

# Jordan University of Science and Technology



Faculty of Agriculture  
Department of Plant Production

## *Curriculum vitae*

**Name:** Abd Al-Majeed Al-Ghzawi, Ph. D., Entomology/Apiculture.

**Nationality:** Jordanian.

**Date of Birth:** 5.10.1962.

**Present academic rank:** Professor

**Address:** Faculty of Agriculture

Department of Plant Production

Jordan University of Science & Technology.

P.O. Box 3030

Irbid 22110/ Jordan

Tel #: office + 962 2 7201000 Ext. 22246; 22253

Mobile: + 962 79 5289605

Email: [ghzawi@just.edu.jo](mailto:ghzawi@just.edu.jo)

## **SUMMARY OF QUALIFICATIONS:**

### **Teaching:**

- I have taught ten different courses and supervised six labs.
- Conducted many training courses and activities for the local community, Researchers from other Universities, Ministry of Agriculture and National Center for Agricultural Research and Extension.
- Supervised five students in the area of Apiculture and was a member of graduate committees of other many students.

### **Research:**

11 projects, 45 published papers, 6 other submitted papers and peer reviewing many manuscripts for local and international scientific journals.

### **Administrations:**

Head of Plant Production Department 2007-2009, 2015-

Establishment and supervision of bee hive products lab.

Establishment of beneficial insect lab at Plant Production Department.

Establishment and supervision of the production and research apiary.

Establishment the production and research apiary for Badia Program.

Shared in different committees at the Department, Faculty and the University level.

### **ACADEMIC EXPERIENCE:**

2008- present: Professor within the Faculty of Agriculture, Department of Plant Production, Jordan University of Science and Technology.

2001 – 2008: Associate Professor within the Faculty of Agriculture, Department of Plant Production, Jordan University of Science and Technology.

1995 – 2001: Assistance Professor within the Faculty of Agriculture, Department of Plant Production, Jordan University of Science and Technology.

1993- 1995: Full time lecturer within the Faculty of Agriculture, Department of Plant Production, Jordan University of Science and Technology.

### **PROFESSIONAL EXPERIENCE:**

#### **Teaching courses:**

##### *A. Undergraduate Courses:*

- General entomology
- Beekeeping and bee hive management.
- Principles of Beekeeping.
- Special topics
- Plant pathology.
- Seminar.

##### *B. Graduate Courses:*

- Beekeeping Technology.
- Special Topics.
- Field crops pests.
- Horticultural plant pests.
- Seminar.

#### **Local community services:**

##### **Several training courses**

- 1- Principles of Beekeeping
- 2- Isolation and Identification of honeybee disease and pests.
- 3- Modern-bee hives management for mass honey production and other products.
- 4- Queen rearing.
- 5- Honey analysis and honey processing.
- 6- Handling and processing of bee wax.
- 7- Modern Bee hives management.
- 8- Bee hives management for honey production under arid lands conditions.

#### **SUPERVISION OF GRADUATE STUDENT:**

Three students specialized in Plant Protection / Beekeeping.

Two students specialized in Plant Production / Honeybees and Pollination.

### **MEMBER OF GRADUATE COMMITTEES:**

Five students (Plant Protection / Entomology).

One student (Bumble bees rearing).

One student (Insect Biotechnology).

### **COMMITTEES PARTICIPATION:**

#### **Department of Plant Production Committees:**

- Graduate Comprehensive Exams Committee.
- Graduate Studies Committee.
- Student Affairs Committee.
- Honey Marketing Committee.
- University Farm (Jordan Valley) Committee.

#### **Faculty of Agriculture Committees:**

- Graduate Studies Committee.
- Scientific Research Committee.
- Social Committee.

#### **Peer Reviewing:**

Many manuscripts were peer reviewed for local and other scientific journals.

