

Curriculum Vitae

Name: Prof. Dr. Hedayat Allah Mahmoud Salem

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Personal Data:

Date and place of birth : 05/10/1955, Cairo - Egypt

Nationality : Egyptian

Address : 3 Ahmed El Zomor _Nasr city – Cairo- Egypt

Martial state : Married

Position : Prof. Dr., Pests & Plant Protection

Laboratory : Natural Control

Institution : Specialist at Entomology & Plant Production Department, National Center for Radiation Research and Technology (NCRRT) – Egyptian Atomic Energy Authority (EAEA) P.O Box 29, Nasr City Cairo– Egypt

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Education:

- **1977: B.Sc. of Agriculture, Pests & Plant Protection Dept. (Entomology)** - Faculty of Agriculture Science – Ain Shams University.
- **1984: Ph.D., Pests & Plant Protection Dept. (Entomology)** - Faculty of Agriculture & Applied Biological Sciences, Gent Univ., Belgium.

Affiliation:

- **From 1979 to 1984:** Researcher at faculty of Agriculture & Applied Biological Sciences, Gent Univ., Belgium.
- **From 1/1/1985 to 16/7/1986:** Specialist at Entomology & Plant Production Department, NCRRT – EAEA.
- **17/7/1986 to 29/1/1992:** Lecturer at Entomology & Plant Production Department, NCRRT – EAEA.

- **30/1/1992 to 30/6/1997:** Associate Professor at Natural Product Department, NCRRT – EAEA.
- **1/7/1997 to time being:** Professor Natural Product Department, NCRRT – EAEA.

Positions:

- **From 19/2/2003 to 2/9/2006:** Head of Natural Product Department, NCRRT – EAEA.
- **From 3/9/2006 to 12/5/2009:** Vice Chairman of Biotechnology Division, NCRRT – EAEA.
- **From 13/5/2009 to 13/5/2012:** Chairman of Biotechnology Division, NCRRT – EAEA.

Scientific Fellowship:

- **1989:** 3 months fellowship at Faculty of Agriculture & Applied Biological Sciences, Gent Univ., Belgium.
- **1991 – 1992:** 2 years fellowship at Faculty of Agriculture & Applied Biological Sciences, Gent Univ., Belgium.
- **1995:** 3 months fellowship at Faculty of Agriculture & Applied Biological Sciences, Gent Univ., Belgium.
- **1996:** 3 months fellowship at Faculty of Agriculture & Applied Biological Sciences, Gent Univ., Belgium.
- **2000:** 1 months fellowship at Faculty of Agriculture & Applied Biological Sciences, Gent Univ., Belgium.

Scientific Expert:

- **From 1992 to 1994:** Agriculture expert at National Agriculture Research Center, Niamey – Niger.
- **From 2006 to time being:** Arab Atomic Energy Agency (AAEA), Tunisia.

Scientific Activities

Conferences:

1. **International Conference for Plant Protection:** Gent Univ., Belgium. (1979, 1980, 1981, 1982, 1988, 1989 and 1990).
2. **3rd International Conference for Agriculture Development,** Faculty of Agriculture Science Cairo, Egypt 1992.

