



Sultan Qaboos University

College of Agricultural and Marine Sciences



**Annual Report
2013-2014**



Sultan Qaboos University

COLLEGE OF AGRICULTURAL AND MARINE SCIENCES



**Annual Report
2013-2014**

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REPORT FROM THE OFFICE OF THE DEAN



Prof. Anvar Kacimov

Dean

College of Agricultural and Marine
Sciences

CAMS is a relatively small College at SQU with about 1500 students, 60 faculty and 100 staff. However, its output in terms of research, community service and extension per capita is exemplary. CAMS follows the strategy of prioritizing food security as a goal of national importance. Our philosophical premise is based on the belief that agriculture (including aquaculture) and fisheries provide the framework upon which industry, technology, higher education, culture and other socio-economic components flourish. Correspondingly, most CAMS activities and projects are coordinated with the Ministry of Agriculture and Fisheries, NGOs (farmers associations, environmental groups), Ministry of Regional Municipalities and Water Resources, Public Authority for Electricity & Water, Ministry of the Environment and Climate Change and other public and private institutions.

CAMS is a comprehensive College where the teaching-research nexus is evidenced by a minimum teaching load of 4 sections/academic year for each faculty member. . Capacity building initiatives at CAMS are founded on assuring that students receive an appropriate balance of theoretical and practical training. For example, CAMS is always on the forefront of the FURAP program funded by the TRC, where undergraduate students do research under supervision of academics. TRC distinguished a FURAP project completed by CAMS as one of the best in the country. The master and doctoral programs at CAMS result in brilliant discoveries of high practical value that receive accolades mirrored in awards granted by the TRC and the Diwan.

The scholarly output of CAMS is reflected in the high number of papers published in top ranked international journals, book published by prestigious international publishers and distinguished as outstanding by experts and learned societies, ever growing citation counts from Scopus-WoS, editorial service to international scholarly journals of the highest caliber, the highest number of SQU and international publication awards per capita, TRC, HM, AFDF, SQU-UAEU grants acquired through tough national competitions, as well as grants from USAID, WTO, American Navy, International Atomic Agency, FAO and other international entities where competition for funding is even tougher. CAMS researchers are in the highest demand as consultants: Omani and overseas private companies working in water, oil, environmental, food , poultry, medical and other industries actively pursue the College's faculty for their expertise..

The College collaborates with scientists from American, British, Emirati, Japanese, French, Russian, Spanish, Saudi, German, Jordanian universities and research institutes, with tangible outcomes coined in joint funded projects, co-authored publications, co-organized conferences and workshops, co-supervision of international students, among others.

CAMS endeavors to become a pinnacle of academic excellence not only in the region but in the whole world. We are ambitious, confident, full of energy and ideas, synergetically blend the local impetus /knowledge/support with global expertise/standing/links. "Veni, vidi, vici" – this is the motto of CAMS.



Dr. Said Salim Al-Ismaily

Assistant Dean – Undergraduate Studies

College of Agricultural and Marine Sciences

The office of the Assistant Dean for Undergraduate Studies (ADUS) is the central information resource for CAMS students and is the place to assure that CAMS is implementing SQUs academic rules, regulations and guidelines. The office of ADUS is uniquely situated, jointly with the other academic units within the college, to promote excellency in the academic life of students at CAMS by advocating inquiry and cognitivity in teaching and learning and by integrating the descriptive-explanation and analytical-prediction learning approaches. The ultimate goal of CAMS is to provide students with the intellectual tools needed to face the many challenges they will face relevant to achieving food security and responding to the mounting environmental problems that Oman confronts by:

- Working hand in hand with the different departments through committees relevant to undergraduate studies, curricula improvement, and quality assurance.
- Fostering a collaborative relationship between students and their advisors to ensure degree completion.
- Supporting and recognizing excellence in teaching using objective and innovated guidelines and criteria during the evaluation process of CAMS best teachers.
- Guiding students in finding a degree program that matches their interests and abilities.
- Helping probation students and students with special needs to overcome the obstacles that prevent them completing their degree programs in a timely fashion.
- Creating an inspiring environment by recognizing and providing awards to students achieving excellent academic performances.
- Adopting systematic procedures in maintaining/implementing rules and regulations with equity, transparency, and conformity with the SQU system of appeals, grievances, exam invigilation, among others.

Office of the Assistant Dean of Undergraduate Studies

1. Undergraduate Students Graduated in 2014

Animal and Veterinary Sciences	14
Crop Sciences	23
Food Science and Nutrition	47
Marine Science and Fisheries	13
Natural Resource Economics	22
Soils, Water and Agricultural Engineering	53
TOTAL	172

2. Number of seats offered in the college:

Course Level	Department	Spring14	Summer14
Undergraduate Courses	Animal & Veterinary Sciences	345	17
	Crop Sciences	183	12
	Food Science & Nutrition	560	24
	Marine Science & Fisheries	366	97
	Natural Resource & Economics	367	24
	Office of the Dean	501	231
	Soils, Water & Agricultural Engineering	776	61
	Sub Total	3,098	465
Postgraduate Courses	Animal & Veterinary Sciences	2	No Courses Offered
	Crop Sciences	5	
	Food & Nutrition Sciences	16	
	Marine Science & Fisheries	9	
	Natural Resource & Economics	1	
	Office of the Dean	21	
	Soils, Water & Agricultural Engineering	2	
	Sub Total	56	

3. Number of sections offered in the college:

Course Level	Department	Spring14	Summer 14
Undergraduate Courses	Animal & Veterinary Sciences	22	1
	Crop Sciences	14	2
	Food Science & Nutrition	21	2
	Marine Science & Fisheries	15	2
	Natural Resource Economics	13	2
	Office of the Dean	5	4
	Soils, Water & Agricultural Engineering	23	3
	Sub Total	113	16
Postgraduate Courses	Animal & Veterinary Sciences	1	
	Crop Sciences	2	
	Food Science & Nutrition	2	
	Marine Science & Fisheries	2	
	Natural Resource Economics	1	
	Office of the Dean	1	
	Soils, Water & Agricultural Engineering	1	
	Sub Total	10	

4. Majors assigned to 2013 cohort students:

Major	Spring14	Fall14
Agricultural Engineering	0	0
Animal Science	0	1
Crop Sciences	0	2
Food Science	0	5
Human Nutrition	2	9
Marine Science and Fisheries	0	1
Natural Resource Economics	0	0
Soil Sciences	0	1
Veterinary Technology	0	0
Water Technology	0	3
Total	2	22

