common pistachio psylla (*Agonoscena pistaciae* Bur. & Lau.) population in pistachio orchards in Kerman province.
15. Comparison of two methods of top working (rejuvenation and change of cultivar) in adult pistachio trees.
16. The effect of Zarkooh sulfur on growth indices and quantitative and qualitative yield of commercial pistachio cultivars (*Pistacia vera* L.).
17. Evaluation of the Effect of Dormex on chilling requirement deficiency and their effects on flowering and vegetative, reproductive, quantitative and qualitative traits of pistachio trees.

### **Training and research Workshop**

1. Vermi compost preparing workshop in Tehran University, Karaj, Iran (Organized by Soil Environment and Sustainable Development Conference) (4 hours).
2. The application of GIS in soil survey workshop in Karaj, Iran (Organized by Soil Environment and Sustainable Development Conference) (4 hours).
3. App saz workshop, Agriculture Research Education and Extension Organization (*AREEO*), Tehran. (6 hours).
4. Write English articles according to ISI International Standard (12 hours).
5. Principles of seed production and certification (wheat and barley) (8 hours).
6. The application of GIS in Agriculture (40 hours).
7. Fundamentals of Scientology and Perspectives on Science Production (8 hours).
8. Introduction to Armillary rot diseases of pistachio tree roots (12 hours).
9. Soil recognition and its correction in pistachio areas (6 hours).

10. Principles of water, soil and leaf sampling in pistachio gardens (6 hours).
11. Non-Agent Defense Conference (8 hours).
12. Identification of pistachio commercial cultivars and rootstocks (24 hours).
13. Nutrition management in pistachio orchards (6 hours).
14. Effective search for scientific resources (5 hours).
15. Agricultural Water Resources Management (16 hours).
16. Greenhouse engineering (8 hours).
17. Reducing agricultural waste is a key strategy for improving food security (8 hours).
18. Understand the theoretical basics of applied statistics and experimental designs in agricultural sciences and how to analyze them with the use of Excel. SPSS, SAS (24 hours).
19. Irrigation and Drainage Networks of Iran (16 hours).
20. Transfer of promotional findings (8 hours)
21. Futurology (8 hours).
22. Integrated Pest Management, Disease and Weed Management (IPM) (24 hours).

### Journal papers:

1. **Afrousheh, M.**, Ardalan, M., & Hokmabadi, H. (2010). Nutrient deficiency disorders in *Pistacia vera* seedling rootstock in relation to eco-physiological, biochemical characteristics and uptake pattern of nutrients. *Scientia horticulturae*, 124(2), 141-148
2. Hatami. S., Alikhani, H. A. Saleh-Rastin N., and **M .Afrousheh**. 2008. On Aerobic Cellulolytic Bacteria in Some of North Forest and Farming Soils has been accepted for publish in the forthcoming Special issue of JAES. IDOSI Publications. Faisalabad, Pakistan
3. **Afrousheh, M.**, Ardalan, M., Hokmabadi, H, and M .Afrousheh. 2007. Visual deficiency symptoms of Nitrogen, Iron, Magnesium, Manganese and Molybdenum (Macro- and Micronutrients) on Pistachio Seedlings. *Journal of Middle Eastern and Russian Journal of Plant Science and Biotechnology*, 1(2): 61-65.
4. **Afrousheh, M.**, Ardalan, M., Hokmabadi, H, and M .Afrousheh. 2008. Interaction effects between iron and nitrogen on vegetative characteristics of Pistachio seedling has been accepted for publish in the Special issue of Pajohesh and Sazandegi. Tehran, Iran.
5. **Afrousheh Maryam**, Mahmud Shoor, Ali Tehranifar, Vahid Reza Safari. 2015. Phytoremediation potential of copper contaminated soils in *Calendula officinalis* and effect of salicylic acid on the growth and copper toxicity. *International Letters of Chemistry, Physics and Astronomy*. ISSN: 2299-3843, Vol. 50, pp 159-168.
6. **Maryam Afrousheh**, Ali Tehranifar, Mahmud Shoor, Vahid Reza. Safari. 2015. Salicylic Acid Alleviates the Copper Toxicity in *Zinnia elegans*. *Journal of Ornamental Plants*, Volume 5, Number 1: 51-59.
7. **Maryam Afrousheh**, Ali Tehranifar, Mahmud Shoor, Vahid Reza. Safari. 2015. Salicylic Acid Alleviates the Copper Toxicity in *Tagetes Erecta*. *International Journal of Farming and Allied Sciences*. Vol., 4 (3): 232-238.
8. Shoor, M., **Afrousheh, M.**, Rabiei, J., Vahidi, M. 2014. The effect of salinity priming on germination and growth stage of Cumin (*Cuminum cyminum* L.). *Research Journal of Agriculture and Environmental Management*. 3(7): 340-352.
9. **Maryam Afrousheh**, Hossein Hokmabadi, Hasan Arab, Ali Tajabadipour. 2018 .Evaluation of Freezing Damage in some Pistachio Seedling Rootstocks. *Journal of Nuts*. 9(1): 77-83.