3. **44th International Conference for Plant Protection:** Faculty of Agriculture & Applied Biological Sciences, Gent Univ., Belgium.1992.
4. **2nd Arab Conference on the Peaceful Uses of Nuclear Energy,** organized by the Arab Atomic Energy Agency, Cairo, Egypt, 1994.
5. **BioVision Alexandria:** New life Sciences: Changing lives, 26 -29 April 2006, Alexandria, Egypt.
6. **8th annual Symposium "Towards support Egypt's nuclear program"** Nuclear Engineering Department - Faculty of Engineering, Alexandria University, 24 June 2006.
7. **9th annual symposium "Towards support Egypt's nuclear program "** Nuclear Engineering Department - Faculty of Engineering, Alexandria University, 7 June, 2007.
8. **9th International Conference of Nuclear Sciences and Applications,** organized by the Egyptian Society of Nuclear Sciences and Applications, Sharm El-Shiekh – Sinai – Egypt,11 – 14 February 2008.
9. **3rd International Conference of Palm Dates,** organized by faculty of Agriculture Sciences El Arish, Suez Canal University, Egypt, 25 – 27 April 2008.
10. **Coordinator of the 1st International Conference in Radiation Sciences and Applications,** organized by the Egyptian Society of Radiation Sciences and Applications, Sharm El-Sheikh, 1 – 4 December 2008.
11. **9th Arab Conference on the Peaceful Uses of Atomic Energy,** organized by the Arab Atomic Energy Agency, Beirut, 3-6 December 2008.
12. **Coordinator of the 2nd International Conference in Radiation Sciences and Applications,** organized by the Egyptian Society of Radiation Sciences and Applications, 28 March – 1 April, 2010, Marsa Alam, Egypt.
13. **10th Arab Conference on the Peaceful Uses of Atomic Energy,** organized by the Arab Atomic Energy Agency, Arbil – Iraq, 12 -16 December 2010.
14. **10th International Conference of Nuclear Sciences and Applications,** organized by the Egyptian Society of Nuclear Sciences and Applications, 4 – 8 Feb., 2008. El Quser – Egypt.
15. **Regional Symposium on the Management of Fruit Flies in Near East Countries,** organized by the Arab Atomic Energy Agency and FAO. Hammamet, Tunisia 6 – 8 November, 2012.

16. **Chairman of the 3rd International Conference in Radiation Sciences and Applications**, organized by the Egyptian Society of Radiation Sciences and Applications, 12 -16 November 2012, Hurghada, Egypt.
17. **11th Arab Conference on the Peaceful Uses of Atomic Energy**, organized by the Arab Atomic Energy Agency, Khartoum, Sudan, 16-20 December 2012.
18. **Chairman of the 4th International Conference in Radiation Sciences and Applications**, organized by the Egyptian Society of Radiation Sciences and Applications, 7 -11 October 2014, Taba, Egypt.
19. **Member of the organizing committee of 12th Arab Conference on the Peaceful Uses of Atomic Energy**, organized by the Arab Atomic Energy Agency, Sharm El-Sheikh, Egypt, 16-20 May 2015.
20. **Chairman of the 5th International Conference in Radiation Sciences and Applications**, organized by the Egyptian Society of Radiation Sciences and Applications, 18 -22 December 2016, Luxor-Aswan, Egypt.
21. **Participating 13th Arab Conference on the Peaceful Uses of Atomic Energy**, organized by the Arab Atomic Energy Agency, Hammamet, Republic of Tunisia, 18-22 December 2016.

Training Course & Workshop:

- **Lecturer, 1st Arabic training Course: Preservation of food by irradiation and detection methods for irradiated food**, organized by AAEA and EAEA, held in Cairo, Egypt, 23-27 April, 2006.
- **General Coordinator and lecturer, training course: Radiation and Integrated pests Management Programs**, organized by AAEA and EAEA, held in Cairo, Egypt, 25 February – 1 March 2007.
- **Lecturer at 2nd Arabic training Course entitled: Preservation of food by irradiation and detection methods for irradiated food**, organized by AAEA and EAEA, held in Cairo, Egypt, 26-31 May, 2007.
- **General Coordinator and lecturer, training course: Radiation and Integrated pests Management Programs**, organized by AAEA and EAEA, held in Cairo, Egypt, March 2008.
- **Lecturer, training course: Radiation and Integrated pests Management Programs**, organized by EAEA, held in Cairo, July, 2008.
- **Lecturer, Training course: Integrated pests Management Programs**, organized by AAEA, Tunisia, 6 – 10 July, 2009.

