



AUB American  
University  
of Beirut  
الجامعة الأميركية في بيروت



American University of Beirut  
Faculty of Agricultural  
and Food Sciences

2008 - 09

# Annual Report



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# Preface

The academic year 2008–09 witnessed significant developments at the academic, administrative, and research levels.

At the academic level, two new undergraduate programs were approved by the BOT; a BS in Agribusiness and a BS in Nutrition and Dietetics-Coordinated Program (CP). The latter was structured to fulfill the accreditation requirements of the American Dietetic Association (ADA). In parallel, successful recruitment efforts resulted in the appointment of five new full-time faculty members: Dr. Ali Chalak in the AGSC department (Assistant Professor of Microeconomics), Dr. Mohamad Al Abiad (Assistant Professor of Food Engineering) Dr. Hala Ghattas (Assistant Professor of Community Nutrition), Dr. Dalia Tannous El Khoury (Lecturer) and Ms. Nadine Mikati (Instructor) in the NFSC department. In addition, and in line with the University and FAFS's objectives, the Faculty initiated the process of reviewing its academic programs. Furthermore, two faculty retreats were held and a strategic planning committee was formed to revisit FAFS's strategic plan and to explore opportunities for better use of AREC. The progress of FAFS, its future trajectory, its plans and opportunities were also shared with the FAFS's Advisory Board. Finally, a number of Memoranda of Understanding were signed between FAFS and other institutions including the Agricultural Research Institute, Cyprus (ARI), the Università degli Studi di Milano, and Szent István University (SZIU), Budapest, Hungary and University of Hawaii at Manoa (UHM) Iraq.

At the administrative level, FAFS's visibility was enhanced by relaunching its website which now provides a user friendly interface for both students and faculty members. Students have access to useful information on student awards, societies, clubs, and petitions while faculty members can access the faculty bylaws, faculty awards, and other useful forms. The website features for the first time, a listing of FAFS's research facilities and links to its two centers, AREC and ESDU. It is also expected within the next academic year to feature the career center, a corner stone towards building solid links between local, regional and multinational companies, businesses, and universities and students, graduates and alumni for internship, recruitment and fund raising purposes. At the other end, the departments' visibility was enhanced by assigning specific locations for various departments where offices, labs, and classrooms were renovated and redistributed so as to accommodate every department in a single location. Fund raising efforts succeeded in attracting new student scholarships to support academically qualified fulltime students. In addition, alumni representatives of AREC '80 presented to the Dean a check for \$40,000 towards their \$75,000 pledge.

At the research level, and with the support of the Lebanese National Council for Scientific Research, FAFS witnessed the establishment of the first of three national Associated Research Units for "Under Nutrition and Obesity in Lebanon" at the NFSC Department. Throughout the year, Faculty research culminated in 29 refereed articles in international journals, 43 abstracts and proceedings, two books, 10 book chapters and several other publications. Faculty members were also successful at attracting a number of research and development grants from international agencies that included USAID, IDRC, FAO, St. Jude Children's Research Hospital, RUAF, Hariri Foundation, Efamol, Bedson Company, UCODEP, WHO, IAEA among others.

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## I. Office of the Dean

## A. Non-Academic Personnel

There are seven non-academic employees at the Dean's office as per table 1 below:

**Table 1: Non-Academic Personnel**

Name	Title
Haddad, Tharwat	Students Record Officer
Houri, Laila	Financial Officer
Khoury, Wafa	Executive Officer
Bilal, Lisa	Administrative Assistant
Hamzeh, Haifa	Executive Secretary
Koubayssi, Rabia	Assistant for Student Services
Haidar, Imad	Junior Clerk

During this year, Ms. Haifa Hamzeh was promoted from Secretary, grade 9 to Executive Secretary, grade 10.

## B. Standing Committees

### The Administrative Committee

Prepared by: Ms. Lisa Bilal, Administrative Assistant

#### Membership

Nahla Hwalla, Chairperson

Elie Barbour

Isam Bashour

Salma Talhouk

Imad Toufeili

Rami Zurayk

Lisa Bilal, Secretary

#### Actions

The committee held 10 meetings throughout the academic year 2008–09 and the following actions were taken:

- Faculty bylaws were revised and approved by the faculty members.
- Dr. Yau was assigned responsible for the accreditation of FAFS programs with International Professional Bodies.

- Operating and capital budgets for the fiscal year 2009–10 were approved.
- Appointments of graduate assistants for fall, spring, and summer were approved.
- Offices and students facilities were relocated.
- Dr. Salma Talhouk was appointed as Seed Bank Director.
- An Ad-hoc Committee on Strategic Planning was established including Drs. Rami Zurayk (Chair), Jad Chaaban, Shady Hamadeh, Omar Obeid and Salma Talhouk.
- Dr. Sleiman was entrusted with the task of preparing a document for assessment of teaching effectiveness and services in the Faculty.
- The inauguration events pertaining to FAFS for President Peter Dorman were approved and carried out.
- AREC achievements throughout the year were monitored and assessed.

## **Recommendations**

The committee recommended the following:

- Install biometric access control at FAFS laboratories for security reasons.
- Revisit the name of the Faculty to better reflect the integration of its disciplines and its modern approach to food systems.
- Develop a document on faculty teaching and service evaluation.

## **The Advisory Committee**

Prepared by: Ms. Lisa Bilal, Administrative Assistant

## **Membership**

Nahla Hwalla, Chairperson  
 Youssef Abou Jawdeh  
 Shady Hamadeh  
 Musa Nimah  
 Fawwak Sleiman  
 Salma Talhouk  
 Rami Zurayk  
 Lisa Bilal, Secretary

## **Actions**

The committee held 14 meetings throughout the academic year 2008–09 and the following actions were taken:

- Applications for short and long term faculty developments, junior faculty research leave, and leave with pay were approved.

- The following appointments were made: Dr. Mohamad Abiad, as Assistant Professor in Food Engineering; Dr. Hala Ghattas, as Assistant Professor in Community Nutrition at the NFSC Department and Dr. Ali Chalak, as Assistant Professor in Applied Economics at the AGSC Department. Appointment of part timers were as follows: (7) in the NFSC Department ; (5) in the LDEM Department and (2 ) in the AGSC Department.
- Renewal of contracts of full-timers from various departments were approved.
- Dr. Toufeili was appointed to serve as Due Process Monitor (DPM) for promotion meetings. Drs. Farran, Yau, and Haidar were appointed to serve on the Expanded Advisory Committee for promotion meetings.
- Evaluations and recommendations of three faculty members for promotion to Associate and Full Professor were approved.
- Dr. Nazim Gruda, a short listed candidate for the Horticulture position at the AGSC Dept, was invited for an interview and meeting with the faculty.
- Ms. Elke Berger was invited to serve as a Visiting Faculty at the LDEM Department and Dr. Nadine Sahyoun was invited to serve as a Fulbright Visiting Scholar at NFSC Department from October 2009 to September 2010.
- The Memorandum of Understanding between Szent Istvan University and FAFS was approved.

## **Recommendations**

- The committee recommended that the candidates for the title Emeritus Professor be subjected to a comprehensive evaluation which highlights and assesses outstanding achievements in teaching, research and services.
- The committee recommended the revision of the mentoring process at the Faculty.

## **Academic and Curriculum Studies Committee**

Prepared by: Ms. Rabia Koubayssi, Assistant for Student Services

## **Membership**

Nahla Hwalla, Chairperson  
 Elie Barbour  
 Isam Bashour  
 Mustafa Haidar  
 Zeina Kassaify  
 Omar Obeid  
 Salma Talhouk

Imad Toufeili  
Registrar's Representative  
Student Representative  
Rabia Koubayssi, Secretary

## **Actions**

The Committee met 11 times during the academic year 2008–09 and addressed the following issues:

- Approval of modified syllabi for the new Veterinary courses.
- Courses listed in the catalogues were categorized as either natural science, social science, humanity or quantitative.
- 13 students in the Agriculture program and 22 students in the Landscape program were deemed eligible to go to AREC during spring semester of 2008-09. Classes at AREC started on February 16, 2009.
- The recommendation of the LDEM department for students to obtain a grade of 70 in all design courses was approved.
- The Committee approved spring, summer and fall course offerings. It also approved the following new courses at LDEM:
  - LDEM 265 "Landscape Management" (3 cr.) during spring 2008–09.
  - LDEM 263 "Landscape Appreciation" (3 cr.) during summer 2008–09.
- The new undergraduate Coordinated Program in Nutrition and Dietetics was also approved.
- The Committee approved the following new courses to be offered during fall 2009–10 by the NFSC Dept.:
  - NFSC 283 "Nutrition Education and Communication" (3 cr.)
  - NFSC 284 "Seminar in Clinical Dietetics" (2 cr.)
  - NFSC 301 "Statistical Methods for Nutrition and Food Science" (3 cr.)
  - NFSC 307 "Nutritional Epidemiology" (3 cr.)
- Based on AUB probation rules and regulations, the Committee decided to drop three students effective August 2009. One student was placed on strict probation, three students were placed on P3 and two students were removed from strict probation.
- The committee approved the recommendation of the NFSC Department to change the names of the following courses effective fall 2009-10 :
  - NFSC 292: Change from Therapeutic Nutrition I to Medical Nutrition Therapy I
  - NFSC 293: Change from Therapeutic Nutrition II to Medical Nutrition Therapy II
  - NFSC 294: Change from Therapeutic Nutrition Laboratory I to Medical Nutrition Therapy Laboratory I
  - NFSC 295: Change from Therapeutic Nutrition Laboratory II to Medical Nutrition Therapy Laboratory II

- The Committee recommended to the Faculty to award the BSc degree in Agriculture and Diploma of *Ingénieur Agricole* to 8 students, the BSc degree in Landscape Design and Eco-Management and Diploma of *Ingénieur Agricole* to 17 students, the BSc degree in Food Science and Management to 52 students and the BSc degree in Nutrition and Dietetics to 32 students for the academic year of 2008–09. Twenty ND students were selected to pursue the 4th year of practicum training in conformation with CP program.

## Recommendations

- The Committee recommended to the Faculty to accept to the Nutrition and Dietetics and the Food Science and Management programs sophomore students with Life and General Sciences background effective fall 2010–11.

## The Admissions Committee

Prepared by Ms. Tharwat Haddad, Student Records Officer

### Membership

Dean Nahla Hwalla, Chairperson

Elie Barbour

Nadim Farajalla

Mustapha Haidar

Zeina Kassaify

Fawwak Sleiman

Admission's Representative

Registrar's Representative

Student Representative

Tharwat Haddad, Secretary

### Actions

The Committee held two meetings during the academic year 2008–09.

- The Committee accepted during the academic year 2008–09 a total of 199 transfer students of which 66 students were registered in the six majors offered by FAFS:
  - 13 2nd BS and 14 Transfer applicants from Universities other than AUB were recommended to the UUAC to be accepted in the six FAFS majors for spring 2008-09, and fall 2009–10 semesters.
  - 172 transfer students were accepted by the Admissions Committee for the academic year 2008–09 of which 55 students were registered.

## **Recommendations**

- The committee recommended that the acceptance letter to the candidates accepted to the 2nd BSc in Nutrition and Dietetics contains the following statement: “You are not eligible for enrollment in the Coordinated Program (CP) in Nutrition and Dietetics and priority of internship will be given to CP and high standard students.”
- It was also recommended that the NFSC department presents internship requirements.

## **Graduate Studies Committee**

Prepared by: Ms. Rabia Koubayssi, Assistant for Student Services

### **Membership**

Nahla Hwalla, Chairperson

Mohammad Farran

Lara Nasreddine

Musa Nimah

Omar Obeid

Fawwak Sleiman

Admission's Representative

Registrar's Representative

Rabia Koubayssi, Secretary

### **Actions**

The Committee met 6 times during the academic year 2008–09 and considered 14 petitions from students.

- The committee approved the program of study and thesis titles of 21 students.
- The committee accepted in the Academic year 2008–09 139 students.
- The committee approved the recommendation of the AVSC department that graduate students majoring in Animal or Poultry Sciences are required to enroll in 4 core courses including AGSC 301.

## **Recommendations**

- The committee recommended to the Faculty to award the MS degree for the academic year 2008–09 to the following students in their respective majors: 12 in Nutrition, 8 in Food Technology, 3 in Irrigation, 2 in Plant Protection, 2 in Animal Science, 2 in Poultry Science, and 1 in Ecosystem Management.

# **The Research Committee**

Prepared by: Dr. Yusuf Abou-Jawdah, Professor

## **Membership**

Yusuf Abou Jawdeh, Chairperson

Nadim Farajalla

Lara Nasreddine

Omar Obeid

## **Actions**

The committee members met several times (six subcommittee meetings and five formal meetings) during the period of October 1, 2008 until June 30, 2009. The major subjects dealt with were:

- Evaluation of the research articles submitted for Dr. Constantine Rubeiz's award and the nomination of faculty members for the award.
- Prepared the research report for the academic year 2007–08.
- Reviewed and approved of research proposals submitted to LNCSR by FAFS Professors.
- Evaluation of URB proposals: Assistant and Associate professors were encouraged by giving them 10% and 5% higher scores, respectively, than full professors. A decision was taken to ask each applicant to provide the names and addresses of two local and two external referees. In addition, committee members were asked to provide two additional external referees for each proposal. An electronic evaluation form was developed and sent to reviewers. Eleven research proposals listed in table 2 below were evaluated and rated.



**Table 2: URB Research Proposals**

Principal Investigator	Proposal title
Abou Jawdah, Yusuf	Development of Lebanese Type Tomato with Multi-resistance to Tomato Yellow Leaf Curl Virus, Soilborne Pathogens and Abiotic Stress
Barbour, Elie	Chicken Histopathologic Lesions Induced by Multiply passaged-H9N2 Viruses with Variable Hemagglutinin Gene Sequences
Bashour, Issam	Response of <i>Orobanche ramosa</i> to Anhydrous Ammonia in Potato
Haidar, Mustapha	Salicylic Acid and Hydrogen Peroxide for the Control of <i>Orobanche ramosa</i> and <i>Orobanche crenata</i>
Kassaify, Zeina	Characterization of the Lactic Acid Bacteria in Anbaris (Goat's Fermented Milk) and Preliminary Probiotic Selection
Naja, Farah	Prevalence and Determinants of Use of Complementary and Alternative Medicine among Type 2 Diabetes Mellitus
Nasreddine, Lara	Effects of Different Types of Fat on PYY, GLP-1, Ghrelin and Insulin Postprandial Responses in Healthy Male Subjects
Obeid, Omar	The Role of Phosphate in Fructose Induced Hypertriglyceridemia of Rats
Olabi, Ammar	The Characterization of the Physicochemical and Sensory Properties of Full-fat, Reduced-fat and Low-fat Bovine, Ovine and Caprine Concentrated Yogurt (Labneh)
Toufeili, Imad	Cultivar Influence on Chemical Composition and Sensory Profile of Lebanese Extra-Virgin Olive Oil
Yau, Sui Kwong	Effects of Different Levels of Stubble Retention on Crop Growth, Development and Yield, and Soil Organic Matter Buildup Under Zero versus Conventional Tillage

## **The Library Committee**

Prepared by: Dr. Sui-Kwong Yau, Professor

### **Membership**

Zeina Kassaify

Farah Naja

Julie Weltzein

Sui-Kwong Yau, Chairperson and Secretary

### **Actions**

No meetings were held during the academic year 2008–09. All communication was done through emails.

- Consulted colleagues and collected their comments and suggestions regarding the Science/Agriculture Library and the AREC Library.
- Studied and approved the proposal on strengthening the AREC Library prepared by the Associate Dean. The chairperson presented this proposal for discussion to the University Library Committee. Reassurance was obtained that the AREC library will continue to receive support commensurate with its status as a branch of the AUB libraries.
- Duplicate copies of a limited number of books needed at both the Science/Agriculture Library and at AREC were purchased to avoid gaps.
- The chairperson updated the committee and the faculty members on the decision of the University Library Committee

### **Recommendations**

- AUB should have a strategic plan for the Science/Agriculture Library and should solicit the feedback of faculty members on it.

## **The Student Affairs Committee**

Prepared by: Dr. Ammar Olabi, Assistant Professor

### **Membership**

Nadim Farajalla

Zeina Kassaify

Ammar Olabi, Chairperson

Jala Makhzoumi

Julie Weltzien

Avak Kamakian, SRC representative

The committee held 6 meetings throughout the academic year 2008–09. The committee members discussed disciplinary actions and FAFS awards and made the following recommendations to the Dean:

## **Disciplinary Actions**

The committee dealt with one case of plagiarism by an LDEM student where a portion of her drawings for LDEM 204 were plagiarised in Fall 08–09. When confronted with the issue, she reacted in an offensive and unacceptable manner. The committee met and recommended giving her a Dean's Warning.

## **FAFS Awards**

### **1. Joana Haidar Award**

The committee selected Ms. Salwa Sabbagh for this award.

### **2. FAFS Alumni Award**

The committee selected Mr. Fadi Zaiter for this award.

### **3. Edgcombe Award**

The committee selected Mr. Sami Abdul Rahman for this award.

### **4. Kashadurian Award**

The committee selected Mr. Sami Abdul Rahman for this award.

### **5. Dean Thomas Thuserland Prize for Graduate Excellence**

An e-mail was sent to all faculty members to call for nominations for this award. Each professor was asked to nominate only one graduate student along with a copy of the thesis, resume and provision of justification for making the nomination. Four nominations were considered and each thesis was sent to three reviewers. Based on the originality, design, research, clarity of presentation and importance to the field, the committee recommended Ms. Lama Lteif for this award.

### **6. Abdul Hadi Debs Award**

The committee established and recommended to the Dean's office written procedures for this Award. Three nominations were considered and each manuscript was sent to three reviewers. Reviewer's comments (Score sheet) were used as criteria for selection/ranking. Based on the originality, design, research, clarity of presentation and importance to field, the committee recommended Ms. Nour El Ouyoun Najm for this award.