10. **Afrousheh Maryam**, Hojjat Hasheminasab. 2018. Sulfur Application as Pesticide in Pistachio Orchard: Health and Safety. Pistachio and Health Journal (PHJ). Articles in Press, Accepted Manuscript, Available Online from 11 September 2018.
11. Javanshah A, Afrousheh M. 2018. The importance of applying moisture retaining compounds in pistachio seedling growth medium under drought stress. Pistachio and Health Journal. 1 (4): 38-47.
12. **Afrousheh, M.**, Aghamir Mohammad Ali, F. (2010). Effective Factors in Little Leaf Disease on Pistachio Trees. *Journal of Nuts*, 01(01), 12-21. doi: 10.22034/jon.2010.515762
13. **Afrousheh, M.**, Hokmabadi, H., Arab, H., Tajabadipour, A. (2018). Evaluation of Freezing Damage in some Pistachio Seedling Rootstocks. *Journal of Nuts*, 09(1), 77-83. doi: 10.22034/jon.2018.540868
14. **Afrousheh, M.**, Javanshah, A. (2020). The Effect of Humic Acid on the Growth and Physiological Indices of Pistachio Seedling (*Pistacia vera*) under Drought Stress. *Journal of Nuts*, 11(1), 1-12. doi: 10.22034/jon.2020.1879490.1069
15. Arab, H., **Afrousheh, M.**, Abdollahi Ezatabadi, M., Tajabadipour, A. (2021). The Effect of Yield Fluctuations and Production Risk on Pistachio Commercial Cultivars in Kerman Province. *Journal of Nuts*, 12(1), 9-15. doi: 10.22034/jon.2021.1897191.1085
16. **Afrousheh, M.**, Mohammadi, A., Hasheminasab, H., Taj Abadi Pour, A., Arab, H., Dabestani, A. (2021). The Effect of Low Temperatures on Domestic and Wild Pistachio Rootstocks and Interspecific Hybrids Based on Physio-biochemical Indices. *Journal of Nuts*, 12(2), 89-101. doi: 10.22034/jon.2021.1914156.1094.
17. **Afrousheh M**, HasheminasabH. Sulfur Application as Pesticide in Pistachio Orchard: Health and Safety. Pistachio and Health Journal. 2018; 1 (3): 52-63.
18. Javanshah A, **Afrousheh M**. The importance of applying moisture retaining compounds in pistachio seedling growth medium under drought stress. Pistachio and Health Journal. 2018; 1 (4): 38-47.
19. Rafieidolatabadi A, **Afrousheh M**, Tajabadipour A, Esmailiranjbar A. Investigation of effects of different coatings on the storage of fresh fruit in pistachio commercial cultivars. Pistachio and Health Journal. 2020; 3 (2): 52-65.
20. Heidarisalehabad M, **Afrousheh M**, Moradighahderijani M, Darghazi R, Arab H, et al. Investigation of the Effect of Zarkooh Mine Sulfur on Composting Process of Animal Manure (Cow and Poultry). Pistachio and Health Journal. 2020; 3 (3): 45-71.
21. **Afrousheh, Maryam**, Mohammadi, Amir Hossein, Tajabadipour, Ali, Hashemi Nasab, Hojjat, Arab, Hassan. (2020). Evaluation of Rootstocks and Interspecific Hybrids of Pistachio (*Pistacia* sp.) under Cold Stress Condition. Pistachio Science and Technology, 5 (10), 86-105.
22. Arab, Hassan, **Afrousheh, Maryam**, Esmailpour, Ali, Tajabadipour, Ali, Nikoei, Mohammad Reza, Akbaripour, Akram. (2020). Effects of Presence or Absence of Owhadi Interstock on the Growth and Yield of Ahmad-Aghaei Pistachio Cultivar. Pistachio Science and Technology, 5 (9), 138-151.

