#### **RESUME**

ZUHAIR AZIZ STEPHAN
2571 Old Quarry Rd.
Apt.# 2006
San Diego, California 92108
Tel. 619-504-3636 Cell
619-280-4940 Home
zuhairstephan@yahoo.com

## 1- Date & Place of Birth, Native Country:

12 / 10 / 1942 Baghdad, Iraq. Iraqi

## 2- Educational Qualifications:

- a- B.Sc. Agriculture College, Baghdad University, Baghdad, Iraq, 1965.
- b- M.Sc. Macdonald College, McGill University, Montreal, Canada, 1980.
- c-Ph.D. Dundee University, Dundee, Scotland, UK., 1983.

## 3- Field Speciality:

- a- Major Speciality: Plant Pathology.
- b- Minor Speciality: Plant Nematology.
- c- Research Experience: 40 years.
- d- Teaching Experience: 30 years.

## 4- Contribution in the Field of ResearchSpecialization:

- a- Collaborator for the International Meloidogyne Project (IMP), a world wide net work of Nematologists coordinated by Dr.J.N.Sasser of North Carolina State University.
- b- Collaborator Expert Consultation on Plant Nematode problems and their control in the Near East Region.

# 5- Recent Advance made in the Field of Research Specialization:

For the First time in the world and Iraq, New Races of the Root knot nematode, *Meloidogyne javanica* and Ear-Cockle Nematode *Anguina tritici* were identified.

#### 6- Number of Students Guided:

- a- Jamal Fadhil Wuhaib Al-Obeidy. M.Sc., 1985.
- b- Hussain Ali Al-Saaedy, M.Sc. 1985.
- c- Riyadh Talib Jassim, M.Sc. 1998.
- d- Iftikhar Mossa Jbarra, M.Sc. 2002.
- e- Bassima George Antoon, M.Sc., 2005.
- f- Ahmad Kadhim Abd Al-Hadi, Ph.D., 1998.

## 7- Professional Training Courses:

- a- Expert counterpart with Dr.A.R.Maggenti, University of California (1965-1966), 8 months.
- b- In the Department of Nematology, Cairo University, Egypt (1968-1969), 3 months.
- c- Expert counterpart with Dr.A. Vilardebo, FAO Expert (1969), 9 months.
- d- In Station de Recherches sur les nematode, Antibe, France. (1970-1971), 6 months.

#### 8- Professional Scientific Conferences Attended:

- a- First Scientific Conference, Ministry of Higher Education and Scientific Research, Baghdad, Iraq. 1972.
- b- First Plant Pathology Conference, Cairo, Egypt. 1973.
- c- Nematode Transmitting Virus Diseases Conference, Bari, Italy.
   1974.
- d- Second Scientific Conference, Ministry of Higher Education and Scientific Research, Baghdad, Iraq. 1975.
- e- Iraqi Agricultural Engineering Union, Baghdad, Iraq. 1975.
- **f-** Eighth International Plant Protection Conference, Moscow, USSR. **1976.**
- g- Planning Conference for the Middle East Center, International Meloidogyne Project (IMP), Cairo, Egypt. 1978.
- h- Planning Conference for the Middle East Center, International

- Meloidogyne Project (IMP), Athens, Greece. 1979.
- i- Concepts in Nematode Systematics, Cambridge, UK. 1981.
- j- Sixth International Symposium of the European Society of Nematologists. St. Andrews, Scotland, UK. 1982.
- k- First Scientific Conference of the State Board for Agricultural Research, Ministry of Agriculture, Baghdad, Iraq. 1984.
- 1- Nematodes parasitic to cereals and legumes in Temperate and Semi-Arid Regions. Larnaca, Cyprus. 1987.
- m-First International Conference on soil solarization. Amman, Jordan. 1990.
- n- Expert consultation on the nematode problems and their control in the Near East Region, Karachi, Pakistan. 1992.
- o- Twenty-second International Symposium of the European Society of Nematologists. Gent, Belgium. 1994.
- p- Regional training course for organizing research management, Cairo, Egypt. 1996.
- q- First Conference of Biology. College of Ibn Al-Haitham, Baghdad University. 1998.
- r- First Scientific Conference of the Agricultural Research. Ministry of Agriculture, Baghdad, Iraq. 1998.
- s- Seventh Arab Congress Society of Plant Protection, Amman, Jordan. 2000.
- t- First National Workshop on Biological Control of Agricultural Pests. Baghdad, Iraq. **2000**.
- u- Third Scientific Conference of the Agricultural Research. Ministry of Agriculture, Baghdad, Iraq. 2000.
- v- Workshop and collaborative project planning meeting on biological control of pests and weeds for sustainable development, Bangalore, India. 2001.
- w- Forth Scientific Conference of the Agricultural Research. Ministry of Agriculture. Tikreet, Iraq. 2002.
- x- Fifth Scientific Conference of the Agricultural Research. Ministry of Agriculture, Mosul, Iraq. 2003.
- y- Study Tour to Australia. 2003.
- z- Study Tour to United State of America. 2004.

