

In the Name of God



**Dr. Ali Sorooshzadeh**

*Faculty of Agriculture  
Agronomy Department*



### **I. Personal Information:**

Name: Ali

Family Name: SOROOSHZADEH

Date of Birth: 1960

Marital Status: Married

Present Position: Associate Prof. of Agronomy Dept. College of Agriculture, Tarbiat Modares University

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## II. Academic Degrees:

Degree	Institution	Place	Field	Date
B.Sc.	Shiraz University	Shiraz, Iran.	Agronomy & Plant Breeding	1986
M.Sc.	Tarbiat Modares University	Tehran, Iran	Agronomy	1989
Ph.D.	McGill University	Montreal, Canada	Plant nutrition	1997

## III. Academic Experiences:

- 1) Head of Agronomy Department 2002-2006
- 2) Member of Doctoral Thesis Examination Committee at the Faculty of Agriculture, Tarbiat Modares University.
- 3) Member of Doctoral Comprehensive Examination Committee at the Faculty of Agriculture, Tarbiat Modares University.
- 4) Member of M.Sc. Thesis Examination Committee at the Faculty of Agriculture, Tarbiat Modares University.
- 5) Member of Research Committee at the Faculty of Agriculture, Tarbiat Modares University.

## IV. PATENTS:

Ali Sorooshzadeh, Device for vertical farming of saffron, Tehran, Iran, Patent Number: 90349, (5/11/2016).

In the device for vertical system, saffron corms were planted in fabric bags containing potting soil. The fabric bags were hanged on the device made from a cube of metal with an area of each side of  $t$ . By using the vertical device, the number of flowers, flower dry weight and dry weight of stigma per unit area of land were significantly higher  $t$  (almost three times higher) than those obtained in the horizontal culture.

## V. Refereed Papers: Publication in Journals:

1. Malmir, M.; R. Mohammadian, A. Sorooshzadeh, A. Mokhtasi-Bidgholi and M. Abdollahian Noghabi. 2018. Effect of heat stress on growth and plant characteristics of three commercial sugar beet (*Beta vulgaris* L.) cultivars. Iranian Journal of Crop Sciences. 19(4): 349-362.
2. Behboudi, F; Tahmasebi Sarvestani, Z.; Kassaei, M.Z.; Modares Sanavi, S. A.M.; Sorooshzadeh, A.; Ahmadi, Seyed Badreddin; Evaluation of Chitosan Nanoparticles Effects on Yield and Yield Components of Barley (*Hordeum vulgare* L.) under Late Season Drought Stress. Iranian Environmental Mutagen Society.3(1): 22-39.
3. Behboudi, F; Tahmasebi Sarvestani, Z.; Kassaei, M.Z.; Modares Sanavi, S. A.M.; Sorooshzadeh, A., 2017. Notulae Scientia Biologicae .9(2): 242-249.
4. Ahmad, LA; Sorooshzadeh A; A Mokhtassi-Bidgoli A.; 2017. Studying the possibility of saffron (*Crocus sativus* L.) production in a vertical culture system. Saffron Agronomy and Technology. 5(2):161-173.
5. Street, I.H., Mathews, D.E., Yamburkenko, M.V., Sorooshzadeh, A., John, R.T., Swarup, R., Bennett, M.J., Kieber, J.J., Schaller, G.E. 2016. Cytokinin acts through the auxin influx carrier AUX1 to regulate cell elongation in the root. Development, 143(21): 3982- 3993.
6. Khodaei Jaghan,A., Ghalavand,A., AghaAlikhani, M., and Sorooshzadeh, A. 2016. Effects of organic and conventional nutrition systems on grain yield and quality of sunflower under different irrigation regimes. J. of Agroecology, 6(1):166186.
7. Govahi, M., Ghalavand, A., Nadjafi, F., Sorooshzadeh, A .2016. Effects of different soil fertility systems on some physiological characteristics, yield and essential oil of sage (*Salvia officinalis* L.) under different irrigation regimes. Iranian Journal of Medical and Aromatic Plants, 32 (2): 333-345 (In Persian with English summary).
8. Govahi, M., Ghalavand, A., Nadjafi, F., Sorooshzadeh, A. 2015 .Comparing different soil fertility systems in Sage (*Salvia officinalis*) under water deficiency. Industrial Crops and Products. 74: 1-1016.
9. Sorooshzadeh, A., Tabibzadeh, Z. 2015. Effect of copper in hydroponic solution on leaves and roots of Saffron (*Crocus sativus* L.). Acta Horticulturae, 1062:83-88.
10. Izadi, Z. Sorooshzadeh A., Modarres-Sanavy, S. A.M., Esna-Ashari M., Davoodi P. 2014 Investigation on antimicrobial effects of essential oil of purple coneflower (*Echinacea purpurea* L.) and identification of its chemical compounds. Iranian South Medical Journal. 17(1):58-69. (In Persian with English summary).

