

## CURRICULUM VITAE



**Name:** Dr. Emad Mahmood Ghalib Al-Maarooof

**Title:** Chief Scientist "Professor"

**Specialty:** Plant Pathology "Mycology"

**Home Address:** Hawara Berza, Sec. 218, St.18, House No.23,  
Sulaimani, Iraq, Mobile. + 964 7703453905

**Mailing Address:** Crop Science Department, College of Agricultural  
Sciences, University of Sulaimani, Sulaimani, Iraq.

**E-mail:** [eammaarooof@yahoo.com](mailto:eammaarooof@yahoo.com); [emad.ghalib@univsul.edu.iq](mailto:emad.ghalib@univsul.edu.iq)

**Gender:** Male

**Religion:** Muslim

**Place of Birth:** Xanaqin, Diyala, Iraq.

**Date of Birth:** August 19, 1957.

**Marital Status:** Married

**Nationality:** Iraqi

**Languages:** Arabic, English, Kurdish, and Turkish

### Education:

- Ph.D., Plant Pathology "Mycology", College of Agriculture, University of Baghdad, Iraq, 1997.
- M.Sc., Plant Pathology "Mycology", College of Agriculture, University of Baghdad, Iraq, 1984.
- B.Sc., Plant Protection, College of Agriculture, University of Baghdad, Iraq, 1980.

### Thesis Titles:

- **Ph.D. Thesis:** Variety mixtures role in disease control of wheat rusts caused by *Puccinia recondita* and *P. striiformis* in Iraq.
- **M.Sc. Thesis:** Stone fruit trees decline caused by *Phytophthora dreschlehri* Tucker.

**Experience:** Disease management and control.  
Genetics of host and parasite interactions.  
Virulence analysis and race identification of rust and Smut fungi.  
Postulation of resistance genes in cereal crops.  
Breeding for disease resistance in cereal crops.  
Mutation breeding in cereals and legumes.  
Crop improvement and cultivar maintenance.  
Supervising and teaching postgraduate students advance Plant pathology, Advance Mycology, Epidemiology, Integrated Pest Management, Physiology of fungi, Pesticides, Techniques in plant pathology, Seed pathology, and Physiological plant pathology and Taxonomy of fungi courses.  
Teaching under graduate students General Plant Pathology, Field Crop disease, Horticulture diseases, Diseases of Fruit and Vegetables, General Microbiology and Green house disease courses.

**Employment History:**

- 2015-Till Now: National focal point for cereal diseases in Iraq with international scientific communities.
- 2013-2014: Head of ICARDA, Erbil office in IKR, Iraq.
- 2013-2014: Coordinator of ICARDA/HSAD (Harmonized Support for Agricultural Development) in IKR, Iraq.
- 2012-Till Now: Assistant Professor, Horticulture Department, Faculty of Agricultural Sciences, Sulaimani University.
- 2009-2013: Scientific advisor and rust activity leader within the IPM, Iraq-ICARDA-IFAD PROJECT (IFAD GRANT NO.1001-1Q).
- 2008-Till Now: Scientific leader of Global Rust Initiative Program in Iraq.
- 2009-Till Now: Head of the National Rust Surveillance Team in Iraq.
- 2007-2012: Lecturer, Horticulture Department, Faculty of Agricultural Sciences, Sulaimani University.
- 2003-2007: Head of Plant Pathology Department, Agriculture and Food Technology Directorate, Ministry of Science and Technology.
- 2003-2007: Scientific Board of Plant Pathology Department, Agriculture and Food Technology Directorate, Ministry of Science and

