

Name: Alireza Pour-Aboughadareh

Research Position: Member of Scientific board, Department of Cereal Research

Research Grade: Assistant Professor in Genetics and Plant Breeding

E-mail: a.poraboghadareh@gmail.com / a.poraboghadareh@ut.ac.ir / aporaboghadareh@spii.ir

Academic graduations:

- BSc.: Agronomy and Plant Breeding, University of Ilam 2010.
- MSc.: Plant Breeding, Univ. of Tabriz, 2012.
- Ph.D.: Genetics and Plant Breeding, Imam Khomeini International University, Qazvin, Iran, 2017.
- Post Doc.: College of Agriculture & Natural Resources, University of Tehran, Karaj, Iran, 2019.

Honor & Awards:

- Distinguished elite student, Ilam University, Ilam (2006-10)
- Distinguished elite student, Imam Khomeini International University, Qazvin (2013-17)
- Distinguished elite Researcher, Imam Khomeini International University (2014-16)

Publications:

Book:

- Etminan A, **Pour-Aboughadareh A.** 2017. *Experimental Designs in Agriculture*. Publisher; Pouran Pazhouhesh (In Persian)

Research Articles:

- Hosseinpour A, Haliloglu K, Cinisli KT, Ozkan G, Ozturk HI, **Pour-Aboughadareh A**, P Poczai. 2020. Application of Zinc Oxide Nanoparticles and Plant Growth Promoting Bacteria Reduces Genetic Impairment under Salt Stress in Tomato (*Solanum lycopersicum* L. ‘Linda’). *Agriculture*, <https://doi.org/10.3390/agriculture10110521>
- **Pour-Aboughadareh A**, Omidi M, Naghavi MR, Eminan A, Mehrabi AA, Poczai P. 2020. Wild relatives of wheat respond well to water deficit stress: A comparative study of antioxidant enzyme activities and their encoding gene expression. *Agriculture*, <https://doi.org/10.3390/agriculture10090415>
- **Pour-Aboughadareh A**, Mohammadi R, Etminan A, Shooshtari L, Maleki-Tabrizi N, Poczai N. 2020. Effects of drought stress on some agronomic and morpho-physiological traits in durum wheat genotypes. *Sustainability*, <https://doi.org/10.3390/su12145610>
- Mehrabi AA, **Pour-Aboughadareh A**, Mansouri S, Hosseini A. 2020. Genome-wide association analysis of root system architecture features and agronomic traits in durum wheat. *Molecular Breeding*, <https://doi.org/10.1007/s11032-020-01136-6>
- **Pour-Aboughadareh A**, Etminan A, Abdelrahman M, Siddique KHM, Phan Tran LSP. 2020.

Assessment of biochemical and physiological parameters of durum wheat genotypes at the seedling stage during polyethylene glycol-induced water stress. *Plant Growth Regulation*, <https://doi.org/10.1007/s10725-020-00621-4>

