

Name: **Mahdieh**

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Education Information

	String	Trends	Place of study	Years
Diploma	Experimental Sciences	-	Tehran - Imam High School	2008-2009
Pre-university	Experimental Sciences	-	Fatemeh Zahra Pre- university	2009-2010
Bachelor	Agricultural Engineering	Agronomy and Plant Breeding	Shahed University	2010-2014
Master	Agricultural Engineering	Agronomy and Plant Breeding	Shahed University	2014-2016
Ph.d.	Agricultural Engineering	Genetics and Plant Breeding	University of Tehran	2017- 2024

Executive Activities

- 1) B.Sc. Project:** Study of Germination Characteristics of Marshmallow under Salinity and Drought Stress
- 2) M.Sc. Thesis:** Genetic analysis of some quantitative and qualitative traits in oilseed rape (*Brassica napus* L.) by line×tester method
- 3) Ph.D. Dissertation:** Genetic and Phytochemical Evaluation of Selected Ecotypes and Production of Drought Tolerant Synthetic Cultivar of Cumin (*Cuminum Cyminum* L.)
- 4)** Genetic Diversity of Mutant Lines of Medicinal Plant of Balangu Shirazi
- 5)** Evaluation of Genetic Diversity of Psyllium Genotypes Using Multivariate Statistical Analysis
- 6)** Genetic Evaluation of Synthetic Modified Cumin Cultivar Using Molecular Markers
- 7)** Protein Diversity and Expression of Different Peptides in Cumin Genotypes
- 8)** The effect of polycross on metabolic content and antioxidant properties of cumin
- 9)** Effect of drought stress on biochemical compounds and antioxidant properties of ethanolic and methanolic extracts of cumin seeds

- 10) Study of gene expression profiles and protein-protein interaction networks in response to drought stress in cumin

Papers published in international journals

- 1) Mortazavian, S. M. M., **Arshadi Bidgoli, M.**, 2024. The genetic dissection and half-sib progeny test for selection of elite parents towards development a drought tolerant synthetic variety of *Cuminum cyminum* L. International Journal of Horticultural Science and Technology. 11(1), 35-45. (<https://doi.org/10.22059/ijhst.2023.354915.620>).
- 2) **Arshadi Bidgoli, M.**, Mortazavian, S. M. M., Khavali, H., Ranjbar, M., Izadi-Darbandi, A., 2024. Synthetic cultivar development in cumin: Enhancing yield and drought tolerance. Journal of Applied Research on Medicinal and Aromatic Plant. 42, 100563. (<https://doi.org/10.1016/j.jarmap.2024.100563>).
- 3) **Arshadi Bidgoli, M.**, Mortazavian, S. M. M., Izadi-Darbandi, A., Ranjbar, M., 2024. Unveiling the potential of synthetic cumin variety for seed quality and quantity under drought stress. South African Journal of Botany. 172, 627-636. (<https://doi.org/10.1016/j.sajb.2024.07.063>).
- 4) Mortazavian, S. M. M., **Arshadi Bidgoli, M.**, Sadeghi, D., Bakhtiarizadeh, M.R., 2024. Identified and validation of EST-SSR in the transcriptome sequences by RNA-Seq in cumin (*Cuminum Cyminum* L.). Plant Gene. 40, 100477. (<https://doi.org/10.1016/j.plgene.2024.100477>).
- 5) **Arshadi Bidgoli, M.**, Mortazavian, S. M. M., Kazemi, H., Khavali, H., Ranjbar, M., 2025. Enhancing drought tolerance in cumin through physiological and genetic insights from a synthetic variety. Scientific Reports. 15, 10154. (<https://doi.org/10.1038/s41598-025-95293-3>).
- 6) **Arshadi-Bidgoli, M.**, Mortazavian, S.M.M., 2025. Polycross breeding enhances cumin quality and drought tolerance for sustainable agriculture. Scientific Reports. 15, 18927. (<https://doi.org/10.1038/s41598-025-03668-3>).