- Technology.
- 2003-2007: Chief Scientific Researcher, "Professor". Agriculture and Food Technology Center, Ministry of Science and Technology.
- 2006-2007: Head of tender analysis committee, Agriculture and Food Technology Directorate, Ministry of Science and Technology.
- 2006-2011: Iraq representative for Arab Society of Plant Protection.
- 1997-2003: Head of Plant Pathology Section, Agriculture and Biological Research Center, Iraqi Atomic Energy Commission.
- 1997-2003: Principal Scientific Researcher, "Assistant Professor" Agriculture and Biological Research Center, Iraqi Atomic Energy Commission.
- 2001-2001: Fellowships for seven month to the International Maize and Wheat Improvement Center "CIMMYT", Mexico on Wheat improvement project.
- 1997-Till Now: Project leader of Cereal improvement for disease resistance in Iraq.
- 1997-Till Now: Consultant to Iraqi Ministry of Agriculture on wheat rust diseases in Iraq.
- 1984-1997: Scientific Researcher, Agriculture and Biological Research Center, Iraqi Atomic Energy Commission.
- 1981-1983: Teaching Assistance, College of Agriculture, University of Baghdad, Iraq.
- 2007-2010: Scientific Board of Faculty of Agricultural Sciences, Sulaimani University.
- 2007-2011: Scientific Board of Horticulture Department, Faculty of Agricultural Sciences, Sulaimani University.

### **Journals Editorial Board and Reviewer:**

#### **Editorial Board.**

- 2011-Till Now: Editorial Board of Field and Vegetable Crop Research Journal "Ratar. Povrt."
- 2015-Till Now: Editorial Board of Arab Journal of plant Protection.

#### **Reviewer.**

- 2015-Till Now: Pakistan Journal of Phytopathology.
- 2015-Till Now: Pure and Applied Biology.
- 2015-Till Now: Journal of Zankoy Sulaimani-Part A.
- 2014-Till Now: Wheat Research Journal.

2011-Till Now: Field and Vegetable Crop Research Journal “Ratar. Povrt”  
2005-Till Now: Mesopotamia Journal of Agriculture.  
1997-Till Now: Arab Journal of Plant Protection.  
1997-Till Now: Iraq Journal of Agriculture.  
1995-Till Now: The Iraqi Journal of Agricultural Sciences.

### **Society Memberships:**

1. Society for Advancement of Wheat and Barley Research, since 2015
2. International Association for the Plant Protection Sciences, since 2014
3. American Phytopathological Society, since 2008.
4. Mediterranean Phytopathological Union, since 2004.
5. Arab Society for Plant Protection, since 2000.
6. Iraqi Field Crops Committee, since 1995
7. Iraqi Society for plant protection, since 1993.
8. Iraqi Biological Society, since 1982.
9. Society of Iraqi Agricultural Engineers, since 1980

### **Accomplishment:**

1. Registration and release of **three** new resistant bread wheat cultivar “Al-MAAROOF”, “HSAD” and “ALAA” for irrigated and rain-fed areas in Iraq, 2015.
2. Registration and release of **one** new resistant bread wheat cultivar “FARRIS 1” for irrigated area in Iraq, 2012.
3. Registration and release of **three** new bread wheat cultivars “Al-IRAQ”, “RASHEED”, and “Uruk” for irrigated area in Iraq 1999-2001.
4. Registration and release of **Four** new bread wheat cultivars “RABIA”, “SALI”, “Al-IZE 66, and “Al-Noor” for irrigated and rain-fed areas in Iraq, 1994-1997.
5. Registration and release of **Four** new bread wheat cultivars “ TAMUZ 2”, “TAMUZ 3”, “IRATOM”, and “INTSAR”, for irrigated and rain-fed areas in Iraq, 1992-1993.
6. Registration and release of **Four** new barley cultivars “ SAMIR”, “SHUAA”, “TWETHA”, and “BARAKA” for Iraqi conditions, 1992-1994.
7. Registration and release of **One** new barley cultivars “Al-KHAIR” for Iraqi conditions, 2000.

8. Registration and release of **three** new rice cultivars “ANBAR BAGHDAD”, “ANBAR FURAT”, and “ANBAR MANATHERA” for Iraqi conditions, 1994-1995.
9. Attending more than 100 international, Regional and national meetings and conferences.
10. Publication more than 80 scientific papers.