### **CONFERENCES:**

- Varroa Control Workshop / Ministry of Agriculture. 1996. Amman, Jordan.
- The first International Arab Apiculture Congress. 1996. Beirut, Lebanon.
- The second International Arab Apiculture Congress. 1998. Amman, Jordan.
- The seventh conference of the International Bee Research Association. March, 2000 Thailand.
- The fifth conference of the Asian Bee Research Association. March, 2000 Thailand.
- Biotechnology Conference. Al-Balqa Applied University. September, 2000. Al-salt, Jordan.
- Seventh Arab Congress of Plant Protection. October 2000. Amman. Jordan.
- The second conference on scientific research in Jordan 2005.
- Fourth Agricultural conference. April 2001. Jarash. Jordan.
- Fifth Agricultural conference. April 2005. Al-Salt. Jordan.
- Higher education reform for knowledge economy. 2006. Jordan
- The third conference on scientific research in Jordan 2007.
- The international translation conference. Jordan. 2007.
- Arab women in academic sciences and technology: towards sustainable development conference. Jordan. 2008.
- Research, development, and innovation: Biotechnology in the Arab world Conference.
- The sixth International Arab Apiculture Congress. 2009. Saudi Arabia, Abha.

## **FINANCED RESEARCH PROJECTS**

- 1- Honey bee queen rearing in Jordan/ Higher Council for Science and Technology
- 2- Beekeeping in the arid land of Jordan (North Badia) / Badia Research and Development Program.
- 3- Honey bee pests and the general characteristics of Jordanian honey / Higher Council for Science and Technology.
- 4- Beekeeping in the arid land of Jordan, and the special role of women / Badia Research and Development Program.
- 5- The role of honey bee *Apis mellifera syriaca* in pollination of four muskmelon (*Cucumis melo*) cultivars grown under semiarid conditions / Deanship of research, Jordan University of Science and Technology (JUST).
- 6- Diversity of Bees ( Hymenoptera, Apiformes) in Extensive Orchards in the High Lands of Jordan. Ministry of Agriculture & Deanship of research, Jordan University of Science and Technology (JUST).
- 7- The Effect of Formic Acid on the Control of the Bee Parasitic Mite *Varroa destructor* under Semiarid Conditions. Deanship of research, Jordan University of Science and Technology (JUST).
- 8- Biodiversity of flowering plants visited by honeybees *Apis mellifera* L. in Ajloun area, Jordan Deanship of research, Jordan University of Science and Technology (JUST).
- 9- The Effect of Supplementary Feeding on the Performance of Honey bee Colonies. Deanship of research, Jordan University of Science and Technology (JUST).
- 10- The impact of honeybee visitations on pod and seed set of Carob trees *Ceratonia Siliqua*. Deanship of research, Jordan University of Science and Technology (JUST).
- 11- The Effect of Different Supplementary Feeding Materials on the Microflora of the Rectum of workers of *Apis mellifera*. Deanship of research, Jordan University of Science and Technology (JUST).

## **MEMBERSHIP IN PROFESSIONAL SOCIETIES:**

- \*Membership in the International Bee Research Association.
- \*Membership in the Asian Bee Research Association.
- \*Membership in the Arab Beekeepers Association.
- \*Membership in the Jordanian Beekeepers Association.
- \*Membership in the International Pest Management Association.

\*Membership in the Korean Entomological Association.

\*Membership in the Agricultural Engineering Association

## **Publications:**

**1- Al-Ghzawi, A.** 1992. Reproductive behavior of *Varroa jacobsoni*. A booklet of the German-Pollen Meeting on Honeybee diseases. Berlin. Germany.

**2- Al-Ghzawi, A.** 1993. Feeding maturity of young females of *Varroa jacobsoni* Oudemans reared on drone brood. Berlin, Neinhausen, Germany. 87 P.

**3- Al-Ghzawi, A.** and Zaitoun S. 1996. The Maturity of *Varroa jacobsoni* females mites. The first International Arab Apiculture congress. Beirut 17-20 August. 1:57.

**4- Al-Ghzawi, A.** 1998. Factors affecting the maturity of young females of *Varroa jacobsoni* Oudemans reared on worker brood. The second International Arab Apiculture congress. Amman 3-6 August. 2: 41-43.