- **Training workshop on the Reclassification and Improving Integrated Pests Management (IPM) for Fruit Flies Control in Central and North Africa**, organized by Union Africa (IAPSC) and Egypt, held in Cairo – Egypt, 14 - 19 December 2009
- **Lecturer, Training course: Integrated pests Management Programs**, organized by AAEA, Tunisia, 12 – 18 July, 2010.
- **Lecturer, 9th Arabic Training Course: Preservation of food by irradiation and detection methods for irradiated food**, organized by AAEA and EAEA, held in Cairo, Egypt, 19-23 Sep., 2010.
- **Lecturer, Training course: The role of food processing radioactive facilitate trade exchange between Arab countries in food**, organized by AAEA and EAEA, held in Cairo, Egypt,, 10-15 Sep., 2011.
- **Lecturer, training course: Radiation and Integrated pests Management Programs**, organized by EAEA, held in Cairo, 8 -12 July, 2012.
- **Lecturer, training course: Radiation and Integrated pests Management Programs**, organized by AAEA, Tunisia, 10 -14 June, 2013.
- **Training workshop "Being and Author for International Journal"**, organized by ELSEVIER and Egyptian Academy of Scientific Research and Technology, held in Cairo – Egypt, 14 April 2014.

Scientific Committees:

- Ex., member of the International Cooperation and deployment Committee, NCRRT, EAEA.
- Ex., member of the training and research projects Committee, NCRRT, EAEA.
- Ex., member of the Sub-committee of scientific publication, NCRRT, EAEA.
- **From 19/2/2003 to 2/9/2006:** member of the Graduate Studies Committee, Biotechnology Division, NCRRT, EAEA.
- **From 19/2/2003 to 2/9/2006:** member of the technological Committee, Biotechnology Division, NCRRT, EAEA.
- **From 3/9/2006 - to 13/5/2009:** Chairman, Technological Committee, Biotechnology Division, NCRRT, EAEA.
- **From 2003 - to 2011:** Member of the permanent Scientific Committee for Biological and Medical Sciences, EAEA.
- **From 25/5/2011 to 5/2013:** Member of the permanent Scientific Committee for Agriculture Sciences, EAEA.

Academic Supervisions:

- Supervisor of Awarded 8 theses (Ph.D. and M.Sc.). Supervisor of another 4 M.Sc. thesis currently under preparing.

Scientific Reviewer:

- Reviewing 3 Ph.D. thesis and 3M.Sc.thesis.
- Participating in reviewing scientific papers by lecturers for getting associate Professor and by associate Professor for getting Professor.

Scientific Societies:

- **From 31/3/2008 to time being:** founder of the Egyptian Society of Radiation Sciences and Applications (ESRSA).
- Chairman of the ESRSA Board.
- Member of the Egyptian Society of Nuclear Sciences and Applications.
- Member of the Entomological Society of Egypt.

Scientific Journals:

- Editor in chief Journal of Radiation Researches and Applied Sciences ELSEVIER Publisher (<http://www.journals.elsevier.com/journal-of-radiation-research-and-applied-sciences>).
- Editor in chief of Journal of Nuclear Technology in Applied Sciences Published by ESRSA.
- Member of the advisory board: Egyptian Journal of Radiation Sciences and Applications.

Awards:

- Egyptian Atomic Energy Authority Medal for organizing 1st International Conference in Radiation Sciences and Applications, 1 – 4 December 2008, Sharm El-Sheikh.
- Appreciation certificate for organizing 2nd International Conference in Radiation Sciences and Applications, 28 March – 1 April 2010, Marsa Alam.
- Appreciation certificate for organizing 3rd International Conference in Radiation Sciences and Applications, 12 -16 November 2012, Hurghada.

Language:

Arabic: Mother tongue.

French: Excellent.

English: Excellent.

List of publications

1. De Loof, A; T. Briers; M. Peferoen; H. Salem and P. Stoppie (1980): Ecdysteroid titre, acid phosphatase activity in the fat body and diapause proteins in relation