### **Honors and Awards:**

1. Outstanding Research team Award in 2011, for the project entitled “Improved livelihoods of small farmers in Iraq through integrated pest management and organic fertilization” IPM/OF/IFAD funded project, ICARDA, Aleppo, Syria, 2011.
2. Arab Organization for Agricultural development Prize for scientific innovation in Agricultural Field (Second Degree) for the project entitled "Definition of the genetic map of resistance to brown rust disease in Iraqi bread wheat" Arab Organization for Agricultural development, Khartoum, Sudan, 2008.
3. Mesopotamia Agriculture Award (Second Degree) for the project entitled "Induction of five wheat mutant cultivars by nuclear techniques" Ministry of Agriculture and Irrigation, Baghdad, Iraq, 1993.
4. Mesopotamia Agriculture Award (Second degree) for the project entitled “Induction of two Barley mutant cultivars by Irradiation" Ministry of Agriculture and Irrigation, Baghdad, Iraq, 1993.
5. Iraq Agriculture science award (3rd degree) for the project entitled "Induction of two wheat mutant cultivars resistant to leaf rust and Suitable for semi arid zones in Iraq" Ministry of Agriculture and Irrigation, Baghdad, Iraq, 1996,
6. Iraqi meeting day awards (3rd degree) for the project entitled "The use of variety mixtures in rust disease control of wheat", Iraqi Atomic Energy Commission "IAEC", Baghdad, Iraq, 2000.
7. Jabber Bin Heian Award (3rd degree), Iraqi Atomic Energy Commission "IAEC", Baghdad, Iraq, 1992.
8. Many appreciations and thanks letters from authorities and companies.

## Advisory:

1. Advisor of M.Sc. thesis of Nawzad Omer entitled “Molecular characterization and investigation of BYDV’s isolates from wheat fields of Iraqi Kurdistan region by multiplex RT- PCR.” College of Agricultural, Uzuncu Yil University, Qoina, Turkey, 2016.
2. Advisor of M.Sc. thesis of Mohammed Mahmood Abd Alelah entitled “ Performance of some wheat and triticales cultivars under rain fed areas. College of Agricultural, University of Anbar, Baghdad, Iraq, 2016.
3. Advisor of M.Sc. thesis of Narmeen Mohammed entitled “ Identification of cucumber damping-off pathogens in Sulaimani plastic houses and disease control. Faculty of Agricultural Sciences, Sulaimani University, Sulaimani, Iraq, 2016.
4. Advisor of Ph.D. thesis of Sattar Aziz Shamsalleh entitled “Induced resistance to wheat bunt disease by chemical and biological agents and determination of genetic variation in pathogen isolates, College of Agriculture, University of Baghdad. Baghdad, Iraq, 2015.
5. Advisor of Ph.D. thesis of Abdul Hamid Fiahd entitled “ Genetic variation in *Puccinia striiformis* West. f.sp. *tritici* population, the causal agent of wheat yellow rust and some control measures in Iraq, College of Agriculture, University of Baghdad. Baghdad, Iraq 2014.
6. Advisor of M.Sc. thesis of Asoda Mohammed Al-Bajalan entitled “Studies on some economic importance and epidemic aspects of wheat yellow rust in Sulaimani province. College of Science, Sulaimani University, Sulaimani, Iraq, 2012.
7. Advisor of M.Sc. thesis of Pshtiwan Saeed Zardki entitled “Isolation and identification of *Brenneria nigrifluens* as a causal agent of bark canker disease on Walnut in Sulaimani province. College of Agriculture, University of Sulaimani. Sulaimani, Iraq, 2010.
8. Advisor of M.Sc. thesis of Ali Imad Al-Azawi entitled “Epidemiological studies of wheat leaf rust and its effect on quantitative and qualitative characters of grains”. College of Agriculture, University of Baghdad. Baghdad, Iraq, 2005.
9. Advisor of M.Sc. thesis of Sattar Aziz Shams Allah entitled “Biological and protection studies of covered smut disease of

wheat in Iraq. College of Agriculture, University of Baghdad. Baghdad, Iraq, 2005.

## **Training and Scientific Visits:**

### **a. International Training & Scientific Visits.**

1. The regional surveillance workshop, April 21-23, 2011, ICARDA, Aleppo, Syria.
2. Specialized Training Course in Race Identification of Rust Diseases. from 20April to 11May, 2000. The International Center for Agricultural Research in the Dry Areas "ICARDA", Aleppo, Syria, 2000.
3. 2nd course on Standardization of Stem Rust, Note Taking and Evaluation of Germplasm, October 5-12, 2010. KARI, Nojoro, KENYA.
4. Scientific Visit to the Nuclear Institute of Agriculture " NIA", Pakistan Atomic Energy Commission from 31 July to 5 August, 2006. Tandojam, Pakistan, 2006.
5. Scientific Visit to the International Crop Research Institute for the Semi-Arid Tropics "ICRISAT" from July 24–30, 2006. Hyderabad, INDIA, 2006.
6. Scientific Visit to the Research Institute of Crop Production from June 11–18, 2006. Prague, Check Republic, 2006.
7. Wheat Improvement Training Course from February 19 to August 23, 2001. The International Maize and Wheat Improvement Center "CIMMYT". El-Betan, Mexico, 2001.