#### 9- Other Scientific Activities:

- a- Member of the committee to import potatoes from France, 1986.
- b- Member of the editorial board of Biovid Agricultural Journal in India. 1990.
- c- In-Charge of Agricultural Pests control sector for the National Program to improve the cultivation and yield of tomato in Iraq (1996-2004).
- d- Lecturer for under-graduate students in the College of Agriculture, Baghdad University, Baghdad.
- e- Lecturer for graduate students in the College of Agriculture, Baghdad University, Baghdad.
- f- Lecturer in the Training Agricultural Center, Ministry of Agriculture, Baghdad, Iraq.
- g- Chairman of the reprints committee for scientific promotion.
- h- Member of the National Pesticides Registration Committee.
- i- Member of the National Seeds Registration Committee.1999-2005.
- j- Chairman or member of the examining committee for graduate students.
- k- Head, Plant Protection Research Center, State Board for Agricultural Research, Ministry of Agriculture, Baghdad, Iraq. 1999-2003.
- j- Project Manager for the controlling Moroccan Locust and other pests (2000-2002).
- k- Chairman of the committee on biological control technology of insects and weeds (2001-2003).
- 1- Member of the Scientific Council in the Ministry of Agriculture.
- m-Member of the Social State in the Ministry of Agriculture.
- n- Member of the Ministerial council in the Ministry of Agriculture.
- o- Director General of the State Board for Agricultural Research, Ministry of Agriculture (2003-2004).
- p- Reporter of the permanent committee of the experts.
- q- Member of the Editorial board of the Iraqi Agricultural Journal.
- r- Member of the steering committee for the scientific conference of the Ministry of Agriculture,2004.

- s- Roll player (linguistic) since September 2006.
- t- Member of the Editorial Board of the Arab Journal of Plant Protection (2007-2009).
- u- Review Board Team Member of the Agriculture and Biology Journal of North America (ABJNA),2009.
- v- Passing R6 Sigma Course at Ft.Irwin, California, USA, 2010

#### 10-Scientific Prizes:

- a- Awarded "Mabayn El-Nahrain" Third prize for Agricultural Sciences by the Ministry of Agriculture in 1992.
- b- Awarded "Mabayn El-Nahrain" Third prize for Agricultural Sciences by the Ministry of Agriculture in 1993.

#### 11-Scientific Published Articles:

- a- Scientific principles to study the nematodes in the laboratory. Iraqi Agricultural J., 27: 23-38, 1972.
- b-The importance of the nematodes in Iraq and their practical control applications. Iraqi Agricultural J., 24-28. 1986.
- c- Citrus nematode diseases. Iraqi Agricultural J., 1&2: 25-29. 1986.
- d- The parasitic nematodes on vegetables. Iraqi Agricultural J., 1988.
- e- Wheat Ear-cockle nematode diseases. Extension Bull. 1988.
- f- Wheat and barley Ear-cockle nematodes. Extension Bull.,1995.
- g- Root-knot nematode, Meloidogyne spp., Extension Bull., 1998.
- h- White Fly. Extension Bull., 1998.
- i- Protection program for controlling the pests of tomato crop in Iraq. Iraqi Agric. J., 1: 36-39. 1999.
- j- Wheat and Barley Ear-cockle nematode *Anguina tritici*. Iraqi Agricultural J., 2 & 3: 34-36. 1999.
- k- Biological control of plant parasitic nematodes. Iraqi Agricultural J., 1 & 2: 36-39. 2000.
- 1- Integrated pest management of agricultural pests. Aloom, 2000.
- M- Vegetable Diseases under Green House Conditions.2007

#### 12- Published Books:

- a- Published A Book Entitled Tomato Pests in Iraq.1998.
- b- Plant Nematology in the Arab worlds, 2010.