## **7. Penrose Award**

An email was sent to all FAFS faculty members asking them to submit nominations for this award. The committee reviewed the records of four nominees and recommended all four to the Dean at no order of preference:

1. Sami Abdul Rahman
2. Loulwa Kalash
3. Mirna Khairallah
4. Antoine Khalil

Candidates were asked to make short presentations about their qualifications for the award in a faculty meeting. The faculty voted for Mr. Sami Abdul Rahman.

## **C. Adhoc Committees**

### **The Strategic Planning Committee**

Prepared by: Ms. Lisa Bilal, Administrative Assistant

#### **Membership**

Rami Zurayk, Chairperson  
Nahla Hwalla  
Jad Chaaban  
Omar Obeid  
Salma Talhouk  
Shady Hamadeh  
Lisa Bilal, Secretary

#### **Actions**

The committee met five times to revise, assess and amend the current FAFS Strategic Plan to reflect the integrative vision of the faculty. The committee developed an online survey that was distributed to the faculty members to solicit their views for FAFS strategic plan.

A retreat meeting for FAFS faculty members was held where a presentation on the progress of the strategic plan was made to the faculty. The floor was then open for discussion. In addition, the Key Performance Indicators were revised and updated to better reflect the major activities of the faculty. The mission and vision of the faculty were reconsidered during the subsequent revision of the strategic plan to reflect the integration of disciplines currently offered by the school and to better reflect the modern approach to food systems. A summary report on the revised FAFS strategic plan was completed and recommended to be announced in a second faculty retreat meeting in November 2009.

## **The FAFS By-Laws Committee**

Prepared by: Fawwak Sleiman, Chairperson, By-Laws Ad-Hoc Committee

### **Membership**

Fawwak Sleiman, Chairperson

Isam Bashour

Nadim Farajalla

Zeina Kassaify

### **Actions**

On May 1, 2008, an Ad-Hoc Committee was established by the Dean to revise the FAFS By-Laws. The Committee held several meetings to revise and modify the FAFS By-Laws as of the summer of 2008 and during the fall semester of 2008–09 where many modifications were introduced. The modified By-Laws were then presented to the Faculty for consideration and approval. The Faculty accepted the revisions and approved the modified By-Laws in early 2009.

## **D. University Committees**

### **University Student Faculty Committee**

Prepared by: Dr. Zeina Kassaify, Assistant Professor

### **Actions**

- On October 16, 2008, SRC Elections Representation by Faculty and Class were allocated:
  - AGRI I and VTSC will have three representatives
  - NTDT I will have two representatives
  - LDEM I and II will have one representative
  - LDEM III and IV will have one representative
  - Graduates will have three representatives
- On March 24, 2009, a proposal was sent to the Board of Deans for a Graduate Award to be named after Dr. Malcolm Kerr mimicking the Penrose undergraduate award.
- On May 12, 2009, Ms. Leah Moukarzel (FAFS-SRC) presented her funding request for the AREC Aggie Olympics. A sum of 1,140,000 L.L. was approved.

## University Publications Committee

Prepared by: Dr. Yusuf Abou-Jawdah, Professor

### Actions

- Since the AUB press has been in stagnant freeze since 2007, the Committee recommended reviving it.
- The committee recommended establishing a clear, comprehensive policy with standard procedures for AUB publications.
- The committee recommended sending the book “History of the AUB Campus” by Professor Jala Makhzoumi for peer review by two external referees.

## University Library Committee

Prepared by: Dr. Sui-Kwong Yau, Professor

### Actions

- The proposal on strengthening the AREC Library prepared by the FAFS Associate Dean was submitted for discussion by the University Library Committee. Reassurance was obtained that the AREC library will continue to receive support commensurate with its status as a branch of the AUB libraries.
- The committee approved the purchase of a limited number of books at the AREC Library needed by Faculty members and students residing at AREC.

## Senate Committee on General Education

Prepared by: Dr. Jad Chaaban, Assistant Professor

### Actions

- The committee agreed to delay approval of new courses until new, robust and justified criteria based on General Education Learning Outcomes (GE LOs) are developed, and to try to complete this task without delay or compromising quality.
- It was mentioned that the reason the SCGE was created was to prevent arbitrary and unfounded GE designation. One of the valuable motives stated for a professional department to offer a GE course is the value to students to see GE through the lens of their own and other disciplines.
- The SCGE would work on two tracks, track one being to develop GE LOs and the criteria to designate a GE course based on the GE LOs, and track two being the writing intensive course designation to be in place by Fall 2009–10.

## University Research Board

Prepared by: Dr. Yusuf Abou-Jawdah, Professor

### **Actions**

- The evaluation of procedures and granting policies of all faculties were compared in a quest for better harmonization at the university level.
- The university research board committee discussed at length the procedures to follow in granting URB research grants. Due to the limited funds available for research, the majority approved the competitive nature of grants: only the top ranking proposals will be granted research funds.
- A substitute motion by FAFS representative for granting URB grants to all candidates whose research proposals are approved by their Faculty Research Committees failed.

## E. Fund Raising and Endowment Funds

During 2008–09, the following funds were received by FAFS:

- Abdul Hamid Hallab Endowed Scholarship Fund: established to provide financial assistance for a full time FAFS student majoring in Food Science Management in perpetuity.
- FAO Scholarship: established in the name of a fellowship for a graduate student majoring in Plant Protection for two years.
- AREC '80 Endowed Fund: On May 22, 2009, representatives of AREC '80 presented to the Dean a check worth \$40,000 towards the \$75,000 pledge. This award will go on an annual basis to a FAFS student who has spent more than three regular semesters at FAFS, is needy and not on probation.
- UNIFERT Scholarship: Unifert, a Lebanese agricultural Company, approved a scholarship of \$8000 for FAFS students studying at AREC.
- Donation in kind: Mr. Jacques Hanna, ARD Unifert, supported the FAFS 50th Anniversary Graduate Student Endowment Fund. Mr. Saba Abdo and Foud El Khoury from Dar Al-Handasah-Shair and Partners supported the FAFS Career Center. A number of FAFS alumni made contributions to the Faculty through AUB Development Office.





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## II. The Faculty

## A. Academic Matters

### Report on Faculty Meetings

Prepared by: Dr. Farah Naja, Assistant Professor

During the period October 1, 2008 to September 30, 2009, seven faculty meetings were held at FAFS in which the following actions were taken:

- The Undergraduate Coordinated Program in Nutrition and Dietetics (CP) was approved unanimously.
- Drs. Kassaify, Obeid, Makhzoumi and Nimah were elected to replace Dr. Olabi for the Spring Semester on the FAFS Admissions Committee, the FAFS Research Committee and the FAFS Student Affairs Committee respectively.
- Drs. Bashour and Sidahmad were elected to replace Dr. Nimah (who was on leave during the Fall Semester) on the Advisory and the Senate Committees respectively.
- Faculty members voted unanimously to award degrees in Agriculture and Diploma of *Ingénieur Agricole*, Nutrition and Dietetics, Food Science and Management, Landscape Design and Eco-Management and Diploma of Ingénieur Agricole and Master of Sciences for students as recommended by the representatives from each department, effective October 08, February 09 and June 09 consecutively.
- Faculty members voted unanimously on FAFS awards as follows:
  - Abdul Hadi Debs Endowment Award: Ms. Nour El Oyoun Najm
  - Dean Thomas Sutherland Award for graduate excellence: Ms. Lama Lteif
  - Edgecombe Memorial Prize: Mr. Sami Abul Rahman
  - Kashadurian Award: Mr. Sami Abul Rahman
  - FAFS Alumni Award: Mr. Fadi Zaiter
  - Joanna Haidar Award :Ms. Salwa Sabbagh
  - Penrose Award: Mr. Sami Abdul Rahman
- Faculty members voted on the revisions of the FAFS by-laws as approved by the FAFS Administrative Committee Members.

### Faculty Recruitment

Five new faculty members were appointed in the Agricultural Sciences (AGSC) and the Nutrition and Food Sciences (NFSC) Departments: Dr. Ali Chalak, Assistant Professor of Microeconomics in the AGSC department, Drs. Mohamad Al Abiad, Assistant Professor of Food Engineering and Hala Ghattas, Assistant Professor of Community Nutrition in the NFSC department. The NFSC department also appointed Dr. Dalia Tannous El Khoury and Ms. Nadine Mikati as full time Lecturer and Instructor respectively. Dr. Nazim Gruda, a short listed candidate for the Horticulture position at the AGSC department was invited for an interview and meeting with the faculty, but he did not meet the faculty's expectations.

## Faculty Numbers

The total number of Faculty Full Time equivalent (FTE) was 30.85 for fall 2008–09 and was distributed as follows:

- FTE (Full-timers) in professorial ranks was 23 (Assistant, Associate and Full Professors)
- FTE (Full-timers) in non-professorial ranks was 3 (1 Lecturer and 2 Instructors)
- FTE (Part-Timers) in both professorial and non-professorial ranks was 4.85 (1 Professor and Lecturers and 3.85 Instructors).

**Table 3: FTE by Department**

		Department				
		AGSC	AVSC	LDEM	NFSC	Total
Full-time	Professorial Rank	8	4	5	6	23
	Lecturer and Instructor				3	3
Part-Time		1.25	0.0	2.35	1.25	4.85
<b>Total</b>		<b>9.25</b>	<b>4</b>	<b>7.35</b>	<b>10.25</b>	<b>30.85</b>

In addition, a total of 10 full-time Research Associates, Senior Research Assistants, and Research Assistants were hired on university funds.

The table below lists FAFS full-time and part-time faculty members sorted by rank:

**Table 4: Faculty Numbers by Rank**

Professor Emeritus	2
Professors (including the Dean and part-time Professor)	16
Associate Professors	3
Assistant Professors	6
Senior Lecturer	1
Lecturers	5
Instructors	10
Assistant Instructors	2

## Departmental Chairpersons

- Elie Barbour; Animal and Veterinary Sciences (October 1, 2007–September 30, 2010)
- Isam Bashour; Agricultural Sciences (October 1, 2007–September 30, 2010)
- Imad Toufeili; Nutrition and Food Sciences (October 1, 2006–September 30, 2009)
- Salma Talhouk; Landscape Design and Ecosystem Management (September 11, 2008–September 30, 2011).

## Promotion

Drs. Jala Makhzoumi (LDEM) and Omar Obeid (NFSC) were promoted to Full Professors while Dr. Ammar Olabi (NFSC) was promoted to Associate Professor.

## Personnel Affairs

Dr. Salma Talhouk was appointed as the Seed Bank Director at AREC effective March 18, 2009. Dr. Talhouk's current activities in collection, re-introduction and use of non-food germplasm will expand the role of the Seed Bank to become a repository of food as well as of non-food species.

Dr. Musa Nimah was on special leave with pay during the first semester 2008–09. The contract of Dr. Ahmad Al Zubaidi (AGSC), Research Fellow supported by Iraqi Rescue fund, was renewed for one year as of June 1, 2009.

## Resignations and Termination of Contracts

The contract of Mrs. Salma Husseini Salman as Senior Research Assistant, in the Landscape Design and Ecosystem Management Department, ended on September 30, 2009. The resignation of Dr. Moatasim Sidahmed, Professor in the AGSC, was accepted on December 31, 2008.

## Research Grants and Service Contracts

As of October 1, 2008, the University Research Board (URB) provided funds for 13 faculty members with a total budget of \$83,324, while the Lebanese National Council for Scientific Research (LNCSR) provided funds for 7 faculty members including the Dean, with a total budget of \$100,979.

During 2008–09, the following faculty members received new funds from external sources amounting to approximately \$ 1,871,996 : Drs. Abou Jawdeh, Barbour , Chaaban , Hamadeh, Hwalla, Makhzoumi, Nasreddine , Obeid , Talhouk and Zurayk. A total of 29 papers were published in scientific peer reviewed journals: 11 (AGSC), 9 (AVSC), 5 (NFSC), and 4 (LDEM).

## Faculty Professional Activities

The following faculty members received short term faculty development grants and presented papers and/or chaired sessions in scientific meetings: Drs. Abou Jawdeh, Bashour, Barbour, Farajalla, Hamadeh, Kassaify, Makhzoumi, Nasreddine, Obeid, Saad and Toufeili. Moreover, Dr. Haidar received a long-term faculty development grant to conduct research at the University of Tasmania, Australia, from August 1 to August 31, 2009. Dr. Olabi was granted a periodic paid research leave from February 15, 2009 till June 15, 2009. The manuscript submitted by Dr. Salma Talhouk received the Constantin Rebeiz Award (CA and CC Rebeiz Award) of \$1000 for Agricultural Research at FAFS.

## B. Student Statistics

### Student Admissions: 2008–09

The tables below show the numbers and percentages of undergraduate students who applied to FAFS, those who were admitted and those who actually enrolled. A total of 38% new students were enrolled in the faculty according to the below table.

**Table 5: Number of New Undergraduate Applicants, Admitted and Enrolled**

Program	Fall and Spring 2008-09				
	Applications	Admissions	% Admitted out of applicants	Enrollment	% Enrolled out of admitted
AGRI	468	230	49%	104	45%
FSMT	372	82	22%	31	38%
LDEM	308	92	30%	21	23%
NTDT	435	140	32%	47	34%
VTSC	40	13	33%	6	46%
<b>Total</b>	<b>1623</b>	<b>557</b>	<b>34%</b>	<b>209</b>	<b>38%</b>

**Table 6: Number of Second Degree and Transfer Applicants, Accepted and Enrolled**

Program	Applications	% Distribution	Admissions	% Admitted out of applicants	Enrollment	% Enrolled out of admitted
<b>Spring 2008-09</b>						
AGRI	10	8%	9	90%	6	67%
AGBU	13	11%	11	85%	5	45%
LDEM	18	15%	4	22%	1	25%
NTDT	41	34%	6	15%	3	50%
FSMT	33	28%	10	30%	4	40%
VTSC	5	4%	4	80%	1	25%
<b>Total</b>	<b>120</b>	<b>100%</b>	<b>44</b>	<b>37%</b>	<b>20</b>	<b>45%</b>
<b>Fall 2009-2010</b>						
AGRI	32	10%	22	69%	2	9%
AGBU	73	24%	43	59%	7	16%
LDEM	37	12%	18	49%	4	22%
NTDT	94	31%	41	44%	26	63%
FSMT	55	18%	22	40%	7	32%
VTSC	14	5%	9	64%	0	0%
<b>Total</b>	<b>305</b>	<b>100%</b>	<b>155</b>	<b>51%</b>	<b>46</b>	<b>30%</b>

**Table 7: Number of Graduate Applications and Admission**

Program	Fall, Spring and Summer 2008–09					
	Applications	% Distribution	Admissions	% Admitted out of applicants	Enrollment	% Enrolled out of admitted
NUTR	81	43%	57	70%	17	30%
FTCH	50	26%	37	74%	14	38%
PLSC	5	3%	4	80%	1	25%
PLPT	6	3%	4	67%	0	0%
ANML	10	5%	8	80%	1	13%
POSC	6	3%	4	67%	1	25%
AGEC	5	3%	5	100%	3	60%
IRRG	6	3%	4	67%	0	0%
SOILS	9	5%	6	67%	2	33%
ECOM	12	6%	10	83%	5	50%
<b>Total</b>	<b>190</b>	<b>100%</b>	<b>139</b>	<b>73%</b>	<b>44</b>	<b>32%</b>

## Student Enrollment

**Table 8: Total Student Enrollment**

Enrollment	AY 08–09
UG AGRI (4 years)	201
UG NTDI	187
UG LDEM (4 years)	103
UG FSMT	128
UG VTSC	8
UG AGBU	2
<b>Total Undergraduate</b>	<b>629</b>
Agricultural Economics	3
Animal Science	6
Ecosystem Management	4
Food Technology	23
Irrigation	6
Nutrition	53
Plant Protection	5
Plant Science	2
Poultry Science	1
Soil	3
<b>Total Graduate</b>	<b>106</b>
<b>Total</b>	<b>735</b>

**Table 9: Number of Enrolled Graduate FAFS Students for the Last Five Academic Years**

Major	04-05	05-06	06-07	07-08	08-09
AGEC	7	8	6	5	3
IRRG	3	3	5	6	6
PLPT	8	8	8	8	5
PLSC	3	4	3	1	2
SOIL	2	3	2	1	3
ANML	5	6	4	2	6
POSC	3	3	5	3	1
ECOM	12	9	10	3	4
FTCH	12	17	20	25	23
NUTR	29	33	32	44	53
<b>Total Graduate</b>	<b>84</b>	<b>94</b>	<b>95</b>	<b>98</b>	<b>106</b>

**Table 10: Number of Enrolled Undergraduate FAFS Students for the Last Five Academic Years**

Major	04-05	05-06	06-07	07-08	08-09
AGRI (4 years)	176	145	137	156	201
LDEM (4 years)	69	80	87	120	103
FSMT	125	152	137	154	128
NTDT	148	152	145	177	187
VTSC	n.a.	n.a.	n.a.	n.a.	8
AGBU	n.a.	n.a.	n.a.	n.a.	2
<b>Total UG</b>	<b>518</b>	<b>529</b>	<b>506</b>	<b>607</b>	<b>629</b>

**Table 11: Number of Graduated FAFS Undergraduate Students for the Last Five Academic Years**

Major	04-05	05-06	06-07	07-08	08-09
AGRI	14	12	11	14	8
LDEM	15	8	8	17	17
FSMT	8	25	23	40	52
NTDT	63	50	54	55	32*
<b>Total UG</b>	<b>100</b>	<b>95</b>	<b>96</b>	<b>126</b>	<b>109</b>

\* The decrease is due to the delay in the graduation of 20 students to pursue the CP Program.