**5- Al-Ghzawi, A. 1999.** Queen Rearing In Jordan. By the Higher Council for Science and Technology Press. Pp 70. ( In Arabic ).

**6- Al-Ghzawi, A.;** Zaitoun S. T. and Shannag H. 2001. Seasonal cycles of *Apis mellifera syriaca* under Jordanian desert conditions. Journal of Apicultural Research. 40(2): 45-51.

**7- Al-Ghzawi, A.;** Zaitoun S. T. and Shannag H. K. 2001. Ontogenesis of the parasitic mite *Varroa jacobsoni* on syrian honey bees, *Apis mellifera syriaca*. Zoology in the Middle East. 22: 101-106.

**8- Al-Ghzawi, A. 2001.** Flight activities of the workers of *Apis mellifera syriaca* under Jordanian desert condition. Proceedings of the Seventh IBRA Conference on Tropical Bees: Management and Diversity. 19-26 March 2000. Chiang Mai, Thailand. Pp 323-329.

**9- Al-Ghzawi, A.;** Zaitoun S. T. and Shannag H. 2001. Damaged Varroa mites in the debris of different honey bee subspecies under semiarid Mediterranean conditions. Bulletin de la Societe Entomologique de France 106(2) 193-198.

**10- Al-Ghzawi, A.;** Zaitoun S. T.; Makadmeh I. and Al-Tawaha A. 2003. The impact of wild bees on the pollination of eight okra genotypes under semi-arid Mediterranean conditions. International Journal of Agriculture and Biology 5(2):45-51.

**11- Al-Ghzawi A.;** Zaitoun S.; Mazary S.; Schindler M. and Wittmann D. 2006. Diversity of bees ( Hymenoptera, Apiformes) in extensive orchards in the high lands of Jordan. Arxius Miscel·lania Zoolgica 4: 42-48.

- 12- Al-Ghzawi A.;** Zaitoun S.; Hajeer Y. 2007. The role of honey bee *Apis mellifera syriaca* in pollination of four muskmelon (*Cucumis melo*) cultivars grown under semiarid conditions. *Advances in Horticultural Science* 21(1): 41-46.
- 13- Al-Ghzawi A.;** Zaitoun S. and Sarhan R. 2008. The effect of formic acid on the control of the bee parasitic mite *Varroa destructor* under semiarid conditions. *Acta Phytopathologica Entomologica et Hungarica* 43: 173-187.
- 14- Al-Ghzawi A.;** Zaitoun S. Freihat N. and Al-Qudah A. 2008. Effect of pollination on seed set of *Origanum syriacum* under semiarid Mediterranean conditions. *Acta Agriculturae Scandinavica* 59: 273-278.
- 15- Al-Ghzawi A. and** Zaitoun S. 2008. Origin and rearing season of honeybee queens affect some of their physiological and reproductive characteristics. *Entomological Research* 38: 139-148.
- 16- Al-Ghzawi A. Zaitoun S. and** Alkofahi A. 2008. The effect of different plant extracts on honeybees *Apis mellifera* (Hymenoptera: Apidae) and its parasite, *Varroa destructor* (Acari: Varroidae). *Belgian Journal of Entomology* 10: 57-65.
- 17- Al-Ghzawi A.;** Samarah N.; Zaitoun S. and Alqudah A. 2008. Impact of bee pollinators on seed set and yield of *Vicia villosa* spp. *dasycarpa* (Leguminosae) grown under semiarid conditions. *Italian Journal of Animal Science* 8: 65-74.
- 18- Al-Ghzawi A. and** Zaitoun S. Al-qudah A. and Ghosheh H. 2009. Impacts of Drought on Pollination of *Trigonella moabitica* (Fabaceae) via bee Visitations. *Archives of Agronomy and Soil Science* 55(6): 683-692.
- 19- Al-Ghzawi A.;** Zaitoun S. and Shannag H. 2009. Management of *Braula orientalis* Örösi (Diptera: Braulidae) in Honey Bee Colonies with Tobacco Smoke under Semiarid Conditions. *Entomological Research* 39: 168–174.
- 20- Al-Ghzawi A.;** Zaitoun S. and Samarah N. 2009. The impact of bee colony distance and racemes order on pollination of *Prosopis juliflora* in the Jordan Valley. *Advances in Horticultural Science* 23 (2): 81-86.
- 21- Al-Ghzawi A.;** Zaitoun S. and Shannag H. 2009. Incidence and Geographical Distribution of Honeybee Pests in Jordan. *Bulletin de la Societe Entomologique de France* 45 (3): 305-308.
- 22- Abu Jdayil B.; **Al-Ghzawi A.;** Mallah K. and Zaitoun S. T. 2002. Heat effect on rheology of light-and dark-colored honey. *Journal of Food Engineering*. 51: 33-38.
- 23- Zaitoun, S. T.; **Al-Ghzawi A.** and Shannag H. 2000. Population dynamics of the Syrian Honeybee, *Apis mellifera syriaca*, under semi-arid Mediterranean conditions. *Zoology in the Middle East* 21, 2000: 129-132.