Papers published in internal journals

- 1) Fotokian, M.H., and **Arshadi, M.** 2019. Genetic Diversity of Mutant Lines of Medicinal Plant (*Lallemantia royleana*), Journal of Nuclear Science and Technology, 87 (1): 108-101. (DOI: [10.24200/nst.2019.747](https://doi.org/10.24200/nst.2019.747))
- 2) **Arshadi-Bidgoli, M.**, Amiri Oghan, H., Fotokian, M.H. and Alizadeh, B. 2018. Evaluation of Diversity and Relationships between Yield and Yield Components of Rapeseed (*Brassica napus* L.) Genotypes Journal of Crop Breeding, 27: 115-124.

- 3) Fotokian, M.H., and **Arshadi-Bidgoli, M.** 2022. Evaluation of morphological diversity of some Psyllium genotypes (*Plantago ovata*), Iranian Journal of Horticultural Sciences, 53(1): 171-180.
- 4) **Arshadi-Bidgoli, M.**, Fotokian, M.H., Amiri Oghan, H. 2021. Genetic evaluation of some phenological and morphological traits in rapeseed (*Brassica napus* L.) genotypes Using line analysis in tester, Iranian crop science division, 52(1): 46-37.
- 5) **Arshadi-Bidgoli, M.**, Fotokian, M.H., Amiri Oghan, H., and Alizadeh, B. 2025. Genetic Analysis of Silique-Related Traits in Rapeseed (*Brassica napus* L.) using the Line $\times$ Tester Method. *J Crop Breed*, 17(4), 72-81. (DOI: 10.61882/jcb.2025.1591).

International Conferences

- 1) **Arshadi, M.**, Fotokian, M.H., Amiri Oghan, H., Alizadeh, B., 2017. ESTIMATION OF COMBINING ABILITY AND GENE ACTION FOR GRAIN AND OIL YIELD IN RAPESEED (*BRASSICA NAPUS* L.) USING THE LINE BY TESTER METHOD. VIII International Scientific Agricultural Symposium, Bosnia and Herzegovina. 312-318.
- 2) **Arshadi Bidgoli, M.**, Mortazavian, S. M. M., Izadi-Darbandi, A., Ranjbar, M., 2024. Genetic Basis of Agronomic-Morphological Traits in Cumin: Insights from Polycross Hybridization. 6th International Conference on Agricultural Sciences, Medicinal Plants and Traditional Medicine.

National Conferences

- 1) **Arshadi, M.**, Fotokian, M.H. 2016. Genetic Diversity of Shirazi Mutant Lines of Balangu Motan. 2nd International Conference on New Findings in Science and Technology, Qom.
- 2) **Arshadi, M.**, Fotokian, M.H., Amiri Oughan, H., Alizadeh, B. 2016. Investigating the Diversity and Evaluation of Relationships between Yield and Yield Components of Rapeseed (*Brassica napus* L.). 2nd International and 14th National Congress of Crop Science and Plant Breeding, University of Guilan, Rasht, Iran.
- 3) **Arshadi Bidgoli, M.**, Fotokian, M.H. 2016. Line $\times$ tester analysis for silique related traits in rapeseed (*Brassica napus* L.). 4th International Conference on Applied Research in Agricultural Sciences, Shahid Beheshti University, Tehran.
- 4) **Arshadi Bidgoli, M.**, Fotokian, M.H. 2017. Correlation and Path Analysis between Seed Yield and Yield Components in Psyllium Genotypes (*plantago ovata*). First National Conference on Agriculture, Natural Resources and Veterinary Medicine, Ardakan University, Yazd.

- 5) **Arshadi Bidgoli, M.**, Fotokian, M.H. 2017. Genetic analysis of some phenological and morphological traits in rapeseed (*Brassica napus* L.) genotypes using line cross×tester. First National Conference on Agriculture, Natural Resources and Veterinary Medicine, Ardakan University, Yazd.