**Table 12: Number of Graduated FAFS Graduate Students for the Last Five Academic Years**

Major	04–05	05–06	06–07	07–08	08–09
AGEC	0	4	2	3	0
IRRG	3	0	2	0	3
PLPT	4	1	3	4	2
PLSC	0	1	2	1	0
SOIL	0	0	2	0	0
ANML	2	2	1	1	2
POSC	2	1	3	1	2
ECOM	4	3	6	4	1
FTCH	3	3	8	4	8
NUTR	7	14	6	9	12
<b>Total Graduate</b>	<b>25</b>	<b>29</b>	<b>35</b>	<b>27</b>	<b>30</b>



## C. Centers and Units

### Agricultural Research and Education Center (AREC)

Prepared by: Mr. Nicolas El Haddad, AREC Farm and Facilities Manager

#### Support Staff

AREC Administration	
El-Haddad, Nicolas	AREC Farm and Facilities Manager
Yazbeck, Mirna	Secretary
Hajj-Hasan, Hussein K.	Sales Attendant/Store Keeper
Yazbeck, Bilal	Driver, Purchaser

AREC Physical Plant	
Ghosn, Hisham	Gateman/Watchman
Haidar, Nasser	Janitor
Hajj-Hasan, Fuad	Boiler Operator/Pipe Fitter
Hajj-Hasan, Husain Ali	Gateman/Watchman
Hajj-Hasan, Khayrieh	Maid
Hajj-Hasan, Mohammad	Gateman/Watchman
Hajj-Hasan, Shehadeh	Janitor
Kak, Mohamad	Gateman/Watchman
Masri, Ali	Gateman/Watchman
Mussawi, Kuzhayyah	Gateman/Watchman
Zein, Bassam	Mason

AREC Production	
Abou-Eid, Abdallah	Field Worker
El-Ali, Ibrahim	Animal Attendant
Hajj Hassan, Ahmed K.	Animal Attendant
Hajj Hasan, Ali	Field Worker
Mousawi, Abbas	Machine Operator
Takash, Nayef	Machine Operator
Yazbeck, Hussein	Animal Attendant

AREC Cafeteria	
Hamiyeh, Walid	Assistant Cook
Kayyal, Ali	Food Service Worker
Rumeh, Abdul Karim	Cook
Shukr, Khalil	Food Service Worker

## Highlights

- Providing AUB pilot plant, dietary department, healthy basket, and Mrs. Carla Mrad's diet center with AREC produce
- Developing a new logo for AREC produce
- Issuing a newsletter
- Launching of Earth shop for traditional food products processed by different food cooperatives of Baalbek-Hermel region
- Holding an English course for the first time at AREC in collaboration with AUB REP office
- Installing systems for energy conservation
- Installing a GIS (Geographic Information System) to plan farm operations, monitor, and manage the environmental impact
- Providing assistance for faculty members and graduate students in the following research projects:
  - Response of *Orobanche ramosa* to anhydrous ammonia in potato
  - Nutritional values of de-hulled safflower meal for poultry
  - Collection and evaluation of Lebanese wheat landraces
  - Effects of rotation - Comparing barley performance after a previous crop of safflower, chickpea, or barley
  - Effect of different rates of saline water on the yield and the size of potato
  - Management of *Orobanche ramosa* in potato with Ammonia Gas and sub-lethal doses of Glyphosate
  - Conservation agriculture in order to study its economic and environment importance
- Carrying out several workshops that aimed at community development and outreach:
  - "Seeds of Hope Trees for Tomorrow" workshop that focused on how to start a forest tree nursery including seed collection, composting, pot types, irrigation, fertilization, and hardening the trees to be transferred to outside environments
  - "Land and People" workshop on sustainable agriculture
  - "Land and People" workshop entitled "Empowerment of small agricultural production through support to farmers of gastronomic products"
  - "Bedouin Health workshop" organized by the Faculty of Health Sciences
  - "Food and Health in Rural Lebanon" organized by IBSAR at AUB in collaboration with the University of Ottawa-Canada
  - "Conservation Agriculture" workshop organized by FAFS in collaboration with German Technical Cooperation organization-Germany (GTZ)

- Providing assistance to faculty members engaged in teaching, and students in implementing their projects:
  - Demonstrating the different systems of engines and the use of farm machinery
  - Acquainting the students with the different practical farm operations on daily basis
  - Preparing the necessary tools for students labs
  - Providing assistance to the students in implementing 4 projects at AREC and in re-establishing the garden of a school in Bednayel
- Adopting new techniques in farm production and processing:
  - Using drip irrigation system for field corn in order to reduce the cost
  - Direct planting of crops in around 20% of the total planted area due to its economic and environment importance
  - Applying fertilizers according to the results of soil analysis and crop requirements
  - Analyzing dairy products for bacteria
  - Making a label for farm products that contains AREC logo and the nutritional values of each product

## Strategic Challenges

- Water, Climate, and Soil:
  - The decrease in the average of annual precipitation has led to a drop down in the water table. 6 out of 7 deep wells have dried and water for irrigation is supplied only from one source. Using the drip irrigation system in the orchard and for corn has reduced the volume of water as well as the fuel consumed.
  - Due to the poor content of AREC soil in organic matter and its low capacity to retain water, conservation agriculture was applied in plots devoted to production. This method has economic and environmental importance in reducing cost of operations, soil compaction, emission of carbon gas with tillage operations, and increasing of soil organic matter.
- Raw material price increase:
  - The price of fuel has increased dramatically. The installation of solar water-heating panels on the different lodging facilities has diminished to minimum the consumption of Gasoil by the boiler heating system.
  - The price of fertilizer has doubled. Analyzing the soil of different plots has reduced by 40% the amount of fertilizer used.

# Environment and Sustainable Development Unit (ESDU)

Prepared by: Ms..Layal Dandache, Research Assistant

## Personnel

Shady Hamadeh, ESDU Director

Diana Abi-Said, Administrative-Financial Officer

Layal Dandache, Monitoring and Evaluation Officer

Salwa Tohme Tawk, Knowledge Management Officer

Ziad Moussa, Capacity Development and Outreach Officer

## Highlights of the year

- Communication for Development (ComDev): ESDU has successfully achieved the dissemination of the ComDev concept supported by FAO through different activities: (i) the portal launched [www.comdev-neareast.org](http://www.comdev-neareast.org); (ii) the regional workshop on “Effective Communication for Agricultural Research and Extension Systems: supporting small-scale farmers to achieve food security” that took place in Beirut - Lebanon between the 24-28 November, 2008; (iii) the training materials produced: the Arabic versions of FAO handbooks “Participatory Communication Strategy Design” and “Participatory Rural Communication Appraisal” as well as the Arabic versions of FAO videos “Listening to Change” and “Sharing Knowledge.”
- Outcome Mapping (OM): ESDU and IDRC sponsor the participation of a group of researchers and development practitioners from MENA during the 5th edition of AfREA (international impact evaluation workshop) in Cairo (March 29–April 2, 2009) and capitalize on their presence by involving them in the activities of planning a 3 year action research proposal aimed at mainstreaming Evaluation Theory and Practice in the MENA region by using OM as an entry point. A discussion group EvalMENANet is formed and it allows the participants to build on a common vision for evaluators in the MENA region.
- From Seed to Table (FStT): ESDU signs another 2 year agreement with RUAF worth \$0.6 Million to join the FStT project aimed at contributing to the recognition and support of urban agriculture to alleviate poverty, enhance food security and improve the environment, thus enhancing development. The FStT project aims at facilitating the development of sustainable urban farming systems in Amman and Sana’a through the use of a value chain approach. In addition, Urban Agriculture knowledge is enhanced through two urban agriculture magazines per year in both hard and soft copies ([www.urbanagriculture-mena.org](http://www.urbanagriculture-mena.org)).





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### III. Departmental Reports

## A. Department of Agricultural Sciences

Prepared by: Dr. Isam Bashour, AGSC Chairperson,

Ms. Alia Alameddine, AGSC Departmental Research Assistant

### Highlights

The major strengths of the AGSC Department lie in the fact that it offers western liberal education to encourage a learning style which addresses real-life challenges and concerns. The department offers practical training and hands on experience in field and laboratory operations. This year the department started a new undergraduate BS program in Agribusiness which is the first of its kind in the region. This program is expected to increase enrollment in the AGSC Department and provide the region with needed skills.

Dr. Jad Chaaban joined the FAFS family as an Assistant Professor of Agricultural Economics, specializing in the economics of natural resources and agro-food markets. Forty-three students were accepted for the Agribusiness program during the spring semester. The agribusiness program was registered at the Ministry of Education in Lebanon and the documents were sent for registration in the State of New York. Dr. Ali Chalak, Assistant Professor of Agricultural Economics, was appointed to teach courses in agribusiness and agriculture effective the academic year 2009–10.

The department reviewed the applications for the vacant position in Horticulture and recommended a short list of three candidates to be reviewed and approved by the Advisory Committee. Dr. Nazim Gruda was invited for an interview and meeting with the faculty. However, he did not meet the faculty's expectations.

Thirty-Six courses were offered, 25 undergraduate and 11 graduate courses. Five students earned an MS degree, one in hydrology, two in irrigation and two in plant protection. Published research included 11 refereed articles.

### Personnel

#### a. Full time Faculty

Isam Bashour	Professor, Chairperson
Youssef Abou Jawdeh	Professor
Jad Chaaban	Assistant Professor
Mostapha Haidar	Professor
Musa Nimah	Professor
Adib Saad	Professor
Sui-Kwong Yau	Professor



## **b. Part Timers**

Efat Abou-Fakhr Hammad	Senior Lecturer
Youssef Al-Khalil	Lecturer
Fabienne Gebara	Instructor
Wafa Dika Hamzeh	Instructor
Antoine Kharrat	Lecturer
Rami Ollaik	Instructor
Patricia Sfeir	Instructor

## **c. Associate and Research Assistants**

Hana Sobh	Senior Research Assistant
Alia Alameddine	Departmental Research Assistant
Lucia Hanna	Departmental Research Assistant
Rosine Habchi	Research Assistant (on grant)
Carole Najjar	Research Assistant (on grant)
Mohamad Safieddine	Research Assistant (on grant)
Ahmed Al-Zubaidi	Visiting Scholar on Sabbatical - Institute of International Education's Scholar Rescue Fund (SRF)
Nabil Nemer	Associate

## **d. Graduate Assistants**

Manal Arab	Graduate Assistant 1 semester
Farah Baroudi	Graduate Assistant 2 semesters
Rawad El Rabaa	Graduate Assistant 2 semesters
Abbas Farran	Graduate Assistant 2 semesters
Carla Jamous	Graduate Assistant 2 semesters
Rami Salem	Graduate Assistant 1 semester
Elie Shdeed	Graduate Assistant 2 semesters
Lea Wehbe	Graduate Assistant 2 semesters

## **e. Support Staff**

Naji Haidar	AREC
Hatem Kayyal	AREC
Mouna Hassan	AREC
Ali Sindian	AREC
Ali Yazbek	AREC

# Teaching

## Student Enrollment in Courses

Fall 2008-09

Course	Credits	Enrollment	Instructor
AGSC 201	2	65	M. Haidar
AGSC 212	3	65	J. Chaaban
AGSC 215	3	23	I. Bashour
AGSC 220	3	20	M. Haidar
AGSC 221	3	4	E. Abou-Fakhr Hammad
AGSC 232	3	8	Y. Abou-Jawdah
AGSC 235	2	7	S. Tohme Tawk
AGSC 241	3	24	Y. Khalil
AGSC 265	3	5	I. Bashour
AGSC 288	3	39	R. Ollaik
AGSC 296	1	2	A. Saad
AGSC 300A	1	1	J. Makhzoumi
AGSC 300C	3	2	Y. Abou-Jawdah/S. Talhouk
AGSC 301	3	18	M. Sidahmed
AGSC 311	3	3	Y. Abou-Jawdah
AGSC 317	3	7	N. Farajalla
AGSC 322	3	4	A. Saad
AGSC 395	1	2	S.K. Yau
AGSC 399A	0	2	J. Chaaban/ J. Makhzoumi
AGSC 399B	0	3	M. Nimah/Y. Abou-Jawdah
<b>Total</b>	<b>46</b>		

Spring 2008-09

Course	Credits	Enrollment	Instructor
AGSC 201	2	39	A. Saad
AGSC 203	3	7	S. K. Yau, Y. Abou-Jawdah and M. Haidar
AGSC 212	3	43	J. Chaaban
AGSC 212	3	43	Y. Khalil
AGSC 222	1	13	J. Chaaban
AGSC 224	3	13	F. Gebara
AGSC 225	3	22	A. Kharrat
AGSC 227	1	22	M. Nimah
AGSC 228	3	13	M. Nimah
AGSC 231	3	14	S.K. Yau
AGSC 265	3	11	I. Bashour

AGSC 284	3	14	M. Haidar
AGSC 288	3	54	R. Ollaik
AGSC 295	3	6	Y. Abou-Jawdah
AGSC 296	1	8	A. Saad
AGSC 299	2	1	R. Zurayk
AGSC 300A	1	1	J. Chaaban
AGSC 300B	2	2	J. Chaaban/ A. Saad
AGSC 301	3	17	S. Hamadeh, S. Hlais
AGSC 310	3	7	M. Nimah
AGSC 376	3	9	J. Chaaban
AGSC 388	3	3	Y. Abou- Jawdah, E. Abou-Fakhr Hammad, M. Haidar
AGSC 395	1	3	S.K. Yau
AGSC 399B	0	1	Y. Abou- Jawdah
AGSC 399C	0	3	M. Nimah/Y. Abou- Jawdah
<b>Total</b>	<b>56</b>		

#### Summer 2008-09

Course	Credits	Enrollment	Instructor
AGSC 223	2	12	W. Dika Hamzeh
AGSC 226	3	12	M. Sidahmed
AGSC 235	2	12	P. Sfeir
AGSC 256	1	1	J. Chaaban
AGSC 288	3	12	R. Ollaik
AGSC 300A	1	1	I. Bashour
AGSC 377	3	5	E. Shuck
<b>Total</b>	<b>15</b>		

#### Completed Theses

1. Kassem Jouni, Musa Nimah (Adviser), Effect of deep root wetting and strip irrigation on yield and water use efficiency of apples.
2. Roula Bachour, Musa Nimah (Adviser), Effect of regular deficit irrigation on yield of potato and pepper.
3. Charbel Abou Haidar, Adib Saad (Adviser), Biocontrol of soilborne pathogens on cucumber in organic agriculture systems.
4. Mirna Choueiri, Nadim Farajalla (Adviser), Emerging contaminants in Lebanon: Antibiotics residues in cow manure and soil.
5. Sara Ezzedine, Youssef Abou Jawdeh (Adviser), Molecular characterization of the cedar processionary moth, *Thaumetopea libanotica* and the identification of its sex pheromone.

## Research

### Internal Grants

- Abou Jawdah, Youssef. Cucurbit Yellow Stunting Disorder Virus: Sensitivity of Detection Methods and Development of Resistant Transgenic Plants. \$7500 URB.
- Bashour, Isam. Response of *Orobanche Ramosa* to Anhydrous Ammonia in Potato. \$5,000 URB.
- Haidar, Mustapha. Cover Crops for *Orobanche Ramosa* Control in Potato. \$5,000 URB.
- Yau, Sui Kwong. Effects of Rotation: Comparing Barley Performance after a Previous Crop of Safflower, Chickpea, or Barley. \$5,000 URB.

### External Grants

- Abu Jawdah, Youssef. Development of tomatoes with combined resistance to tomato yellow leaf curl virus (TYLCV) using both virus-derived resistance and molecular marker assisted breeding. (Total budget \$269,000 from 2004–09), Available budget for 2008–09 is \$65,000 USAID.
- Abu Jawdah, Youssef. Development and Improvement of Local Seed Potato Production in the Middle East (Total budget \$180,000 from 2007–10). Co-Investigator: Dr. M. Nimah. Available budget for 2008-09 about \$60,000 USAID.
- Abu Jawdah, Youssef. Control of New Threatening Cucurbit-Infecting Whitefly-Transmitted Geminiviruses in the Middle-East. Total budget \$148,730 from 2008–12 Al Balqaa University.
- Bashour, Isam. Ammonia as an Alternative to Methyl Bromide to Control Root-Knot Nematodes in Vegetables. LL8,700,000 LNCSR.
- Bashour, Isam. Impact of a rise in VAT on poverty and inequality in Lebanon, with Prof. Nisreen Salti and Dr. Jad Chaaban. LL8,242,728 LNCSR.
- Chaaban, Jad. Cash Targeting in Polarized Societies: The Case of Lebanon. Dr. Nisreen Salti. Co-Principle Investigator.
- Chaaban, Jad. Local Socio-Economic Recovery in War Affected Areas of South Lebanon. Available budget for 2008–09 about \$19,000. January–November 2008.
- Chaaban, Jad. Higher Education and Labor Market Outcomes in Lebanon. \$11,700 Hariri Foundation—AUB Alumni.
- Chaaban, Jad. Production, Consumption, Food Security: Support to Small Producers in Tyre and Bint Jbeil Districts, South Lebanon. \$4,410 UCODEP.
- Nimah, Musa. Modeling the Effects of Deficit Irrigation and Depth of Root Wetting on Irrigation Water Saving, Crop Yield and Quality, and Water Productivity. \$4,000 LNCSR.

- Yau, Sui Kwong. Preliminary evaluation of conservation tillage in Lebanon—Phase I. Co-Investigators: Dr. M Haidar and Dr. M Sidahmed. \$5,000 LNCSR.