5. Number of students assigned in different majors during 2012 cohort:

Major	Spring14	Summer14	Fall14
Agricultural Engineering	2	2	2
Animal Science	0		1
Crop Sciences	5		5
Food Science	20		0
Human Nutrition	16		0
Marine Science and Fisheries	3	1	0
Natural Resource Economics	21		5
Soil Sciences	12		12
Veterinary Technology	6		3
Water Technology	23	5	0
Total	108		28

6. Number of students assigned in different majors during 2011 cohort:

Major	Spring14	Summer14	Fall14
Agricultural Engineering	0		0
Animal Science	5		1
Crop Sciences	8		6
Food Science	0		0
Human Nutrition	0		0
Marine Science and Fisheries	23		0
Natural Resource Economics	0	1	0
Soil Sciences	1	1	0
Veterinary Technology	1		0
Water Technology	1		0
Total	39		7

7. Section Size – Undergraduate Courses (*excluding Internship and Special Problem courses*)

Department	Spring14						Summer14					
	<10	<20	<30	<50	<99	≥99	<10	<20	<30	<50	<99	≥99
Animal & Veterinary Science	6	9	2	1	2	0		1				
Crop Sciences	3	7	1	1	1	0		1				
Food Science & Nutrition	0	3	9	7	0	0			1			
Marine Science & Fisheries	2	2	8	2	1	0					1	
Natural Resource Economics	2	2	2	4	2	0			1			
Office of the Dean	1	0	1	1	0	3				1	3	
Soils, Water & Agricultural Engineering	2	3	4	9	4	0					1	
Sub Total	16	26	27	25	10	3						
Total	105											

8. Section Size – Postgraduate Courses (*excluding Thesis courses*)

Department	Spring14					
	<5	<10	<15	<20	<30	≥30
Animal & Veterinary Science	1	0	0	0	0	0
Crop Sciences	2	0	0	0	0	0
Food Science & Nutrition	0	1	1	0	0	0
Marine Science & Fisheries	1	1	0	0	0	0
Natural Resource Economics	1	0	0	0	0	0
Office of the Dean	0	0	0	0	1	0
Soil, Water & Agricultural Engineering	1	0	0	0	0	0
Sub Total	6	2	1	0	1	0
Total	10					

9. Teaching Load

Department	No. of Sections/Faculty											
	0.0	0.5	1.0	1.25	1.5	2.0	2.25	2.5	3.0	3.5	4.0	
Spring 2014												
Animal & Veterinary Science			3			2	2		3			
Crop Sciences			4		1	1	1		1			
Food Science & Nutrition			1		1	4	1	2	2	1		
Marine Science & Fisheries			2			7			2			
Natural Resource Economics			1			1			5			
Soil, Water & Agricultural Engineering		1	2			6			5	1		
Sub Total		1	13		2	21	4	2	18	2		



Dr. Michel Claereboudt

**Assistant Dean –
Postgraduate Studies and Research**

College of Agricultural and Marine
Sciences

In 2014, CAMS researchers were granted 70,700 OR for Internal Grants for 10 funded projects and one strategic grant worth 93,000 OR. In addition, researchers from CAMS attracted 163,000 OR of collaborative grants (with UAEU and the Ministry of Environment in Qatar). They also attracted 171,000 OR of contract research and consultancies, as well as 409,000 OR of external research grants (The Research Council, The Office for Naval Research, USAID, WTO, etc.) for a total of 906,700 OR of which 80% came from competitive funding external to SQU.

In terms of publications, CAMS researchers published 109 papers in peer reviewed journals. They also made 165 conference presentations of which 16 were as invited speakers and 31 were later published as proceedings. Scholars at CAMS contributed to 57 book chapters and edited 6 books. In total the work of CAMS' scientists and researchers resulted in 375 publications in 2014.

This year, the Department of Natural Resource Economics completed its academic offering with a PhD program in Agricultural Economics bringing the total number of programs in CAMS to 8 Masters of Science and 5 Doctor of Philosophy programs. The number of admission in the College grew slightly from 14 in 2012, to 17 in 2013 and 28 in 2014. The number of students graduated also increased from 13 in 2012 to 15 in 2013 and 24 in 2014. The quality of the research of our students was exemplified by the National Research Award given to Sawsana Al-Rahbi for her work on the detection of surface cracks on dates using image analysis.

Office of the Assistant Dean of Postgraduate Studies and Research

Graduate Programs

Postgraduate Students Graduated in Fall 2013

Department	MSc	PhD
Animal and Veterinary Sciences	1	-
Crop Sciences	1	0
Food Science and Nutrition	7	0
Marine Science and Fisheries	1	0
Natural Resource Economics	1	-
Soils, Water and Agricultural Engineering	3	1
Total	14	1

Postgraduate Students Graduated in Fall 2014

Department	MSc	PhD
Animal and Veterinary Sciences	1	-
Crop Sciences	2	4
Food Science and Nutrition	6	2
Marine Science and Fisheries	4	0
Natural Resource Economics	3	0
SWAE	2	0
Total	18	6

Research Output

CAMS Publications

Fiscal Year	Refereed journal	Book	Edited Book	Chapter in Book	Conference Presentations	Technical Reports	Newspaper Articles	Others	Total
2013	137	1	3	25	145 57 papers (7 in proceedings) 59 abstracts, 29 posters	15	12 (SQU – 5; Local – 7)	1 PhD Dissertation	339
2014	109	1	5	57	165 63 papers presented (31 in proceedings) 62 abstracts 24 posters 16 invited as speaker]	14	23 (SQU = 7 Local = 16)	1 (Net interview)	375

Research Funding

Awarded in 2013

Internal Grant

No.	Title of Research	Principal Investigator	Amount (RO)
1	Characterization of fungal pathogens associated with root rot and wilt of Date palms in Oman	A. Al-Sadi	11,000
2	Development of begomoviral resistance in sweet pepper due to the expression of non-pathogen derived antiviral genes*	A.J. Khan	11,000
3	Atmospheric cyclones and biological productivity of the ocean	S. Piontkovski	11,000
4	The population dynamics, pathology and treatment of parasites on commercially important demersal fishes in Oman	G. Yoon	11,000
5	Effects of processing methods on retaining bioactive compounds and antioxidant activity of some mushroom cultivars	N. Guizani	11,000
6	Estimating the capital stock and investment in artisanal fishery: a case study of Wilayat Al-Seeb	S. Bose	4,900