- c- Dictionary of the scientific terms in the field of Plant Nematology from English to Arabic and French, 2010.
- d- Dictionary of the scientific terms in the field of Plant Pathology from English to Arabic, 2010.
- 13- Included in The Law of Scientific Patronage. 1999.
- 14- Nationality: I am holding an American Green Card and expecting to have the American Citizenship at the 3<sup>rd</sup> quarter of 2010.

#### 15- Research Publications:

I have published 90 research papers. Forty two of which appeared in the International Scientific Journals and the rest are published in the Iraqi Scientific Journals.

### 16- List of Publications:

- 1- Allow, J.M. and Z.A. Katcho. 1967. Nematode identification of sugarcane in Iraq. Plant D isease Reporter, 51: 809.
- 2- Katcho, Z.A. and J.M.Allow. 1968. Dagger nematode *Xiphinema index* on grapevines in Iraq. Plant Disease Reporter, 52: 626-627.
- 3- Katcho, Z.A. and J.M.Allow. 1969. Some new records of plant parasitic nematodes from Iraq. Bulletin Iraq Natural History Museum, University of Baghdad, 4: 15-20.
- 4- Katcho, Z.A. and J.M.Allow. 1969. Citrus-root nematode in Iran. Plant Disease Reporter, 53: 84.
- 5- Katcho, Z.A. 1972. First occurrence of certain root-knot nematode species in Iraq. Plant Disease Reporter, 56: 824.
- 6- Natour, R.M., J.M. Allow and Z.A. Katcho. 1975. The effect of DBCP on citrus root nematode and citrus growth and yield in Iraq. J. Nematology 7(3): 270-274.
- 7- Stephan, Z.A., A.H.Alwan and A.H.Bandar. 1975. Seasonal fluctuations on the population of citrus-root nematode, *Tylenchulus semipenetrans* Cobb, and their affect on citrus-root stocks. 8<sup>th</sup> International Plant Protection Conference, Moscow, USSR, Section II: 404-413.

8- Katcho, Z.A., A.H. Alwan and A.H. Bandar. 1976. Root-knot nematodes and their hosts in Iraq. Bulletin Natural History Research Center 7(1): 38-41.

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- 9- El-Haidari, H.S. and Z.A.Katcho. 1976. Plant Parasitic nematodes attacking fruit trees. FAO Plant Protection Bulletin 24: 54.
- 10- Al-Beldawi, A.S., Z.A. Stephan and A.H. Alwan. 1977. General survey of wheat gall nematode *Anguina tritici* in Iraq. Yearbook of Plant Protection Research, 1: 237-267.
- 11- Sl-Beldawi, A.S., Z.A. Stephan, A.H. Alwan and R.A. Al-Shally. 1977. Studies on the wheat gall nematode in Iraq. Yearbook of Plant Protection Research, 1: 268-283.
- 12- Stephan, Z.A., A.H.Alwan and A.S.Al-Beldawi. 1977. General survey of root-knot nematode disease on tobacco in Iraq. Yearbook of Plant Protection Research 1: 285-294.
- 13- Stephan, Z.A., A.H.Alwan and R.A.Al-Shally. 1977. Testing some tobacco varieties and nematicides against Meloidogyne spp., the cause of root-knot nematode disease. Yearbook of Plant Protection Research, 1: 295-304.
- 14- Stephan, Z.A., K.K.Al-Hassan and A.H.Alwan. 1977. Reaction of citrus root-stocks to citrus-root nematode population *Tylenchulus semipenetrans* Cobb. In Iraq. Yearbook of Plant Protection Research, 1: 320-331.
- 15- Al-Hassan, K.K., Z.A. Stephan, A.H. Alwan, and A.W. Hamadi. 1977. Testing some tomato varieties and nematicides against *Meloidogyne* spp. the cause of root-knot disease. Yearbook of Plant Protection Research, 1: 332-357.
- 16- Stephan, Z.A. 1979. The survey program of IMP Project in Iraq. IMP Proceedings of the second research planning conference on root-knot nematode *Meloidogyne spp*. Athens, Greece: 64-66.
- 17- Stephan, Z.A., A.H.Alwan, A.H.Bandar, B.G.Antoon and A.K.Ismail. 1981. General survey of plant parasitic nematodes on sugarcane in Iraq. Yearbook of Plant Protection Research, 2(2): 183-193.
- 18- Stephan, Z.A., M.H.Al-Hashimi and B.K. Waleed. 1981. Survey of Die-back and decline of citrus trees in Iraq. Yearbook of Plant Protection Research, 2(2): 195-203.
- 19- Stephan, Z.A., A.H.Alwan, A.H.Bandar, B.G.Antoon and A.K.Ismail. 1981. Controlling citrus-root nematode on citrus seedlings by chemicals. Yearbook of Plant Protection Research, 2(2): 205-216.
- 20- Stephan, Z.A. 1982. Selection of the root-knot nematode *Meloidogyne hapla* on cucumber. Nematologica 28: 174 (Abstract).