11. Izadi, Z., Sorooshzadeh A., Modarres-Sanavy, S. A.M., Esna-Ashari M., Davoodi P. 2014. Effect of Extraction Method on Antimicrobial Properties of Shoot Extract of Purple Coneflower (*Echinacea Purpurea* L.) Against Some Pathogenic Bacteria. Journal of Rafsanjan University of Medical Sciences, 13(3): 267-280.
12. Rezvani, N., Sorooshzadeh, A. Sharifi, M. 2014. Effect of Auxin and Copper on Growth of Saffron. Iranian Journal of Plant Biology, 19: 111-124 (In Persian with English summary).
13. Rezvani, N., Sorooshzadeh A., 2014. Effect of Nano-Silver on Growth of Saffron in Flooding Stress. Saffron Agronomy and Technology 2(1):91-104.
14. Zand, B., Sorooshzadeh, A., Ghanati, F., Moradi, F., 2014. Effect of zinc (Zn) and auxin (IBA) foliar application on phytohormonal variation and growth of corn (*Zea mays* L.). Iranian Journal of Plant Biology 22(6): 63-76. (In Persian with English summary).
15. Aminpanah, H., Sorooshzadeh, A., Zand, E., Moumeni, A. 2013. Using more competitive cultivar against barnyard grass (*Echinochloa crusgalli*) to reduce herbicide application rate in lowland rice fields. Thai Journal of Agricultural Science, 46(3):201-207.
16. Habibzadeh, F., Sorooshzadeh, A., Pirdashti, H., and Modarres-Sanavy, S. A.M., 2013. Alleviation of waterlogging damage by foliar application of nitrogen compounds and tricyclazole in canola. Australian Journal of Crop Science. 7(3):401-406.
17. Habibzadeh, F., Sorooshzadeh, A., Pirdashti, H., and Modarres-Sanavy, S. A.M., 2013. Effect of nitrogen compounds and tricyclazole on some biochemical and morphological characteristics of waterlogged-canola. International Research Journal of Applied and Basic Sciences. 3 (1):77-84
18. Movahedi, Z., Moieni, A., Soroushadeh, A., 2013. The Effects of Different Concentrations of Nitrogen Sources on Growth of Micro propagated Potato Cultivars. Journal of Plant Physiology and Breeding, 3(1): 35-44. (In Persian with English summary).
19. Panjtandoust, M., Sorooshzadeh, A., and Ghanati F. 2013 Influence of Iron Application Methods on Seasonal Variations in Antioxidant Activity of Peanut. Communications in Soil Science and Plant Analysis 44 (14): 2118-2126.
20. Safari, M. A., Sorooshzadeh, A., Asgharzadeh, and Saadat S. 2013 The Application of Adsorption Modeling and Fourier Transform Infrared Spectroscopy to the Comparison of Two Species of Plant Growth–Promoting Rhizobacteria as