### **b. National Trainings.**

1. Teaching Methods Course, December 16/2011 to March 26, 2012, Sulaimani University, Iraq.
2. Computer Professional Course, October 10 to December 12, 2000. Baghdad, Iraq.
3. Bargain Science Course, September 23–27, 2000, Baghdad, Iraq.
4. Windows Operating System, February 19–25, 2000, Baghdad, Iraq.
5. Basic Programming Course, January 2–14, 1993, Baghdad, Iraq.
6. Scientific Research Management Course, March 17–26, 1990, Baghdad, Iraq.
7. Advance English Language Course, August 14–31, 1989, Baghdad, Iraq.
8. Health Insurance Course, July 18–27, 1989, Baghdad, Iraq.

9. Plant Breeding and Improvement Course, October 29–31, 1998, Baghdad, Iraq.
10. Health Physics Course, March. 27–30, 1988, Baghdad, Iraq.
11. Security Insurance of Employer’s Course, Nov. 28 to Dec. 3, 1987, Baghdad, Iraq.
12. Experimental Design Course, July 12–30, 1986, Baghdad, Iraq.
13. IPM, operating System, May 4–9, 1985, Baghdad, Iraq.
14. Graduate’s training Course, March 2–23, 1985. Baghdad, Iraq.

### **Meetings Attendance:**

#### **a. Regional and International Meetings.**

1. 6<sup>th</sup> International Conference and Workshop of Basic Science, March 18-19, 2017. Erbil, KRG, Iraq. (Oral Presentation).
2. 6<sup>th</sup> International Plant Protection Congress, Konya, September 5-8, 2016. Turkey. (Oral Presentation).
3. 19<sup>th</sup> International Workshop on Smuts and Bunts, Izmir, May 3-6, 2016. Turkey. (Oral Presentation).
4. 5<sup>th</sup> International Conference of Pakistan Phytopathological Society, November 23-25, 2015, Punjab University, Lahore, Pakistan. (Oral Presentation).
5. 6<sup>th</sup> International Scientific Agriculture Symposium (Agrosym2015), October 15-18 Jahorina Mountains, Bosnia and Herzegovina. (Oral Presentation).
6. 9<sup>th</sup> International Wheat Conference, September 21-26 September 2015, Sydney, Australia. (Poster presentation).
7. Borlaug Global Rust Initiative (BGRI) 2015 Workshop, September 12- 20, 2015, Sydney, Australia. (Poster presentation).
8. 18<sup>th</sup> International Plant Protection Congress, 24-27 August 2015, Berlin, Germany.
9. 14<sup>th</sup> International Cereal Rust and Powdery Mildew Conference, 5-8 July 2015, Helsingor, Denmark. (Poster presentation).
10. 11<sup>th</sup> Arab congress of Plant Protection, November 9-13, 2014, Aman Jordan. (Oral Presentation).
11. Side Event ‘Monitoring and Surveillance of Cereal Crops’ Pests, Diseases and Weeds in CWANA Region’ in the 2<sup>nd</sup> International Wheat Stripe Rust Symposium, 30 April 2014, Izmir, Turkey. “ Oral Presentation”.