- Ahmadi J, **Pour-Aboughadareh A**, Fabriki-Ourang S, Khalili P, Poczai P. 2020. Unraveling salinity stress responses in ancestral and neglected wheat species: a baseline for conservation and utilization in future wheat improvement programs. *Physiology and Molecular Biology of Plants*, <https://doi.org/10.1007/s12298-020-00768-4>
- **Pour-Aboughadareh A**, Omidi M, Naghavi MR, Etminan A, Mehrabi AA, Poczai P, Bayat H. 2019. Effect of water deficit stress on seedling biomass and physio-chemical characteristics in different species of wheat possessing the D genome. *Agronomy*, <https://doi.org/10.3390/agronomy9090522>
- **Pour-Aboughadareh A**, Yousefian M, Moradkhani H, Moghaddam Vahed M, Poczai P, Siddique KHM. 2019. iPASTIC: An online toolkit to estimate plant abiotic stress indices. *Applications in Plant Sciences*, <https://doi.org/10.1002/aps3.11278>
- **Pour-Aboughadareh A**, Yousefian M, Moradkhani H, Poczai P, Siddique KHM. 2019. STABILITYSOFT: A new online program to calculate parametric and non-parametric stability statistics for crop traits. *Applications in Plant Sciences*, <https://doi.org/10.1002/aps3.11278>
- Etminan A, **Pour-Aboughadareh A**, Mohammadi R, Shooshtari L, Yousefiazarkhanian M, Moradkhani H. 2019. Determining the best drought tolerance indices using artificial neural network (ANN): insight into application of intelligent agriculture in agronomy and plant breeding. *Cereal Research Communications*, <https://doi.org/10.1556/0806.46.2018.057>
- Vaezi B, **Pour-Aboughadareh A**, Mohammadi R, Mehraban A, Hossein-Pour T, Koohkan E, Ghasemi S, Moradkhani H, Siddique KHM. 2019. Integrating different stability models to investigate genotype × environment interaction and identify stable and high-yielding barley genotypes. *Euphytica*, <https://doi.org/10.1007/s10681-019-2386-5>
- Qaderi A, Omidi M, **Pour-Aboughadareh A**, Poczai P, Shaghaghi J, Mehrafarin A, Nohooji M, Etminan A. 2019. Molecular diversity and phytochemical variability in the Iranian poppy (*Papaver bracteatum* Lindl.): A baseline for conservation and utilization in future breeding programmes. *Industrial Crops & Products*, <https://doi.org/10.1016/j.indcrop.2018.12.079>
- Etminan A, **Pour-Aboughadareh A**, Mehrabi AA, Shooshtari L, Ahmadi-Rad A, Moradkhani H. 2019. Molecular characterization of the wild relatives of wheat using CAAT-box derived polymorphism, *Plant Biosystems - An International Journal Dealing with all Aspects of Plant Biology*, <https://doi.org/10.1080/11263504.2018.1492993>
- Ghazvini H, **Pour-Aboughadareh A**, Sharifalhosseini M, Razavi SA, Mohammadi S, GhasemiKalkhoran M, FathiHafshejani A, Khakizadeh GH. 2018. Phenotypic stability analysis of barley promising lines in the cold regions of Iran. *Crop Breeding Journal*.
- Ahmadi J, **Pour-Aboughadareh A**, Fabriki-Ourang S, Mehrabi AA, Siddique KHM. 2018. Wild relatives of wheat: *Aegilops-Triticum* accessions disclose differential antioxidative and physiological responses to water stress. *Acta Physiologiae Plantarum*, <https://doi.org/10.1007/s11738-018-2673-0>
- Ahmadi J, **Pour-Aboughadareh A**, Fabriki-Ourang S, Mehrabi AA, Siddique KHM. 2018. Screening *Aegilops* and *Triticum* germplasm for seedling root architectural traits under contrasting water regimes: potential sources of variability for drought adaptation in wheat. *Archives of Agronomy and Soil Science*, <https://doi.org/10.1080/03650340.2018.1432855>
- Vaezi B, **Pour-Aboughadareh A**, Mehraban A, Hossein-Pour T, Mohammadi R, Armion M, Doori M. 2019. The use of parametric and non-parametric measures for selecting stable and adapted barley lines. *Archives of Agronomy and Soil Science*, le: <https://doi.org/10.1080/03650340.2017.1369529>
- Etminan A, **Pour-Aboughadareh A**, Noori A, Ahmadi Rad A, Shooshtari L, Mahdavian Z, Yousefi-Azar. 2018. Genetic relationships and diversity among wild *Salvia* accessions revealed by ISSR and SCoT markers. *Biotechnology & Biotechnological Equipment*. <https://doi.org/10.1080/13102818.2018.1447397>
- Ahmadi J, **Pour-Aboughadareh A**, Fabriki-Ourang S, Mehrabi AA. 2019. Molecular

detection of glutenin and gliadin genes in the domesticated and wild relatives of wheat using allele-specific markers. *Cereal Research Communications*, <https://doi.org/10.1556/0806.46.2018.039>

