Curriculum Vitae

Dr. Salah El-Sayed El-Hendawy

1. Personal Details

Surname	**El-Hendawy**
Family Name	**Salah** El-Sayed **El-Hendawy**
Title	**Assoc. Prof.**
Gender	Male
Address	Crop Production Department, Collage of Food and Agricultural Sciences, King Saud University

Date of Birth	Day	Mo	Yr
	26	02	1971
Telephone Numbers	Home	Mobile	Fax
	+96614693310	+966535318364	+96614693310
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2. Education

University	Degree	Year
Institute of Plant Nutrition, Department of Plant Sciences, **Technical University of Munich, Germeny**	Ph. D.	2004
Agronomy Department, Faculty of Agriculture, Suez Canal University	M. Sc.	1998
Agronomy Department, Faculty of Agriculture, Suez Canal University	B. Sc.	1993

3. Employment History

Employer	Position	Dates (From – To)
Suez Canal University	Demonstrator	1994 – 1998
Suez Canal University	Assistant Lecturer	1999 – 2001
Technical University of Munich, Germany	**Research assistant**	**2001 – 2004**
Suez Canal University	Lecture	2005 – 2009
JIRCAS , Japan	**Researcher**	**2009 – 2010**

Suez Canal University	Assoc. Prof	2010 – 2012
King Saud University	Assoc. Prof.	2012- till now

4. Grants

	Names	Dates
1.	Post-Doctoral from Japan International Research Center for Agricultural	10/2009 to 3/2011
2.	Post-Doctoral from Deutscher Akademischer Austausch Dienst (DAAD)	07/2007 to 09/2007
3.	Post-Doctoral from Technical University of Munich, Germany	08/2004 to 02/2005
4.	Scholarship from World Laboratory Lausanne, Switzerland	07/2003 to 09/2004
5.	Channel System from Ministry of higher Education of Egypt	07/2001 to 06/2003

5. Training

1. Training course on "**Using remote sensing technique in crop production**", Institute of Plant Nutration, Department of Plant Science, Technical University of Munich, Germany.
2. Training course on The "**preparation and implementation of proposals for research projects**", Cairo University, Egypt
3. Training course on "**Thinking Skill**", University Education developing center, Suez Canal University, Egypt.
4. Training course on "**Connection skills with other**", University Education developing center, Suez Canal University, Egypt.
5. Training course on "**University Ethics**", University Education developing center, Suez Canal University, Egypt.
6. Training course on "**New direction in studding**", University Education developing center, Suez Canal University, Egypt.
7. Training course on "**Problems solving**", University Education developing center, Suez Canal University, Egypt.
8. Technical course on "**Towards an integrated approach for wastewater treatment and reuse in the Mediterranean region**" organized at Suez Canal University, within the 6th Framework program, Coordination Action Project INNIVA- MED Ismailia Egypt.

9. Participated at the workshop topic" **Epigenetic-You are what you eat, Omics past and future**" on 8th march, 2009 in Biotechnology Research Center- Suez Canal University, Egypt.

6. Presentation

1. 32th Annual meeting of Saudi Biological Society, **Um-AlQura University, Saudi Arabian**, 21-23 April, 2017
2. 30th Annual meeting of Saudi Biological Society, **Tabouk, Saudi Arabian**, April, 2015
3. 29th Annual meeting of Saudi Biological Society, **Al-Dmama, Saudi Arabian**, Feb., 2014
4. Attended the workshop "Pulp and paper production from lignocellulosic residues and wood available in Saudi Arabia and assessment of the produced paper" **Plant Production Dep., Collage of Food and Agriculture Sciences, King Saud University. 7-1-2014**
5. International Plant Breeding Congress, **ANTALYA, TURKEY, 10-14 NOVEMBER 2013**,
6. Meeting (Organic farming, Fertilization and bio control for diseases). **King Abdulaziz City for Science and Technology 3.12.2013**
7. Attended the workshop "phenotype characteristics of root nodulating bacteria isolated from woody legume tress grown in Saudi Arabia and their ability to nodulation" **Plant Production Dep., Collage of Food and Agriculture Sciences, King Saud University. 11-11-2013**
8. 28th Annual meeting of Saudi Biological Society, Hael, **Saudi Arabian, April., 2013**
9. Annual meeting of Crop Science Society of Japan, Hokkaido, **Japan**, July., **2010**
10. Annual meeting of Crop Science Society of Japan, Tsukuba, Ibaraki, **Japan**, Dec., **2009**
11. International workshop on "Water Resources in the Niddle East- Reality and Aspiration" held from 19 to 21 October **2008**, JUST University, Irbid**, Jordan**
12. International workshop on "Availability and quality management of water in the MENA region" held from 18 to 20 November **2007**, JUST University, Irbid, **Jordan**
13. The 8th International conference of the African Crop Science Society, held from 27 to 31 October **2007**, El-Minia University, **Egypt.**
14. The 5th conference of the Plant Breeding Society, held from 27 to 28 May **2007**, Cairo