## Publications

### International Refereed Journal Articles

- Anfoka G., Abhary M., Haj Ahmad F., Hussein A. F., Rezk A., Akad F., Abou-Jawdah Y., Lapidot M., Vidavski F., Nakhla M. K., Sobh H., Atamian H., Cohen L., Sobol I., Mazyad, H., Maxwell D. P. and Czosnek H. "Survey of tomato yellow leaf curl disease – associated viruses in the Eastern Mediterranean basin." *Journal of Plant Pathology* 90 (2): 311–20.( 2008).
- Abou-Jawdah Y., Sobh H. and Akkary M. (2009). "First report of almond witches' broom phytoplasma ('Candidatus Phytoplasma phoenicium') causing a severe disease on nectarine and peach trees in Lebanon." *Bulletin OEPP/EPPO Bulletin* 39, 94–98.
- Atamian H., Dagher R., Gerges E., Sobh H., Talhouk R., El Mohtar C. and Abou-Jawdah Y. (2009). "Breeding for a Lebanese type of tomato with combined resistance to tomato yellow leaf curl virus, fusarium and verticillium wilts using marker assisted selection tools." In *Proceedings of the Second International Symposium on Tomato Diseases: Acta Horticulturae* 808: 151–56.
- Sobh, H., Atamian, H.S. and Abou-Jawdah, Y. (2009). "Preliminary results on development of transgenic tomato plants tolerant to tomato yellow leaf curl virus." In *Proceedings of the Second International Symposium on Tomato Diseases. Acta Horticulturae* 808: 181–84.
- Abou-Jawdah Y., Atamian H., Nemer G., Kfoury L., Choukrallah N., Hanna L. and Nemer N. "Efficacy and molecular studies of a Lebanese isolate of *Beauveria* for the biocontrol of *Thaumetopoea wilkinsoni* (Lepidoptera : Thaumetopoeidae)." *Biocontrol Science and Technology*. 18 (6):581–89. (2008).
- Chaaban, J., "Measuring Youth Development: A Nonparametric Cross-country 'Youth Welfare Index'," *Social Indicators Research*, Volume 93, Number 2 (September, 2009).
- Chaaban, J., "Youth and Development in the Arab Countries: The Need for a Different Approach," *Middle Eastern Studies*, Vol. 45, No. 1, 33–55, (January 2009).
- Temsah, M., Hanna, L. and, Saad, A.T., "Anatomical pathogenesis of *Pseudomonas savastanoi* on olive and genesis of knots." *Journal of Plant Pathology* 90:225–32, (2008).
- El Rassi, I., Bou Azza, K., Saad, A.T., Hanna, L. and Geagea, L., "Characterization and genetic relationships of *Verticillium dahliae* populations in Lebanon." *Phytopathology* 98:S50, (2008).

- Yau, S.K. "Seed rate effects on rainfed and irrigated safflower yield in Eastern Mediterranean." *Open Agric. J.* 3: 32–36., (2009).
- Yau, S.K. and Haidar, M.: "Evaluation of weed management practices for rain-fed safflower production in a semi-arid Mediterranean environment." *Agronomy Journal* 100: 1430–35, (2008).

#### Articles in other Journals

- Aras, B., Chaaban, J., Genç, O. and İlhan, E., "State and Anti-System Party Interactions in Turkey and Lebanon: Implications for European Policy," *EuroMesco Paper* 82, (March 2009).
- Bashour, I and Safieddine, M., "Effect of Agro fuel Crops on Fertilizer Consumption in the World." *Fertilizer Focus*. Volume 26, Number 4, pp. 45–48 (July/August 2009).
- Chaaban, J., "Using Cost Allocation to Partially Regulate Multi-market Utilities," *Competition and Regulation in Network Industries*, vol.9, p. 283, (September 2008).

#### Book Articles or Chapters

- Kumari G.S., Makkouk M.K. and Abou-Jawdah Y. "Techniques for plant virus diagnosis." *Virus Diseases of Major Crops in the Arab Region*. Makkouk M.K., Fegla J.E. and Kumari G.S. Editors. Dar Nahda Al Arabia, publishers. 2008. Chapter 3. pp 45–76 (in Arabic).
- Abou-Jawdah Y. and Haddad S. : "Plant quarantine and its role in restricting virus spread." *Virus Diseases of Major Crops in the Arab Region*. Makkouk M.K., Fegla J.E. and Kumari G.S. Editors. Dar Nahda Al Arabia, publishers, 2008. Chapter 6. pp 193–210 (in Arabic).
- Fegla J.E., Mansour A., Abou-Jawdah Y. and Kassim A.A.H. "Virus diseases of cucurbits." *Virus Diseases of Major Crops in the Arab Region*. Makkouk M.K., Fegla J.E. and Kumari G.S. Editors. Dar Nahda Al Arabia, publishers, 2008. Chapter 7: pp 211–44 (in Arabic).
- Mansour A., Kassim A.A.H., Salem N., Choueiry E., Abou-Jawdah Y., Kalil J. and Aziz N. "Virus diseases of potato." *Virus Diseases of Major Crops in the Arab Region*. Makkouk M.K., Fegla J.E. and Kumari G.S. Editors. Dar Nahda Al Arabia, publishers, 2008. Chapter 9: pp 273–308 (in Arabic).
- Bashour, I. "Fertilizers and Pesticides." First Report of the Arab Forum for Environment and Development. ARAB ENVIRONMENTAL FUTURE CHALLENGES. 2009. (Arabic and English Version). Chapter 10: pp 137–45.
- Haidar, M.A. "Orobanche and its management in Lebanon." In *Progress on Farmer Training in Parasitic Weed Management*. Editor R. Labrada: pp 51–55. FAO, 2008.
- Nimah, M. "Water Resources" 2008 Report of the Arab Forum for Environment and Development. ARAB ENVIRONMENTAL FUTURE CHALLENGES (English and Arabic Version) 2009. Chapter 5: pp.63–75.

## Abstracts and Conference Proceedings

- Abou Jawdah Y., Eid S., Atamian H. and Havey M. 2008. Tolerance to Cucurbit yellow stunting disorder virus in cucumber is not correlated with delay in virus movement. *Phytopathology*, 98: S9.(Proceeding).
- Eid S. G., Abou-Jawdah, Y. and Havey M. 2008. Cucumber tolerance to Cucurbit yellow stunting disorder virus is not correlated with a delay in virus movement. 9th International Congress of Plant Pathology, Torino, Italy, August 24–29, 2008.(Abstract).
- Talhouk, R., Gerges E., Dagher R., Atamian H.S., Sobh H. and Abou-Jawdah Y. 2008. Development of tomato lines with large fruit size and carrying resistance to TYLCV and three soil borne pathogens. Abstract book of the symposium: Frontiers in Agriculture – Abiotic and Biotic Stress in Plants. Amman, Jordan (Abstract). November 3–7, 2008.
- Eid S., Hourani H., El-Mohtar C., Sobh H., Havey M. and Abou-Jawdah Y. 2008. Screening cucumber accessions for resistance to CYSDV and preliminary studies on the mechanisms of virus tolerance. Abstract book of the symposium: Frontiers in Agriculture – Abiotic and Biotic Stress in Plants, Amman, Jordan (Abstract). November 3-7, 2008.
- Abou-Jawdah Y., Abou-Fakhr E., Sobh, H., Molino Lova M., Vercesi A.M. and Bianco A.P. 2009. Almond witches'- broom phytoplasma ('Candidatus *Phytoplasma phoenicium*') a real threat to almond, peach and nectarine. Abstract book of the 21st International Conference on Virus and Other Graft transmissible diseases of Fruit crops. Neustadt, Germany (Abstract). July 5–16, 2009.
- Bashour, I., Bachour R. and Jouni K. Sustainable Agriculture No-Till Farming. Expert group meeting on Sustainable Land Management as a best practice to enhance rural development. ESCWA – Beirut, Lebanon, (Proceedings). 2009.
- Wakim, R., Bashour, I., Nimah, M. and Toufeili, I., Selenium Levels in Lebanese Environment. 10th International Meeting on Soils with Mediterranean Type of Climate. Beirut, Lebanon (Proceedings). June 22–26, 2009.
- Alameddine, A., Bashour, I., Saad, A., Nimah, M. and Sidahmed, M., The use of NH<sub>4</sub>OH for the control of root-knot nematode in tomatoes. 10th International Meeting on Soils with Mediterranean Type of Climate. Beirut, Lebanon.(Abstract). June 22–26, 2009.
- Bachour, R., Jouni, K., Estphan, C., Skaff, S., Hansmann, B. and Bashour, I., Field Experiments on Conservation Agriculture in Lebanon. 10th International Meeting on Soils with Mediterranean Type of Climate. Beirut, Lebanon. (Proceedings). June 22–26, 2009.
- Bashour, I., Use of Fertilizers and Pesticides and their Effect on Food Safety. Near East Environment and Food Safety. First Annual Symposium of the Arab Forum for Environment and Development (AFED) – Manama, Bahrain (Proceedings). October 26–27, 2008.

- Alameddine, A., Al-Zubaidy, A. and Bashour, I., Field Observations on the Response of Wheat and Barley to K- Fertilization in Rainfed and Irrigated Regions in Lebanon. International Phosphate and Potash Institution, Bern, Switzerland. (2009).
- Salti, N. and Chaaban, J., The Poverty and Equity Implications of a Rise in the Value Added Tax: A Microeconomic Simulation for Lebanon, paper published by The Capacity Building for Poverty Reduction Project, Ministry of Social Affairs and United Nations Development Program, (Proceedings). May 2009.
- Chaaban, J., Zurayk, R. and Sabra, A., How can we make sure that potential Gulf farmland investments in developing countries are pro-poor and sustainable? ICARDA, background paper for the Regional Conference on Achieving Food Security in the Arab World, (Proceedings). April 2009.
- Chaaban, J., Public sector can reduce push factors that drive youth emigration, Issam Fares Institute for Public Policy and International Affairs, Research and Policy Memo # 2, (Proceedings). January 2009.
- Haidar M., Companion barley for *Orobanche crenata* control in organic bean. Proceedings 5th International Weed Science Congress, Vancouver, Canada, (Abstract). 2008.
- Haidar, M.A. and Boss, W.F., Blue Light induced changes in inositol 1,4,5-triphosphate in dodder (*Cuscuta campestris*) seedlings, 5th International Weed Science Congress, Vancouver, Canada, (Abstract). 2008.
- Alameddine, A., Bashour, I., Saad, A., Nimah, M. and Sidahmed, M., The use of NH<sub>4</sub>OH for the control of root-knot nematode in tomatoes. 10th International Meeting on Soils with Mediterranean Type of Climate, Beirut, Lebanon (Abstract). June 22–26, 2009.
- Wakim, R., Bashour, I., Nimah, M. and Toufeili, I., Selenium Levels in Lebanese Environment, 10th International Meeting on Soils with Mediterranean Type of Climate, Beirut, Lebanon (Proceedings). June 22–26, 2009.
- El Rassi, I., Bou Azza, K., Saad, A.T., Hanna, L. and Geagea, L., (2008). Characterization and genetic relationships of *Verticillium dahliae* populations in Lebanon. 2008 APS Centennial Meeting, Minneapolis Convention Center, USA, (Proceedings). July 26–30, 2008.
- Saad, A.T., European Cooperation in the field of Scientific and Technical Research (COST) Action 873: Bacterial diseases of stone fruits and nuts. Working Groups and Management Committee Meeting. Invited International Speaker on “Status of bacterial diseases of stone fruits and nut crops in Lebanon.” Athens, Greece, (Proceedings). October 20–23, 2008.
- Farran, M.T., Barbour, G.W., Usayran, N.N., Yau, S.K., Barbour, E.K., Salem, R. and Jabour, C. The effect of replacing soybean meal with extruded-dehulled safflower meal on the performance of broiler starter chicks, of the 15th Science Meeting of Lebanon, p. 26. Beirut, Lebanon, (Abstract). November 14, 2008.



- Yau, S.K., Nimah, M. and Farran, M.T. Safflower as an alternative crop for Lebanon – Agronomic consideration, of the 15th Science Meeting of Lebanon, p. 47. Beirut, Lebanon, (Abstract). November 14, 2008.
- Yau, S.K. No-till, N fertilization and rotation on safflower performance. 7th International Safflower Conference. Wagga Wagga, Australia, (Proceedings). November 3–7, 2008.

#### Newspaper or Magazine Articles

- Yau, S.K. “Compatibility of safflower in No-till cropping rotations.” Australian Grain. 2009. 19(1): 4–6.

## Services

### Youssef Abou Jawdah

#### AUB

- Member of FAFS Research Committee (chairperson)
- Member of FAFS Advisory Committee
- Member of University Research Board (URB)
- Member of University Publication Committee

#### Others

- Conducted over 10 workshops/seminars to farmers on GAP and IPM.

### Isam Bashour

#### AUB

- Chairperson of the Agricultural Sciences Department
- Member of FAFS Academic and Curriculum Committee
- Member of Senate Committee (Fall 2008-09)
- Representative of FAFS in the Central Lab Committee
- Representative of FAFS in Capital Budget Committee
- Representative of FAFS in AUB-ASHA Committee.

#### Others

- Advising Farmers on Fertilization and Soil Management Practices.
- Supervising a wide research/development program in cooperation with German Technical Cooperation (GTZ) and MOA on Conservation Agriculture in Lebanon.

## **Jad Chaaban**

### **AUB**

- FAFS representative to the AUB Interfaculty Financial Aid Committee
- FAFS representative to the AUB Unified Admissions Committee
- FAFS representative to the University Committee on General Education
- FAFS representative to the Ad-Hoc Students Elections Committee
- Elected member of IBSAR Executive Committee
- Member of Issam Fares Initiative for Public Policy and International Affairs

### **Others**

- Acting President, Lebanese Economic Association.

## **Mustapha Haidar**

### **AUB**

- Career Counseling Committee, AUB
- Member of FAFS Academic and Curriculum Committee
- Member of FAFS Admission Committee

### **Others**

- Treasurer and Secretary-Arab Society for Plant Protection 2007-Present.
- Visiting Scientist, University of Tasmania, Australia. Research emphasis: Ion flux kinetics in blue-light grown dodder (*Cuscuta* spp) seedlings during summer 2009.

## **Musa Nimah**

### **AUB**

- Member of FAFS Advisory Committee
- Member of FAFS Admissions Committee
- Member of University Graduate Committee
- Member of Senate Committee
- Member of HIP Ad-Hoc Committee

### **Others**

- Member of American Society of Agricultural Engineering.
- Member and founder of the Committee Water and Dams in Order of Architects and Engineers.
- Member at the Order of Architects and Engineers.

## **Adib Saad**

### **AUB**

- Member of AGSC/FAFS Ad Hoc and AUB Committee on Course Learning Outcomes
- Member of University Reaccreditation Committee on Faculty Affairs
- Participated in discussion sessions for strategic planning and curriculum reviews of AGSC and AGBU programs
- Member of Ad Hoc Committee for a new UG program in Agribusiness

### **Others**

- Member of the Council of the Mediterranean Phytopathological Union (MPU).
- Senior Editor of *Phytopathologia Mediterranea*, official organ of the Mediterranean Phytopathological Union (MPU).
- Member of the Council of the International Society of Plant Pathology (ISPP).
- Member of the Teaching Committee of the American Phytopathological Society.
- Secretary of the Agricultural Committee of the International Chamber of Commerce in Lebanon.

## **Sui Kwong Yau**

### **AUB**

- Member of the FAFS Library Committee (Chairperson)
- Member of the University Library Committee.
- Curator of the AREC Seed Bank (Until March 2009)

### **Others**

- Board member of the International Crop Science Society.

## **Participation in Workshops and Conferences**

### **Youssef Abou Jawdah**

- Attended and presented a paper at the 21st International Conference on Virus and Other Graft transmissible diseases of Fruit Crops. Neustadt, Germany. July 5–16, 2009.
- Attended and presented two papers at the first annual meeting/workshop on the “Control of new threatening cucurbit-infecting whitefly-transmitted geminiviruses in the Middle-East” held in Limassol, Cyprus. February 23–36, 2009.

- Attended and presented two papers at the USAID group workshop/meeting on Seed Potato Production, Larnaca, Cyprus. July 13–17, 2009.

### **Isam Bashour**

- Held three workshops on conservation agriculture in Lebanon with German Technical Cooperation (GTZ) and MOA. Feb.15, Feb.22 and June 15, 2009.
- Held three workshops with YMCA in Lebanon on fertilization of vegetable crops. July 6, August 5 and 17, 2009.
- Held Three Workshops in Akkar region on Soil Fertilization and Management with Safadi Foundation. July 13, 18, and 21, 2009.
- Attended and presented a paper in United Nations Economic and Social Commission for Western Asia (ESCWA) Group Meeting on Sustainable Land Management as a best practice to enhance rural development in the ESCWA region. March 25–27 2009.
- Attended and presented a paper at the First Arab Environment Forum for Environment and Development in Bahrain. October 26–27 2009.
- Attended and shared three papers in the 10th international symposium on Soil with Mediterranean Type of Climate in Beirut, Lebanon. June 22–26, 2009, November 19–20, 2009.

### **Jad Chaaban**

- Attended and presented a paper on “Impact of VAT increase on Poverty and Income Distribution in Lebanon” at the Institute of Finance, Beirut, Lebanon. April 2009.
- Presentation on “After the Crisis - what went wrong? or: Can the market still be the solution?.” Organized by Friedrich Naumann Foundation seminar, Amman, Jordan. March 2009.
- Presentation on “Labor Markets Performance and Migration Flows in Lebanon.” Organized by the European University Institute, Florence, Italy. January 2009.
- Presentation: “Youth and Development in the Arab World.” Organized by UNICEF Regional Management Team meetings, Amman, Jordan. October 2008.
- Presentation at the AUB Alumni of Mount Lebanon Chapter, “Brain Drain” Seminar (Causes and Solutions), AUB.
- Presentation on the Impact of WTO on Honey Sector in Lebanon at the Second National Beekeeping Conference.

### **Mustapha Haidar**

- Lectured on “Synergy between honey and herbs of Lebanon: Holistic Beekeeping” in the 2nd National Beekeeping Conference at AUB on May 30, 2009.

- Held 2 workshops in Training the Trainers on “Weed Management in Orchards” in Akkar and Hermel, Lebanon with YMCA during summer 2009.

### **Musa Nimah**

- Held 4 workshops with AVSI, July 6, and 9, 13 and 17, 2009.
- Held 4 workshops at the Order of Architects and Engineers, June 10, 13, 18 and 23, 2009.
- Held 3 workshops with YMCA on water saving, May 14, 22 and June 4, 2009.
- Participation with International Center for Agricultural Research in the Dry Areas (ICARDA) on the Preparation of the Water and Livelihood Intervention Project, May 19-22, 2009.
- Attended a Workshop on Potato Production in Cyprus, July 13–17, 2009.
- Gave a speech on BBC on Impact of Drought on Livelihood.
- Gave a speech on Future on Water Shortage in the Region.
- Gave two short courses on irrigation system designs at the Order of Architects and Engineers, June 13 and 18, 2009.