- to diapause induction in the Colorado potato beetle. XVI International Congress of Entomology, Kyoto, Japan PP: 104.
2. Salem, H.; M. Peferoen, A De Loof and D. Degheele (1982): Changes in the ultrastructure of the fat body of prediapausing Colorado beetles as relation to the juvenile hormone and ecdysteroid titres. *General and Comparative Endocrinology*, 46 (3): 86.
 3. Salem, H. and D. Degheele (1988): Influence of gamma-irradiation on the ultrastructure of the testes of the southern cowpea weevil *Callosobruchus maculatus* Fabricius (Coleoptera: Bruchidae). *Parasitica*, 44 (2): 59-70.
 4. Degheele, D.; H. Salem, E. De Vos and G. Hegazy (1988): Effect of gamma radiation on the ovary of adults of cabbage root fly. *Delia radicum* Bouche' (Diptera: Anthomyiidae). *Med. Fac. Landbouww. Rijksuniv. Gent.*, 53(3a): 1225-1239.
 5. Salem, H.; D. Degheele; M. Peferoen and A De Loof (1989): Ultrastructure of the fat body of prediapausing adult Colorado beetles, *Leptinotarsa decemlineata* Say (Coleoptera: Chrysomelidae). *Med. Fac. Landbouww. Rijksuniv. Gent.*, 54 (3a): 767-780.
 6. Salem, H. and D. Degheele (1989): Ultrastructure of the fat body and oenocytes of reproducing adult Colorado beetles, *Leptinotarsa decemlineata* Say (Coleoptera: Chrysomelidae). *Med. Fac. Landbouww. Rijksuniv. Gent.*, 54 (3a): 781-791.
 7. Salem, H.; D. Degheele; D. Valcke and G. Hegazy (1989): Radiation effects on the ultrastructure of the testes of the cabbage root fly, *Delia radicum* Bouche' (Diptera: Anthomyiidae). *Parasitica*, 45 (1): 3-12.
 8. Salem, H.; F. Many; G. Hegazy and O. Gareeb (1989): Ultrastructure studies of radiation induced abnormalities in the testes of the Khapra-beetle, *Trogoderma granahum* Everts (Coleoptera: Dermestidae). *Med. Fac. Landbouww. Rijksuniv. Gent.*, 54(1): 41-51.
 9. Hegazy, G.; A. De Cock; D. Degheele and H. Salem (1989): Chitin-protein biosynthesis in the cuticle relationships of four benzoylphenyl ureas in the last instar larva of *Leptinotarsa decemlineata* (Say). *Med. Fac. Landbouww. Rijksuniv. Gent.*, 54(1): 103-114.
 10. De Cock, A.; G. Hegazy; H. Salem and D. Degheele (1989): Distribution of radiolabeled chlorfluazuron and diflubenzuron in the last instar larvae of *Leptinotarsa decemlineata* (Say) (Coleoptera: Chrysomelidae). *Med. Fac. Landbouww. Rijksuniv. Gent.*, 54(1): 115-120.
 11. Salem, Hedaya (1990): Histological effects of gamma radiation on the ovaries of the cowpea weevil, *Callosobruchus maculatus* Fabricius (Coleoptera: Bruchidae). 3rd Conf. Agric. Dev. Res., Fac. Agric, Ain Shams Univ. Cairo, Egypt, Dec. 22-24, 1990. *Annals Agric. Sci., Special Issue*, 479-495.
 12. Ahmed, M. Y. Y; H. Salem and O. H. Gharib (1992): Effect of substerilizing