- 21- Stephan, Z.A. and R.H.Estey. 1982. Effect of soil texture, moisture and temperature on the migration of *Meloidogyne hapla* larvae and their invasion of tomato roots. Phytoprotection 63: 6-9.
- 22- Stephan, Z.A. and D.L. Trudgill. 1982. Population fluctuations, life cycle of root-knot nematode *Meloidogyne ardenensis* in Cupar, Scotland, and the effect of temperature on its development. Revue de Nematologie 5: 281-284.
- 23- Stephan, Z.A. 1982. The influence of temperature and storage time on eggs of four species of *Meloidogyne*. Nematologia mediterrania 10: 167-173.
- 24- Stephan, Z.A. and D.L. Trudgill. 1982. Development of four populations of *Meloidogyne hapla* on two cultivars of cucumber at different temperatures. J. Nematology 14: 545-549.
- 25- Stephan, Z.A. and D.L. Trudgill. 1983. Effect of time of application on the action of foliar sprays of oxamyl on *Meloidogyne hapla* in tomato. J. Nematology 15: 96-100.
- 26- Stephan, Z.A. 1983. The effect of different densities of *Meloidogyne* ardenensis and of three populations of *M. hapla* on the growth of tomato at four soil temperatures. Nematologia mediterrania 11: 93-100.
- 27- Stephan, Z.A. 1983. Variation in development and infectivity among populations of *Meloidogyne hapla* on four tomato cultivars and other host plants. Nematologia mediterrania 11: 125-131.
- 28- Stephan, Z.A., A.H.Alwan and B.G.Antoon. 1985. Occurrence of plant parasitic nematodes in vineyard soils in Iraq. Nematologia mediterrania 13: 261-264.
- 29- Al-Beldawi, A.S., Z.A.Stephan, A.H.Alwan, B.G.Antoon and A.K.Ismail. 1985. Susceptibility of some wheat cultivars to wheat gall nematode and the effect of level of inoculum, time and method of inoculation on infection. J.Agric. Water Resources Research 4: 201-210.
- 30- Al-Saaedy, H.A. and Z.A. Stephan. 1986. Root-knot nematodes on eggplant in Iraq. Nematologia mediterrania 14: 283-284.
- 31- Al-Talib, N.Y., A.K.Al-Taae, S.M.Nimer, Z.A.Stephan and A.S.Al-Beldawi. 1986. New record of *Anguina tritici* on barley from Iraq. Int. Nematol. Network News letter 3(3): 25-27.
- 32- Stephan, Z.A. 1987. Plant parasitic nematodes on cereals and legumes in Iraq. In: Saxena, M.C., R.A. Sikora and J.P. Srivastava (eds.), Nematodes parasitic to cereals and legumes in temperate and Semi-arid regions. Proc. Workshop held at Larnaca, Cyprus, 1-5