University**, Egypt**

15. International workshop on "Flood or Drought? In the Middle East" held from 26 to 28 November **2006**, JUST University, Irbid, **Jordan.**
16. The 4th conference of the Plant Breeding Society, held from 19 to 20 May **2004**, Suez Canal University, **Egypt**
17. 9. The 8th International conference of the Agronomy Science Society, held from 28 to 29 November **1998**, Suez Canal University**, Egypt**

7. Member of Professional Organizations

1. Editor in Journal of Plant Science and Molecular Breeding (JPSMB).
2. Editor in American Journal of Plant Sciences (AJPS)
3. Crop Science Society of Japan
4. The Egyptian Society of Plant Breeding.
5. The Egyptian Society of Agronomy.
6. The Egyptian Syndicate of Agricultural Professions**.**
7. Member in plant stress group.
8. Member in department Quality, Assurance, Assessment and Accreditation Committee of Quality, Assurance, Assessment and Accreditation System for the Faculty of Agriculture

8. Field of interest

My research concentrates on the intersection between plant and environmental stress with emphasis on drought, salt and submergence stress and agricultural water management. Improving Egyptian wheat genotypes for salt tolerance was elucidated (El-Hendawy et al., 2005). Response of field crops to different agronomic practices was studied (El-Hendawy et al., 2009 and 2010). Sensitive reactions of gramineous plants to salt stress were elucidated with a particular focus on physiological and chemical characteristics (El-Hendawy et al., 2007). Recent attempts concentrate on non-destructive techniques to characterise with high through-put relevant traits of droughted and salinised plants under field conditions (Precision Phenotyping) (El-Hendawy et al., 2014, 2015). The other major research topic deals with optimizing water management implementing novel methods in plant cultivation.

The following are the main field of interest:

1. Using Precision Phenotyping for evaluating wheat genotypes for salt and drought stress.
2. Using friendly environmental chemicals for improving crop production under stress.

9. Research program/Project building

1. **PI for project "**Applying new integrated agronomic techniques for sustainable agriculture in drought prone areas in Saudi Arabia" funded from **National Science, Technology and Innovation Plan, Kingdom Abd-Alziz city for Science and Technology. Saudi Arabia, 2014**
2. **PI for project "**Potential of high throughput precision phenotyping techniques for improving salt tolerance of spring wheat under field conditions**"** funded from **National Science, Technology and Innovation Plan, Kingdom Abd-Alziz city for Science and Technology. Saudi Arabia, 2014**
3. Co-investigator in the project "Molecular and high-throughput field phenotyping approaches to wheat improvement for drought tolerance" funded from **National Science, Technology and Innovation Plan, Kingdom Abd-Alziz city for Science and Technology. Saudi Arabia, 2013**
4. Principle investigator in the project "Using remote sensing technologies to precisely improve drought and salt tolerance of wheat genotypes" **cooperation between Egypt and Germany. 2012**
5. Member in the project titled "Development of micro irrigation system for increasing water use efficiency and saving energy for the cultivation field crops in Sinai" (Funded by Ministry of Agriculture and land reclamation), Egypt **2011**
6. Member in the project titled "The role of high yielding varieties and new agro techniques for improving oil crops productivity in Ismailia Governorate". (University linkage project between Egyptian Universities and US Universities). **2000**
7. As an associate investigator in the project titled "Improvement and management of saline and alkali soils under irrigation of El-Salam Canal Project to increase productivity" (Funded by Ministry of Agriculture and land reclamation), Egypt **2000**
8. As an associate investigator in the project titled "Improving wheat production in saline and alkali soils of El-Salam Canal Project" (Funded by Ministry of Agriculture and land reclamation), Egypt.