- gamma dose on mating competitiveness of *Trogoderma Granahum*. Everts males through three filial generations. Med. Fac. Landbouww. Univ. Gent, 57/3a, 715-718.
13. Salem, H.; K. Van Laecke, N. Speybroeck and D. Degheele (1992): Distribution of diflubenzuron, teflubenzuron and hexaflumuron in last instar larvae of *Spodoptera exempta* (Walker) (Lepidoptera: Noctuidae). Parasitica, 48(1): 15-22.
 14. Salem, H.; A. El-Morsy M. Salama; A. Abdel- Rahaman and F. Megahed (1996): Effect of gamma irradiation on the ultrastructure of the ovaries of previtellogenic females of *Culex pipiens L.* Med. Fac. Landbouww. Rijksuniv. Gent, 61: 791-798.
 15. Salem, H.; M. Salama; A. Abdel- Rahaman; A. El-Morsy and F. Megahed (1996): Ultrastructure studies of the sterilizing effect of gamma irradiation on ovaries of *Culex pipiens L.* Med. Fac. Landbouww. Rijksuniv. Gent, 61: 799-810
 16. Smagghe, G.; H. Salem; L. Tiny and D. Degheele (1996): Action of a novel insect growth tebufenozide against different developmental stages of four stored product insects. Parasitica, 52(2): 61-69.
 17. Smagghe, G.; H. Salem and D. Degheele (1996): Tebufenozide: effects of a nonsteroidal ecdysteroid agonist on cuticle formation in Indian meal moth, *Plodia interpunctella* larvae. Parasitica, 52(4): 143-151.
 18. Salem, H. (1996): Effectiveness of four insecticides adjuvant mixtures against susceptible and resistant strain of *Spodoptera exisua* (Huhner). Bull. Ent. Soc. Egypt, Vol. 23.
 19. Salem, H. (1996): Effect of 'Aplus' adjuvants on retention and elimination of ¹⁴C-diflubenzuron in *Spodoptera exigua* (Hubner). Bull. Ent. Soc. Egypt, vol. 23.
 20. Salem, H. and M. Auda (1996): Evaluation of adjuvant- monocrotophos and diflubenzuron mixtures under greenhouse conditions and synergistic effect of adjuvant on *Spodoptera exizua* (Hubner). Bull. Ent. Soc. Egypt, Vol. 23.
 21. Salem, H. (1996): Effect of tebufenozide, a nonsteroidal against, on reproduction of *Spodoptera exigua* (Hubner). Med-Fac. Landhowuw, Univ. Gent, 62/1.
 22. Salem, H. (1997): Neem-based insecticide as a repellent growth inhibitor against the red flour beetle *Tribolium Castaneum* (Coleoptra: Tenehrionidae). Med-Fac. Landhowuw, Univ. Gent, 62/1.
 23. Salem, H. G. Smagghe and D. Degheele (1997): Effects of tebufenozide on oocyte growth in *Plodia interpunctella*. Med-Fac. Landhowuw, Univ. Gent, 62: 9 - 13.
 24. Auda, M. And H. Salem (1997): Diflubenzuron effects on growth, development and digestive enzymes of the beet armyworm *Spodoptera exigua* Larvae. Bull. Ent. Soc. Egypt, vol. 24.
 25. Salem, H.M.; M.F. Eldegwi (1997): Effect of substerilizing doses of gamma radiation on fertility, fecundity and ovaries structure of pulse beetle *Callosobruchus maculates* female. Agric. Sci. Mansura Univ., 22(7):2441-

2450.

26. Salwa, A. R., N.El-Halafawy and H. Salem (2001): Toxicity and effect of Margosan-o and Azadizachtin on haemocytes of *Spodoptera littoralis* (Boisd) Larvae. Bull. Ent. Soc. Egypt, vol. 28.
27. Zahran, F.M.; M.A. Rizk; L.A. Youssef; H. Salem and I.M. Haiba (2005): Certain biological aspects of potato tuber moth, *Phthorimaea operculella* (Zeller) treated with gamma radiation. Res. Bult., Ain Shams Univ.
28. M.S. Hamed; M.S. Salama; H. Salem; S.A. Abbassy & Y.S. Zaghloul (2009): Sterility and Associated Molecular Characteristics in Male *Callosobruchus maculatus*. J. Rad. Res. Appl. Sci., 2(3):437-651.
29. M.S. Hamed; M.S. Salama; H. Salem; S.A. Abbassy and Y.S. Zaghloul (2009): Alteration in the protein pattern of the cowpea weevil *Callosobruchus maculatus* treated with gamma rays. Isotope & Rad. Res., 41(4): 957 – 970.
30. Zahran, N.F.M.; Hegazy, G.M.; Salem, H.M.; Elsayed, W. and Mahmoud, Y.A. (2013): The Effect of Gamma Radiation on some Biological Aspects of Peach Fruit Fly, *Bactrocera zonata* (Saunders). J. Nucl. Tech. Appl. Sci, 1 (1): 91:100.
31. Salem, H.M., Fouda, M.A., Abas, A.A., Ali, W.M., Gabarty, A. (2014): Effects of gamma irradiation on the development and reproduction of the greasy cutworm, *Agrotis ipsilon* (Hufn.).Journal of Radiation Research & Applied Science, 7(1): 110 – 115.
32. Fouda, M.A., Salem, H.M., Abas, A.A., Ali, W.M., Gabarty, A. (2014): Pathogenicity induced by the entomopathogenic fungi *Beauveria bassiana* and *Metarhizium anisopliae* in *Agrotis ipsilon* (Hufn.). Journal of Radiation Research & Applied Science, 7(1): 95 – 100.
33. H.M. Salem; M.A. Hussein; S.E. Hafez; M. A. Hussein and R.M. Sayed (2014): Ultrastructure Changes in the haemocytes of *Galleria mellonella* larvae treated with gamma irradiated *Steinernema carpocapsae* BA2. Journal of Radiation Research & Applied Science, 7(1): 74 – 79.
34. Abass, A.A.; Salem, H.M.; Abd El Hamid, N.A.; Gabarty, A., Embaby, D.M. (2017): Effects of Gamma Irradiation on the Biological Activity of The Cotton Leaf Worm, *Spodoptera littoralis* (Boisd.). J. Nucl. Tech. Appl. Sci, 5(1): 19-26.