12. 2nd International Wheat Stripe Rust Symposium, May 28- 1 April 2014, Izmir, Turkey. (Poster presentation).
13. Borlaug Summit of Wheat for food Security March 25-28, 2014, Ciudad Obregon, Mexico. (Attendance).
14. Borlaug Global Rust Initiative 2014 Technical Workshop, March 22 - 25, 2014, Ciudad Obregon, Mexico. (Poster presentation).
15. Final Workshop and Steering Committee Meeting on the improved livelihoods of small farmers in Iraq through integrated pest management and organic fertilization, IRAQ-ICARDA-IFAD PROJECT (IFAD Grant 1240- ICARDA), February 9-10, 2014, Amman, Jordan. (One presentation).
16. 10<sup>th</sup> International Congress of Plant Pathology (ICPP 2013), August 25-30, 2013, New Delhi, India. (Poster presentation).
17. Borlaug Global Rust Initiative 2013 Technical Workshop, August 19 - 22, 2013, New Delhi, India. (Poster presentation)
18. Borlaug Global Rust Initiative 2012 Technical Workshop, September 1 - 4, 2012, Beijing, China. (Poster presentation)
19. 13<sup>th</sup> International Cereal Rust and Powdery Mildew Conference, 28 August - 1 September 2012. Beijing, China. (Poster presentation)
20. Fourth Technical Planning Meetings on the improved livelihoods of small farmers in Iraq through integrated pest management and organic fertilization, IRAQ-ICARDA-IFAD PROJECT (IFAD GRANT NO. 1001-1Q), February 5-8, 2012, Amman, Jordan. (Two presentations).
21. Borlaug Global Rust Initiative 2011 Technical Workshop, June 13-16, 2011, St. Paul, Minnesota, USA. (Poster presentation)
22. The regional surveillance workshop, April 21-23, 2011, ICARDA, Aleppo, Syria.
23. International Wheat Stripe Rust Symposium, April 18-20, 2011, ICARDA, Aleppo, Syria. (Oral Presentation).
24. Third Technical Planning Meetings on the improved livelihoods of small farmers in Iraq through integrated pest management and organic fertilization, IRAQ-ICARDA-IFAD PROJECT (IFAD GRANT NO. 1001-1Q), February 6-10, 2011, Aleppo, Syria. (Two presentations).
25. The 8<sup>th</sup> International Wheat Conference, June 1-4, 2010, St. Petersburg, Russia.( Abstract)
26. Borlaug Global Rust Initiative Technical Workshop, May 30-31, 2010, St. Petersburg, Russia. (Abstract)
27. Iraq wheat rusts coordination meeting organized by FAO, ICARDA and ACPP, ICARDA, Aleppo Syria 22-23 February 2010. (One presentation).

28. The 2<sup>nd</sup> Technical Planning Meetings on the improved livelihoods of small farmers in Iraq through integrated pest management and organic fertilization, IRAQ-ICARDA-IFAD PROJECT (IFAD GRANT NO. 1001-1Q), February 6-7, 2010, Amman, Jordan. (Two presentations).
29. The 5<sup>th</sup> International Conference on Plant Pathology, November 10–13, 2009. New Delhi, India.(Abstract)
30. The 10<sup>th</sup> Arab Congress of Plant Protection, October, 26–30, 2009.Beruit, Lebanon.(Abstract)
31. Fourth Regional Yellow Rust Conference for Central and west Asia and North Africa, October, 10–12, 2009. Antalya, Turkey. (Abstract)
32. The 9<sup>th</sup> International Congress of Plant Pathology, August 24–29, 2008. Torino, Italy. (2 Abstract)
33. The 9<sup>th</sup> Arab Congress of Plant Protection, November 19–23, 2006. Damascus, Syria. (Abstract)
34. The 12<sup>th</sup> Congress of the Mediterranean Phytopathological Union, 11–15, 2006. Rhodes Island, Greece (Full Paper).
35. The 15<sup>th</sup> Biennial Workshop on the Smut Fungi, June 11–14, 2006. Prague, Czech Republic. (Full Paper).
36. The 7<sup>th</sup> International Wheat Conference, Nov. 27 to Dec., 2, 2005. Mar del Plata, Argentina. (Abstract).
37. The 2<sup>nd</sup> International Conference for Development and the Environment in the Arab World, March 23–25, 2004. Assiut, Egypt. (Full Paper).
38. The 11<sup>th</sup> International Cereal Rust and Powdery Mildew Conference, August 22–27, 2004. Norwich. United Kingdom. (Abstract).
39. The 14<sup>th</sup> Biennial Workshop on the Smut Fungi, June 23–25, 2004. June 23–25, 2004. Idaho, USA. (Abstract).
40. The 15<sup>th</sup> International Plant Protection Congress, May 11–16, 2004. Beijing, China. (Abstract).
41. The 8<sup>th</sup> International Congress of Plant Pathology (ICPP), February, 2–7, 2003. Christchurch, New Zealand. (Abstract).
42. International symposium on Barely Yellow Dwarf Virus Disease, September 1–5, 2002. Texcoco, Mexico. (Abstract).
43. The 12<sup>th</sup> Australian Plant Breeding Conference, September, 15–20, 2002. Perth, Western Australia. (Abstract).
44. The Warner E. Kronstand Commemorative Symposium, March, 15–17, 2001. Ciudad Obregon, Sonora, Mexico. (Attendance).
45. The 8<sup>th</sup> Iraq/ICARDA Bi-Annual Coordination Meeting. 2001. Baghdad, Iraq. (Attendance).
46. The 6<sup>th</sup> International Wheat Conference, October 18–19, 2000.