7	The preferences and determinants of dairy farmer's participation in alternative marketing channels: a study of the small-scale dairy farmers in Oman	<i>M. Mbagha</i>	10,000
Total			69,900

**Project was terminated in October 2013.*

His Majesty's Trust Fund (HMTF)(SR)

No.	Title of Research	Principal Investigator	Amount (RO)
1	Characterizing the nature of resistance to Witches' Broom Disease in Omani lime	<i>A. Al-Sadi</i>	82,300

The Research Council Faculty Mentored Undergraduate Research Award Program (FURAP)

No.	Title	Mentor	Amount (RO)
1	The efficiency of household water filters in various regions	<i>A. Al-Maktoumi</i>	2,400
2	Characterization of urban soil at A'Seeb area	<i>S. Al-Ismaily</i>	2,400
Total			4,800

Contract Research (CR)

No.	Title	Principal Investigator	Sponsor/ Agency	Amount (RO)
1	Mapping, monitoring and mitigation of land degradation in Oman	<i>M. Al-Wardy</i>	Ministry of Environment & Climatic Affairs	728,145
2	Monitoring coral communities and artificially created substrates near Musandam Gas Processing Plant	<i>M. Claereboudt</i>	Oman Oil Co. Exploration & Production, LLC (OOCEP)	68,800
3	The role of small and medium enterprises (SMEs) and agricultural cooperatives in promoting sustainable agriculture for rural development and food security	<i>S. Bose</i>	The Research Council, Oman	7,040

4	Screening of viral, viral-like and bacterial diseases in Citrus	<i>A. Al-Sadi</i>	Royal Court Affairs	4,428
5	Implementation and performance evaluation of environmental technologies for oil contaminated soils and water	<i>M. Claereboudt</i>	Ray International, LLC	1,600
6	Characterization and treatment of textile industry effluents using nanotechnology	<i>M. Ahmed</i>	Caledonian College of Engineering	10,560
Total				820,573

Awarded in 2013 and completed in the same year funded through CR.

No.	Title	Principal Investigator	Sponsor/ Agency	Amount (RO)
1	Performance evaluation of hybrid adsorption-ceramic membrane microfiltration approach for produced water treatment	<i>M. Ahmed</i>	PDO, Oman	4,615
2	Whole wheat products development and awareness creation in Oman – Phases IV to VI	<i>M. Annamalai</i>	IIC, Oman	4,480
3	Development of monitoring and control program for lobster fishery in the Sultanate of Oman	<i>S. Bose</i>	Ministry of Agriculture & Fisheries	8,640
Total				17,735

Awarded in 2014

Internal Grant

No.	Title of Research	Principal Investigator	Amount (RO)
1	Investigation of <i>Ehrlichia ruminantium</i> and its tick vectors in the livestock population of Dhofar Region of Oman	<i>P. Bobade</i>	8,400
2	Knowledge diffusion with respect to pesticide related decision-making processes within the farming community of Oman	<i>M. Deadman</i>	5,000
3	Agro-ecology of traditional date palm farms in Oman	<i>R. Al-Yahyai</i>	7,000
4	Effect of walnuts on experimental Parkinson's disease: <i>In vitro</i> and <i>In vivo</i> approach	<i>M. Essa</i>	9,000
5	Dietary and lifestyle risk factors in the etiology of colorectal cancer in Oman	<i>M. Waly</i>	6,150
6	Development of value-added products from date fruit	<i>M. K. Al-Khusaibi</i>	6,150
7	A meta-analysis of available information on Oman's exploited finfish and elasmobranchs	<i>A. Govender</i>	6,000
8	Intra- and Inter-annual variability in ichthyoplankton occurrence, diversity and growth pattern in Sea of Oman waters of Muscat	<i>A. Malzahn</i>	9,000
9	Nutrification of traditional desserts with Omani Dates	<i>M. Annamalai</i>	9,000
10	Enhancement of groundwater recharge in Al-Khoud dam area	<i>A. Al-Maktoumi</i>	5,000
Total			70,700

His Majesty Trust Fund (SR)

No.	Title of Research	Principal Investigator	Amount (RO)
1	A novel molecular approach to study Brucellosis in cattle, sheep, goats and camels in the Sultanate of Oman	<i>Dr. Yasmin El Tahir</i>	93,000

Contract Research (CR)

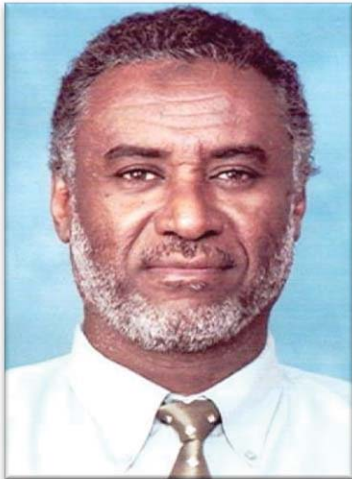
No.	Title	SQU Project Leader/Co-PI	Sponsor/Agency	Duration	Amount (RO)
1	Soil classification and analyses for the million palm project Note: (Granted and completed in the same year: 2014)	H. AbdelRahman	Institute for Development of Water Resources "Jaroslav Cerni" AD (Serbia)	One year only	11,000
2	Who's eating the dubas bug? Characterization of biological control through molecular gut analysis	A. Al-Wahaibi	TRC, Oman	36 mos.	108,750
3	Modeling of dubas bug habitat and population density in Oman based on associations with environmental and climatological factors	A. Al-Wahaibi	TRC, Oman	36 mos.	51,340
Total					171,090

Collaborative Research (CL)

No.	Title	Principal Investigator	Collaborating Institution	Duration	Amount (RO)
1	Studies on the distribution, nature of damage and future control strategies for the Tomato Leafminer (<i>Tuta absoluta</i>) in Oman and UAE	A. Al-Wahaibi	United Arab Emirates University (UAEU)	2014-2017	12,500
2	Effects of feeding date palm by-products on the productive and reproductive performance of Awassi sheep	O.M. Gaafar	Ministry of Environment, Qatar	2014-2017	151,141.504
Total					163,641.504

External Grants (EG)