International Conference papers

1. Salem, H.M.; L.A. Youssef; Iman, M. Haiba and Nagwan, F.M. Zahran (2008): Combined Effect of Gamma Irradiation with Protecto on Potato Tuber Moth, *Phthorimaea operculella* Zeller. International 9th Conference of Nuclear Sciences and Applications, Organized by the Egyptian Society of Nuclear Sciences and Applications, 11-14 February 2008, Sharm El-Shiekh

2. Ismail, M.S. El-Degwi, Hedaya M. Salem and S.A.S. El-Maasarawy (2008): Effect of gamma radiation on morphology and histology of sex pheromone gland of *Callosobruchus maculatus* (F.) female. International 9th Conference of Nuclear Sciences and Applications, Organized by the Egyptian Society of Nuclear Sciences and Applications, 11-14 February 2008, Sharm El-Shiekh
3. Salem, H.M.; M.A. Hussein; S.E. Hafez; S.A. Rizk and R.M. Sayed (2008): Susceptibility of irradiated *Galleria mellonella* F₁ Larvae to entomopathogenic nematodes. Ninth Arab Conference on the Peaceful Uses of Atomic Energy, Beirut, 3-6 Deceber 2008.
4. H.M. Salem; M.A. Hussein; S.E. Hafez; M. A. Hussein and R.M. Sayed (2012): Efficacy of gamma irradiated *Steinernema carpocapsae* BA2 against *Corcyra cephalonica* and *Ephestia kuehniella*. 10th International conference of nuclear sciences and applications, Quseir – Egypt. 4-8 February.
5. Salem, H.M.; Hegazy, G.M.; Zahran, N.F.M.; Elsayed, W. and Y.A. Mahmoud (2015): Radiation Effect on the Ultrastructure of Female Ovipositor of Peach Fruit Fly, *Bactrocera zonata* (Saunders) Twelfth Arab Conference on the Peaceful Uses of Atomic Energy, Sharm El- Sheikh, Arab- Republic of Egypt, 16-20 May 2015.
6. H.M. Salem; M.A. Hussein; S.E. Hafez; M. A. Hussein and R.M. Sayed (2016): Biochemical Changes in the haemolymph of *Galleria mellonella* larvae infected by gamma irradiated *Steinernema carpocapsae* BA2. Thirteenth Arab Conference on the Peaceful Uses of Atomic Energy, Hammamet, Republic of Tunisia, 18-22 December 2016.
7. Zahran, N.F.M.; Hegazy, G.M.; Salem, H.M.; Elsayed, W. (2016): Influence of Gamma Radiation on Elemente Composition in Peach Fruit Fly, *Bactrocera zonata* (Saunders). Thirteenth Arab Conference on the Peaceful Uses of Atomic Energy, Hammamet, Republic of Tunisia, 18-22 December 2016.