### **Adib Saad**

- Invited as a speaker, by an NGO to lecture on: The Current and Future of Education in the Western region of Kaza Aley in Souk El Gharb, March 12, 2009.

### **Sui Kwong Yau**

- Gave an oral presentation in the 15th Science Meeting of Lebanon, Beirut. November 14, 2008.
- Gave an oral presentation in the 7th International Safflower Conference, Wagga Wagga, Australia. November 3–7, 2008.

### **Other Community Services**

- Abou-Jawdah, Y., Haidar, M., Bashour, I. and Saad, A.: Diagnosis of plant diseases, weed infectious diseases and nutritional disorders in plant samples received from growers or agricultural companies and recommendation of relevant management measures.
- Bashour, I.: Supervision of soil analysis and submission of recommendations to end user.
- Nimah, M.: Advising farmers and companies on irrigation scheduling and suitable irrigation systems.

## Consultancies

### Youssef Abou-Jawdah

- Consultant for Kuwait Institute for Scientific Research (KISR) a total of 10 days.
- Consultant for the Association of Volunteers in International Service (AVSI), YMCA and Safadi Foundation.

### Isam Bashour

- Consultant for the Association of Volunteers in International Service (AVSI) on soil fertility, fertilization of vegetable crops and soil management.
- Consultant as a National Expert for United Nations Industrial Development Organization (UNIDO) and Ministry of Environment (MOE ) on the project for Methyl Bromide Alternatives and Strawberry Fertilization of Strawberry Cultures in Lebanon.

### Jad Chaaban

- Consultant for the Unity and Cooperation for the Development of People (UCODEP) - "Production, Consumption, Food security: Support to the small producers in Tyre and Bint Jbeil districts – South Lebanon."

### Musa Nimah

- Consultant for YMCA on irrigation design and scheduling.
- Consultant for AVSI on irrigation.

### Adib Saad

- Consultant as a National Expert for UNIDO-MOE on the project for Methyl Bromide Alternatives and Integrated Pest Management (IPM) of Strawberry Cultures in Lebanon.
- Chaired a Committee appointed by the National Civil Service Council to examine and recommend qualified candidates for positions at the Lebanese Agricultural Institute and Lebanese Secondary Agricultural Schools.

## Strategic Challenges

Although the enrollment in the agricultural sciences program increased significantly, the department's major challenge is to retain enrollment. During the academic year 2009-10, AGSC plans to strengthen the horticulture teaching, research and outreach by hiring appointing a qualified horticulturist. The department is also planning to recruit an Assistant Professor in Agricultural Economics to strengthen the agricultural economics and agribusiness programs.

## B. Department of Animal and Veterinary Sciences

Prepared by Dr. Elie K. Barbour, Chairperson

### Highlights

During the period of October 1, 2008 to September 30, 2009, the Animal and Veterinary Sciences (AVSC) department managed to successfully launch the new BS program in Veterinary Sciences and to finalize and approve the syllabi of the new courses offered for this degree. Academically, course learning outcomes were revisited for all AVSC courses in line with University recommendations. The department graduated 3 students with an MS degree.

The department hosted visiting professionals from LaSalle Beauvais University who offered special lectures in Animal Physiology and a training workshop in Biotechnology. AVSC also hosted a delegation from Szent Istvan University (SZIU) which presented a lecture in the History of Veterinary Medicine at SZIU and signed a Memorandum of Understanding for future cooperation in relation to the new BS in Veterinary Sciences.

As for research and development, the department was granted three projects funded internally and 8 projects funded externally. The faculty members managed to publish 9 articles in peer-reviewed journals.

### Personnel

#### 1. Full time Faculty

Elie Barbour	Chairperson, Professor
Mohamed Farran	Professor
Shady Hamadeh	Professor
Fawwak Sleiman	Professor

#### 2. Research Assistants

Lina Jaber	Senior Research Assistant
Hussam Shaib	Research Assistant
Nadim Rawda	Research Assistant, on grant

#### 3. Graduate Assistants

Mabelle Chedid
Zahi Hajj
Houssam Itani
Mona Karnib
Maya Saadeh

#### 4. Support Staff

Nesta Sagherian	Senior Technician
Shady Safar	Livestock and Poultry Production Supervisor
Mohammad Harb	Animal Attendant
Mohammad Zreik	Poultry Attendant

## Teaching

### Student Enrollment in Courses

Fall 2008–09

Course	Credits	Enrollment	Instructor
AVSC 241	3	19	F.T. Sleiman
AVSC 243	3	19	S. Hamadeh
AVSC 271	3	14	M.T. Farran/ F.T. Sleiman
AVSC 275	3	10	E. Barbour
AVSC 278	3	9	F.T. Sleiman
AVSC 300B	2	1	S. Hamadeh
AVSC 306	3	5	E. Barbour
AVSC 330	3	4	F.T. Sleiman
AVSC 395	1	2	S.K. Yau
AVSC 399	0	1	S. Hamadeh
AVSC 399A	0	1	E. Barbour
<b>Total</b>	<b>24</b>		

Spring 2008–09

Course	Credits	Enrollment	Instructor
AVSC 222	3	14	F.T. Sleiman
AVSC 224	3	23	E. Barbour
AVSC 226	3	12	M.T. Farran
AVSC 242	3	25	F.T. Sleiman
AVSC 278	3	11	F.T. Sleiman
AVSC 281	3	8	M.T. Farran
AVSC 299	2	5	F.T. Sleiman/S. Hamadeh
AVSC 300B	2	1	E. Barbour
AVSC 300C	3	1	E. Barbour
AVSC 304	3	3	E. Barbour
AVSC 307	3	3	M.T. Farran
AVSC 395	1	1	S.K. Yau
AVSC 399A	0	2	S. Hamadeh
<b>Total</b>	<b>32</b>		



## Summer 2008–09

Course	Credits	Enrollment	Instructor
AVSC 201	1	2	E. Barbour
AVSC 211	1	2	E. Barbour
AVSC 279	3	16	E. Barbour
AVSC 399	0	2	E. Barbour
<b>Total</b>	<b>5</b>		

## Completed Theses

1. Mabelle Chedid, Adviser Dr. Shady Hamadeh, Physiological Responses of Feed and Water Restricted Dry Awassi Ewes to Aspirin Administration.
2. Mona Karnib, Adviser Dr. Shady Hamadeh, The Effect of Vitamin C Administration on some Physiological Parameters in Water and Feed Restricted Dry Awassi Ewes.
3. Ryan Yaghi, Adviser Dr. Elie Barbour, Virucidal essential oils in treatment of a respiratory complex in immunosuppressed broilers.

## Research

### Internal Grants

- Barbour, Elie. Nucleic Acid Sequence Variability in the Hemagglutinin Gene of Multiply-passaged H9N2 Avian Influenza Viruses. \$5000 URB.
- Farran, Mohamad. Task Force for Reconstruction and Community Service (AUB) Supporting Small Goat Farmers in South Lebanon through Upgrading Their Herd's Genetic Base. \$5000 AUB.
- Hamadeh, Shady. Physiological Responses of Baladi and Shami Goats and Newborn Kids Subjected to Intermittent Watering during the Peripartum Period. \$5,000 URB.

### External Grants

- Barbour, Elie. Efficacy of Fosbac Plus T Growth Promoter in Mycoplasma Gallisepticum - Escherchia Coli infected Broilers of Lebanon. \$8,532 Bedson Company.
- Barbour, Elie. Aviflu: Avian Influenza Studies in Lebanon. \$39,500 Saint Jude Children's Research Hospital.
- Barbour, Elie. Hands-on-Training Workshop in the Field of Avian Influenza Diagnostics. \$11,456 Saint Jude Children's Research Hospital.
- Farran, Mohamad. Nutritional Values of De-hulled Safflower Meal for Poultry. LL 9,500,000 LNCSR.

- Hamadeh, Shady. Communication for Development: Regional Capacity Building (Phase II). \$80,000 FAO.
- Hamadeh, Shady. Physiological and Productive Responses of Shami and Baladi Goats Subjected to Intermittent Watering during Mid-Lactation. \$12,000,000 LNCSSR.
- Hamadeh, Shady. RUAF - Cities Farming for the Future. \$166,686 RUAF-IDRC.
- Hamadeh, Shady. Urban Agriculture - From Seed to Table. \$640,477.60 RUAF.
- Hamadeh, Shady. Mainstreaming Evaluation Theory and Practice in the mena Region: Using Outcome Mapping as an Entry Point. \$56,050 IDRC.

## Publications

### International Refereed Journal Articles

- Barbour, E.K.\*, Sabra, A.H., Bianu, E.G., Jaber, L.S. and Shaib, H.A., "Oppositional Dynamics of Organic Versus Inorganic Contaminants in Oysters Following an Oil Spill." *Journal of Coastal Research* 25.4 (2009):864–69.
- Barbour, E.K.\*, Shaib, H.A., Yaghi, R.H. and Sabra, A.H., "Regression of the Level of Different Heavy Metals to Size of Marine Organisms Harvested from an Oil Spill Zone of the Eastern Mediterranean Sea." *Bulletin of Environmental Contamination and Toxicology* 83.2 (2009):219–22.
- Kassaify, Z.G., El Hajj, R.H., Hamadeh, S.K., Zurayk, R. and Barbour, E.K.\*, "Impact of Oil Spill in the Mediterranean Sea on Biodiversified Bacteria in Oysters." *Journal of Coastal Research* 25.2 (2008):469–73.
- Talhouk, R.S.\*, El-Jouni, W., Cogan, J., Baalbaki, R., Mohtaseb, M., Talhouk, S. and Barbour, E.K., "Anti-inflammatory bio-activities in water extract of *Centaurea ainetensis*." *Journal of Medicinal Plants Research* 2 (2008): 24–33.
- Barbour, E.K.\*, Mastori, F.A., Abdel Nour, A.M., Shaib, H.A., Jaber, L.S., Yaghi, R.H., Sabra, A.H., Sleiman, F.T., Sawaya, R.K., Harakeh, S., Tayeb, I.T., Kassaify, Z.G., Rath, M., Niedzwiecki, A. and Barbour, E.K., "Standardization of a new model of H9N2/E. coli challenge in broilers." *Veterinaria Italiana* 45 (2009):317–22.
- Barbour, E.K.\*, Mastori, F.A., Shaib, H.A., Yaghi, R.H., Tayeb, I.T., Sleiman, F.T., Kassaify, Z.G., Sawaya, R.K., Abdel Nour, A.M., Sabra, A.H., Rath, M., Niedzwiecki, A. and Harakeh, S., "Efficacy of a Nutrient Synergy against colibacillosis in Poultry." *International Journal of Applied Research in Veterinary Medicine* 7 (2009): 43–49.

\* Corresponding author

- Harakeh, S., Saleh, I., Zouhairi, O., Baydoun, E., Barbour, E. and Alwan, N., "Antimicrobial Resistance of listeria monocytogenes isolated from dairy-based food products." *The Science of Total Environment* 407.13 (2009):4022–27.
- Kassaiyf, Z.G., Gerges, D.D., Jaber, L.S., Hamadeh, S.K., Aoun, N., Saliba, S.N. Talhouk, S. and Barbour, E.K., \* "Bioactivity of Origanum syriacum essential oil against Candida albicans." *Journal of Herbs Spices and Medicinal Plants*. 14(3/4) (2008):185–99.
- Saleh I.\*, Zouhairi, O., Alwan, N., Hawi, A., Barbour, E. and Harakeh, S., "Antimicrobial resistance and pathogenicity of Escherichia coli isolated from common dairy products in the Lebanon." *Annals of Tropical Medicine and Parasitology* 103.1 (2009):39–52.

### Articles in Other Journals

- Abdel Nour\*, A.M., Barbour, E.K. and Aussenac, T., "Potential Applicability of Quantitative PCR in Pharmacogenomics: A Brief Review." *European Pharmaceutical Review Digital* 3 (2009):4–9.

### Abstracts and Conference Proceedings

- Barbour E.K.\*, Shaib, H., Jaber, L., Farran, M. and Sleiman, F., New Biotechnologies Sustaining the Animal Sector of Lebanon. The 15th Science Meeting, Science in the 21st Century. The Lebanese Association for the Advancement of Science. Beirut, Lebanon. November 13–15, 2008.
- Daghir N.J.\*, Farran, M.T., Barbour, G.W., Usayran, N.N. and Al-Sakka, H.A., 2008. Storage conditions and quality of eggs produced by hens fed different dietary vegetable oil sources. The 15th Science Meeting, Science in the 21st Century. The Lebanese Association for the Advancement of Science. Beirut. Lebanon. November 13–15, 2008.
- Farran, M.T.\*, Barbour, G.W., Usayran, N.N., Yau, S.K., Barbour, E.K., Salem, R. and Jabour, C., The effect of replacing soybean meal with extruded-dehulled safflower meal on the performance of broiler starter chicks. The 15th Science Meeting, Science in the 21st Century. The Lebanese Association for the Advancement of Science. Beirut, Lebanon. November 13–15, 2008.
- Yau, S.K.\*, Nimah, M.N. and Farran, M.T., Safflower as an alternative crop for Lebanon: Agronomic consideration. The 15th Science Meeting, Science in the 21st Century. The Lebanese Association for the Advancement of Science. Beirut, Lebanon. November 13–15, (2008).

\* Corresponding author

## Services

### Elie Barbour

#### AUB

- Chairman of the Animal and Veterinary Sciences Department
- Member of the Academic Curriculum committee
- Member of the Administrative Committee
- Coordinator of AUB-LaSalle University Memorandum of understanding
- Coordinator of AUB-Szent Istvan University Memorandum of Understanding

#### Other

- Presented public lectures related to the outbreak of Swine Flu around the world.
- Editorial Scientific Board for 2 international journals: Veterinaria Italiana; World Organization for Animal Health Journal.
- Following the monitoring and management of health of newly imported Saanen goats (distributed to farmers in the South affected by landmines) on monthly basis.
- Supervised the two-month training of Mr. Zahi Saliba, Student at Balamand University, on the subject of "Influenza surveillance protocols and application of biotechnology in diagnosis of pandemics-etiological agents."

### Mohamed Farran

#### AUB

- Member of the FAFS Graduate Study Committee

#### Other

- Member of Board of Administration, Lebanese National Council for Scientific Research, October 14, 2003 to date.
- Member of the FAO National Committee to double the global food production and feed nine billion persons by 2050.
- Member of the Lebanese Association for Advancement of Sciences.
- Member of the National Committee at the Civil Service Board to select veterinarians for the Ministry of Agriculture.
- Member of the Scientific Advisory Committee, CIHEAM.
- Vice President for World Poultry Science Association, Lebanese Branch.

## **Shadi Hamadeh**

### **AUB**

- Member of the FAFS Strategic Committee
- Member of the Advisory Committee
- Coordinator of the Environment and Sustainable Development Unit (ESDU)
- Coordinator of the National Training Unit under the NEMTA project supported by IFAD
- Coordinator of the AUB-KAHEAD Memorandum of Understanding
- Departmental facilitator of the course learning outcomes

### **Other**

- Executive Board member RUAF.

## **Fawwak Sleiman**

### **AUB**

- Member of the FAFS Graduate Studies Committee
- Member of the FAFS Advisory Committee
- Member of the FAFS Admissions Committee
- Chairperson of the FAFS By-Laws Committee
- Member of the Senate Committee on Faculty Affairs
- Member of the University Admissions Committee
- Member of the University Disciplinary Committee
- Member of the University Senate

### **Other**

- Served as reviewer for Small Ruminant Research and Journal of Coastal Research.

## **Participation in Workshops and Conferences**

### **Elie Barbour**

- Attended International training workshop on Influenza, AVSC Department, AUB (September 24-29, 2009), sponsored by St. Jude Children's Research Hospital.

- Attended and presented a paper on “New Biotechnologies Sustaining the Animal Sector of Lebanon” at the 15th Science Meeting of the Lebanese Association for the Advancement of Science “Science in the 21st Century.” At AUB, Diana Tamari Sabbagh Building, November 2008.
- Attended and presented the research: “Holistic treatment of immunosuppressed broilers co-infected with *Mycoplasma gallisepticum* and Infectious Bronchitis virus” at the 2009 American Veterinary Medical Association Conference, Seattle, USA. July 2009.
- Invited Speaker to the plenary session presenting two works entitled: “Evaluation of an essential oil in treatment of immunosuppressed broilers co-infected with *Mycoplasma gallisepticum* and Infectious Bronchitis Virus” and “Ten years of research related to herbal medicine in poultry” at the Symposium of the Al-Shoubak University Jordan. October 2008.
- Main speaker on “Application of Biotechnology to improve prevention of poultry diseases in Lebanon” at the World Poultry Science Association meeting at FAFS, November 2008.

### **Mohamed Farran**

- Attended meetings on prevention of avian influenza and other epizootic diseases with staff from FAO and MOA.
- Attended the Mellon Seminar, AUB, 2009.

### **Shady Hamadeh**

- Attended the EAAP Annual Meeting (August 2009) and presented the research: “Changes in physiological and blood parameters in water stressed Awassi ewes supplemented with different levels of Vitamin C.”
- Organized and attended the Regional Workshop on “Effective Communication for Agricultural Research and Extension Systems: Supporting small-scale farmers to achieve food security,” sponsored by FAO, in collaboration with ESDU/AUB November 2008.

## **Strategic Challenges**

The AVSC Department faces the challenge of securing the needed infrastructure for the new BS in Veterinary Sciences in terms of special equipment, treatment and surgical rooms, animal models, and live animal specimens. The resources needed to strengthen this new program also include the recruitment of new faculty members. In parallel with securing the infrastructure and the resources, the department has to attract more undergraduate students through offering generous scholarships. The need to attract additional graduate students persists. Finally, AVSC continues its efforts in incorporating a Zoonoses center as part of its strategic plan.