### Books:

1. **Maryam Afroshah**, Hossein Hokam Abadi. 2008. The symptoms of Deficiency of Some Nutrients in Pistachios. Ministry of Jihad-e-Agriculture Agricultural Research, Education and Extension Organization; Pistachio Research Center (issue 62).

2. **Maryam Afrousheh**. 2017. The role of Humic acid in agriculture. Ministry of Jihad-e-Agriculture Agricultural Research, Education and Extension Organization; Pistachio Research Center (issue 91).
3. Hojjat Hasheminasab, **Maryam Afrousheh**. 2018. Introduction of American Pistachio rootstock and Comparisons to Iran. Ministry of Jihad-e-Agriculture Agricultural Research, Education and Extension Organization; Pistachio Research Center.(handbook).

### Conference papers:

1. **Afrousheh, M.**, Ardalan, M, and H. Hokmabadi. 2007. Study of the deficiency effect in Nitrogen, Iron, Magnesium, and Manganese and Molybdenum deficiency on Pistachio Seedlings. In Proceeding of the 5th Iranian Horticulture Science Congress, 3-6 Sept, 2007, Shiraz, Iran: Shiraz University.
2. **Afrousheh, M.**, Ardalan, M., Hokmabadi, H, and M .Afrousheh. 2008. Visual deficiency and multi-deficiency symptoms of Macro and Micro nutrients element on Pistachio Seedlings (*Pistachio vera*). XIV Grempa Meetingon Pistachios and Almonds,31 March-5 April Athens Acropol Hotel, Athens, Greece.
3. **Afrousheh, M.**, Ardalan, M, and H. Hokmabadi. 2008. The effects of Iron and Molybdenum deficiencies on pistachio seedling growth and photosynthesis characteristics in sand culture. Red Hidroponia Universidad Nacional Agraria La Molina Centro de Investigacion de Hidroponia Av. La Molina s/n, La Molina Lima 12. PERU.
4. **Afrousheh, M.**, Ardalan, M., Hokmabadi, H, and M .Afrousheh. 2008. Visual deficiency and multi-deficiency symptoms of Macro and Micro nutrients element on Pistachio Seedlings (*Pistachio vera*). XIV Grempa Meetingon Pistachios and Almonds,31 March-5 April Athens Acropol Hotel, Athens, Greece.
5. **Afrousheh, M.**, Ardalan, M., Hokmabadi, H, and M .Afrousheh. 2008. The effects of nitrogen, iron, magnesium, manganese and molybdenum deficiencies on eco-physiology, biochemical indices characteristics of pistachio seedling (*Pistacia Vera*). XIV Grempa Meetingon Pistachios and Almonds,31 March-5 April Athens Acropol Hotel, Athens, Greece.
6. **Afrousheh, M.**, Ardalan, M., Hokmabadi, H, and M .Afrousheh. 2008. Interaction effects between iron and manganese on vegetative characteristics of Pistachio seedling has been accepted for publish in the Special issue of Azad Ghazvin. Ghazvin, Iran.
7. **Afrousheh, Maryam** and S.J. HoseiniFard. 2009. Affective factors in little leaf disease on pistachio trees. V International Symposium on Pistachios and Almonds October 06-10. Published in "ActaHorticulturae" by ISHS. Sanliurfa, Turkey.
8. **Maryam Afrousheh** and Fatemeh Karami. 2016. The role of refining some ornamental species resistant planting design in copper contaminated soils. The second national conference on sustainable management of soil resources and the environment. Poster.
9. **Maryam Afrousheh** and Fatemeh Karami. 2016. Phytoremediation of *Zinnia elegans* in copper contaminated soils. The second national conference on sustainable management of soil resources and the environment. Poster.
10. Fatemeh Karami and **Maryam Afrousheh**. 2016. Phytoremediation of Alfalfa (*Medicago sativa L*) in copper contaminated soils. The second national conference on sustainable management of soil resources and the environment. Poster.