- Etminan A, **Pour-Aboughadareh A**, Mohammadi R, Noori A, Ahmadi-Rad A. 2018. Applicability of CAAT box-Derived Polymorphism (CBDP) Markers for Analysis of Genetic Diversity in Durum Wheat. *Cereal Research Communications*, <https://doi/abs/10.1556/0806.45.2017.054>
- Ahmadi J, **Pour-Aboughadareh A**, Fabriki-Ourang S, Mehrabi AA, Siddique KHM. 2018. Screening wild progenitors of wheat for salinity stress at early stages of plant growth: insight into potential sources of variability for salinity adaptation in wheat. *Crop & Pasture Science*. <https://doi.org/10.1071/CP17418>
- **Pour-Aboughadareh A**, Ahmadi J, Mehrabi AA, Etminan A, Moghaddam M. 2018. Insight into the genetic variability analysis and relationships among some *Aegilops* and *Triticum* species, as genome progenitors of bread wheat, using SCoT markers. *Plant Biosystems-An International Journal Dealing with all Aspects of Plant Biology*, <http://dx.doi.org/10.1080/11263504.2017.1320311>
- **Pour-Aboughadareh A**, Ahmadi J, Mehrabi AA, Etminan A, Moghaddam M, Siddique KHM. 2017. Physiological responses to drought stress in wild relatives of wheat: implications for wheat improvement. *Acta Physiologiae Plantarum*, <http://dx.doi.org/10.1007/s11738-017-2403-z>
- **Pour-Aboughadareh A**, Ahmadi J, Mehrabi AA, Etminan A, Moghaddam M. 2017. Assessment of genetic diversity among Iranian *Triticum* germplasm using agro-morphological traits and start codon targeted (SCoT) markers. *Cereal Research Communications*, <https://doi.org/10.1556/0806.45.2017.033>
- Vaezi B, **Pour-Aboughadareh A**, Mohammadi R, Armion M, Mehraban A, Hossein-Pour T, Dorri M. 2017. GGE biplot and AMMI analysis of barley yield performance in Iran. *Cereal Research Communications*. <https://doi.org/10.1556/0806.45.2017.019>
- **Pour-Aboughadareh A**, Mahmoudi M, Moghaddam V, Ahmadi J, Mehrabi AA, Alavikia SS. 2017. Agro-morphological and molecular variability in *Triticum boeoticum* accessions from Zagros Mountains, Iran. *Genetic Resources and Crop Evolution*, <http://dx.doi.org/10.1007/s10722-016-0381-4>
- **Pour-Aboughadareh A**, Ahmadi J, Mehrabi AA, Moghaddam M, Etminan A. 2017. Evaluation of agro-morphological diversity in wild relatives of wheat collected in Iran. *Journal of Agricultural Science and Technology*. http://jast.modares.ac.ir/article_16787.html
- Etminan A, **Pour-Aboughadareh A**, Mohammadi R, Amadi-Rad A, Moradi Z. 2017. Evaluation of genetic diversity in a mini core collection of Iranian durum wheat germplasms. *The Journal of Animal and Plant Sciences*.
- Etminan A, **Pour-Aboughadareh A**, Mohammadi R, Moradi Z, Mahdavian Z, Noori A. 2016. Evaluation of genetic diversity in a mini core collection of Iranian durum wheat germplasms. *The Journal of Animal & Plant Sciences*.
- Etminan A, **Pour-Aboughadareh A**, Mohammadi R, Ahmadi-Rad A, Noori A, Mahdavian Z, Moradi Z. 2016. Applicability of start codon targeted (SCoT) and inter-simple sequence repeat (ISSR) markers for genetic diversity analysis in durum wheat genotypes. *Biotechnology & Biotechnological Equipment*. <http://dx.doi.org/10.1080/13102818.2016.1228478>
- Khalili M, **Pour-Aboughadareh A**. 2016. Parametric and Non-parametric Measures for Evaluating Yield Stability and Adaptability in Barley Doubled Haploid Lines. http://jast.modares.ac.ir/article_14560.html
- Khalili M, **Pour-Aboughadareh A**, Naghavi MR. 2016. Assessment of drought tolerance in barley: integrated selection criterion and drought tolerance indices. *Environmental and Experimental Biology*. <https://doi.org/10.22364/eeb.14.06>
- Ahmadi J, Vaezi B, **Pour-Aboughadareh A**. 2016. Analysis of variability, heritability, and interrelationships among grain yield and related characters in barley advanced lines. *Genetika*. <https://doi.org/10.2298/GENS1601073A>