- March, 1987.
- 33- Al-Obaedi, J.F.W., A.R.Al-Askari and Z.A.Stephan. 1987. Some plant extracts for the control of the root-knot nematode *Meloidogyne javanica*. Nematologia mediterrania 15: 149-153.
- 34- Stephan, Z.A. and S. Shems Al-Din. 1987. Influence of temperature and culture media on the growth of the fungus *Paecilomyces lilacinus*. Revue de Nematologie 10(4): 494.
- 35- Stephan, Z.A. 1988. New race of *Meloidogyne javanica* from Iraq. Int. Nematol. Network News letter 5(1): 21.
- 36- Stephan, Z.A. 1988. Newly reported hosts of root-knot nematodes in Iraq. Int. Nematol. Network News letter 5(3): 36-43.
- 37- Stephan, Z.A., A.H. Alwan and B.G. Antoon. 1988. Effect of planting date on development of root-knot nematode (*Meloidogyne javanica*), plant production and percentage of infection of tomato, eggplant and cucumber. ZANCO 6(4): 59-68.
- 38- Stephan, Z.A., I.K.Al-Maamoury and B.G.Antoon. 1988. The efficacy of nematicides; solar heating and the fungus *Paecilomyces lilacinus* in controlling root-knot nematode *Meloidogyne javanica* in Iraq. ZANCO 6(4): 69-76.
- 39- Stephan, Z.A. 1989. New hosts for *Ditylenchus dipsaci* in Iraq. Int. Nematol. Network News letter 6(2): 30.
- 40- Stephan, Z.A., A.H. Michbas and I.Shakir. 1989. Effect of organic amendments, nematicides and solar heating on root-knot nematode infecting eggplant. Int. Nematol. Network News letter 6(1): 34-35.
- 41- Stephan, Z.A., A.A.Al-Askari and B.G.Antoon. 1989. Effect of *Haplophylum tuberculatum* plant extract on root-knot nematode. Int. Nematol. Netwrok News letter, 6(2): 31-32.
- 42- Al-Saaedy, H.A., Z.A. Stephan and M.M. Girgees. 1989. Effect of *Meloidogyne javanica* on eggplant seedlings of different ages. Nematologia mediterrania 17: 31-32.
- 43- Stephan, Z.A., S.Shems AlDin and B.G.Antoon. 1989. Physiological and biological studies on the fungus *Paecilomyces lilacinus*. Iraqi J.Agric.Sci., 20(1): 175-190.
- 44- Stephan, Z.A., A.H.Michbas and C.W.Shahir. 1989. Control of root -knot nematode on eggplant by nematicides. Int. Nematol. Network News letter, 6(3): 25-26.
- 45- Stephan, Z.A., A.N. Yousef and B.G. Antoon. 1989. Interactive effect of root-knot nematode, nematicide (nemacure) and root-nodule bacteria on nodulation and growth of faba bean and bean plants. J. Agric. Water Resources Research, 8(2): 319-328.

- 46- Stephan, Z.A. 1989. Threshold temperature, thermal acclimatation and the effect of temperature on the development of *Meloidogyne hapla* on tomato and potato. J. Agric. Water Resources Research 8(1): 43-53.
- 47- Stephan, Z.A., A.H.El-Behadli, B.G.Antoon and H.H.Al-Zahroon. 1989. Effect of *Glomus mosseae* on citrus rootstocks growth and its interaction with *Tylenchulus semipenetrans* and the fungus *Phytophthora citrophthora* infecting citrus roots. Iraqi J. Agric. Sci. 20(1): 191-200.
- 48- Stephan, Z.A., A.H.Michbas, I.Mahmoud and B.G.Antoon. 1990. Control of root-knot nematode on tomato with oxamyl. Int. Nematol. Network News letter 7(1): 28-30.
- 49- Al-Askari, A.A., Z.A. Stephan, B.G. Antoon and J.F. W. Al-Obaedi. 1990. Effect of plant extracts on the control of the root-knot nematode *Meloidogyne javanica*. Iraqi J. Agric. Sci. 21(2): 1-12.
- 50- Stephan, Z.A., M.S. Hassan and B.G. Antoon. 1990. Seasonal population changes of the citrus nematode and some fungi on different citrus trees in Iraq. Basrah J. Agric. Sci., 3(1&2): 47-64.
- 51- Stephan, Z.A. and B.G. Antoon. 1990. Biotypes of earcockle nematode *Anguina tritici* in Iraq. Current Nematology 1(2): 85-88.
- 52- Hassan, M.S., Z.A. Stephan, B.G. Antoon and N.N. Askar. 1991. Disease complex in cucumber caused by *Meloidogyne javanica* and *Rhizoctonia solani*. Iraqi J. Agric. Sci., 22(2): 71-75.
- 53- El-Behadli, A.H., Z.A.Stephan, H.H.Al-Zahroon and B.G.Antoon. 1991. Effects of chemical control on the *Fusarium-Meloidogyne* disease complex of eggplant. Iraqi J.Agric.Sci., 22(1): 40-46.
- 54- Stephan, Z.A., M.S. Hassan, A.N. Yousif and B.G. Antoon. 1993. Effect of interaction between *Meloidogyne javanica*, *Pythium aphanidermatum and Rhizobium leguminosarum* on faba bean. Basrah J. Agric. Sci., 6(1): 17-24.
- 55- Al-Saaedy, H.A., Z.A. Stephan and M.M. Girgees. 1993. Effect of different population densities of root-knot nematode on eggplant growth and production inoculated at different ages. Basrah J. Agric. Sci., 6(1): 95-109.
- 56- Al-Taae, A.K., N.Y.Al-Talib, Z.A.Stephan, S.M.Nimer, S.S.Al-Din, M.Ayoob, B.G.Antoon and W.Hassan. 1993. Studies on barley seed gall nematode *Anguina tritici* in Iraq. IPA J.Agric.Res., 3(2): 202-216.
- 57- Stephan, Z.A. 1995. The efficacy of nematodes and horse manure in controlling root-knot nematodes on tomato and eggplant. Nematologia mediterrania 23: 29-30.