- Biosorbents of Cadmium in Different pH Solutions. *Bioremediation Journal* 17(4):201–211.
21. Seif Sahandi, M., Sorooshzadeh, A., 2013. Comparison between the Influences of Silver Nanoparticles and Silver Nitrate on the Growth and Phytochemical Properties of Borage (*Borago officinalis* L.) *Current Nanoscience*, 2013, 9, 241-247.
  22. Hamzi, S., Sorooshzadeh, A., Asgharzadeh, A., Naghdi Badi, H., 2012. Effect of Low Temperature and Rhizobacteria on Seed Germination and Seedling Growth of Isabgol (*Plantago ovate forsk*). *Journal of Medicinal Plants*, 42(2):104-115. (In Persian with English summary).
  23. Habibzadeh, F., Sorooshzadeh, A., Pirdashti, H., and Modarres-Sanavy, S. A.M., 2012. Effect of seed inoculation and foliar application of biofertilizers on some biochemical and morphological characteristics of waterlogged-canola. *Journal of American Science* 8(6):62-68.
  24. Izadi Z, Modarres Sanavi S.A.M., Sorooshzadeh A., Esna-Ashari, M., Davoodi P., 2012. Antimicrobial activity of chamomile (*Matricaria chamomilla* L.) and feverfew (*Tanacetum parthenium* L.) *Armaghane-danesh, Yasuj University of Medical Sciences Journal* 18(73): 31-43. (In Persian with English summary).
  25. Movahedi, Z., Moieni, A., Soroushzadeh, A., 2012. Comparison of Aeroponics and Conventional Soil Systems for Potato Minutubers Production and Evaluation of Their Quality Characters. *Journal of Plant Physiology and Breeding*, 2(2): 13-21. (In Persian with English summary).
  26. Seif Sahandi M, Sorooshzadeh A., H. Rezazadeh S and Naghdibadi H. A. 2011. Effect of nano silver and silver nitrate on seed yield of borage. *Journal of Medicinal Plants Research*. 5(2): 171-175.
  27. Shams, H., Omid, H., Naghdi Badi, H., Rezazadeh, S., h., Sorooshzadeh A. 2012. Evaluation of Calcium Effect on Antioxidant Activity and Phenolic Compound Content in Borage (*Borago officinalis* L.). *Journal of Medicinal Plants* 11(44):100-109. (In Persian with English summary).
  28. Daryaei, F., Ghalavand, A., Sorooshzadeh, A., Chaichi, M. R., and Aqaalikhani, M., 2011. Effect of different fertilizing systems using green manure and zeonix on quantitative and qualitative yield of forage rape (*Brassica Napus*) in sequential cropping system. *International Research Journal of Applied and Basic*. 2 (1):21-27.
  29. Ghorbani M.J., Sorooshzadeh, A., Modarres Sanavy, S. A.M., Allahdadi, I., and Moradi. F. 2011. Effects of the exogenous application of auxin and cytokinin on

- carbohydrate accumulation in grains of rice under salt stress. *Plant Growth Regulation* 65: 305-313.
30. Ghorbani M.J., Sorooshzadeh, A., Moradi. F., Modarres Sanavy, S. A.M., and Allahdadi, I. 2011. The role of phytohormones in alleviating salt stress in crop plants *Australian Journal of Crop Science*.5 (10):726-734
  31. Naghdi Badi H. and Sorooshzadeh. A., 2011.Evaluating potential of borage (*Borago officinalis* L.) in bioremediation of saline soil .*African Journal of Biotechnology* 10: 146-153.
  32. Jami Moeini , M., Modarres Sanavy, S.A, Keshavarz, P., Sorooshzadeh, A., Ganjeali, A., 2010 Relationship between Root Morphological Characteristics and Nitrogen Use Efficiency in Six Potato Cultivars 8(3);444-454.
  33. Zand, B., Sorooshzadeh, A., Ghanati, F., Moradi, F., 2010 Effect of Zinc and Auxin Foliar Application on Grain Yield and Its Components of Grain Maize under Water Deficit Conditions *Seed and Plant Production Journal*. 25 (4):431-448.
  34. Zand, B., Sorooshzadeh, A., Ghanati, F., Moradi, F., 2010 Effect of Zinc and Auxin Foliar application on some anti-oxidant enzymes activity in corn leaf. *Iranian Journal of Plant Biology*. 2(3):35-48.
  35. Aminpanah, H., Sorooshzadeh, A., Zand, E., and Momeni, A., 2009 Investigation of Light Extinction Coefficient and Canopy Structure More and Less Competitiveness of Rice Cultivars (*Oryza sativa*) of Against Barnyardgrass (*Echinochloa crus-galli*). *Electronic Journal. Crop Production*, 2: 69-84. (In Persian with English summary).
  36. Jami Moeini , M., Modarres Sanavy, S.A, Keshavarz, P., Sorooshzadeh, A., Ganjeali, A. 2009 Influence of Nitrogen Rate and Split Application Method on Tuber Yield and Some Quantitative Characteristics of Different Potato Cultivars. *Journal of Horticultural Sciences* 23(1): 46-56
  37. Aminpanah h, Sorooshzadeh A, Zand E, Momeni A, Mohadesi A 2008 Comparison between rice (*Oryza sativa* L.) Cultivars for competitiveness against barnyard grass (*Echinochloa crus-galli* (L.). *Pajouhesh and sazanegi*. . (In Persian with English summary). (Text in Persian).
  38. Naghdi Badi H., Sorooshzadeh A., Rezazadeh S.h., Sharifi M., Ghalavand A., Rezai A. 2008. Evaluation of Phytochemical and Production Potential of Borage. *Journal of Medicinal Plants* 7(4): 42-37.