## C. Department of Landscape Design and Ecosystem Management

Prepared by: Dr. Salma Talhouk, Chairperson  
Ms. Nadine Modad, LDEM Departmental Research Assistant

### Highlights

In 2008-09 the department initiated and engaged in major space renovations of labs, studios, and office relocations with the aim of strengthening its identity and providing an environment that promotes learning and networking for faculty and students alike. The department also performed minor revisions to the curriculum by introducing a new experiential learning based course at AREC entitled "Landscape Management" (LDEM 265). This new course which replaced "Soil fertility and fertilizers" (AGSC 265) was designed to cater for the specific needs of the Landscape Design Program and to extend applicability of design activities performed concurrently in the design studio "Ecological Landscape Design II" (LDEM 228) which is also offered at AREC. To further expand the scope of experiential learning the department also drafted a memorandum of understanding with the Center for Civic Engagement and Community Service (CCECS) to work jointly on securing community landscape projects that involve LDEM students and recent graduates under the supervision of LDEM faculty members. Furthermore, to provide students with a rich and diverse studio experience, the department invited three international visitors (Ms. Sophie Mourthé, Dr. Harder and Ms. Elke Berger) with academic and professional backgrounds in landscape architecture, for a period of two to three weeks each, to participate in studio activities primarily targeting third and fourth year students.

In line with the Faculty's strategic plan, to attract and retain high quality undergraduate students, the department raised the acceptance composite score and introduced a new regulation requiring every student to attain a minimum average of 70 in two consecutive design courses before they can enroll in subsequent design courses. The department initiated the process of program accreditation by completing a first draft that responds to the requirements of both the American Society of Landscape Architects (ASLA) and the International Federation of Landscape Architects (IFLA).

This year LDEM department assumed the management and supervision of the greenhouse area and initiated a plan to perform renovations in the area dedicated to the teaching of the LDEM program. Concerning the Department's Faculty Members, Dr. Makhzoumi was promoted to Professor.

## Personnel

### Full time Faculty

Salma N. Talhouk	Professor; Chairperson and Director of IBSAR
Nadim Farajalla	Associate Professor
Jala Makhzoumi	Professor
Julie Weltzien	Assistant Professor
Rami Zurayk	Professor; Associate Dean and Director of IGESP

### Part time Lecturers and Instructors

Bachar El-Amine	Lecturer
George Battikha	Lecturer
Najah Jaroush	Lecturer
Hana Alamudin	Instructor
Hussam Hawwa	Instructor
Maha Issa	Instructor
Gamar Markarian	Instructor
Wissam Melhem	Instructor
Maha Nasrallah	Instructor
Rabih Shibli	Instructor
Abdel-Naser El-Ayi	Assistant Instructor
Mirna Choueiri	Assistant Instructor

### Research Assistants

Nadine Modad	Departmental Research Assistant
Eman Amro	Part-time Research Assistant (on grant)
Roula Bashour	Part-time Research Assistant (on grant)
Sarah Ezzedine	Full-time Research Assistant (on grant)
Monika Fabian	Research Assistant (Greenhouse)
Salma Hussein	Senior Research Assistant
Munira Khayyat	Part-time Research Assistant (on grant)
Nicole Makary	Part-time Research Assistant (on grant)

### Graduate Assistants

Rayan Makarem	Ecosystem Management
Rouba Ziade	Ecosystem Management

### Support Staff

Elias Abi Samra	Greenhouse Technician
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# Teaching

## Courses Offered

During the academic year 2008–09, the department offered a total of 24 undergraduate courses and 2 graduate courses. Among the undergraduate courses 9 were design studios and 17 were lecture based courses.

## New Courses

- In the Fall term 2008–09, the AGSC 215 (Introduction to Soils) course offered to LDEM II students was substituted by LDEM 217 (Soils in the Landscape) taught by Dr. Zurayk. Also in the Fall term, the AGSC 290 (Project Planning and Appraisal) course offered to LDEM III was substituted by LDEM 290 (Professional Practice) taught by Dr. Nadim Farajalla and Mr. George Battikha.
- In January 2009, the LDEM department submitted one new course to be offered starting the Spring semester 2008-09. This course “Landscape Management” (LDEM 265—3 credits) was designed to cater for the specific needs of the Landscape Design Program. The LDEM 265 is offered to LDEM III students in the Spring semester at AREC and replaced AGSC 265 “Soil Fertility and Fertilizers” for landscape students.
- In May 11, 2009, the LDEM department submitted one new elective course to be offered during the Summer term. This course entitled “Landscape Appreciation” will be open to AUB as well as non-AUB students and will be taught by Prof. Julie Weltzien and Dr. Rami Zurayk. The course was approved by the Academic and Curriculum Committee (ACC) in the Summer term 08–09.

## Student Enrollment in Courses

Fall 2008-09

Course	Credits	Enrollment	Instructor
LDEM 200	4	24	W. Melhem
LDEM 201	3	24	J. Weltzien
LDEM 203	3	19	S. Hamadeh
LDEM 204	6	22	J. Weltzien/G. Markarian/G. Battikha
LDEM 209	4	25	S. Talhouk
LDEM 215	3	24	E. Abou Fakhr/ M. Haidar/A. Saad
LDEM 216	6	22	M. Nasrallah/ M. Issa
LDEM 217	3	26	R. Zurayk/ M. Choueiri
LDEM 241	6	18	J. Makhzoumi/R. Shibli/ H. Alamuddin/ G. Battikha
LDEM 245	3	18	N. Farajalla
LDEM 290	3	22	N. Farajalla/G. Battikha
LDEM 295	1	18	S. Talhouk
<b>Total</b>	<b>45</b>		

Spring 2008-09

Course	Credits	Enrollment	Instructor
LDEM 202	6	23	M. Issa/ B. El-Amine
LDEM 211	3	25	S. Talhouk/ M. Fabian
LDEM 212	3	24	G. Battikha
LDEM 227	3	18	A. Saad/E. Abou Fakhr/M. Haidar
LDEM 228	6	22	J. Weltzien/ G. Markarian
LDEM 229	3	22	M. Haidar/ N.J. Abdouni
LDEM 230	3	22	N. Farajalla
LDEM 242	6	18	J. Makhzoumi/R. Shibli/ G. Battikha
LDEM 246	6	21	W. Melhem/ G. Battikha
LDEM 265	3	22	R. Zurayk / J. Weltzien/ H. Hawwa
LDEM 296	1	18	J. Makhzoumi
LDEM 630	3	15	R. Zurayk
LDEM 631	3	6	I. Bashour/Y. Abou Jawdeh
<b>Total</b>	<b>49</b>		

Summer 2008-09

Course	Credits	Enrollment	Instructor
LDEM 250	3	23	W. Melhem

## Completed Thesis

- Rouba Ziade, Dr. Nadim Farajalla (Adviser), Drought Vulnerability: Bekaa a Study Area (Spring 08-09).

## Research

### Internal Grants

- Farajalla, Nadim. Development of a Recirculating Aquaculture System for Producing Tilapia Fry in the Beka'a: Feasibility and Economic Cost. Duration: October 2008– September 2009 . \$8,500 URB.

### External Grants

- Makhzoumi, Jala. Good Governance for Enhanced Post-War Reconstruction: An Integrated Approach to Respond to Shelter Recovery in Southern Lebanon: Monitoring, Evaluation, Institutionalization and Sustainability. Duration: 19 September 2007–31 December 2009 . \$63,000 UN-HABITAT.
- Makhzoumi, Jala. From Sustainable Past to Empowering Future: The Challenge of Geening Beirut. June 1, 2009–May 31, 2010. \$17,512 Heinrich Boëll Foundation (Germany).
- Talhouk, Salma. Food and health in rural Lebanon: Options to improve dietary diversity, food security, livelihoods and ecosystem management. Funded by International Development Research Center, Canada (IDRC). Duration: 2009–12. \$247,848 IBSAR/FAFS.
- Talhouk, Salma. Seeds of hope, trees for tomorrow, a participatory ex situ conservation approach (Donor: individuals and institutions). Duration: 2007–10. Funds raised to date \$70,397 IBSAR.
- Zurayk, Rami. Empowerment of small agricultural production through support to farmers and processors of gastronomic products. \$19,920 UCODEP (Italy).
- Zurayk, Rami. Preparation and submission of two papers for the regional conference on Achieving Food Security in the Arab World in Doha, Qatar during June 2009. \$14,000 ICARDA.
- Zurayk, Rami. Study for the Inventory of typical Lebanese products. Duration: May 1, 2008–May 1, 2009. IBSAR. 6,000 EUR UCODEP.
- Zurayk, Rami. Support to rural production and strengthening of the Network of cooperatives Karam Al Janou. February 1–April 30, 2008. \$13,750.50 GVC.
- Zurayk, Rami. Sustainable Bedouin livelihoods in a changing world: surviving droughts, policies and markets. \$15,360 Heinrich Boëll Foundation (Germany).

## Publications

### International Refereed Journal Articles

- Chmeitilly, H., Talhouk S.N. and Makhzoumi, J\*. "Landscape approach to the conservation of floral diversity in Mediterranean urban coastal landscapes: Beirut sea front." *International Journal of Environmental Studies*. 2009.

\* Corresponding author

- Makhzoumi, J. "Landscape Architecture, Globalization and Post-War Recovery" 2009. *Landscape Review* 13.1 (2009): 3–17.
- Chamoun R., Baalbaki, R., Kalaitzis, P. and Talhouk, S.N., "Molecular characterization of Lebanese olive germplasm." *Tree Genetics and Genomes* 5.1 (2009): 109.
- Zahreddine, H.G., Struve, D.K. and Talhouk, S.N., "Growth and nutrient partitioning of containerized *Malus trilobata* Schneid. and *Acer syriacum* Boiss. and Gaill. under two fertigation regimes." *HortScience*. 43.6 (2008):1756–52.

### Articles in other Journals

- Makhzoumi, Jala. "Unfolding Landscape in a Lebanese Village: Rural Heritage in a Globalizing World." *International Journal of Heritage Studies*. 2009.
- Saad, L., Talhouk, S.N., and Mahy, G., "Decline of endemic *Oncocyclis* irises (Iridaceae) of Lebanon: survey and conservation needs." *Oryx*. 42.4 (2008): 1–6.
- Talhouk, S.N. and Nehmeh, G., "Following pistachio footprints in Lebanon. In *Following pistachio footprints* (*Pistacia vera* L.), cultivation and culture, folklore and history, traditions and uses. Eds: Avanzato D. and I. Vassallo. *Scripta Horticulturae* (ISHS) 7 (2008): 66–71.

### Books

- Zurayk, R., and Abdul Rahman, S., "From Akkar to Amel, Lebanon's Slow Food Trail." *Slow Food Foundation for Biodiversity and Slow Food*. Beirut, 2008.
- Elya, C., Farajalla, N.S., Darwish M.R. and Sleiman, F.W., *Economic Impact of War on Agricultural Sector – case of 2006 War in Lebanon*. D.M. Verlag Publishers, 2009.

### Book Article or Chapters

- Farajalla, Nadim S. "Water Resources and Conflict in Lebanon." In *Water and Culture in the Mediterranean*. Eds. Holst-Warhaft and Steenhuis. Ashgate Publishing Ltd: UK, 2009.
- Makhzoumi, Jala. "Marginal landscapes, marginalized rural communities: Postwar Recovery in south Lebanon." *The Politics of Reconstruction: Case Studies from Lebanon after the July 2006 War*. Ed. Howayda Al-Harithy.
- Makhzoumi, Jala. "Olive multifunctional landscapes in Cyprus: Mediterranean rural heritage as a framework for sustainable futures." In *Mediterranean Island Landscapes*. Ed. Louis Cassar.

## Manuscripts

- Mahkzoumi, J., Talhouk, S.N. and Zurayk, R. 2009. Re-conceptualizing traditional Mediterranean landscapes: An expansive framework for 21st century development in rural peripheries. Submitted to *Landscape Research*.
- Kassaify, Z., El Hajj, R., Hamadeh, S., Zurayk, R. and Barbour, E. 2009. Impact of Oil Spill in the Mediterranean Sea on Biodiversified bacteria in oysters. *Journal of Coastal Research*. Volume 25, Issue 2, Pages 469–73.
- Bariche M., Alwan N., El-Assi H. and Zurayk R. 2009. Diet composition of the Lessepsian bluespotted cornetfish *Fistularia commersonii* in the eastern Mediterranean. *Journal of Applied Ichthyology*. (2009) 1–6.

## Abstracts and Conference Proceedings

- Farajalla, N.S., Assaf, H. and Nasser, N., Impact of Climate Change on Crop Water Use. The First International Conference on Water Resources and Climate Change in the MENA Region, Muscat, Oman, (Abstract). November 2–4, 2008 .
- Farajalla, N.S., Bachour R. and El Jadam, J, Impact of Climate Change on Water Resources in Lebanon—a Look at Crop Water Consumptive Use. Geophysical Research Abstracts, Vol. 11, EGU2009-13598, (Proceeding). 2009.
- Farajalla, N.S., and El-Jadam, J. Alternative Options for Wastewater Treatment Facilities in KISRwan, Lebanon. First Conference on Wastewater Treatment Plants in KISRwan Ftouh organized by Friedrich Ebert Foundation and Mubadarat Association, Jounieh, Lebanon, (Abstract). March 20, 2009 .
- Makhzoumi, J. Interrogating the Hakura Tradition: Lebanese Village Gardens as Product and Production. International Association for the Study of Traditional Environments (IASTE) conference, Oxford, UK (Abstract). December 12–15, 2008.
- Zurayk, R., Tell, T., Naja, F. and Abu Eid, H. 2008. Impact of Environmental Change on the Marginalized Bedouin Populations: Reflections on Jordan and Lebanon. International Workshop on Climate Change and Food Security. World Food Program. Cairo, Egypt. November 3–4, 2008.
- Makhzoumi, J. Interrogating the Hakura Tradition: Lebanese Village Garden as Product and Production. Accepted for inclusion of the 2008–09 Traditional Dwellings and Settlements Working Paper Series published by the International Association for the Study of Traditional Environments (IASTE), University of California, Berkeley.

## Services

### Nadim Farajalla

- AUB's Web-Oversight Committee
- FAFS faculty representative/coordinator of FAFS-SRC elections
- Member of the FAFS Admissions Committee
- Member of the University Students-Faculty Committee
- Member of the FAFS Research Committee
- Member of the FAFS Student Affairs Committee
- AUB Faculty coordinator for the Research and Policy Forum on Climate Change and Environment in the Arab World. It is an initiative launched by The Issam Fares Institute for Public Policy and International Affairs at AUB (2008).

### Jala Makhzoumi

- Executive board member, IBSAR.

### Salma Talhouk

- Chairperson, Department of Landscape Design and Ecosystem Management (LDEM)
- Director of IBSAR (Initiative for Biodiversity Studies in Arid Regions)
- Member of FAFS Advisory Committee
- Faculty Score Card Coordinator
- FAFS representative member of the University Learning Outcome Coordination Committee
- Member of IBDA student forum organizing Committee.

### Julie Weltzien

- Member of the Library Committee
- Member of the Student Affairs Committee
- Member of the AREC ad hoc Committee
- Member of the LDEM ad hoc Committee
- Member of the AUB Choral Society
- UNESCO Student exchange program Coordinator
- LDEM Yearbook and final exhibition Coordination.

## **Rami Zurayk**

- Associate Dean for AREC
- Director, Interfaculty Graduate Environmental Sciences Program (IGESP)
- Member of the University Senate and of the Senate Steering Committee
- Member of the FAFS Advisory Committee
- Chair of the Faculty Advisory Board, The Issam Fares Policy Institute
- Member of the Strategic Planning Committee
- Owner's Representative, Healthy Basket SARL.

## **Participation in Workshops and Conferences**

### **Nadim Farajalla**

- Moderated a two-day regional workshop entitled "Arab World Policy for Post-2012 Climate Negotiations." Organized by the Issam Fares Institute, AUB (IFI) and the League of Independent Activists (IndyACT). Beirut, Lebanon. October, 14–15, 2008.
- Participated in a Regional Middle East and North Africa (MENA) workshop on "Sustainable Water and Land Management in Semi Arid Regions." Organized by the Egyptian International Geosphere-Biosphere Program (IGBP). Dr. Farajalla represented the Lebanese National Committee of the IGBP and made a poster presentation. Cairo, Egypt. November 20–21, 2008.
- Participated in the 2009 European Geophysical Union Meeting which was held in Vienna, Austria. Dr. Farajalla presented a paper entitled "Impact of Climate Change on Water Resources in Lebanon—a Look at Crop Water Consumptive Use."
- Participated in a training on Developing Course Learning Outcomes, AUB. March 6–13, 2009.
- Participated in the Water and Livelihood Initiative Project planning workshop in Aleppo, Syria. May 5–8, 2009.

### **Jala Makhzoumi**

- Participated in and gave a presentation at the Istanbul 2008 International Symposium of Landscape Architecture, "The Future of Landscape Architecture in Turkey and Mediterranean Countries: Identity and Challenges." Istanbul Technical University, Turkey. October 17–18, 2008.
- Participated in an International Charrette "Al Gharbia Structure Plan 2030." Abu Dhabi Urban Planning Council, UAE. November 14–20, 2008.
- Co-Organizer, with Cambridge Centre for Landscape and People, "Right to Landscape" Workshop. Jesus College, Cambridge University, UK. December 8–10, 2008.

- Participated in the International Association for the Study of Traditional Environments (IASTE) conference and presented a paper “Interrogating the Hakura Tradition: Lebanese Village Gardens as Product and Production.” (URB Shot Term Faculty Development Grant). Oxford, UK. December 12–15, 2008.
- Represented the International Federation of Landscape Architects (IFLA) at the UNESCO’s 17th Session of the Executive Committee for the International Campaign for the Establishment of the Nubia Museum in Aswan and the National Museum of Egyptian Civilization. Dr. Makhzoumi was responsible for reviewing the landscape design for both museums. Cairo, Egypt. June 10–12, 2009.
- Organized a one-day UN-HABITAT workshop at AUB (40 participants). July 2, 2009.