- 24- Zaitoun, S. T.; **Al-Ghzawi A.**; Abu Jdayil B. and Mallah K. 2000. Rheological properties of selected light colored honeys from Jordan. *International Journal of Food Properties*. 4 (1), 139-148.
- 25- Zaitoun, S. T.; **Al-Ghzawi A.** and Shannag H. 2001. Grooming behavior of *Apis mellifera syriaca* toward *Varroa jacobsoni* in Jordan. *Journal of Applied Entomology* 125, 85-87.
- 26- Zaitoun S.; **Al-Ghzawi A.**; Shannag H. and Al-Tawaha A. 2006. Comparative study on the pollination of strawberry by bumble bees and honeybees under plastic house conditions in Jordan valley. *Journal of Food, Agriculture & Environment* 4(2): 237-240.
- 27- Zaitoun S.; **Al-Ghzawi A.** and Al-Qudah A. 2007. Bee pollination and fruit set of Sumac (*Rhus coriaria*, Anacardiaceae) as a native herbal plant grown under semiarid Mediterranean conditions in Jordan. *Advances in Horticultural Sciences* 21(3): 183-187.
- 28- Zaitoun, S. T.; **Al-Ghzawi A.** and Kridli R. 2008. Seasonal variations in qualitative and quantitative characteristics of *Apis mellifera ligustica* and *Apis mellifera syriaca* drones. *Entomological Sciences* 12: 208–214
- 29- Freihat N.; **Al-Ghzawi A.**; Zaitoun S. and Alqudah A. 2008. Fruit set and quality of loquats (*Eriobotrya japonica*) as affected by pollination under sub-humid Mediterranean. *Scientia Horticulturae* 117: 58-62.
- 30- Zaitoun S. and **Al-Ghzawi A.** 2008. Estimation of infestation rates of the bee louse, *Braula orientalis* Öroši (Diptera: Braulidae), in colonies of two honeybee subspecies maintained under semiarid Mediterranean conditions. *Insect Science* 15: 563-567.
- 31- Zaitoun S., **Al-ghzawi A.** and Al -Qudah A. 2008. Comparative study in seed yield and flowers attractivity to bee visitors between *Nigella sativa* L. and *Nigella damascena* L. (*Ranunculaceae*) grown under semiarid conditions. 2008. *Italian Journal of Agronomy* 2: 125-130.
- 32- Zaitoun S.; **Al\_Ghzawi A.**; Samarah N. and Mullen R. 2009. The impact of honey bees (*Apis mellifera*) and flowering date on pod set and pod characteristics of *Prosopis juliflora* (Sw.) DC. in Jordan. *Acta Agriculturae Scandinavica* 59: 349-356.
- 33- Zaitoun S. and **Al-Ghzawi A.** 2009. Seasonal variation in damaged *Varroa* mites in the debris of three honey bee subspecies under semiarid Mediterranean conditions. *Jordan Journal of Agricultural Sciences* 5(2): 207-217.
- 35- Zaitoun S.; **Al-Ghzawi A.**, and Al-Qudah A. 2010. Influence of elevation on honeybees *Apis mellifera syriaca* (Hymenoptera: Apidae) flight activities and its

impact on fruit set and quality of watermelon (*Citrullus lanatus*, Cucurbitaceae) (Submitted).

