**Ghadeer F. Mehyar, PhD**

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**Faculty of Agriculture**

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**Summary of Qualifications**

* Professional research and teaching experience in Food Microbiology and Food Packaging.
* High creativity and persistency; proven ability to provide solutions and work under pressure.
* Outstanding personality, self-motivate and well organized.

**Education**

2006 **PhD of Food Science**

# Major: Food and Nutritional Sciences, Minor: Food Microbiology and Food Packaging.

University of Manitoba, Winnipeg, MB, Canada.

Thesis Title: Development of Antimicrobial Edible Coatings to Reduce Microbial Contamination of Broiler Carcasses

Supervising professor: Dr. Jung (John) Han.

1993 **Masters of Food Science**

Major: Food Science.

# University of Jordan, Amman, Jordan.

Thesis Title: The use of Sorbate and Benzoate Salts to Inhibit the Growth of Yeast in Labaneh (concentrated yogurt)

Supervising professor: Dr. Mohamed I. Yamani and Dr. Ali K. Alsaed.

1991 **Bachelor of Foods and Nutrition**

# Major: Nutrition and Food Technology.

University of Jordan, Amman, Jordan.

**Academic and Professional Interests**

* Food Microbiology and Biotechnology.
* Active Polymeric Packaging.
* Food Product Development.

**Professional Experience**

2007- Present **Assistant Professor**

University of Jordan, Department of Nutrition and Food Technology, Amman, Jordan

* Teaching undergraduate and gradate courses in subjects of Food Microbiology, Food Packaging and Food Hygiene.
* Conducting research in the fields of food packaging, microbial safety and quality of foods.

Sep. 2006-June 2007 **Post Doctoral**

University of Manitoba, Department of Food Science, Winnipeg. MB, Canada.

* Testing physical, mechanical and dissolution properties of pea starch gels.

2002 - 2004 **Teaching Assistant, Food Engineering Fundamentals**

University of Manitoba, Department of Food Science, Winnipeg, MB, Canada.

* Instructing undergraduate students on subjects including heat and mass balances, thermal conductivity, heat capacity and diffusivity.

Sep. 2001-May 2003 **Research Assistant**

University of Manitoba, Department of Food Science, Winnipeg. MB, Canada.

* Research for development of edible food packaging materials from pea and rice starch.
* Testing the physical and mechanical properties of the produced films.
* Incorporating antimicrobials within packaging materials and determine their effect on the product microbial quality.

# Summer 1998 **Workshop Supervisor**

Food Agricultural Organization of the United Nations.

* Instructing for processing of milk and milk products including product testing for small-scale producers conducted throughout Jordan.

#### Feb 1997 - Jan 2002 **Teaching Assistant/Laboratory Supervisor**

University of Jordan, Department of Nutrition and Food Technology, Amman, Jordan.

* Instructing undergraduate students for Food Microbiology, Meat Technology and Dairy Processing courses.
* Organizing laboratory experiments.
* Performing chemical and microbial testing of food and water samples for research purposes.

April 1992 - March 1995 **Quality Engineer**

##### Danish Jordanian Dairy Company

* Implementing food quality and safety programs to insure product compliance to national and international standards.

**Professional Memberships**

1994 - 2008 Institute of Food Technologists, Chicago, IL.

1991 - Present Jordanian Agriculture Engineering Association, Amman, Jordan.

**Awards**

1. First Place for Muscle Food Division Oral Competition, IFT, Orlando, FL, 2006.
2. University of Manitoba Graduate Travel Award, University of Manitoba, Winnipeg, MB, 2006.
3. University of Manitoba Graduate Travel Award, University of Manitoba, Winnipeg, MB, 2005.
4. Food Packaging Division Graduate Fellowship, IFT, Chicago, IL, 2005.
5. Certificate of Merit, Food Packaging Division, IFT, Chicago, IL, 2004.
6. Third Place for Food Packaging Poster Competition, IFT, Chicago, IL, 2003.
7. Manko Award, University of Jordan, Amman, Jordan, 1995.
8. Travel expenses from the United Nations, to attend the “Thermatic Workshop on Food, Agriculture, Fisheries and Biotechnology”, Bari, Italy, July 2009.
9. Two awards from the University of Jordan for publishing two manuscripts in journal listed among the ISI Web of Knowledge data base, 2010-2012.
10. Three award form the University of Jordan for participation in examination committee for graduate students, 2010-2012.

**Skills and Ability**

Computer Familiarity with Windows, Microsoft Office (Word, Excel, Power Point) and Internet.

Laboratory Capability to manage multiple projects simultaneously. Familiarity with a wide range of laboratory instrumentation including HPLC, GC, IC, SEM, Rheometer, Oxtran and Texture analyzer.

Teaching Experience as instructor and presenter in both an academic and industry environments.

Supervisory Supervisory experience of undergraduate and graduate students while employed as TA at the University of Manitoba.