- Ahmadi J, Vaezi B, **Pour-Aboughadareh A.** 2015. Assessment of heritability and relationships among agronomic characters in grass pea (*Lathyrus sativa* L.) under rainfed conditions. *Biharean Biologist*.
- Ahmadi J, Vaezi B, Shaabani A, Khademi K, Fabriki-Ourang, **Pour-Aboughadareh A.** 2015. Non-parametric Measures for Yield Stability in Grass Pea (*Lathyrus sativus* L.) Advanced Lines in Semi Warm Regions. *Journal of Agricultural Science and Technology*. http://jast.modares.ac.ir/article_13850.html
- Ahmadi J, **Pour-Aboughadareh A.** 2015. Allelic variation of glutenin and gliadin genes in Iranian einkorn wheat. *Journal of Biodiversity and Environmental Sciences*.
- Moradkhani H, Mehrabi AA, Etminan A, **Pour-Aboughadareh A.** 2015. Molecular diversity and phylogeny of *Triticum-Aegilops* species possessing D genome revealed by SSR and ISSR markers. *Plant Breeding and Seed Science*. <https://doi.org/10.1515/plass-2015-0024>
- Khalili M, **Pour-Aboughadareh A**, Naghavi MR, Mohammad Amini E. 2014. Evaluation of drought tolerance in safflower genotypes based on drought tolerance indices. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, <https://doi.org/10.15835/nbha4219331>
- **Pour-Aboughadareh A**, Etminan A, Shooshtari L, Maleki-Tabrizi N. 2020. Comparative assessment of SCoT and CBDP markers for investigation of genetic diversity existing in different *Aegilops* species. *Agricultural Biotechnology Journal* (In Persian)
- **Pour-Aboughadareh A**, Omidi M, Naghavi MR, Etminan A, Mehrabi AA. 2020. Estimation of genetic parameters and heritability of photosynthetic-related traits in *Aegilops tauschii* accessions under water deficit stress. *Modern Genetics Journal* (In Persian)
- Ahmadi J, Fabriki-Ourang, **Pour-Aboughadareh A.** 2019. Evaluation of genetic diversity in *Aegilops* populations possessing D genome using SCoT and TRAP markers. *Modern Genetics Journal* (In Persian)
- Fabriki-Ourang S, Dargahi S, **Pour-Aboughadareh A.** 2019. The effects of titanium dioxide nano-elicitor on the expression profile of sanguinarin biosynthesis pathway genes in greater celandine (*Chelidonium majus* L.). *Modern Genetics Journal* (In Persian)
- Ahmadi J, **Pour-Aboughadareh A.** 2018. Expression pattern of anti-oxidant genes in wheat wild relatives under water deficit stress. *Modern Genetics Journal* (In Persian)
- **Pour-Aboughadareh A**, Ahmadi J, Mehrabi AA, Etminan A, Moghaddam M. 2018. Assessment of agro-morphological diversity existing in some of *Aegilops* species. *Cereal Research*. (In Persian)
- Khalili M, Aharizad S, **Pour-Aboughadareh A.** 2017. Response of barley double haploid lines to the grain yield and morphological traits under water deficit stress conditions. *Journal of Ecophysiology*. (In Persian)
- Ahmadi J, Vaezi B, **Pour-Aboughadareh A.** 2016. Evaluation of forage yield stability of advanced lines of grass pea (*Lathyrus sativa* L.) by parametric and non- parametric methods. *Journal of Crop Breeding*. (In Persian)
- **Pour-Aboughadareh A**, Alavi Kia SS, Moghaddam M, Mehrabi AA, Mazinani MA. 2016. Diversity of agro-morphological traits in populations of Einkorn wheat (*Triticum boeoticum* and *Triticum urartu*) under normal and water deficit stress conditions. *Journal of Crop Breeding*. (In Persian)
- **Pour-Aboughadareh A**, Moghaddam M, Alavikia SS, Mehrabi AA. 2016. Assessing heritability of agro-morphological characters and relationship between genetic diversity with geographical factors in Einkorn wild wheat populations collected from West and Northwest of Iran. *Iranian Journal of Rangelands and Forests Plant Breeding and Genetic Research*. (In Persian)
- Khalili M, Naghavi M, **Pour-Aboughadareh A.** 2015. Evaluation of grain yield and some of agro-morphological characters in spring safflowers genotypes under irrigated and rainfed conditions. *Journal of Crop Breeding*. (In Persian)
- Vaezi B, Ahmadi J, **Pour-Aboughadareh A.** 2015. Stability analysis of barley advanced lines under Gachsaran tropical environment. *Cereal Research*. (In Persian)
- **Pour-Aboughadareh A**, Alavi Kia SS, Moghaddam M, Mehrabi AA, Mazinani MA. 2013.