11. Fatemeh Karami and **Maryam Afrousheh**. 2016. Phytoremediation of Rapeseed (*Brassica.napus* L) in copper contaminated soils. The second national conference on sustainable management of soil resources and the environment. Poster.
12. Amanollah Javanshah and **Maryam Afrousheh**.2017. Effect of humic acid and perlite on drought stress of pistachio seedling. First International Horticultural Science Conference of Iran (IrHC2017).
13. **Maryam Afrousheh**. 2017. The Influence of Humic Acid on the Establishment of Pistachio Seedlings in Arid and Semi-Arid Areas, International Conference on Efficient Water-Saving Cultivation in the Forestry and Fruit tree. China. Nov. 1-4.
14. Hassan Arab, Mohammad Abdolahi Ezatabadi, **Maryam Afrousheh**. 2018. Evaluation of mean yield and stable pure income on four commercial cultivars of pistachio in Kerman. The Second National Pistachio Conference. Rafsanjan.
15. Najmeh Pakdaman, Marieh Nadi, Amanallah Javanshah, **Maryam Afrousheh**. 2018. The Effect of Humic Acid on Iron Absorption and Growth of Pistachio Seedlings in Hydroponic Conditions. 17th National Conference on Modern Research in Science and Technology, Kerman.
16. Hassan Arab, **Maryam Afrousheh**, Ali Esmailpour, Mohammad Zeinalifathabad. 2021. The Effect of the Presence of Owhadi Inter-Stock in Cultivar Changing to Ahmad-Aghaei on the Old Pistachio Orchards in Kerman Province. Twelfth Congress of Horticultural Sciences of Iran. Vali-e-Asr University of Rafsanjan, Iran.
17. **Maryam Afrousheh**, Ali Tajabadipour, Hassan Arab. 2021. Evaluation of Sensitivity of Pistachio Commercial Cultivars to Refining Micronized Sulfur Spraying. Twelfth Congress of Horticultural Sciences of Iran. Vali-e-Asr University of Rafsanjan, Iran.
18. **Maryam Afrousheh**, Hojjat Hasheminasab, Ali Tajabadipour. 2021. Evaluation of the susceptibility of domestic and non-domestic rootstock of pistachio to frost temperature stress. Twelfth Congress of Horticultural Sciences of Iran. Vali-e-Asr University of Rafsanjan, Iran.

### Thesis topics

PhD	<i>Phytoremediation potential of copper contaminated soils in ornamental plants and effect of salicylic acid on the copper toxicity</i>
M.Sc.	<i>Effect of nitrogen, iron, magnesium, manganese and molybdenum deficiencies and their interaction effects on pistachio seedling growth and photosynthesis characteristics in sand culture</i>

### Working Experience

Lecturer, Piam nour University of Kerman, Rafsanjan and Anar (2009-2015) in:

- Agricultural machinery and laboratory
- Botany
- Soil Science
- environmental assessment

- English in Agriculture
- Weather and climate in Agricultural and laboratory

### **Skills**

- Bioinformatics skills
- SPSS
- Mstatc
- Endnote

### **English skills**

- University of Tehran language test
- MSRT
- IELTS

### **References:**

- Professor Hossein Hokmabadi, Agricultural Research, Education and Extension Organization (*AREEO*), Rafsanjan, Iran. Email: hokmabadi@pri.ir.
- Professor Fatemeh Nazoori, College of Agriculture, Vali-e-Asr University of Rafsanjan, Iran. Email: f.nazoori@vru.ac.ir.