- 58- Stephan, Z.A., A.H.El-Behadli, H.H.Al-Zahroon and B.G.Antoon. 1996. Control of root-knot-wilt disease complex on tomato plants. DIRASAT, Agric.Sci., 23(1): 13-16.
- 59- Abul-Hab, J., A.H.El-Behadli, A.S.Al-Beldawi, N.Jaber, Z.A.Stephan and A.D.Ali. 1996. Studies on the nature and control of citrus fall blight in Iraq. IPA J. of Agric.Res. 6(3): 120-134.
- 60- Stephan, Z.A., M.S. Hassan, H.H. Al-Zahroon and B.G. Antoon. Effect of root-knot nematode-Fusarium wilt disease complex on tomato roots and their biological and chemical control. Iraqi Agric. J., 1(1): 71-80.
- 61- Stephan, Z.A., I.K. Hassoon and B.G. Antoon. 1998. Use of biocontrol agents and nematicides in the control of *Meloidogyne javanica* root -knot nematode on tomato and eggplant. Pakistan J. Nematol., 16(2): 151-155.
- 62- Al-Shook, R.H.I., H.A.Al-Aziz, F.H.Al-Sahaf and Z.A.Stephan. 1999. Evaluation of three hybrid tomato varieties in central region of Iraq. Iraqi J.Agric., 4(3): 33-41.
- 63- Stephan, Z.A., A.K. Abdal-Hadi and M.S. Hassan. 1999. Disease complex between citrus-root nematode *Tylenchulus semipenetrans* and the fungus *Rhizoctonia solani* on some citrus rootstocks. Iraqi J. Agric., 4(1): 200-207.
- 64- Stephan, Z.A., R.T. Jassim and A.I. Hammadi. 1999. Interactive effect between root-knot nematode (*Meloidogyne spp.*) and nitrogen fixing bacteria (*Rhizobium leguminosarum*) on faba bean. Iraqi J. Agric., 4(2): 131-139.
- 65- Al-Jboory, I.J., A.S.A.Ali, Z.A.Stephan and W.A.Ahmed. Efficacy of some insect growth regulators and insecticides to control the white fly in the open fields and green houses. Ibn Al-Haitham J. for Pure & Applied Sci., 12(1): 7-15.
- 66- Stephan, Z.A., M.S. Hassan, H.I. Abbass and B.G. Antoon. 1999. Influence of vesicular-arbuscular mycorrhizae on wilt-root knot disease complex of eggplant and tomato seedlings. Iraqi J. Agric., 4(4): 54-60.
- 67- Stephan, Z.A., M.S. Hassan, A.I. Hammadi and B.G. Antoon. 2000. New race of wheat gall nematode *Anguina tritici* and susceptibility of some cultivars to this race. Iraqi J. Agric., 5(6): 1-5.
- 68- Stephan, Z.A., M.A.Al-Hamadany, S.Sh.Saad Al-Din and H.B.Dawood. 2001. Efficacy of furfural treatment in controlling the disease complex of root-knot nematode and Fusarium wilt on tomato and eggplant under lathhouse conditions. Arab J. Plant Protection, 19: 97-100.