36- Shannag, H., **Al-Ghzawi A.** and Zaitoun S. 2000. Removal behavior of *A. m. syriaca* towards *V. jacobsoni* in Jordan. Bulletin de la Societe Entomologique de France 105(3) 273-278.

37- Scheuchl E., Schindler M. and **Al-Ghzawi A.** 2004. *Andrena (Holandrena) fimbriatoides* Scheuchl spec. nov. (Hymenoptera: Apoidea, Andrenidae), a new bee species from Jordan. Zoology in the Middle East 32: 85-89.

38- Abu-Hammour K., **Al-Ghzawi A.** and Zaitoun S. 2010. The Effect of Bee Visitors and Style Movement on Seed Set of *Nigella sativa* L. (Ranunculaceae) Grown under Semiarid Conditions. Advances in Horticultural Sciences 24(2):109 - 114.

39- **Al-Ghzawi A.** and Zaitoun S. 2011. Insecticidal effect of different plant leaf extracts against the great wax moth *Galleria mellonella* L. (Lepidoptera: Pyralidae) and the worker honeybees *Apis mellifera* L. (Hymenoptera: Apidae). Bulletin of Insectology (Accepted).

40- Al-Mefleh N, Samarah N, Zaitoun S. and **Al-Ghzawi A.** 2012. Effect of irrigation levels on fruit characteristics, total fruit yield and water use efficiency of melon under drip irrigation system. Journal of Food, Agriculture & Environment 10 (2): 540-545.

41- Rababah, T. M., M. Al-Omoush, S. Brewer, M. Alhamad, W. Yang, M. Alrababah, **A. Al-Ghzawi**, M. Al- u'datt1, K. Ereifej, F. Alsheyab, R. Esoh, A. Almajwal. **2014**. Total Phenol, Antioxidant Activity, Flavonoids, Anthocyanins and Color of Honey as Affected by Floral Origin Found in the Arid and Semiarid Mediterranean Areas. Journal of Food Processing and Preservation. 38 (3):1119-1124

42- Hananeh W., **Al-Ghzawi A.** and Zaitoun S. 2014. Does reclaimed water induce morphological changes in midguts of honeybees (*Apis mellifera syriaca*). Veterinary Science Development. 5:25-27.

43- **Al-Ghzawi A.**, Zaitoun S, Hananeh W., Samarah N and Al-Ghazawi Z. 2014. Impact of nearby wastewater ponds on the number of honeybee brood and workers in honeybee colonies. Mitteilungen Klosterneuburg. (Accepted).

44- **Al-ghzawi A.**, Zaitoun S. and Alqudah A. 2014. The impacts of drought stress on bee attractivity and flower pollination of *Nigella sativa* L. (Ranunculaceae). Italian Journal of Agronomy (submitted).



- 45- **Al-ghzawi A.**, Zaitoun S. and Alsadi R M. 2014. The effect of supplementary feeding on the performance of honeybee colonies reared under semiarid conditions. Entomological Research (Submitted).
- 46- Zaitoun S. and **Al-Ghzawi A.** 2014. Influence of elevation on honeybees *Apis mellifera* syriaca (Hymenoptera: Apidae) flight activities and its impact on fruit set and quality of watermelon (*Citrullus lanatus*, Cucurbitaceae). Advances in Horticultural Sciences (Submitted).
- 47- **Al-ghzawi A.**, Zaitoun S. and Alwedyan M. 2014. The impact of honeybee visitations on pod and seed set of carob trees *Ceratonia siliqua*. American-Eurasian Journal of Sustainable Agriculture. 8(12): 49-55..
- 48- **Al-ghzawi A.**, Zaitoun S. and Alwedyan M. 2014. Floral biology and pollination requirements of carob trees *Ceratonia siliqua* grown under semiarid conditions. Advances in Environmental Biology. 8(22): 131-137.