No.	Title	SQU Project Leader	Sponsor/Agency	Duration	Amount (RO)
1	Desalination for agriculture in the Sultanate of Oman: challenges and opportunities	<i>S. Al-Jabri</i>	Ministry of Agriculture & Fisheries, Oman	2014-2017	30,000
2	Addressing food security in Oman through WTO Multi-lateral trading system and market-oriented food policies	<i>H. Boughanmi</i>	World Trade Organization, Geneva, Switzerland	2014-2018	84,200
3	Application of near-real time monitoring systems for irrigated agriculture in MENA [MENA NWC (Middle East and North Africa Network of Water Centers of Excellence)]	<i>Y. Al-Mulla</i>	USAID/FABRI	2014-2015	191,550
4	Bioluminescent field of the Omani coastal waters	<i>S. Piontkovski</i>	Office of Naval Research Global, UK	2014-2015	103,680
				Total	409,430



Prof. Osman Mahgoub

**Assistant Dean –
Training and Community Services**

College of Agricultural and Marine
Sciences

One of the major objectives of SQU and CAMS is to provide training to SQU staff and students and community service to the Omani society. The Office of the Assistant Dean for Training and Community Service plays an important role in the training of staff and students through planning, execution and coordination within CAMS and SQU and between SQU and other sectors. The office works in close contact with Student Internship Department Coordinators to place and follow up students during their internship training. It works in close contact with the Center for Staff Development to draw training plans for regular training of technical and administrative staff. The Office is also responsible for coordinating and providing logistics for events at CAMS, including workshops, seminars conferences.

Training and Community Services

The College maintained an extensive program of outreach. The main features of this program are summarized below.

Conferences, Workshops, Training and Lectures Presented

Title	Beneficiary	Host Dept / Participant
<ul style="list-style-type: none"> Workshop on MANGO AND CITRUS PATHOLOGY IN OMAN AND BRAZIL (4 June 2014) 	SQU, Ministries and private sector	CS
<ul style="list-style-type: none"> Workshop on Professional Development , (2 June 2014) 	SQU & Ministries	Dean
<ul style="list-style-type: none"> Workshop on Necropsy Protocol, Sample Collection and Preservation (18 -19 May 2014) 	SQU, Ministry of Agriculture and Fisheries	AVS
<ul style="list-style-type: none"> Workshop on Computer Vision Technology for Agricultural and Food Industries (30 March 2014) 	SQU & Ministries	SWAE & FSN
<ul style="list-style-type: none"> Mini-Symposium Water-Plant-Energy-Food Nexus in Two Arid Tropical Regions: Australian and Omani Experience (4 March 2014) 	SQU & Ministries	SWAE
<ul style="list-style-type: none"> International Conference on Seafood Safety, Quality and Traceability Systems (3-5 March 2014) 	SQU & Ministries	MSF
<ul style="list-style-type: none"> Workshop on soil-Water-Plant Continuum: Fundamentals and measurement Devices (18 November 2013) 	SQU & Ministries	SWAE
<ul style="list-style-type: none"> Collaboration workshop between the Department of Marine Science and Fisheries and Faculty of Fisheries, Kagoshima University, Japan. (28 May 2014) 	CAMS	MSF
<ul style="list-style-type: none"> First International Workshop on Food, Alzheimer's disease and other neurocognitive diseases (24 September 2013) 	SQU & SQUH, Ministries	FSN
<ul style="list-style-type: none"> Workshop on How to Design Proposals and Apply for Grants (10 December 2013) 	SQU & Ministries	CAMS
<ul style="list-style-type: none"> Workshop on Trends and Challenges of Autism in Oman (1 May 2014) 	SQU	FSN
<ul style="list-style-type: none"> Workshop on Computer Aided Design and Computational Fluid Dynamics Applications in Agriculture (15-17 June 2014) 	SQU & Ministries	SWAE
<ul style="list-style-type: none"> Trained six students from Higher College of Technology 	Higher College of Technology	CAMS Lab
<ul style="list-style-type: none"> Trained one student from College of Sciences SQU 	College of Sciences SQU	FSN
<ul style="list-style-type: none"> Trained 2 Staff from Ministry of Agriculture and Fisheries 	MAF	CS
<ul style="list-style-type: none"> Trained 3 Staff from Muscat Municipality 	Muscat Municipality	CAMS Lab

• Trained one staff from Royal Court Affairs	Royal Court Affairs	FSN
• Training on Oceanography, Marine Pollution and Management of Coastal Areas	Oman Navy	MSF
• Training course on in Flowers Arrangement (5-7 May 2014)	SQU Staff and Student	AES & Plant Group
• Training course in beekeeping and honey production (7 April 2014)		
• Training course on Beekeeping and Honey Production (17 - 19 March 2013)	SQU Staff and Student	AES & Plant Group
• Walkathon for Alzheimer's disease and Road safety awareness Remember 2014 on 5 March 2014 at Sultan Qaboos Sports complex, Bousher, Muscat	SQU staff, student, common public	SQUH and Ageing and Dementia Research Group, SQU

Other Selected Outreach Activities by SQU Staff at CAMS

• CAMS Sport Day
• University Day
• Seminar on Aquaculture Development and Environmental Issues
• Seminar on Nutrient cycling in plant-animal systems of Oman: methods and applications
• Seminar on Intensification and Combination of Innovative Green Extraction Processes of Natural Products
• Seminar on Water Crisis Iran: lesson to Be Learned
• Seminar on Program Accreditation: The College of Engineering Experience
• Seminar on Need for Innovative Farming Technologies and Research to Meet the Challenges of Agricultural Production
• Seminar on Fishery management and the Resilience of Coral-Reefs to climate Change: no Simple recipe
• Seminar on Propagation of Antibiotic- Resistance and Available mitigation Options
• Seminar on You are what your eat? Food for thought
• Seminar on Efficacy of Bioremediation for cleaning of Pesticides and Textile Days Polluted Environments
• Seminar on Ensuring Quality of Higher Education
• Seminar on Atmospheric cyclones and biological productivity of the Indian Ocean
• Seminar on The Impact of Landscape on Site Microclimate and Environmental Performance of The Oman Eco-House Project
• Seminar on Innovation, Creativity and Entrepreneurship
• Seminar on Determination of some watershed's hydrological parameters for water harvesting project Wadi Al-kanger, Sudan
• Seminar on Environmental Implications of Sanitation Policy and Technology in South Africa
• Seminar on Perspectives of Using Microbial Biotechnologies for Sustainable Agriculture Under Stress Environments
• Seminar on Nutrient Cycling in Plant Animal Systems of Oman: methods and Application
• Seminar on Value Added Functional Products from less Utilized Biomaterials Locally Available in the Sultanate
• Seminar on Low-Cost, Low-Maintenance Best Management Practices for Reducing Agricultural Pollution from Conventional and Emerging Contaminants