List of publication

1. Papers published in refereed international journals

1) **El-Hendawy SE,** Hassan WM, Al-Suhaibani NA, Refay Y and Abdella **KA (2017)** Comparative Performance of Multivariable Agro-Physiological Parameters for Detecting Salt Tolerance of Wheat Cultivars under Simulated Saline Field Growing Conditions. Front. Plant Sci. 8:435. doi: 10.3389/fpls.2017.00435

2) **El-Hendawy SE,** Hassan WM, Refay Y, Schmidhalter U **(2017).** On the use of spectral reflectance indices to assess agro-morphological traits of wheat plants grown under simulated saline field conditions. J Agro Crop Sci. 2017;1–23. https://doi.org/10.1111/jac.12205

3) **El-Hendawy, S.,** Wael M. Hassan, Nasser A. Al-Suhaibani , Urs Schmidhalter **(2017).** Spectral assessment of drought tolerance indices and grain yield in advanced spring wheat lines grown under full and limited water irrigation. **Agricultural Water Management 182 (2017) 1–12**

4) ELSAYED, Salah; ELHOWEITY, Mohamed; **EL-HENDAWY, Salah** and SCHMIDHALTER, Urs **(2017).** Non-invasive spectral detection of the beneficial effects of Bradyrhizobium spp. and plant growth-promoting rhizobacteria under different levels of nitrogen application on the biomass, nitrogen status, and yield of peanut cultivars. **Bragantia, vol.76, n.2, pp.189-202**

5) Aslam, M.M., jamil, M., Khatoon, A., El-Hendawy, S., Al-Suhaibani, N., Malook, J., Shafiq-Ur-Rehman (2017). Physiological and biochemical responses of maize (zea mays l.) to plant derived smoke solution. **Pak. J. Bot., 49(2): 435-443.**

6) Barakat, M., **El-Hendawy, S.,** Al-Suhaibani, N., Elshafei, A., Al-Doss, A., Al-Ashkar, I., Ahmed, E., Al-Gaadi, K. **(2016).** The genetic basis of spectral reflectance indices in drought-stressed wheat. Acta Physiol Plant (2016) 38:227. DOI 10.1007/s11738-016-2249-9

7) Alboghdady, M., **El-Hendawy, S.E**. (**2016**). Economic impacts of climate change and variability on agricultural production in the Middle East and North Africa region", International Journal of Climate Change Strategies and Management, Vol. 8 Iss 3 pp. 463 – 472

8) El-Hendawy, S.E. **(2016**). Optimal Coupling Combinations Between Irrigation and Seeding Rates for Improving Production and Water Use Efficiency of Wheat Grown under Arid Conditions. Journal of Plant Production Sciences; Suez Canal University. Volume 5 (1): 1-12.

9) Elhindi, K., **El-Hendawy, S.E.,** Abdel-Salam, E., Elgorban, A., Ahmed, M. **(2016).** Impacts of fertigation via surface and subsurface drip irrigation on growth rate, yield and flower quality of

Zinnia elegans. Bragantia, Campinas 75 (1), 96-107.

10) Elhindi, K.M., **El-Hendawy, S.E.,** Abdel-Salam, E., Schmidhalter, U., Shafiq ur Rehman, Al-Adl Hassan (**2016**). Foliar application of potassium nitrate affects the growth and photosynthesis in coriander (*Coriander sativum* L.) plants under salinityProgress in Nutrition; Vol. 18, N. 1: 63-73

11) **El-Hendawy**, s.e., Sone, C., Ito, O., J.-I. SakagamI **(2015).** Traits Associated with the Escape Strategy are Responsible for Flash Flooding Tolerance of Rice during the Emergence and Seedling Stages. **Cereal Research Communications 43(3): 525–536**

12) **El-Hendawy**, S.E.,, Nasser Al-Suhaibani, Khaled Al-Gaadi, Shafiq Ur Rehman **(2015).** capability of multiple selection criteria to evaluate contrasting spring wheat germplasms under arid conditions. **Pak. J. Bot., 47(6): 2093-2105.**

13) Aslam, M.M., Jamil, M., Khatoon, A., **El-Hendawy, S.E.,** Al-suhaibani, N.A., Shakir, S.K., Malook, J., Shafiq-Ur-rehman **(2015).** Does Weeds-derived Smoke Improve Plant Growth of Wheat. **Journal of Bio-Molecular Sciences (JBMS) (2015) 3(2): 86-96.**

14) Salah EL-HENDAWY, Nasser AL-SUHAIBANI, Abd El-Azeem SALEM, Shafiq UR REHMAN, Urs SCHMIDHALTER. (**2015).** Spectral reflectance indices as a rapid and nondestructive phenotyping tool for estimating different morphophysiological traits of contrasting spring wheat germplasms under arid conditions. Turk J Agric For (2015) 39: 572-587.