### **Salma Talhouk**

- Participated in a two day consultative workshop on Organizational Building for Research Institutions in the Middle East and North Africa. The workshop was organized by the International Development Research Center, Canada (IDRC) Cairo, Egypt. October 8–9, 2008.
- Participated in the International Congress on “Documenting, Analyzing and Managing Biodiversity in the Middle East.” Presented an abstract entitled “Multidisciplinary academic initiatives: IBSAR’s approach to contextualize biodiversity into traditional Arab society.” Aqaba, Jordan. October 20–23, 2008.

### **Julie Weltzien**

- Attended, with Part-time instructor Ms. Maha Issa, the Forum for “Eco-Cities of the Mediterranean 2008” at the Dead Sea, Jordan. Trip sponsored by the Issam Fares Institute for Public Policy at AUB. October 18–20, 2008.
- Participated in a regional workshop on “Do and why we need a landscape culture in the Arab world” organized by Birzeit University, Palestine and The University of Life Sciences, Norway. Professor Weltzien made a presentation on the challenges of education for landscape architects in the region. Amman, Jordan. November 20–23, 2008.

### **Rami Zurayk**

- Participated in the meeting of the third edition of Terra Madre. The biennial international meeting of the Terra Madre Network. Turin, Italy, October 23–27, 2008.
- Gave a talk on The Earth Market’s Contribution to the Local Economy in Lebanon. In: Farmers’ Markets as a Tool in Local Development. Salone Del Gusto and Terra Madre. Slow Food, Turin, Italy. October 25, 2008.
- Chair and convener of the Earth Workshop on Water and Agriculture. Terra Madre 2008, Turin, Italy, October 26, 2008.



- Participated in an Expert Roundtable Discussion on the “Food Crisis as a Challenge for the Common Foreign and Security Policy—A new perspective on Agriculture.” Berlin, Germany. October 28, 2008.
- Participated in the International Workshop on Climate Change and Food Security: Impact of Environmental Change on the Marginalized Bedouin Populations: Reflections on Jordan and Lebanon. World Food Program. Dr. Zurayk made a presentation on the impact of environmental change on the marginalized Bedouin population in Jordan and Lebanon. Cairo, Egypt. November 3–4, 2008.
- Participated in the International Conference on Agri-Business Solutions. The meeting was organized by the United Nations Industrial Development Organization (UNIDO). Dr. Zurayk also made a presentation on Social Agribusiness and the experience of Healthy Basket. Cairo, Egypt. November 26–27, 2008.
- Invited speaker: Food systems and Climate Change in the Arab Middle East: Food Sovereignty vs. Free Trade: Towards and Alternative Multilateral Agricultural Governance Framework. Regional Civil Society Forum in West Central Asia and North Africa. Henrich Boll Stiftung. Beirut, Lebanon. December 5–6, 2008.
- Invited speaker: Sustainable Land Management in the ESCWA region. Expert Group Meeting on “Sustainable Land Management as a Best Practice to Enhance Rural Development in the ESCWA Region.” United Nations House, Beirut, Lebanon. March 25–27, 2009.
- Invited speaker: Community-Based Participatory Research (CBPR) and Sustainable Livelihood Framework. Workshop on Environment and Health to Young Professionals and Researchers in the MENA Region- COPEH MENA. AUB. Beirut, Lebanon. April 21, 2009.
- Attended and presented a paper at the International Symposium: Localizing Products, which was held at the UNESCO. The conference took place in Paris, France. June 9–11, 2009.
- Attended the AUB Board of Trustees Annual meeting on June 19, 2009. Dr. Zurayk represented the Senate of the American University of Beirut. The meeting took place in New York, USA. June 19, 2009.
- Invited speaker: Community partnership. Expanding Civic Engagement in Arab Universities: A Peer Learning Workshop. AUB. Beirut, Lebanon. June 25, 2009.
- Participated in the Salzburg Global Seminar seminar Session 463, “Greening the Minds: Universities, Climate Leadership, and Sustainable Futures.” Schloss Leopoldskron in Salzburg, Austria. July 11–16, 2009.

## Consultancies

### Jala Makhzoumi

- Landscape Consultancy: Response to Dean Ibrahim Hajj (FEA) request for assessment and recommendation to upgrade landscape of Bechtel Terrace and FEA streetscape.
- Landscape Consultancy: Erbil Inner Green Belt Project, Khatib and Alami Consultants.

### Julie Weltzien

- Relief International, Public Parks in Akkar, Public Lecture for Slow Food Movement: Changes in Food Consumption and Effects on the Landscape.

### Rami Zurayk

- UN Economic and Social Commission for Western Asia—High Level Expert. Sustainable Land Management. 2009.
- Representative of the Arab World. International Advisory Committee to the World Conference on Education for Sustainable Development. UNESCO and the German Federal Ministry of Education and Research. 2008–09.

## Other Services to the Community

### Salma Talhouk

- Guest lecturer session in EMBA class on environment and corporate responsibility. Gefinor-Rotana Hotel, Beirut, Lebanon. April 24, 2009.
- Organized and coordinated a Workshop on seed planting and inauguration of native tree nursery at AREC. The workshop introduced the importance of planting native trees and maintaining the forest diversity in terms of tree and shrub species composition. Attendance: 55 in total. March 21, 2008.

## Strategic Challenges

- Strengthen the qualifications of student recruits by raising admission standards.
- Revise the undergraduate curriculum to align learning outcomes with regional needs of the profession and fulfill the new mission of LDEM.
- Introduce a new professional graduate program.
- Continue the process of the program accreditation.
- Initiate the process of formalizing the profession in Lebanon.

## D. Department of Nutrition and Food Sciences

Prepared by: Dr. Imad Toufeili, Chairperson

### Highlights

The academic year commenced in parallel with the BOT approval of the new Coordinated Program in Nutrition and Dietetics (CP). The four year program is tailored to meet the accreditation requirements of the American Dietetic Association (ADA).

During this year 19 departmental meetings were held during which the following was decided:

- The NFSC faculty members agreed on the acceptance of a maximum of 15 students to the Nutrition Graduate Program. All graduate students were to be accepted as non-thesis and depending on the availability of advisers, the appropriate students will be selected to follow a thesis master degree.
- 17 students were selected to enroll in the undergraduate program in Nutrition and Dietetics, Coordinated Program. Students were placed in hospitals based on their averages and their preferences.
- The Department recommended keeping the cut-off scores for transfer students to the Nutrition and Dietetics program at 80 and Food Science and Management program at 75 depending on space availability.

Faculty members wrapped up the year by reviewing the applications to the faculty position in Food Science, emphasis Food Engineering, and the faculty position in Community Nutrition. Two candidates were appointed as Assistant Professors for three years effective September 15, 2009, Dr. Mohamad Abiad and Dr. Hala Ghattas.

In February 2009, the Lebanese National Research Council established an Associated Research Unit for Undernutrition and Obesity in Lebanon (ARU). The proposed projects of the ARU aim at producing new, up-to-date and nationally representative baseline data on several nutrition problems of public health significance. The tasks related to the research activities were distributed among the NFSC Department and other partnering institutions namely the Nutrition Department of the Faculty of Pharmacy at (USJ) and the Human Nutrition and Dietetics Department (USEK).

The department was honored by the visits of an esteemed URB Scholar and a Visiting Consultant: Dr. Lena Davidsson, the head of the Nutritional and Health-related Environmental Studies section at the International Atomic Energy Agency (IAEA), visited the department as a URB Scholar. She presented several lectures and held several meetings with the NFSC faculty members. Mrs. Nancy Hudson visited the department as a consultant to expedite the Department's plan to have the Nutrition and Dietetics program accredited by the American Dietetic Association.

## Personnel

### Full time Faculty

Nahla Hwalla	Dean, Professor
Imad Toufeili	Chairperson, Professor
Omar Obeid	Professor
Ammar Olabi	Associate Professor
Zeina Kassafy	Assistant Professor
Farah Naja	Assistant Professor
Lara Nasreddine	Assistant Professor
Marie Claire Chamieh	Instructor
Basma Hamadeh	Instructor

### Part Timers

Maya Nabhani Zeidan	Lecturer
Jamila Natour	Lecturer
Carla Habib	Instructor

### Research Associates

Nada Adra
Laila Itani

### Research Assistants

Samson Atamian
Omar Baghdadi
Monia Hamdan
Reem Hamzeh
Nour Irani
Rosalie Karam
Melannie Mattar
Nour El Ouyoun Najm
Maya Tabet

### Graduate Assistants

Fall 2008–09

Graduate Assistant	Major
Adelle Abou Ardat	Nutrition
Aida El Aily	Nutrition
Berna Rahi	Nutrition
Betty Dedeian	Nutrition
Chrystel Haykal	Nutrition

Dana Moussa	Nutrition
Darine Barakat	Food Technology
Diana Kaaki	Food Technology
Joelle Chahine	Nutrition
Lama Naim	Nutrition
Laura Karam	Food Technology
Maria Rehaime	Food Technology
Maya Salem	Nutrition
Melanie Assaf	Food Technology
Reem Hamzeh	Food Technology
Samson Atamian	Food Technology
Sara Farhat	Nutrition
Stephanie Rahi	Nutrition
Zeina Younes	Nutrition

#### Spring 2008–09

Graduate Assistant	Major
Adelle Abu El-Ardat	Nutrition
Aida El-Aily	Nutrition
Melanie Assaf	Food Technology
Darine Barakat	Food Technology
Sara Farhat	Nutrition
Chrystel Haikal	Nutrition
Reem Hamzeh	Food Technology
Diana Kaaki	Food Technology
Laura Karam	Food Technology
Dana Moussa	Nutrition
Lama Naim	Nutrition
Berna Rahi	Nutrition
Stephanie Rahi	Nutrition
Maria Rehaime	Food Technology
Maya Salem	Nutrition
Zeina Younes	Nutrition

#### f. Support Staff

Tania Ghannam	Secretary
Samir Touma	Associate Technician
Arsine Derboghasian	Associate Technician

# Teaching

## Student Enrollment in Courses

Fall 2008–09

Course	Credits	Enrollment	Instructor
NFSC 220	3	53	C. Murad
NFSC 221	3	62	M. Zeidan
NFSC 222	3	53	M. Zeidan
NFSC 240	2	78	L. Nasreddine /M. Chamieh/N. Hasbini
NFSC 261	3	35	J. Natour
NFSC 265	3	51	I. Toufeili
NFSC 267	2	42	B. Hamadeh
NFSC 274	3	64	O. Obeid
NFSC 277	3	55	Z. Kassaify
NFSC 282	3	38	Z. Kassaify
NFSC 288	3	55	A. Olabi /B. Hamadeh
NFSC 292	3	48	F. Naja
NFSC 294	1	47	M. Chamieh
NFSC 296	1	32	F. Naja
NFSC 298	0	8	I. Toufeili
NFSC 299	2	35	F. Naja/L. Nasreddine/A. Olabi/I. Toufeili/ Z. Kassaify
NFSC 300 A	1	1	L. Nasreddine
NFSC 300 B	2	5	Z. Kassaify/O. Obeid
NFSC 300 C	3	2	O. Obeid/A. Olabi
NFSC 304	3	8	R. Tannous
NFSC 311	3	21	L. Nasreddine
NFSC 312	3	21	Z. Harb
NFSC 314	3	17	O. Obeid
NFSC 370	3	8	A. Olabi
NFSC 395	1	14	A. Olabi
NFSC 399	0	5	L. Nasreddine/ O. Obeid/A. Olabi
NFSC 399A	0	2	L. Nasreddine
NFSC 399B	0	4	L. Nasreddine /O. Obeid/A. Olabi
NFSC 399C	0	4	N. Hwalla/L. Nasreddine/A. Olabi/I. Toufeili
NFSC 399D	0	1	I. Toufeili
<b>Total</b>	<b>60</b>		

Spring 2008–09

Course	Credits	Enrollment	Instructor
NFSC 220	3	46	C. Murad
NFSC 221	3	55	M. Zeidan
NFSC 261	3	42	J. Natour
NFSC 265	3	56	I. Toufeili
NFSC 267	2	66	B. Hamadeh/H. Daroub
NFSC 272	2	25	S. Ghandour
NFSC 278	3	24	Z. Kassaify
NFSC 285	3	75	F. Naja/M. Chamieh/C. Fakih
NFSC 287	2	96	Y. Habbal
NFSC 289	1	94	B. Hamadeh/D. Hariri
NFSC 290	3	19	M. Zeidan
NFSC 291	3	39	A. Ismail
NFSC 293	3	55	L. Nasreddine
NFSC 295	1	54	M.C. Chamieh
NFSC 296	1	56	L. Nasreddine
NFSC 298	0	8	I. Toufeili
NFSC 299	2	55	F. Naja/L. Nasreddine/O.Obeid/I.Toufeili/ Z. Kassaify
NFSC 306	3	7	F. Naja
NFSC 308	3	11	D. Khoury
NFSC 310	3	9	I. Toufeili
NFSC 315	3	19	O.Obeid
NFSC 351	3	14	Z. Kassaify
NFSC 395	1	9	O. Obeid
NFSC 300 A	1	1	Z. Kassaify
NFSC 300 B	2	1	L. Nasreddine
NFSC 300 C	3	2	Z. Kassaify/F. Naja
NFSC 399	0	8	L. Nasreddine/O. Obeid/A. Olabi
NFSC 399A	0	4	L. Nasreddine/O. Obeid
NFSC 399B	0	2	L. Nasreddine
NFSC 399C	0	2	O. Obeid
NFSC 399D	0	2	N. Hwalla/I. Toufeili
<b>Total</b>	<b>60</b>		

## Summer 2008–09

Course	Credits	Enrollment	Instructor
NFSC 221	3	23	O.Obeid
NFSC 261	3	29	I. Toufeili
NFSC 274	3	13	O. Obeid
NFSC 277	3	31	Z. Kassaify
NFSC 280	1	26	I. Toufeili
NFSC 296	1	2	I. Toufeili
NFSC 298	0	8	I. Toufeili
NFSC 299	2	2	I. Toufeili
NFSC 395	1	7	I. Toufeili
NFSC 300A	1	1	I. Toufeili
NFSC 300B	2	4	I. Toufeili
NFSC 300C	3	2	I. Toufeili
NFSC 399	0	2	L. Nasreddine/Z. Kassaify
NFSC 399A	0	8	Z. Kassaify/O. Obeid/A. Olabi
NFSC 399B	0	1	O. Obeid
NFSC 399D	0	1	O. Obeid
<b>Total</b>	<b>23</b>		

## Completed Theses

1. Maya Tabet, Lara Nasreddine (Adviser), Risk of the metabolic syndrome in overweight and obese Lebanese adolescent females.
2. Krystel Ouaijan, Lara Nasreddine (Adviser), The association of body fat with indicators of Metabolic Syndrome in overweight pre-adolescent females in Lebanon.
3. Cosette Fakih, Omar Obeid (Adviser), Postprandial hepatic lipogenesis, Glycogenesis and ATP status following Valine and Tryptophane manipulation of the diet.
4. Berna Rahi, Omar Obeid (Adviser), The effect of oleic acid in combination with varied levels of fish oil on glycemic profile of healthy men.
5. Sarah Dimashkieh, Omar Obeid (Adviser), The influence of manipulating phosphorus in high fructose solutions on satiety.
6. Dana Abou Reslan, Omar Obeid (Adviser), Effect of Carnitine supplementation on subjects with hypertriglyceridemia.
7. Lama Lteif, Ammar Olabi (Adviser), The characterization of the physicochemical and sensory properties of full-fat, reduced-fat and low-fat ovine and bovine Haloumi Cheese.
8. Hamza Daroub, Ammar Olabi (Adviser), Designing and testing of an Arabic version of the nine-point hedonic scale for use in acceptability tests.



9. Nour El Ouyoun Najm, Imad Toufeili (Adviser), Determination of Sensory Thresholds of Selected Iron Compounds and Formulation of Iron-Fortified Arabic Bread.
10. Bilal Kanso, Imad Toufeili (Adviser), Consumers' Purchase Behavior of Edible Oils in the Lebanese Market: An Evaluation of the Relative Importance of Product Attributes.
11. Serine Jaroudi, Imad Toufeili (Adviser), Assessment of Food Safety Knowledge of the Lebanese Consumers.
12. Ghina El Zahabi, Imad Toufeili (Adviser), Identification of Selected Chemical and Physical Parameters at the end of the Fry-Life of Soybean and Sunflower Oils.

## Research

### Internal Grants

- Kassafy, Zeina. Investigation and Control of Salmonella Spp. in Tahini and Tahini Products. October 1, 2008–September 30, 2009. URB \$5,200.
- Naja, Farah. Association between Various Dietary Patterns and Risk of Diabetes in Lebanese Adults. October 1, 2008–September 30, 2009. URB \$6,624.
- Nasereddine, Lara. Dietary Exposure to Pesticide Residues in Lebanon: A Total Diet Study Approach. October 1, 2008–September 1, 2009. URB \$8,500.
- Obeid, Omar. Effect of Lysine, Vitamin B6 Supplement and Carnitine Supplementation on Male Subjects with Hypertriglyceridemia. October 1, 2008–September 30, 2009. URB \$7,500.
- Olabi, Ammar. The Characterization of the Physicochemical, Microbiological and Sensory Properties of Full-Fat, and Low-Fat Ovine and Bovine Kashkaval Cheese. October 1, 2008–September 30, 2009. URB \$8,500.
- Toufeili, Imad. Determination of Sensory Thresholds of Selected Iron Compounds and Formulation of Iron-Fortified Arabic Bread. October 1, 2008 – September 30, 2009. URB \$6,000.

### External Grants

- Hwalla, Nahla. Body Fat and its Relationship with Metabolic Syndrome Indicators in Overweight (BMI  $\geq$  85th percentile) Pre-Adolescent Children and Adolescents in Lebanon. Extension. December 15, 2007–December 14, 2008. 7,200 EUR IAEA.
- Hwalla, Nahla. Intervention to Promote Healthy Eating and Physical Activity in Lebanese School Children. September 1, 2008–November 30, 2009. \$9,000 WHO.
- Hwalla, Nahla. Vegetables Seed Trial at AREC. April 27–November 30, 2009. LL33,176,000 UNIFERT.