- Budapest, Hungary. (Abstract).
47. The 7<sup>th</sup> Arab Congress of Plant Protection, October 22–26, 2000. Amman, Jordan. (Abstract).
  48. ICARDA's Presentation Day, April 25, 2000. Aleppo, Syria. (Attendance).
  49. The 7<sup>th</sup> Iraq/ICARDA Bi-Annual Coordination Meeting. October 18–19, 1999. Baghdad, Iraq. (Attendance).
  50. The 4<sup>th</sup> Arab Conference on the Peaceful Uses of Atomic Energy, November 14–18, 1998. Tunisia. (Full Paper).
  51. Seminar on Sustainable Wheat Production in Iraq, September, 16, 1998. Baghdad, Iraq. (Attendance).
  52. World Food Day 16 October 1997 and 1998, Baghdad, Iraq. Organized by Food and Agriculture Organization of the United Nations. (Attendance).
  53. The 8<sup>th</sup> Arab Congress of Biological Sciences and the Jordanian Society for Biological Sciences, November 8–11, 1997. Amman, Jordan. (Abstract).
  54. The 6<sup>th</sup> Arab Congress of Plant Protection, October 27–31, 1997. Beirut, Lebanon. (Abstract).
  55. The 5<sup>th</sup> Arab Congress of Plant Protection, October 23–29, 1994. Morocco. (Abstract).
  56. Seminar on the Use of Irradiation for Developing Improved Agricultural Generations, December 18–20, 1993. Baghdad, Iraq. (Abstract).
  57. Workshop on Technology Transfer in the Production of Cereals and Legumes, September 20–22, 1993. Baghdad, Iraq. (Full Paper)
  58. The 4<sup>th</sup> Arab Congress of Plant Protection, December 1–5, 1991. Cairo, Egypt. (Abstract).
  59. The Second Scientific Conference of Iraqi Atomic Energy Commission, November 21–30, 1989, Baghdad, Iraq. (Abstract).
  60. The 5<sup>th</sup> Arab Scientific Conference for Biological Sciences, November 6–9, 1989, Baghdad, Iraq. (Abstract).
  61. The 6<sup>th</sup> International Congress of the Society for the Advancement of Breeding Researches in Asia and Oceania (SABRAO), August, 21–25, 1989. Tsukuba, Japan. (Full Paper)
  62. The First Arab Scientific Conference for Biological Sciences, April 21–24, 1980, Baghdad, Iraq. (Attendance).