- Evaluation of morpho – physiological traits in some *Triticum urartu* populations from Iran under normal and water deficit stress conditions. Journal of Crop Improvement. (In Persian)
- Mazinani MA, Moghaddam M, Alavi Kia SS, Shakiba MR, Mehrabi AA, **Pour-Aboughadareh A.** 2012. Study of genetic diversity in *T. boeoticum* populations under normal and water deficit stress conditions. Cereal Research. (In Persian)

Review Articles:

- Abdelrahman M, Al-Sadi A, **Pour-Aboughadareh A**, Burritt D, Phan Tran L. 2018. Genome editing using CRISPR/Cas9–targeted mutagenesis: An opportunity for yield improvements of crop plants grown under environmental stresses. Plant Physiology and Biochemistry, <https://doi.org/10.1016/j.plaphy.2018.03.012>
- Pour-Aboughadareh A**, Omidi M, Etminan A, Mehrabi AA. 2018. The importance of wild wheat germplasm in breeding for resistance to abiotic stresses. Modern Genetics Journal (In Persian)

Articles presented in international and national conferences:

- Vaezi B, Namdari A, **Pour-Aboughadareh A**. 2018. Evaluation of grain yield in advanced barley genotypes under rainfed conditions. 15th National Iranian Crop Science Congress, Karaj, Iran.
- Vaezi B, **Pour-Aboughadareh A**, Hossein-Pour T, Ghasemi S, Mohammadi R, Mehraban A, Koohkan E, Moradkhani H. 2018. Stability Analysis of Barley Genotypes using AMMI Method. 15th National Iranian Crop Science Congress, Karaj, Iran.
- Pour-Aboughadareh A**, Etminan A, Shooshtari L, Ahmadi A, Hosseini SA. 2018. Evaluation of Genetic Diversity in *Salvia* Ecotypes using SCoT Markers. 15th National Iranian Crop Science Congress, Karaj, Iran.
- Pour-Aboughadareh A**, Mohammad Amini E, Khalili M, Naghavi MR. 2013. Factor analysis of agronomic and morphological traits of safflower genotypes under two stress and non-stress conditions. 2nd International Conference on Agriculture and Natural Resources, Kermanshah, Iran.
- Ahmadi J, **Pour-Aboughadareh A**. 2015. Identification and classification of gliadin genes in iranian diploid wheat. 17th International Conference on Agricultural, Biological and Ecosystems Sciences, Istanbul, Turkey.
- Mazinani MA, Moghaddam M, Alavikia SS, Shakiba MR, Mehrabi AA, **Pour-Aboughadareh A**. 2012. Evaluation of wild diploid populations of wheat (*Triticum boeoticum*) for drought tolerance. 12th National Iranian Crop Science Congress, Karaj, Iran.
- Pour-Aboughadareh A**, Moghaddam M, Alavikia SS, Mehrabi AA, Mazinani MA. 2012. Evaluation of diversity and traits relations in populations of Einkorn wheat (*Triticum boeoticum*). 12th National Iranian Crop Science Congress, Karaj, Iran.

Projects:

- Assessment of drought stress response in wild wheat species containing D genome

using classical and molecular approaches at seedling stage. Sponsor: ***Iran National Science Foundation***.

- Genetical and molecular assessing of Iranian wild wheat and landraces genotypes in response to drought and salinity stresses. **Sponsor: *Iran National Science Foundation***.
- Evaluation of genetic diversity and enzymatic activities in durum wheat advanced lines under drought stress. Sponsor: ***Islamic Azad University, Kermanshah branch***.
- Allelic variation in Glutenin and Gliadin subunits in Einkorn wheat. Sponsor: ***Imam Khomeini International University***.
- Genetic variability of root system traits and water use efficiency in Iranian durum wheat cultivars and landraces. Sponsor: ***Ministry of Agriculture Jihad***.
- Assessment of genetic diversity and relationships among Iranian Salvia species using molecular markers. Sponsor: ***Islamic Azad University, Kermanshah branch***.
- Evaluation of expression pattern of antioxidant genes in wild relatives of wheat under drought stress conditions. Sponsor: ***Imam Khomeini International University***.