**Serving in campus and off campus committees**

1. Library committee, in campus.

2. Seminars, brushers and community service committee, in campus.

3. Training committee, in campus.

4. Scientific research committee, in campus.

5. Sports and fitness committee, in campus.

6. Scientific and graduation day committee, in campus.

7. Permanent committee for packaging materials, Jordan Standards and Metrology Organization, off campus.

8. Technical committee for food supervising, Jordan Food and Drug Administration, off campus

9. Sensory evaluation team for table olives, Ministry of agriculture, off campus.

**Contribution in workshops**

1. Jordan Olive Products and Technology Exhibition and Forum, Al-Hussien Sport City, Amman, Jordan, 25th-26th April 2012.

2. Workshop on “How to Write a Successful Scientific Project”, University of Jordan, Amman, 22nd Feb 2010

3. Thermatic Workshop on Food, Agriculture, Fisheries and Biotechnology, Istituto Agronomico Mediterraneo Di, Bari, Italy. 12th to 15th July 2009

4. The Use Different Starter Cultures and Enzymes and their Practical Applications in Food Industry – The University of Jordan, Amman, 1st Dec 2010.

5. A Scientific Day for the Dairy products, Agricultural Engineering Association, Amman, 3rd May 2008.

6. The Sixth Jordanian Agricultural Scientific Conference, The University of Jordan, 6th -7th Feb, 2008.

**Courses Taught**

1. Principles of Nutrition (0603100)

2. Principles of Food and Nutrient (0603101)

3. Food Microbiology (0603401)

4. Food Packaging (0603342)

5. Advanced Food Packaging (0603712)

6. Training in Food Analysis and Quality Control (643494)

7. Seminar in Nutrition and Food Processing (603491)

8. Graduation Project (663498)

**Supervising graduate students**

1. Bushra Yakoob, M. Sc., Department of Nutrition and Food Technology, 2011-present.

**Member of graduate student thesis examining committees**

1. Rana Qasem, M.Sc., Department of Nutrition and Food Technology, awarded 2011.  
2. Malak Angor, Ph.D. Department of Nutrition and Food Technology, awarded 2010.

3. Malak Al Awamleh, M. Sc., Department of Nutrition and Food Technology, awarded 2010.

**Supported Projects**

1. European Commission and Deanship of Academic Research at the University of Jordan

Project title: Novelty Packaging Materials for Nuts and Intermediate Moisture Foods.

Value: 21000 JD.

2. Deanship of Academic Research at the University of Jordan.

Project title: Development of Antimycotic Edible Coating to Extend the Shelf-life of Tomato, Cucumber and Apples During Refrigerated Storage.

Value: 11900 JD.

3. Deanship of Academic Research at the University of Jordan.

Project title: The Efficacy of Coating in Shelf-life Elongation and Quality Preservation of Date at the ‘Khalal’ Stage of Maturity

Value: 21000 JD.

4. The Higher Council for Science and Technology, Amman, Jordan.

Project title: Effect of Harvesting Time and Storage Temperature on the ‘Khalal’ Stage Duration in Fresh Dates

Value: 4000 JD.

5. Deanship of Academic Research at the University of Jordan.

Effect of Microencapsulation of Cardomom’s (Elettaria cardamomum) Essential Oils in Biopolymers on its Stability When Packaged alone or within Medium Roasted Turkish Coffee

Value: 11000 JD

**Publications**

*a. Refereed Journals*

1. **Mihyar (Mehyar)**, G. F., Yamani, M. I., and Al- Sa’ed, A. K. **(1997)**. Resistance of yeast flora of labaneh to potassium sorbate and sodium benzoate. Journal of Dairy Science. 80: 2304 - 2309.

2. **Mihyar (Mehyar)**, G. F., Yousif, A. K., and Yamani, M. I. **(1999)**. Determination of benzoic and sorbic acids in labaneh by high-performance liquid chromatography. Journal of Food Composition and Analysis. 12: 53-61.

3. **Mehyar, G. F.**, and Han, J. H. **(2004)**. Physical and mechanical properties of high-amylose rice and pea starch films as affected by relative humidity and plasticizer. Journal of Food Science. 69: E449-E454.

4. **Mehyar, G. F.**, Delaimy, K. S., and Ibrahim, S. A. **(2005)**. Citric acid production by *Aspergillus niger* using date base medium fortified with whey and additives. Food Biotechnology. 19: 137-144.

5. **Mehyar, G. F.**, Blank, G., Han, J. H., Hydamaka, A., and Holley, R. A. **(2005)**. Effectiveness of trisodium phosphate, lactic acid and commercial antimicrobials against pathogenic bacteria on chicken skin. Food Protection Trends. 25: 351-362.

6. **Mehyar, G. F.**, Blank, G., Han, J. H., Hydamaka, A. and Holley, R. A. **(2007)**. Suitability of antimicrobial pea starch and alginate coatings on chicken. Poultry Science. 86: 386-393.