- Hwalla, Nahla. Nasreddine, Lara Undernutrition and Obesity in Lebanon. February 16, 2009–February 15, 2010. LL75,000,000 LNCSR.
- Hwalla, Nahla. Postprandial Variation in Appetite Hormones in Response to Macronutrient Composition of Meals in Male Subjects with Metabolic Syndrome. December 31, 2007–December 30, 2009. LL20,000,000 LNCSR.
- Nasreddine, Lara. Comparative Analysis of Body Composition Assessment Methods in Lebanese Children: Anthropometry, Bioelectrical Impedance, and Deuterium Dilution Method. December 31, 2007–March 31, 2009. LL7,000,000 LNCSR.
- Nasreddine, Lara. Dietary Exposure to Pesticide Residues in Lebanon: A Total Diet Study Approach." September 1, 2008–September 1, 2009. \$10,000 WHO.
- Obeid, Omar. The Effect of Oleic Acid in Combination with Varied Levels of Fish Oil on Lipid Profile of Healthy Men. October 1, 2008–July 31, 2009. \$34,800 EFAMOL.
- Naja, Farah. Complementary and Alternative Medicine Therapies in Lebanon: A baseline survey." April 1, 2009–April 1, 2011. LL26,000,000 LNCSR.

## Publications

### International Refereed Journal Articles

- Kassaiyf, Zeina\*, Gerges, Danyelle D., Jaber, Lina S.; Hamadeh, Shadi K., Aoun Saliba, Najat, Talhouk, Salma N., Barbour, Elie K. "Bioactivity of *Origanum syriacum* essential oil against *Candida albicans*." *Journal of Herbs Spices and Medicinal Plants* 14(3/4) (2008):185–199.
- Nasreddine L., Mehio-Sibai, A., Mrayati M., Adra N. and Hwalla N. "Adolescent Obesity in Syria: Prevalence and Associated Factors. Child: Care, Health and Development." (2009).
- Obeid, Omar\* and Mattar, Melannie. "Fish oil and the management of hypertriglyceridemia" (review). *Nutrition and Health*, Vol. 20, 41–49 (2009).
- Lteif, Lama, Olabi, Ammar\*, Kebbe Baghdadi, Obeid, Omar and Toufeili, Imad. "The characterization of the physicochemical and sensory properties of full-fat, reduced-fat and low-fat ovine and bovine Halloumi Cheese." *Journal of Dairy Science* 92 (2009): 4135–45.
- Nasser El Dine, Amani, and Olabi, Ammar\*. "The effect of reference foods in repeated acceptability tests: testing familiar and novel foods using two acceptability scales." *Journal of Food Science* 74: S97–106. 2009.
- Olabi, Ammar\*, Najm, Nour El Ouyoun, Kebbe Baghdadi, Omar and Morton, Jessica. "Food neophobia levels of Lebanese and American college students." *Food Quality and Preference* 20: 353–62. 2009.

\* Corresponding author

## Abstracts and Conferences proceedings

- Hwalla N., Nasreddine L., Sidani S., Obeid O. and Adra N., Body fat and its relationship with metabolic syndrome indicators in overweight adolescents in Lebanon, presented in the Conference on Current Nutritional Challenges in Children and Adolescents in Beirut, Lebanon. October 24, 2009.
- Abi Khalil, Pamela and Kassaify, Z.G., Quantification of antibiotic residues and determination of antimicrobial resistance profiles of microorganisms isolated from raw milk in Lebanon. IFT Annual Meeting + Food Expo; Anaheim, CA, USA. June 6–10, 2009.
- Kassaify, Z. Role of Universities and Educational Institutions - Present and Future Programs, presented at the 4th Dubai International Food Safety Conference, Dubai, UAE, February 24–26, 2009. Symposium on: Building Capacity to Enhance Food Safety in the Middle East.
- Naja, F. Bioavailability of vitamins E and C, does H.pylori infection play a role? Presented at the 26th International Conference for chemotherapy and infection, Toronto, Canada. June 18–21, 2009.
- Nasreddine, L. Dietary patterns and their determinants in a sample of Lebanese adults, presented at the CSCN-CSNS Annual Scientific Meeting, Quebec City, Canada. May 30 , 2009.
- Nasreddine, L. Hunger, Poverty and Malnutrition in Lebanon, Oral Presentation. Presented at the Celebration of the World Food Day and the FAO's 30th anniversary in Lebanon. Beirut, Lebanon. 16 October 2008.
- Obeid O., Sareddine H., Abou Reslan D. and Hlais S., Effect of lysine and vitamin B6 supplementation on male subjects with hypertriglyceridemia. Amino acids, 37 (Suppl 1) S101, 2009. 11th International Congress on Amino Acids, Peptides and Proteins. Vienna, Austria. August 3–7, 2009.
- Lateif, L., Olabi, A. and Toufeili, I., The characterization of the physicochemical and sensory properties of full-fat, reduced-fat and low-fat ovine and bovine Halloumi cheese. Abstract accepted, to be presented as a poster (by A. Olabi) at the Institute of Food Technologists Annual Meeting, Anaheim, USA. June 6–9, 2009.
- Najm, N.O.E., Olabi, A. and Toufeili, I. Determination of Sensory Thresholds of Selected Iron Compounds and Formulation of Iron-fortified Arabic Bread. Presented at the 8th Pangborn Sensory Science Symposium, Florence, Italy 2009.

## Services

### Nahla Hwalla

- President of the Lebanese Association for Nutrition and Food Science
- Member of the Committee on Dietary Supplements and Medicinal Herbs at the Ministry of Public Health

- Member of the WHO Expert Advisory Panel on Nutrition
- Editorial board member:
  - a) Health Education Research
  - b) World Health Organization Bulletin
  - c) Annals of Nutrition and Metabolism
- Reviewer of Research Articles:
  - a) World Health Organization Bulletin
  - b) Nutrition Research
  - c) Annals of Nutrition and Metabolism
  - d) European Journal of Clinical Nutrition
  - e) Lebanese Science Bulletin
- WHO Service Contract: Completed the preparation of Food Based Dietary Guidelines for Egypt, Iraq, Jordan, Lebanon, Palestine, Somalia, Sudan, and Syria.
- Director of the PhD thesis of Ms. Dalia Tannous El Khoury entitled: "Influence of Dietary Carbohydrate, Protein and Lipid on Metabolic and Hormonal Parameters of Metabolic Syndrome: i) Postprandial Study in Human Subjects; ii) Long-Term Response of a Murine Model for Ms-Like Dyslipidemia, December 2008.
- Completed a Regional Strategy and Action Plan for Nutrition as WHO Consultant

## **Imad Toufeili**

### **AUB**

- Chairperson of the Nutrition and Food Sciences Dept.
- Member of the FAFS Administrative Committee
- Member of the FAFS Academic and Curriculum Committee
- Member of the University and FAFS Commencement Committees

## **Zeina Kassaify**

### **AUB**

- Member of the FAFS Ad Hoc Committee to revise FAFS bylaws
- Member of the FAFS Strategic Plan Committee
- Member of the FAFS Academic and Curriculum Committee
- Member of the FAFS Student Affairs Committee
- SRC Adviser

- Social Services Club Adviser
- Food Science Society Adviser
- Member of the University Library Committee
- Member of the FAFS Admissions Committee
- Member of the FAFS Graduate Studies Committee

#### Others

- Member on the Ministry of Agriculture National Committee for Organic Foods
- Member on the UN-ESCWA Network on Agro-food Processing
- Member on EU-FAO Committee for Food Safety and Quality
- Member of Ministry of Agriculture Committee 'Improvement of the Poultry Industry of Lebanon including husbandry and slaughter houses'
- Experts Committee AUB-FAFS Representative at the Lebanese Standards Institution-LIBNOR.
- WHO expert adviser for WHO's Food—borne Disease Burden Epidemiology Reference Group (FERG).
- HACCP plan and implementation in the creamery and poultry section of AREC: AREC visits and assists in the cafeteria and creamery reports.
- Reviewer of Research Articles:
  - a) WHO Eastern Mediterranean Health Journal
  - b) Nutrition and Metabolic Insights
- UNIDO Food Safety Panel

#### **Farah Naja**

##### AUB

- Member on the AUB Wellness committee
- Member of the FAFS Library committee

#### **Lara Nasreddine**

##### AUB

- Member on NFSC Ad-hoc committee for the preparation of guidelines for NFSC 299 (Tutorial)
- Member on the FAFS Research Committee
- Member on the FAFS Graduate Studies Committee
- Member on the FAFS Commencement Committee

## Others

- Member of the National Nutrition Colloquium Examining Committee
- Member of the Lebanese Dietetic Association

## **Omar Obeid**

### AUB

- Coordinator of Nutrition and Dietetics Program
- Member on the University Radiation Safety Committee
- Member on the University IRB Committee
- Member on the FAFS Graduate Studies Committee
- Member on the FAFS Academic and Curriculum Committee
- Chairperson of ad hoc committee Nutrition and Dietetics coordinated program program
- Member of IBSAR
- Faculty representative at the Capital budget Committee (University Lab committee)
- Member on the University Senate Committee
- Member on the University Senate Steering Committee
- University Grievance Committee
- NFSC Strategic Planning Committee

### Others

- The Lebanese Association for Nutrition and Food Science (Executive committee)
- Advisory Committee for the Syrian Diabetic Journal (Diabetic World)
- Advisory Committee for the Arab Center of Nutrition
- Member of the National Nutrition Colloquium Examining Committee
- Member of the editorial board: Arab Journal of Food and Nutrition
- Reviewer of Research Articles:
  - a) International Journal of Sport Nutrition and Exercise Metabolism.
  - b) Annals of Nutrition and Metabolism
  - c) Eastern Mediterranean Health Journal (EMHJ)
  - d) Journal of Ecology of Food and Nutrition
  - e) Journal of Biological Sciences
  - f) Jordan Journal of Biological studies
  - g) Saudi Society Journal for Food and Nutrition Sciences

- The Nutrition Society UK (Full member)
- Member of the Nutrition in Emergencies Training Network (NIETN)

## **Ammar Olabi**

### **AUB**

- Member on the FAFS Research Committee (Secretary)
- Member on the FAFS Student Affairs Committee (Chairperson)
- Member on the FAFS Admissions Committee
- Member on the FAFS Graduate Studies Committee
- Member on the FAFS Agribusiness Program Committee
- FAFS representative on the University Graduate Studies Board (Secretary)
- FAFS representative on the University Student Affairs Committee

### **Others**

- Member of the Lebanese “Food Constitution” Committee (AY 06–08)
- Reviewer of Research Articles:
  - a) Journal of Food Science
  - b) Journal of Dairy Science

## **Participation in workshops and Conferences**

### **Nahla Hwalla**

- Attended the Biennial Presentation Day of the International Center for Agricultural Research in the Dry Areas (ICARDA) in Aleppo, Syria. May 1–3, 2009.
- Completed the Food-Based Dietary Guidelines for the Gulf Countries and presented it at the workshop on “Establishing Food-Based Dietary Guidelines for the Gulf Corporation Countries” in Muscat, Oman. May 16–18, 2009.
- Participated in the 1st Meeting of the Nutrition Advisory Committee in Nutrition (CAN) organized by the World Health Organization Regional Office for Eastern Mediterranean Region (WHO-EMRO) in Cairo, Egypt. June 1–2 2009.
- Attended the Management and Leadership in Education (MLE) curriculum held at the Graduate School of Education, Harvard Institutes of Higher Education.. The course was developed cooperatively by the MLE faculty, building on the experiences of the preceding years’ programs. The ultimate goal of the curriculum was to increase the quality and effectiveness of higher education institutions. Boston, MA., USA. June 14–16, 2009.

- Participated in the Salzburg Global Seminar for Session 463, “Greening the Minds: Universities, Climate Change, and Sustainable Futures” in Salzburg, Austria. July 11–16, 2009.

### **Zeina Kassaify**

- Attended the Environmental Awareness and Expo, by UNDP and the Ministry of Environment, Royale Hotel, Beirut, Lebanon. Delivered a presentation entitled: “Global Food Safety and Lebanon,” November 30, 2008.
- Attended and presented a paper entitled “Building Capacity to Enhance Food Safety in the Middle East. Role of Universities and Educational Institutions - Present and Future Programs” at the 4th Dubai International Food Safety Conference in Dubai, UAE. February 24–26, 2009.
- Assisted in the development and preparation of the proposal for the Beverage Innovations and Development Competition 2009 for the Arab Beverage Association, June 2009.
- Conducted a 2 day workshop on food safety for the development of artisanal food production in the Bekaa area. Workshop conducted at AREC in collaboration with the NGOs UCODEP and ROSS, April 24–25, 2009.
- Attended a workshop on Developing Learning Outcomes. CTL, AUB, February 27 and March 7, 2009.
- Attended the IFT Annual Meeting + Food Expo; Anaheim, CA, USA. June 6–10, 2009.

### **Lara Nasreddine**

- Delivered a presentation entitled: “Hunger, Poverty and Malnutrition in Lebanon” in celebration of World Food Day and the FAO’s 30th anniversary in Lebanon. October 16, 2008.
- Attended the Regional Training Course on “Isotope Methodology in Body Composition and Energy Expenditure and Objective Measurement of Physical Activity,” and the Second Coordination meeting for the Regional IAEA project entitled: “Control and Prevention of Childhood Malnutrition in Asia (RAS/6/050)” in Brisbane, Australia. October 27–31, 2008.
- Attended a workshop on Improving Training in Nutrition in Emergencies, Safari Park Hotel, organized by Inter-Agency Standing Committee (IASC), Global Nutrition Cluster, and Nutrition Works. Nairobi, Kenya. November 6–7, 2008.
- Attended a course on “Bone Densitometry” organized by the International Society for Clinical Densitometry (ISCD) in Beirut, Lebanon. May 9–10, 2009.
- Attended a “Certification Course in BMD and Vertebral Fracture Assessment” offered by OSTEOS and ISCD in Beirut, Lebanon. May 9–11, 2009.
- Attended and presented a paper at the “CSCN-CSNS Annual Scientific Meeting” in Quebec, Canada. May 31–June 2, 2009.



## Farah Naja

- Attended a “Certification Course in BMD and Vertebral Fracture Assessment” offered by OSTEOS and ISCD in Beirut, Lebanon. May 9–11, 2009.
- Attended and presented a paper at the ICC09 International Congress of Chemotherapy and Infection in Toronto, Canada. June 18–21, 2009.

## Omar Obeid

- Attended a conference: Musculoskeletal and osteoporosis course. Habtoor Grand Hotel, Beirut. Lebanon. October 23–26, 2008.
- Presented a lecture entitled: “Nutritional needs of athletes”, Wellness fair AUB, organized by the Committee on University Wellness (CUW). October 31, 2008.
- Attended a workshop on Improving Training in Nutrition in Emergencies, Safari Park Hotel, organized by Inter-Agency Standing Committee (IASC), Global Nutrition Cluster, and Nutrition Works. Nairobi, Kenya. November 6–7, 2008.
- Delivered a lecture entitled: “Hazards associated with food fortification,” at the First Arab Nutrition conference on food safety and hygiene, Manama, Bahrain. December 22–24, 2008.
- Invited by the University wellness committee to present a lecture entitled: Nutritional needs of athletes, Wellness fair AUB. October 31, 2008.
- “Third Middle East Cardiopace—From Pill to Wire and Devices” jointly with the “Fourth regional meeting on prevention of cardiovascular disease.” Under the auspices of Cardioslim and endorsed by the European Heart Rhythm Association, Beirut, Lebanon. March 11–14, 2009.
- Invited by UCL Centre for International Health Development to attend a workshop related to the development of Nutrition in Emergencies Training Network. London, UK. April 6–7, 2009.
- Invited to attend the Young Arab Leaders Forum 2009, Lebanon, 1–3 May, 2009.
- Attended the 11th International Congress on Amino Acids, Peptides and Proteins. Vienna, Austria. August 3–7, 2009.

## Ammar Olabi

- Assisted in the development and preparation of the proposal for the Beverage Innovations and Development Competition 2009 for the Arab Beverage Association, June 2009.
- Conducted a 1 day workshop on food processing and product development in the Bekaa area. Workshop conducted at AREC in collaboration with the NGOs UCODEP and ROSS, April 25, 2009.
- Presented a poster at the Institute of Food Technologists Annual Meeting, Anaheim, June 6–9, 2009.

## **Imad Toufeili**

- Attended the 8th Pangborn Sensory Science Symposium, Florence, Italy. July 26–31, 2009.

## **Nada Adra**

- Attended the regional training course on “Isotope Methodology in Body Composition and the Energy Expenditure and Objective Measurement of Physical Activity” organized by the International Atomic Energy Agency (IAEA), Brisbane, Australia. October 27–31, 2009.

## **Strategic Challenges**

### **•Students Internships**

The department is seeking more hospitals for placement of interns (NFSC already has agreements with AUBMC, RHUH, Saint Georges, Labib medical Center, Ham-moud, Mount Lebanon and Rizk). The faculty members are also discussing options to secure memoranda of understanding with reputable food companies for securing internships in the major of Food Science and Management.

### **•Public Health Nutrition**

The department is still working on developing a new program, “Public Health Nutrition.” The process of developing a Coordinated Program in Nutrition and Dietetics may put the remaining students at a disadvantage, especially that the possibility of getting internship at other hospitals is becoming very difficult with the increase in the number of universities offering similar programs. The suggested new degree in “Public Health Nutrition” will relieve some of the pressure involved in placing students in hospitals and provide a potentially viable option for students in the ND program. This degree emphasis will help with sparse internship places and will open new job opportunities in governmental and non-governmental institutions.

### **•Research**

The department needs to define research themes with development dimensions to appeal to funding agencies such as Ethnic Foods, Community Nutrition, Clinical Nutrition, Metabolic Syndrome, and Food Safety. The department is seeking to identify research areas that require collaboration between Nutrition and Food Science faculty (functional foods) or within FAFS (IBSAR, ESDU). Collaboration with researchers in other faculties and with regional centers is also important for the department.

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