39. Naghdi Badi H., Sorooshzadeh A., Rezazadeh Sh., Sharifi M., Ghalavand A., Omid H. 2008 Review on Borage (Valuable Medicinal Plant and the Richest Plant Source of Gamma Linolenic Acid) .Journal of Medicinal Plants .6(24):1-16.
40. Amirshakari, H, Sorooshzadeh. A., Modaress Sanavy, S. A.M., and Jalali Javaran. 2007 Effects of Root-Zone Temperature, Corm Size, and Gibberellin on Vegetative Growth of Saffron (*Crocus sativus* L.). Accepted for publishing in Iranian Journal of Biology.
41. Omid, H., Sorooshzadeh, A., Salehi, A., Ghezeli, F.D. 2006. Rapeseed Germination as Affected by Osmo-priming Pretreatment. Agricultural Sciences and Technology Journal. 19(2):125-136.
42. Sharifi, Y., Alighani, M., Modaress Sanavy, S.A., Sorooshzadeh, A. 2006. The Effect of Mixing Ratio and Plant Density on Forage Production in Sorghum/Cowpea Intercropping. Iranian Journal of Agricultural Sciences. 37 (2):363-371.
43. Beyranvand, A., Karimzadeh, G., and Sorooshzadeh, A. 2006 Study of a Vernalization Temperature on Quantitative and Electrophoretic Changes of Leaf Soluble Proteins in Winter and Spring Canola (*Brassica napus*) Cultivars. Journal of Agricultural Sciences and Natural Resources. 12:183-189.
44. Hosseinpour, M., Sorooshzadeh, A., Alighani, M. A., Taleghani, D. F., and Khorramian, M. 2006 The Effect of Irrigation in Spring on Water use Efficiency and Yield of Autumn Sown Sugar Beet. Journal of Sugar Beet. 22 (2):35-53.
45. Hosseinpour, M., Sorooshzadeh, A., Alighani, M. A., Taleghani, D. F., and Sharifi, H. 2006 Evaluation of Quantity and Quality of Sugar Beet under Drip and Furrow Irrigation Methods in North of Khuzestan. Journal of Sugar Beet. 22 (1):39-59.
46. Amirshakari, H, Sorooshzadeh. A., Modaress Sanavy A., and Jalali M. 2006. Study The Effects of Root Temperature, Corm Size, and Gibberellin on Underground Organs of Saffron (*Crocus sativus* L.). Iranian Journal of Biology. 19(1):5-17.
47. Amin Panah H., Sorooshzadeh A. 2005. The Effect of Calcium Nitrate on Sodium and Potassium Distribution in Seedlings of Rice under Saline Conditions. Iranian Journal of Biology. 18(2):92-100.
48. Amin Panah, H., Sorooshzadeh A., Jalali, M. 2004 .Influence of Calcium Nitrate on Electrophoretic Pattern of Soluble Proteins in Seedlings of Rice under Saline Conditions. Iranian Journal of Biology 17(1):102-11-23.