15) Ahmad, R., Hussain, J., Jamil, M., Duck kim, M., Kwak, S., Maroof shah, **El-Hendawy, S.E.,** Al-suhaibani, N.A., Shafiq-Ur-rehman. **2014**. Glycinebetaine synthesizing transgenic potato plants exhibit enhanced tolerance to salt and cold stresses. **Pak. J. Bot., 46(6): 1987-1993**

16) **El-Hendawy, S.,** Al-Suhaibani, N. Urs Schmidhalter, Jun-Ichi Sakagami, **2014**. Adaptive traits associated with tolerance to flash flooding during emergence and early seedling growth stages in rice. Plant Omics Journal 7(6):474-489.

17) **El-Hendawy, S.,** Al-Suhaibani ,N., Refay, Y., Al-Gaadi, K. **2014.** Estimation of Stress Tolerance Indices Based On Grain Yield Under Shortage Water Conditions Using Vegetative And Water Spectral Indices. Journal of Remote Sensing and GIS, 2 (2). 8-17

18) **El-Hendawy, S.,** Kottob, M., Al-Suhaibani, N., Schmidhalter, U., **2014**. Optimal coupling

combinations between the irrigation rate and glycinebetaine levels for improving yield and water use efficiency of drip-irrigated maize grown under arid conditions. **Agricultural water management. (140 69–78)**

19) Bayoumi, T.Y., **El-Hendawy, S.,** Yousef, M.S.H., Emam, M.A.G., Okasha, S., **2014**. Application of infrared thermal imagery for monitoring salt tolerant of wheat genotypes. Journal of American Science 2014;10(12).

20) **El-Hendawy, S.,** Al-Suhaibani, N., Schmidhalter, U., **2013**. influence of varied plant density on growth, yield and economic return of drip irrigated faba bean (vicia faba l.). **Turk. J. Field Crops**. 18(2), 185-197

21) Awad, A.; Hafiz, S.; Hammada, M.S.; El-Nouby, A.; **El-Hendawy, S.; 2013**. Grain yield production of Sudan grass (Sorghum sudanense(Piper) Stapf) as influenced by cutting numbers, potassium rates, and intra-row spacing in a semiarid environment. **Turk J Agric For. 37:657-664**

22) **El-Hendawy, S.E.;** Sone, C.; Ito, O.; Sakagami, J.I. **2012. D**ifferential growth response of rice genotypes based on quiescence mechanism under flash flooding stress. **Australian Crop Science (12):1587-1597**

23) **El-Hendawy, S.E**.; Alboghdady, M.; Schmidhalter, U. **2011** Saving water in arid and semi-arid countries as a result of optimising crop evapotranspiration. **Evapotranspiration (Book 2). INTECH Open Access Publisher. Rijeka, Croatia 225-244.**

24) Hokam, E.M.; **El-Hendawy,S.E.;** Schmidhalter, U. **2011.** Drip Irrigation Frequency: The Effects and their Interaction with Nitrogen Fertilization on Maize Growth and Nitrogen Use Efficiency under Arid Conditions. **Journal of Agronomy and Crop Science 197 (3) 186-201. Blackwell verlag publishing.**

25) **El-Hendawy, S.E.;** Hu, Y.; Sakagami, J.I.; Schmidhalter, U. **2011.** Screening Egyptian Wheat Genotypes for Salt Tolerance at Early Growth Stages. **International Journal of Plant Production 5 (3), 283-298.**

26) **El-Hendawy, S.E.;** Sone, C.; Ito, O.; Sakagami, J.I. **2011**. Evaluation of germination ability in rice seeds under anaerobic conditions by cluster analysis. **Research Journal of Seed Science.**

27) **El-Hendawy, S.E**., and Schmidhalter, U. **2010.** Optimal coupling combinations between irrigation frequency and rate for drip-irrigated maize grown on sandy soil. **Agricultural water management. Vol. 97, p. 439-448. Science Direct publishing. USA.**

28) **El-Hendawy, S.E**., Waleed S., Sakagami, J.I., **2010.** Does treating faba bean seeds with

chemical inducers simultaneously increase chocolate spot disease resistance and yield under field conditions? **Turk J Agric For 34 (2010) 475-485.**