- Seminar on Program Accreditation : the College of Engineering Experience
- Seminar on Need for Innovative Farming Technologies and Research to meet the Challenges of Agricultural Production
- Seminar on Projection of Future Changes in Rainfall and Temperature Patters in Oman
- Seminar on Peer Review of Teaching
- Seminar on Underwater wonders on Oman: 15 years of Photographic Exploration
- Seminar on Environmental Implications of Sanitation Policy and Technology in South Africa
- Seminar on Perspectives of Using Microbial Biotechnologies for Sustainable Agriculture Under Stress Environments



DEPARTMENTAL HIGHLIGHTS



Dr. Waleed Al-Marzooqi

**Head of the Department –
Animal and Veterinary Sciences**

College of Agricultural and Marine
Sciences

The Department of Animal and Veterinary Sciences jointly with Ministry of Agriculture and Fisheries Wealth is drafting a proposal for the establishment of a Doctor of Veterinary Medicine (DVM) degree Program at Sultan Qaboos University. The Department continued its excellent scholarly output by publishing 26 papers in high quality international journals and nine presentations were given at international or local conferences. The Department managed to secure a large research grant from HIS MAJESTY's Strategic Fund to study Brucellosis in cattle, sheep, goats and camels in the Sultanate of Oman, A number of members in the Department serve as co-investigators on important strategic projects and internal grants. The Department continues to provide laboratory diagnostic services and advice on clinical cases to veterinary personnel and individual animal owners within and outside SQU The Department has been very active on national committees such as the Zoonosis Committee, The Research Council Oman (TRC) and Center for Animal Genetic Resources.

DEPARTMENT OF ANIMAL & VETERINARY SCIENCES (AVS)



TEACHING

- ❖ Five faculty members were attended a workshop on Moodle.
- ❖ Twenty two courses were taught and 406 students were enrolled in the Fall Semester of 2013.
- ❖ Twenty courses were taught and 343 students were enrolled in the Spring Semester of 2014.
- ❖ The Department offered two courses for Postgraduate Students in each semester.

RESEARCH

- ❖ The Department managed to secure 93000 RO from HIS MAJESTY's strategic fund to study Brucellosis in Cattle, Sheep, Goats and Camels in the Sultanate of Oman.
- ❖ Dr. Yasmin El Taher Ahmed is the principle investigator on an HM funded research project (2014-2017), entitled: "A novel molecular approach to study Brucellosis in cattle, sheep, goats and camels in the Sultanate of Oman".
- ❖ Professor Eugene H. Johnson is a co-investigator on an SQU internally funded research project (2012-2014), entitled: "Hormonal regulation of

acylation stimulating protein production and receptor expression in rodent adipose tissue”.

- ❖ Professor Eugene H. Johnson, Patrick Akin Bobade and Mohammed Tageldin are co-investigators on a TRC funded research project (2013-2016), entitled: “Theileriosis in the Sultanate of Oman”
- ❖ Professor Osman M. Gaafar is a co-investigator on an HM funded research project (2013-2016), entitled: “Design and development of biologically active artificial bone with precise anatomical shapes and sizes”.
- ❖ Dr. Waleed Al-Marzooqi is a co-investigator on an SQU internally funded research project (2012-2015), entitled: “Utilisation of *Prosopis juliflora* for feeding Omani Livestock”.
- ❖ Professor Osman M. Gaafar is the principle investigator on a Ministry of Environment Qatar research funded project (2013-2016), entitled “Effect of feeding palm fronds and date waste on the productive and reproductive performance of Awassi sheep”.
- ❖ Professor Isam T. Kadim is a co-investigator on the United Arab University Research Grant (2013-2015), entitled: “Strategies to improve meat quality characteristics of camel meat for marketing”.

Publications

- The Department published 26 journal papers, one book chapter and 9 conferences proceedings.

COMMUNITY SERVICES

- ❖ The Department provides laboratory diagnostic services and advice on clinical cases to veterinary personnel and individual animal owners within and outside the university.
- ❖ The Department gives continuous training for the technicians and graduate students on several advanced laboratory techniques, such as amino acid analysis, non-starch polysaccharide, DNA extraction and using PCR.
- ❖ The Department provides services on feed analysis for many government and private sector companies.
- ❖ In conjunction with the Office of the Advisor to His Majesty The Sultan for Cultural Affairs, Professor Eugene H. Johnson undertook as author and photographer a two volume book series entitled, “Reflections from the Not so Distant Past in Oman”. Volumes I and II are in the final phases of preparation. The book series will be distributed worldwide and will be available in English and Arabic.
- ❖ The diagnostic laboratory in the department is on a regular basis assisting veterinarians and other health care professionals from the public and private sectors in the diagnosis of disease conditions and help investigate disease outbreaks.
- ❖ Professor Isam T. Kadim delivered a talk on chemical contaminants of meat and meat products to Food Safety Week, April, 21-23, 2014, Al-Bustan Palace.
- ❖ Professor Eugene H. Johnson served on the Environmental Biology Resource Committee for the Research Council, Oman.

Consultancies

- Dr. Mohamed I. Tageldin completed a consultancy in diagnosing a case of canine neoplasm. The biopsy result was submitted to the Royal Omani Police.
- Dr. Mohamed I. Tageldin conducted an investigation of an outbreak of toxoplasmosis in wallabies (*Macropus rufogriseus*) on a farm.
- Investigation of an outbreak pigeon pox

The Department established/continued collaboration

- Dr. Albano Beji Pereira, University of Porto, Portugal (Genetic resources).
- University of Kassel Germany (MwaNaeima Ramadan ,PhD student)
- University Putra Malaysia (Saeed Al-Khilasi, PhD student)
- Kazakh National Agrarian University, department of Food Technology, :Almaty, Kazakhstan; Professor Aysia Serikayeva
- Al-Farabi University, Department of Biology, Almaty, Kazakhstan; Dr. Gaukhar Konuspayeva
- University of Helsinki Finland, Professor Mikael Shurnik
- Director Inserm U1047 –France, Dr. Anne KERIEL AND David O’Callaghan (HM project on Brucellosis)

HUMAN RESOURCES

❖ New Staff Appointment

- Ms. Rudaina O. Al Busaidi joined the Department as Demonstrator in the department in January 2014.
- Ms. Abeer N. Al Hamrashdi joined the Department as a technical staff in the Veterinary program in July 2014.
- Ms. Nada M. Al Balushi joined the Department as a technical staff in the Veterinary program in July 2014.