7. **Mehyar, G. F.**, Liu, Z., and Han, J. H. **(2008)**. Dynamics of antimicrobial hydrogels in physiological saline. Carbohydrate polymers. 74:92-98.

8. **Mehyar, G. F.**, and Han, J. H. **(2011)**. Active Packaging for Fresh-Cut Fruits and Vegetables. *In* Brody, A., L, Zhuang, H and Han, J. H, editors. Modified Atmosphere Packaging for Fresh cut Fruits and Vegetables. First Edition, Wiley-Blackwell, West Sussex, UK. Pp. 267-282.

9. Yamani, M. I. and **Mehyar G. F.** **(2011)**. Effect of chemical preservatives on the shelf life of hummus during different storage temperatures. Jordan Journal of Agricultural Sciences. 7:19-31.

10. **Mehyar, G. F.**, Al-Qadiri, H. M., Abu-Blan, H. A. and Swanson, B. G. **(2011)**. Antifungal effectiveness of potassium sorbate incorporated in edible coatings against spoilage molds of apples, cucumbers, and tomatoes during refrigerated storage. Journal of Food Science. 76: M210-217.

11. **Mehyar G**. F., Al-Ismail, K, Han, J. H. and Chee, G. W. **(2012)**. Characterization of edible coatings consisting of pea starch, whey protein isolate and carnauba wax and their effect on oil rancidity and sensory properties of walnuts and pine nuts. Journal of Food Science. 77(2): E52-E59.

12. **Mehyar G. F**. Hamzah Al-Qadiri and Barry Swanson. **(2012).** Edible coatings and retention of potassium sorbate on apples, tomatoes and cucumbers to improve antifungal activity during refrigerated storage. Journal of Food Processing and preservation. 1:1-8.

*b. Refereed Conference Proceedings*

1. **Mehyar, G. F.**, and Han, J. H. **(2003)**. Physical and mechanical properties of edible films made from high-amylose rice and pea starches. Poster, IFT meeting. Chicago, IL.

2. **Mehyar, G. F.**, Holley, R. A., Blank, G., and Han, J. H. **(2004)**. The improved efficiency of the commercial antimicrobials on chicken carcasses by sequential treatments. Oral presentation, IFT meeting. Las Vegas, NV.

3. **Mehyar, G. F.**, Ibrahim, S. A., and Al-Delaimy, K. S. **(2005)**. Citric acid production by *Aspergillus niger* using date base medium fortified with whey, methanol and tricalcium phosphate. Poster, IFT meeting. New Orleans, LA.

4. **Mehyar, G. F.**, Ibrahim, S. A., and Yamani, M. I. **(2005)**. Use of chemical preservatives to extend the shelf life of hummus. Poster. IFT meeting. New Orleans, LA.

5. **Mehyar, G. F.**, Holley, R. A., Blank, G., Han, J. H., and Hydamaka, A. W. **(2005)**. Antimicrobial edible packaging incorporated with trisodium phosphate and acidified sodium chlorite (Sanova) to reduce pathogens on chicken carcasses. Oral presentation, IFT meeting. New Orleans, LA.

6. **Mehyar, G. F.**, Blank, G., Han, J. H., Hydamaka, A. and Holley, R. A. **(2006)**. Physical characterization of antimicrobial pea starch and calcium alginate coatings to reduce bacterial pathogens on chicken skin. Oral presentation, IFT meeting, Orlando, FL.

7. Alsaed, A. K., **Mehyar, G. F.** and Arar A. **(2011)**. Effect of harvesting date and storage temperature on the duration of  Khalal stage of  fresh Barhi dates. Oral presentation, The 7th International Postharvest Symposium, Kuala Lumpur, Malaysia.

*c. Theses*

1. **Mihyar (Mehyar), G. F.** **(1996)**. The use of sorbate and benzoate salts to inhibit the growth of yeast in labaneh. Masters thesis, University of Jordan.

2. **Mehyar, G. F.** **(2006)**. Development of antimicrobial edible coatings to reduce microbial contamination of broiler carcasses. Ph. D. thesis, University of Manitoba, MB.

*d. Technical Reports*

**Mehyar, G. F. (1998)**. Workshops on the application of good milking and good dairy manufacturing practices in ten different provinces in Jordan conducted in March through September of 1998. Hygienic Milk Handling TCP/JOR/6611. Report to FAO. Rome, Italy.

*e. Manuscripts Revision*

Participated as a reviewer in the following peer reviewed journals:

- Journal of Dairy Science, USA

- Journal of Food Science, USA

- Food Biotechnology, USA

- Turkey Journal of Biology, Turkey

- African Journal of Biotechnology, Nigeria

- Jordan Journal of Agricultural Sciences, Jordan

**References**

1. Jung (John) H. Han, Ph.D (Purdue University), Senior Project Engineer

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