29) **El-Hendawy, SE.,** Ruan, Y.; Hu, Y.; Schmidhalter U. **2009.** A comparison of screening criteria for salt tolerance in wheat under field and environment controlled conditions**.** Journal of **Agronomy and Crop Science. 195: 356-367. Blackwell verlag publishing**

30) **El-Hendawy, SE.;** Essam, E.; Mohamed, S.; Schmidhalter, U. **2008.** Irrigation rate and plant density effects on yield and water use efficiency of drip-irrigated corn. **Agricultural water management. 95: 836-844. Science Direct publishing. USA.**

31) **El-Hendawy, SE.;** Hokam, E.; Schmidhalter, U. **2008.** Drip irrigation frequency: the effects and their interaction with nitrogen fertilization on sandy soil water distribution, maize yield and water use efficiency under Egyptian conditions. **Journal of Agronomy and Crop Science 194:180-194. Blackwell verlag publishing**

32) El-Barmawy, M.; **El-Hendawy, SE;** Saban, W. **2008.** Assessing the suitability of morphological and phenological traits to screen sesame genotypes for fusarium wilt and charcoal rot disease resistance. **Journal of Plant Protection Research. 48: 397-410.**

33) Ruan, Y.; **El-Hendawy, SE.;** Hu, Y.; Schmidhalter U. **2007**. Differential effect of moderate salinity on growth and ion contents in mainstem and subtillers in two wheat genotypes. **Soil Sciences and Plant Nutrition 53(6): 782-791. Blackwell verlag publishing**

34) **El-Hendawy, SE**.; Hu, Y.; Schmidhalter, U. **2007.** Assessing the suitability of various physiological traits to screen wheat genotypes for salt tolerance. **Journal of Integrative Plant Biology 49: 1352-1360. Blackwell verlag publishing**

35) **El-Hendawy, SE**.; Hu, Y.; Schmidhalter, U. **2005.** Growth, ion content, gas exchange, and water relations of wheat genotypes differing in salt tolerances. **Australian Journal of Agricultural Research 56: 123-134. CSIRO publishing**

36) **El-Hendawy, SE**.; Hu, Y.; Yakout, G.M.; Awad, A.M.; Hafiz, S.E.; Schmidhalter, U**. 2005.** Evaluating salt tolerance of wheat genotypes using multiple parameters. **European Journal of Agronomy 22: 243-253. Science Direct publishing**

2. Papers published in refereed international book

37) **El-Hendawy, S.E**.; Alboghdady, M.; Schmidhalter, U. **2011** Saving water in arid and semi-arid countries as a result of optimising crop evapotranspiration (Eds), Giacomo Gerosa, **Evapotranspiration (Book 2). INTECH Open Access Publisher. Rijeka, Croatia 225-244.**

38) Hu, Y.; **El-Hendawy, SE**.; **2005.** Schmidhalter, U. What role does tillering play in wheat

tolerance to salinity? C.J. Li et al. (Eds), Plant nutrition for food security, human health and environmental protection. **Tsinghua University Press, 578-579.**

39) Ruan, Y.; **El-Hendawy, SE**.; Hu, Y., Schmidhalter, U. **2005**. Distribution of mineral nutrients between main stem and subtillers in contrasting wheat cultivars under saline conditions. C.J. Li et al. (Eds), Plant nutrition for food security, human health and environmental protection. **Tsinghua University Press, 596-597**.

3. Papers published in refereed local journals

40) Ahmed, M.S.H.; El-Barmawy, M.; **El-Hendawy, SE.;** Abd-El-Haleem, S.H.M. **2008.** Performance and clustering of sesame landraces (*Sesamum indicum* L.) under different conditions. Journal of **Agriculture Science Mansoura University 33 (11) 7747-7758.**

41) El-Hendawy, SE., Yakout, G., Awad, A., Sabry, M.. **2002.** Response of wheat crop to certain agriculture practices under new reclaimed land conditions I. Growth characteristics. **Journal of Egyptian. Applied. Science. 17(5):.15-25**.

42) El-Hendawy, SE., Yakout, G., Awad, A., Sabry, M., **2002**. Response of wheat crop to certain agriculture practices under new reclaimed land conditions II. Yield and yield components. **Journal of Egyptian. Applied. Science. 17(5):.26-29** (**2002**).