GENERAL

- ❖ The Department jointly with the Ministry of Agriculture and Fisheries is drafting a proposal for the establishment of a Doctor of Veterinary Medicine (DVM) degree program at SQU.



Dr. Abdullah Mohd Al-Sa'di

**Head of the Department –
Crop Sciences**

College of Agricultural and Marine
Sciences

The Department of Crop Sciences (CS) was established as a core unit of the College of Agricultural and Marine Sciences. The Department is concerned with the application of crop science to agriculture and the natural environment. The aims are to address the priority issues that create limits to the expansion of crop yields both qualitatively and quantitatively to ensure food security for the current and future generations. Our BSc program offers a wide range of topics that provide students with basic and applied crop science knowledge and problem solving skills in agronomy, horticulture, entomology, plant pathology and biotechnology. Our graduates are working in the Ministry of Agriculture and Fisheries Wealth, Royal Gardens and Farms, Oman Botanic Garden and within the private sector as farm managers. The Department also offers two MSc programs in Crop Production and Crop Protection to provide advanced training in these specializations. The Department also offers a PhD program in Crop Science. The Department also has an outstanding record of producing internationally recognized and award winning publications in top journals. The Department faculty are all actively engaged in research and consultancy activities highly relevant to Oman; funding comes from the public sector (TRC, HM awards, SQU) as well as from private companies. . In 2013/2014, departmental members led 15 projects worth of 429,116 Omani Riyals. In addition, they published 52 refereed papers, 40 book chapters and 32 conference papers/abstracts/proceedings. Faculties of the Department are also active in outreach, most especially in supporting the farming community with advice and other diagnostic services. They also frequently present the results of their research at local workshops and similar events.

DEPARTMENT OF CROP SCIENCES (CROP)



TEACHING

Semester	Number of courses taught	Total number of students
Spring 2014	19	317
Fall 2013	18	338

RESEARCH

Completed research projects during the academic year 2013/2014

- ❖ Potential sources of soil-borne plant pathogenic fungi and bacteria into farms in Oman (PI - A.M. Al-Sadi; Sponsor – HM; Period – 2010-2013; Amount – RO 95,600)
- ❖ Molecular characterization of begomovirus associated with tomato and other crops and screening of tomato cultivars tolerant to leaf curl virus (PI - A.J. Khan; Sponsor – TRC; Period – 2010-2013; Amount – RO 132,000)
- ❖ Non-pathogen genetic resistance against begomoviruses (PI - A.J. Khan; Sponsor – IG; Period – 2013; Amount – RO 11,000)

Number of Ongoing Research projects 2013/2014

- ❖ IG – 7
- ❖ SQU-UAE – 1
- ❖ TRC – 2
- ❖ CA, RCA – 1
- ❖ HM – 1
- ❖ VALE Brazil (University of Federal Viscosa, Brazil) – 1
- ❖ Vale Oman Pelletizing Co., LLC – 2

Publications

Type	2013	2014	Overall (2013/2014)
Refereed Journal papers	31	21	52
Book chapters	2	38	40
Conference proceedings	11	21	32
Technical Reports	1	0	1
	45	80	125

Conferences, workshops, seminars

The department organized a workshop on Citrus and Mango Diseases in June 2014.

International Collaborations

No	Organization	Type of Cooperation/ Contact Person	Contact Person
1	University of California, Riverside	Asian Citrus Psyllid / Dr. Mark Hoddle	Dr. A. Al-Wahaibi
2	Plant Pests and Diseases Res. Institute, Iran	WBDL vectors / Dr Alimorad Sarafrazi	Dr. A. Al-Wahaibi
3	University of New England, Australia	Dubas Bug / Dr. Lalit Kumar	Dr. A. Al-Wahaibi
4	Dept of Entomology, University of Kentucky, Lexington, USA	Dubas Bug / Dr. James D. Harwood	Dr. A. Al-Wahaibi
5	National Museum of Wales Cardiff, CF10 3NP, UK	Leafhoppers and Planthoppers / Mike Wilson	Dr. A. Al-Wahaibi
6	Institute of Animal Ecology and Landscape Planning, Graz, Austria	Leafhopper and planthopper / Dr. Werner Holzinger	Dr. A. Al-Wahaibi
7	Institute of Animal Ecology and Landscape Planning, Graz, Austria	Spider Ecology and Taxonomy/ Dr. Christian Komposch	Dr. A. Al-Wahaibi
8	University of Palermo, Italy	True Bugs/ Dr. Attilio Carapezza	Dr. A. Al-Wahaibi
9	Natural History Museum, London	Taxonomy of Micro- Lepidoptera/Dr. David Agassiz	Dr. A. Al-Wahaibi
10	University of Innsbruck, Austria	Taxonomy of Widow Spiders/Dr. Barbara Thaler-Knoflach	Dr. A. Al-Wahaibi
11	Dept of Agriculture The University of Reading, UK	Supervision of Omani PhD students/ Dr. S.R. Gowen	Prof. M. Deadman
12	FABI, Univ. of Pretoria, South Africa	Supervision of Omani PhD student/ Prof Mike Wingfield	Prof. M. Deadman
13	Environmental Studies Centre, Univ. of Surrey, UK	Supervision of Omani PhD student/ Professor Steve Morse	Prof. M. Deadman
14	University of Louisiana, USA	Molecular identification of plant pathogenic fungi/Prof. Cathie Aime	Prof. M. Deadman
15	Stellenbosch University, South Africa	Research / Prof. Linus Opara	Dr. R. Al-Yahyai
16	Stellenbosch University, South Africa	Research / Prof. Karen Theron	Dr. R. Al-Yahyai