**b. National Meetings.**

1. Panel Discussion of college of Agricultural Sciences. May 25, 2017, College of Agricultural Sciences, University of Sulaimani, IKR, Iraq.
2. Agricultural Cooperation with Check Republic Workshop, March 29, 2017 at High Crest Hotel, Sulaimani, KRG, Iraq.
3. Climate Change and Resilient Livelihood Workshop, Dec.15, 2016 at RAMADA Hotel, Sulaimani, Iraq. (Two presentations)
4. Agriculture Conference of Sulaimani, June, 4, 2016, Ramada Hotel, Sulaimani, IKR, Iraq.
5. Harmonized Support for Agriculture development (HSAD) Project Information Communication Technology in Extension Workshop, Nov. 3-5, 2013, MOAWR, Erbil, Iraq.
6. Harmonized Support for Agriculture development (HSAD) Project Base Line Survey Workshop, Sept. 1-5, 2013, MOAWR, Erbil, Iraq.
7. Harmonized Support for Agriculture development (HSAD) Project Implementation Follow-up Workshop and Field visits, Agronomy and livestock/Rangeland Activities, May 7-9, 2013, MOAWR, Erbil, Iraq.
8. Harmonized Support for Agriculture development (HSAD) Project Extension Workshop, April 28-30, 2013, MOAWR, Erbil, Iraq.
9. Integration between Organic and biological fertilization with IPM to control wheat, Date palm and Chick pea Pest Workshop, 13, June, 2013, MOA, Baghdad, Iraq. (One Presentation).
10. 1<sup>st</sup> ICARDA-HSAD Technical Meeting, 2013, Sheraton, Baghdad, Iraq.
11. Harmonized Support for Agriculture development (HSAD) Project Inception Meeting, January 15-17, 2013, Sheraton, Baghdad, Iraq.
12. 1<sup>st</sup> Scientific Agricultural Conference. Faculty of Agriculture & Forestry, Duhok University, April 10-12, 2012, Duhok, Iraq. (Full Paper)
13. Integrated Pest Management Course, April 2012. JIACA, Erbil, Iraq.
14. Wheat Rust Training Course, February 28-30, 2012. Ministry of Agriculture, Baghdad, Iraq. (Four Presentations).
15. 1<sup>st</sup> Regional Rust Workshop, October 17-18, 2011, Erbil, Iraq. (Three Presentations).
16. 5<sup>th</sup> Scientific Conference of College of Agriculture, Tikrit University, April, 26-27, 2011, Tikrit, Iraq. (Full Paper)
17. 3<sup>rd</sup> National Ug99 Workshop December 22-23, 2010. Ministry of Agriculture, Erbil, Iraq. (Two Presentations).
18. 1<sup>st</sup> International Conference of Plant Protection, November 29-30, 2010. Mosul, Iraq. (Two Full Paper)

19. 3<sup>rd</sup> Integrated Pest Management Workshop in Cooperation with ICARDA, September 23, 2010, Adhemia, Baghdad, Iraq.
20. 2<sup>nd</sup> National Ug99 Workshop April 19, 2010. Ministry of Agriculture, Baghdad, Iraq. (One Presentation).
21. 1<sup>st</sup> National Ug99 Workshop 28 October 2009, Baghdad-Iraq.
22. The 7<sup>th</sup> Scientific Conference for Agricultural Research, Ministry of Agriculture, October 19-21, 2009. Baghdad, Iraq. (Full Paper).
23. 2<sup>nd</sup> Integrated Pest Management Workshop in Cooperation with ICARDA, March 12, 2009, Baghdad, Iraq.
24. The 1st Conference of Agriculture Sector for Strategic Plan in Kurdistan Region, January 27–28, 2009. Irbil, Iraq.
25. The 4<sup>th</sup> Scientific Conference of Agriculture, April 29-30, 2008. Tekrit, Iraq. (Two Full Papers).
26. The 5<sup>th</sup> Scientific Conference of Agricultural Research, February 22-24, 2003. Baghdad, Iraq. (Full Paper).
27. The 2<sup>nd</sup> National Scientific Conference for Biological Sciences, December 25-26, 2002. Baghdad, Iraq. (Abstract).
28. The 2<sup>nd</sup> National Scientific Conference for Plant Protection, April 23-24, 2002. Baghdad, Iraq. (Abstract).
29. The First National Scientific Conference for Biological Sciences, January 9-10, 2001. Anbar, Iraq. (Full Paper).
30. The 3<sup>rd</sup> Scientific Conference of Agricultural Research, February 5-7, 2001. Baghdad, Iraq. (Full Paper).
31. The First National Workshop for Biological Control of agricultural Pests, November 25-26, 2000. Baghdad, Iraq. (Attendance).
32. The First National Scientific Conference for Plant Production, November 21-22, 2000. Tekrit, Iraq. (Abstract).
33. The First Scientific Conference for Plant Protection, November 20-21, 2000. Baghdad, Iraq. (Abstract).
34. The General Scientific Union Conference, November 13-16, 2000. Baghdad, Iraq. (Attendance).
35. The 3<sup>rd</sup> Scientific Conference of Education College, Diyala University, April 23-24, 2000. Diyala, Iraq. (Abstract).
36. The 7<sup>th</sup> Scientific Conference for Foundation of Technical Institutes, May, 7-8, 2000. Baghdad, Iraq. (Full Paper).
37. The First Scientific Conference of Agricultural Research, April, 4-5, 1999. Baghdad, Iraq. (Abstract).
38. The 15<sup>th</sup> Scientific Conference of Iraqi Biological Society, October, 26-27, 1999. Tekrit, Iraq. (Abstract).