- 69- Stephan, Z.A., A.K. Abd Al-Hadi and H.A. Al-Ani. 2000. Role of the biocontrol fungi *Trichoderma harzianum and Paecilomyces lilacinus* in controlling citrus-root nematode and some pathogenic soil fungi attacking sour orange roots. Iraqi J.Agric., 5(3): 1-7.
- 70- Daoud, M.S., H.A.Al-Aziz and Z.A.Stephan. 2001. Evaluation of some hybrid tomato varieties in central region of Iraq. Iraqi J.Agric., 6(2): 117-124.
- 71- Stephan, Z.A., R.T. Jassim and M.S. Hassan. 2001. Effect of different factors on infection by root-knot nematode (*Meloidogyne javanica*) on faba bean crop. DIRASAT, Agric. Sci., 28(1): 106-110.
- 72- Khattat, A.R., Z.A. Stephan and N. Ibrahim. 2001. Biorational insecticides for control of vegetable leafminer *Liriomyza bryoniae* (Kal.) (Diptera: Agromyzidae) in open field tomato with emphasis on the sampling technique. Iraqi J. Agric., 6(2): 198-206.
- 73- Stephan, Z.A., O.K.Ruman, J.F.W. Al-Obaeidy and K.H.Tawfeek. 2001. Nematicidal activity in some plant extracts against root-knot nematode *Meloidogyne javanica* on eggplant. Pakistan J. Nematol., 19(1&2): 81-86.
- 74- Stephan, Z.A., S.Sh.Saad Al-Din, H.B.Dawood and A.R.Nasir. 2002. Interrelationship between root-knot nematode and the bacteria Pseudomonas infecting tomato roots. Second National Conference of Biology Science, Science College, Mustansiriya University, Dec. 21-22,2002.
- 75- Stephan, Z.A., K.S.Juber, B.G.Antoon and H.B.Dawood. 2002. Biological control of root-knot nematode and Rhizoctonia in eggplant and cucumber plants. Iraqi J.Agric., 7(5): 1-8.
- 76- Khattat, A.R., Z.A. Stephan and N. Ibrahim. 2002. Temporal and spatial distribution of larval populations of the vegetable leaf miner (Diptera: Agromyzidae) in open field tomatoes. Iraqi J. Agric., 7(7): 210-219.
- 77- Stephan, Z.A., M.S. Hassan and I.K. Hasson. 2002. Efficacy of Fenamiphos, *Trichoderma harzianum*, *Paecilomyces lilacinus* and some organic soil amendments in the control of root-knot and root-rot/wilt disease complex of eggplant. Arab J. Plant Protection 20: 1-5.
- 78- Stephan, Z.A., Jbara, I.M. and F.A. Al-Rawi. 2003. Effect of soil moisture content and thermal treatment on the activity of Bioagent fungi *Trichoderma harzianum* (*Rifai*) and *Paecilomyces lilacinus* (Thom) Samson on some tomato plant growth parameters. Arab J. Plant Protection, 21: 1-5.

- 79- Jbara, I.M., Z.A. Stephan and F.A. Al-Rawi. 2003. Ability of biopesticides Tahadi and Sumud to survive in the soil and the effect of pasteurization on their efficacy under green house conditions. Iraqi J. Agric., 8(3): 111-120
- 80- Jbara, I.M., F.A. Al-Rawi and Z.A. Stephan. 2003. Determining the best application of the bio-pesticides Tahadi and Sumud for controlling tomato infection from Fusarium wilt and root-knot nematode. Iraqi J. Agric. 8(3): 24-35.
- 81- Stephan, Z.A., A.M.T.Hammadi, H.I.Abbass, H.B.Dawood and B.G.Antoon. 2003. Effect of superphosphate, some organic manures and arbuscular mycorrhizal fungi in Karbala desert soil on root-knot nematode attacking tomato plants. Iraqi J. Agric.Sci., 34(5): 171-176.
- 82- Stephan, Z.A., O.K.Ruman, K.H.Tawfeek and R.D.Salman. 2004. Efficiency evaluation of alfalfa powder against root-knot nematode *Meloidogyne javanica* on cucumber and eggplant roots. Iraqi J.Agric., 9(1): 49-54.
- 83- Stephan, Z.A., F.A.H.Fadhil, A.A.Ligan and H.B.Dawood. 2005. Effect of Fusarium wilt disease on peanut plants and their biological and chemical control. Iraqi J.Agric., 10(1): 69-74.
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