17	University of Florida, USA	Research / Prof. Bruce Schaffer	Dr. R. Al-Yahyai
18	University of Agriculture, Faisalabad, Pakistan	Citrus and other fruit crops/Prof. Iqar Khan	Dr. R. Al-Yahyai
19	UCD School of Agriculture, Food Sciences & Vet Med, Ireland	Postgraduate Research / Dr. Owen Doyle	Dr. R. Al-Yahyai/ Prof. M. Deadman
20	Lab. of Phytosanitary Biotech., Science & Tech. Park of Sicily, Italy	Tristeza virus, Dr. Grazia Licciardello	Dr. A.M. Al-Sadi
21	Science and Technology Park of Sicily, Italy	Tristeza virus, Antonino Catara	Dr. A.M. Al-Sadi
22	Genomics Laboratory Weill Cornell Medical College in Qatar	WBDL, Dr. Joel A. Malek	Dr. A.M. Al-Sadi
23	Instituto de Biologia Molecular y Celular de Plantas, Spain	Tristeza virus, Dr. Jesús A. Sánchez Navarro	Dr. A.M. Al-Sadi
24	Abu Dhabi Food Control Authority, UAE	Acid lime diseases, Rashid Al-Shariqi, Director General	Dr. A.M. Al-Sadi
25	Nottingham University, UK	WBDL, Prof. Matthew Dickinson	Dr. A.M. Al-Sadi
26	John Innes Center, UK	WBDL, Prof. Saskia Hogenhout	Dr. A.M. Al-Sadi
27	Nova Scotia College of Agriculture, Canada	Precision Agriculture/Dr. Q. Zaman, Chair Precision Agriculture	Dr. Mumtaz Khan
28	University of Agriculture Faisalabad, Pakistan	Production Horticulture/ Dr J. Jaskani, IHS, Director, Citrus Lab	Dr. Mumtaz Khan
29	Ministry of Agriculture, Qatar	Dr. N. Hussain	Dr. Mumtaz Khan

COMMUNITY SERVICES

1	Screening of viral, viral-like and bacterial diseases in <i>Citrus</i>	A.M. Al-Sadi	Royal Court Affairs	4,428 OMR
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HUMAN RESOURCES

Recruitment

- 1- Mr. Walid Al-Busaidi joined our department as a technician in Crop Production.



Prof. Nejib Guizani

**Head of the Department –
Food Science and Nutrition**

College of Agricultural and Marine
Sciences

The FSN Department continued to excel in all areas of academic activities. The students' enrollment reached an outstanding number of 1061 for 36 taught sections, which gives an average of 30 students/section. Our faculties are active in research aimed to solve current issues in food quality and safety, as well as the study of nutrient functions in maintaining health and managing chronic disease. The research output is also excellent with 42 peer reviewed journal papers and an average of 3.8 papers/faculty; higher than the international standard for the field of Food Science and Nutrition in academia.

Members of our faculty interacted extensively with different public and private sectors in Oman through many activities which aim to serve the community with the goal of improving the health and quality of life.

Our education and research programs are supported by excellent facilities including classrooms, state of the art equipped laboratories and modern dairy processing pilot.

DEPARTMENT OF FOOD SCIENCE AND NUTRITION (FSN)



TEACHING

- ❖ Number of section/courses: 41/36
- ❖ Number of undergraduate students enrollment: 1061

RESEARCH

- ❖ Publications
Published 46 refereed papers, 1 book, 3 edited books, 21 book chapters, 9
 - Referred Journals: 42
 - Books: 5
 - Book chapters: 21
- ❖ Conferences, workshops, seminars
 - Proceedings: 10
 - Abstracts: 22
 - Posters: 4
 - Articles in Newspapers: 7
 - Articles in SQU publications (Al-Hassad, Massar, Horizon...): 1
 - Local Seminar/workshop presentation: 26

International Collaborations

The Department established or continued collaborations with academic and scientific institutions from Canada, USA, India, Pakistan, Japan, Australia and UAE.

No.	Organization, Contact person	Contact Person
1	UAE University, Al-Ain, UAE. (Dr. Sami Ghnimi).	Prof. Nejib Guizani
2	University of Toronto, Canada. (Prof. Dr. A. V. Rao)	Dr. Amanat Ali
3	University of Sargodha, Pakistan. (Prof. M. Shoaib Ahktar)	Dr. Amanat Ali
4	Fukuoka University Chikushi Hospital, Japan. (Dr. Sankar Devarajan)	Dr. Amanat Ali
5	Macquarie University, Australia. (Prof. Gilles J Guillemin)	Dr. Mohamed Essa
6	National Institute of Health, USA. (Dr. Mohammed Akbar)	Dr. Mohamed Essa
7	NYS Institute for Developmental Disabilities, USA. (Dr. Abha Chauhan /Dr. Ted Brown)	Dr. Mohamed Essa
8	Annamalai University, India. (Dr. Thamilarasan Manivasagam)	Dr. Mohamed Essa

COMMUNITY SERVICES

- ❖ Conducted Walkathon for Alzheimer's disease and Road safety awareness Remember 2014 on March 5th 2014 at Sultan Qaboos Sports complex, Bousher, Muscat, Oman. There were 1200 people participated in this event and co organized with SQUH and Ageing and Dementia Research Group, SQU
- ❖ Consultancies
 - Consultancy for the standard proposal of Microbial Criteria of Food Stuff. Ministry of Commerce and Industry
 - Establishment of the "Omani Code of Ethics for the profession of Dietetics, Nutritionist, and Diet Technicians" in collaboration with the

Department of Nutrition – Approved by the Legal Department Ministry of Health (MoH), approved on 20 April 2014.

- Review of the National Nutrition Policy of Oman – Directorate of General of Health Affairs – Department of Nutrition – MoH.
- Review of the Omani Code for Marketing Food Products for Babies and Young Children – submitted to the Nutrition Department - Directorate of Health Services – MoH.
- Reviewing the Standard Proposal of Microbiological Criteria for Foodstuffs-Part 1, 13-14 May, 2014.
- Introducing *Clostridium botulinum*, *Aeromonas* spp., total aerobic bacterial and yeasts and molds counts in the Standard Proposal of Microbiological Criteria for Foodstuffs-Part 1 to evaluate the safety and hygienic processing status of marine and freshwater fish as well as dried fish products, 1/6/2014.
- Proposing some policies and guides to Ministry of Regional Municipalities and Water Resources to control the current high pesticides residue levels in Omani vegetables, 19/6/2014.
- Reviewing the Report on the First National Workshop on “National Capabilities and Routine Techniques for Food Safety and Techniques for Food Traceability Leading to Development of an Action Plan” (Regarding food safety parts), IAEA, 7/7/2014.