39. The 4<sup>th</sup> Scientific Conference of the Higher Scientific Societies Council, October 26-28, 1993. Babylon, Iraq. (Full Paper).
40. The 8<sup>th</sup> Iraqi Agricultural Engineers Syndicate Conference, November 16-18, 1993. Baghdad, Iraq. (Abstract).
41. The First Scientific Conference of Field Crops Research, April 15-17, 1993. Baghdad, Iraq. (Full Paper).
42. The 7<sup>th</sup> Iraqi Agricultural Engineers Syndicate Conference, December 3-5, 1991. Baghdad, Iraq. (Attendance).
43. The 2<sup>nd</sup> Scientific Conference of Science College, November, 20-21, 1992. Baghdad, Iraq. (Abstract).
44. The 12<sup>th</sup> Scientific Conference of Iraqi Biological Society, February, 18-20, 1992. Babylon, Iraq. (Abstract).
45. The 3<sup>rd</sup> Scientific Conference of Scientific Council Unions, December 21-23, 1991. Tekrit, Iraq. (Abstract).
46. The 6<sup>th</sup> Scientific Conference of Iraqi Microbiological Society, November 27-28, 1990. Baghdad, Iraq. (Abstract).
47. The 11<sup>th</sup> Scientific Conference of Iraqi Biological Society, February 20-22, 1990. Basra, Iraq. (Abstract).
48. The 5<sup>th</sup> Scientific Conference of Scientific Research Council, October 7-11, 1989. Baghdad, Iraq. (Full Paper).
49. The 10<sup>th</sup> Scientific Conference of Iraqi Biological Society, November 22-24, 1988. Baghdad, Iraq. (Abstract).
50. The 9<sup>th</sup> Scientific Conference of Iraqi Biological Society, April 21-23, 1987. Mosul, Iraq. (Abstract).
51. The 4<sup>th</sup> Scientific Conference of Scientific Research Council, October 23-28, 1986. Baghdad, Iraq. (Abstract).
52. The 4<sup>th</sup> Scientific Conference of Scientific Research Council, October 23-28, 1985. Baghdad, Iraq. (Full Paper).
53. The 8<sup>th</sup> Scientific Conference of Iraqi Biological Society, April 1-3, 1987. Arbil, Iraq. (Abstract).

#### **LIST OF PUBLICATIONS:**

1. Al-Maarroof, E.M., 2017. Identification of *Puccinia graminis* f. sp. *tritici* physiological races in Iraq. *Journal of wheat research*. 9:47-53.
2. Al-Maarroof, E.M., R.M. Ali, H.A. Mohamed and T.M. Aziz, 2016. Searching for resistance sources to wheat common bunt disease and efficiency of Bt genes against the Pathogen. *Agriculture and Forestry Journal*, 62: 175-186.

3. Shamsulleh, S.A. E.M. Al-Maarroof, and M.S. Hassan, 2016. Effect of some induce chemical and biological agents against (*Tilletia tritici* (Bjerk) and *T.laevis* (Kühn) causal agents of wheat Common bunt disease. *Baghdad Science Journal*, 13: 253-260.
4. Al-Maarroof, E.M., S.A. Shamsulleh and M.S. Hassan, 2015. Genetic variation in *Tilletia tritici* and *T. laevis* isolates, the causal agents of wheat common bunt disease in Iraq. *Arab Journal of Plant Protection*, 33:272-279.
5. Al-Maarroof, E.M., M. Hovmoler, R.M. Ali, H.A. Mohamed, A. Naser, and L.O. Mohammed, 2015. Detection of Yr27 virulence in *Puccinia striiformis* f.sp. *tritici* population on wheat in Iraq. *Journal of wheat research*. 7:39-47.
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