49. Yari, L., Modarres Sanavy, S.A.M. and Sorooshzadeh, A. 2004. Effect of Foliar Application of Zinc and Manganese on Quality Traits of Five Safflower Cultivars. *Iranian Journal of Soil and Water Sciences*. 18(2):143-151.
50. Movahhedi Dehnavi, M. Modarres Sanavy, S.A.M. and Sorooshzadeh, A., and Jalali, M. 2004. Changes in Proline, Total Soluble Sugars, SP AD and Chlorophyll Fluorescence in Winter Safflower Cultivars under Drought Stress and Foliar Application of Zinc and Manganese. *Biaban*. 9:109-123.
51. Modarres Sanavy, S.A.M. and Sorooshzadeh, A., 2003. The Effect of Row Spacing and Seeding Rate on Protein Content and Other Qualitative Characters of Promising Wheat Line (M-75-10). *Journal of Agricultural Sciences and Natural Resources*. 10(2):9-19.
52. Modarres Sanavy, S.A.M. and Sorooshzadeh, A. 2003. Effect of Row Spacing and Seeding Rate on Yield and Yield Components of Promising Wheat Line M-7S-10. *Journal of Agricultural Sciences and Natural Resources*. 10(1):83-97.
53. Sorooshzadeh, A., and Barthakur, N. N. 1999. Calcium Distribution in Soybean Plant in Response to Photoperiod and Water Stress during Seed-Filling Stage. *Environ. Control. in Biol.* 37 (1): 49 –56.
54. Sorooshzadeh, A., and Barthakur, N. M. 1998. Water Stress and Calcium Concentration During the Seed Filling Stage of Soybean Affect Senescence. *Acta. Agric. Scand. Sect. B. Soil and Plant Sci.* 48: 79 – 84
55. Sorooshzadeh, A., and Barthakur, N. N. 1995. Moisture Stress and Calcium Absorption from Immersion During the Seed- Filling Stage of Soybean. *Comm. Soil. Sc. and Plant Anal.* 26: 2309 – 2318
56. Sorooshzadeh, A., Arnold, N. P., and Barthakure, N. N. 1995. Calcium Distribution in Soybean during Seed Filling in Relation to Moisture Stress. *J. Plant Nut.* 18: 515-522

## **VI. Papers Presented in Conferences:**

1. Sorooshzadeh, A, Hazrati, S., Oraki, H., Govahi, M., Ramazani, A., 2012. Foliar Application of nano-silver Influence Growth of Saffron under Flooding Stress 4th



International Conference NANOCON 2012 October 23rd - 25th Brno, Czech Republic, EU.

2. Sorooshzadeh, A., Seif Sahandi, M., Rezazadeh H. and Naghdibadi H. A. 2010. Effect of Nano-silver and Silver Nitrate on Seed Abscission of Borage Plant. The 2nd International Congress Nanotechnology in Medicine and Biology, BioNanoMed 2010.
3. Amin Panah. H., Sorooshzadeh, A. 2007. Salinity Environment Effect on Germinability of Rice Seeds Treated with Calcium Nitrate. The 2nd International Conference on Rice for the Future. 5-9 November 2007. Bangkok, Thailand
4. Nagbdi Badi, H., SoroshZadeh, A., Sharifi, M., Ghalavand A., and Saadat S. 2007. Influence of Salinity on Seed Germination and Seedling of Borage (*Borago officinalis* L.). The 3rd Global Summit on Medicinal and Aromatic Plants. 21-24 November 2007. Bangkok, Thailand.
5. .Beyranvand A., Karimzadeh G., and Sorooshzadeh A. 2003. Study on the effect of cold stress on chlorophyll fluorescence of Winter Canola (*Brassica napus* cv. symbot) International Symposium on Animal and Plant Cold Hardiness Cold stress. Bohemia, Czech Republic August. 2003
6. Beyranvand A., Karimzadeh G., and Sorooshzadeh A. 2003. Study on the effect of Low temperature stress on chlorophyll fluorescence of Spring Canola (*Brassica napus* cv. symbot) International Symposium on Animal and Plant Cold Hardiness Cold stress. Bohemia, Czech Republic August.. 2003
7. Karimzadeh, G., Biranvand, A. and Sorooshzadeh, A. 2003. Soluble proteins induced by low temperature treatment in the leaves of winter canola but not in the spring canola. In: Plant and Microbe Adaptations to Cold Meeting, 25-29 May,. Quebec City, Canada. 2003
8. Sorooshzadeh A.,. The role of Calcium on stomatal Closure and leaf greenness. The 3rd International Iran and Russia Conference” Agriculture and Natural Resources” Sept. 2002. Russia. 2002
9. Sorooshzadeh A. Study the role of calcium in plant adaptation to low temperature. Proceeding of the second congress of plant chilling and frost in Iran. March 10-12 2001. 2001
10. Sorooshzadeh A. Effect of Thidiazuron and pH of Medium on Direct shoots Formation in Seedlings of Soybean. 4th International Plant Tissue Culture Conference. 1-3 November, , Dhaka, Bangladesh 2001

11. Sorooshzadeh A. Methods of studying mineral nutrient uptake and distribution in plant. Proceeding of 6 th Iranian. Congress of Crop production and plant Breeding 3-6 Sept 2000 Baborsar Iran.
12. Sorooshzadeh A. Barthakur N. N. Plant Moisture Stress and Calcium uptake by soybean. Agricultural Institute of Canada. Annual Meeting 75 th Anniversary Congress Ottawa Canada July 9-13 th 1995.

#### **VII. Students Supervised:**

Supervised: Ph.D. Thesis: More than 16  
M.S. Thesis: More than 19

Co-supervised: Ph.D. Thesis: More than 7  
M.S. Thesis: More than 5

#### **VIII. Research Interests:**

- 1- Physiological and biochemical responses of plants to environmental stress
- 2- Responses of plants to mineral nutrients and plant growth regulators.
- 3- Using nanoparticle technology in plant production

#### **IX. Courses Taught:**

Plant mineral nutrition  
Plant growth regulators  
Plant Responses to Environmental Stresses

#### **XI. Membership of Scientific Societies:**

Iranian Society of Crop Production and Breeding (I.S.C.P.B.)  
Seed Science Society of Iran

#### **XII. Referee for Congress/Journal Articles Submitted to:**

- 1) Journal of Modares Agricultural Science, Faculty of Agriculture, Tarbiat Modares University, Tehran, in Persian
- 2) Iranian Journal of Agriculture Science, College of Agriculture and Natural Resources, Univ. of Tehran, Karaj, Iran, in Persian
- 3) Iranian Journal of Field Crop Science, College of Agriculture and Natural Resources, Univ. of Tehran, Karaj, Iran, in Persian

- 4) Iranian Journal of Horticultural Sciences, College of Agriculture and Natural Resources, Univ. of Tehran, Karaj, Iran, in Persian
- 5) Journal of Agricultural Science, Faculty of Agriculture, Univ. of Tabriz, Tabriz, Iran, in Persian
- 6) Agricultural Sciences and Technology, Faculty of Agriculture, Ferdowsi Univ. of Mashhad, Mashhad, Iran, in Persian
- 7) Agricultural Research, Faculty of Agriculture, Bu-Ali Sina Univ., Hamadan, Iran, in Persian
- 8) Seed and Plant, Seed and Plant Improvement Institute (SPII), Karaj, Iran, in Persian
- 9) Journal of Agricultural Sciences and Natural Resources, Gorgan Univ. of Agriculture and Natural Resources, Gorgan, Iran, in Persian
- 10) Journal of Medicinal Plants, Iranian Academic Center for Education, Culture & Research, Tehran, Iran, in Persian
- 11) Iranian Journal of Rangelands and Forests Plant Breeding and Genetic Research, Research Institute of Forests and Rangelands of Iran, Tehran, Iran, in Persian.
- 12) Iranian Journal of Plant Biology, (IJPB), an official publication of the University of Isfahan, Iran, in Persian
- 13) 7<sup>th</sup> Iranian Congress on Crop Production and Plant Breeding, Seed and Plant Improvement Institute (SPII), Karaj, Iran, 24-26 Aug, 2002, in Persian
- 14) 1<sup>st</sup> International Wheat Congress, Tehran, Iran, 6-9 Dec, 2002, in Persian
- 15) 8<sup>th</sup> Iranian Genetics Congress, Tehran, Iran, 20-22 May, 2003, in Persian
- 16) 8<sup>th</sup> Iranian on Crop Production and Breeding Congress, Univ. of Guilan, Rasht, Iran, 25-27 Aug, 2004, in Persian
- 17) 6<sup>th</sup> National Biotechnology Congress of Iran, Milad Tower Conference Hall, Tehran, Iran, 13-15 Aug, 2009, in Persian