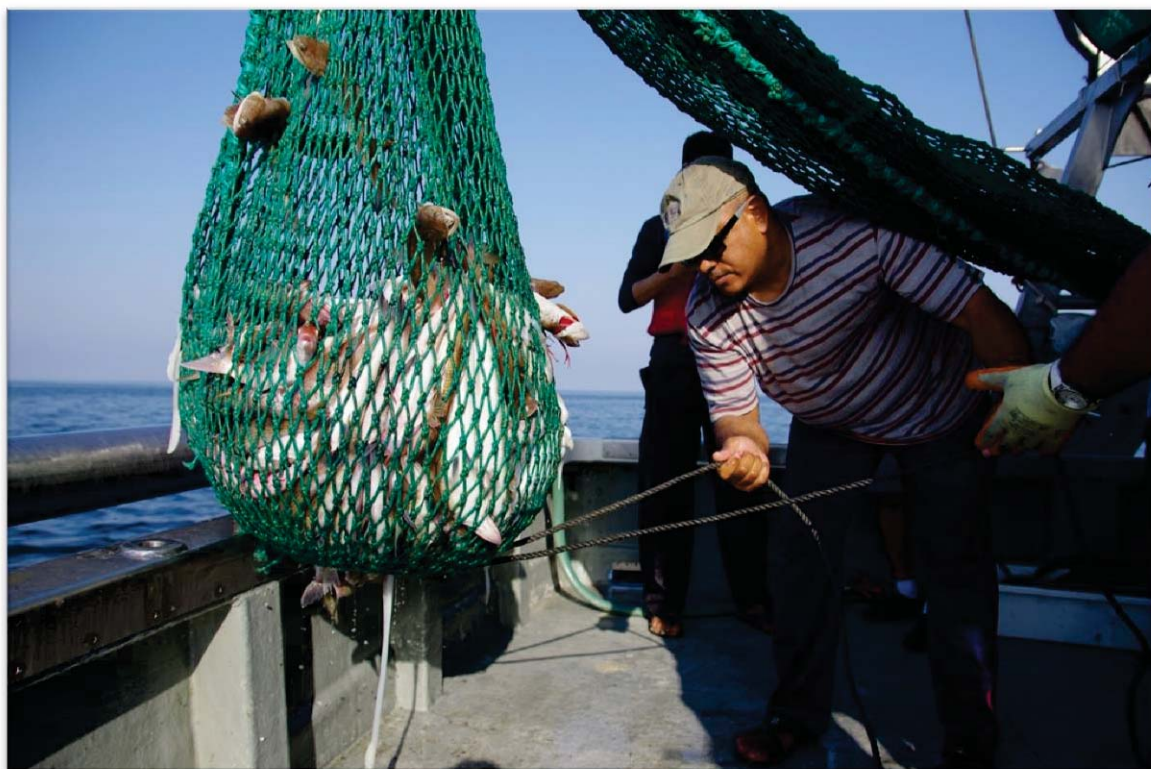
Dr. Sergey Dobretsov

**Head of the Department –
Marine Science and Fisheries**

College of Agricultural and Marine
Sciences

Fishing, fish processing, coastal zone development and the tourism industry are expanding rapidly in Oman and bring into focus the need to study, protect and conserve marine ecosystems and unique elements of their biodiversity. The Department of Marine Science and Fisheries offers a single undergraduate degree, a B.Sc. in Marine Science and Fisheries. Within the degree plan students can specialize through a choice of elective courses, in either marine science or fisheries science. The Department offers postgraduate degrees, an M.Sc. and a Ph.D. in Marine Science and Fisheries. These degrees provide an opportunity for advanced study and research in a broad range of fields including: Aquaculture; Fisheries Biology, Fisheries Management, Marine Biology, Marine Ecology, Oceanography and Marine Biotechnology. The Department uses its two research vessels, the 25 m Al-Jamiah and the smaller Hamour, to carry out field work in marine science and fisheries. The Department areas of research include fisheries resource management, aquaculture, marine ecology, physical and biological oceanography, biofouling, marine microbiology and coral reef ecology.

DEPARTMENT OF MARINE SCIENCE AND FISHERIES (MSF)



TEACHING

- ❖ The Department offered 36 courses in 2013-2014 academic year.
- ❖ The total number of students enrolled in these courses was 786.
- ❖ 3 members of the department (Dr. Michel Claereboudt, Dr. Saud Al-Jufaili and Head of Department) were with lower teaching load due to their administrative positions.
- ❖ In 2013-2014 academic year the FTE of the department based on UG taught courses was 7.86.
- ❖ The number of UG and PG courses per faculty member was 3.6 and 2.4, correspondingly.
- ❖ 3 new courses in aquaculture and fish pathology have been developed and taught. 9 courses have been significantly revised.
- ❖ 20 courses at the department are using e-learning
- ❖ 5 members of the department attended career development courses.
- ❖ In 2013-2014 academic year 260 UG students have been supervised by faculty.
- ❖ 19 postgraduate students (5 Ph.D. and 14 M.Sc.) have been supervised in the department.
- ❖ The department visited 2 PhD students from Europe.

RESEARCH

- ❖ The department has active 26 research grants (internal, external, joint, RC, HMRF) and completed 1 research project.
- ❖ The Department received 5 new research grants from the US Office of Naval Research Global (ONRG), the Research Council, Internal grants and Dean's discretionary fund.
- ❖ The number of research grants is increased and now each faculty has on average 2.4 grants.
- ❖ Research of the department was published in 73 publications.
- ❖ MSF PhD student Thirumahal Muthukrishnan, received an award from ONRG to travel and present her studies at 17th International Congress of Marine Corrosion and Fouling, Singapore.
- ❖ Dr. Michel Claereboudt together with Mr. Amran Al-Khamzari found that the texture of a substrate is essential for the automatic identification of corals. Now this algorithm will be used to develop the "Video coral" software.
- ❖ Dr. Gilha Yoon data suggested that some of the imported live fish in Oman have viral and invertebrate parasites and a better health management practice and biosecurity for aquaculture industry are required.
- ❖ Dr. Wenresti Gallardo initiated work on integrated multi-trophic aquaculture (IMTA) System and open ocean aquaculture suitable for Oman.
- ❖ Analysis of historical data allowed Dr. Sergey Piontkovski and Dr. Saud Al-Jufaily to investigate the relationship between characteristics of the oxygen minimum zone and fish landings along the Omani shelf (in the western Arabian Sea). It was shown that seasonal shoaling of the oxycline shifts the layer of myctophids up to the surface and closer to the coast increase artisanal landings.
- ❖ Dr. Laure Carassou initiated and developed a scientific collaboration with the Environmental Society of Oman, the IFREMER and Chelonia (French institutions in La Reunion) to work on sea turtles, in the context of the programme 'COCALOCA' (Connectivity of loggerhead turtles populations in the West Indian ocean).
- ❖ Dr. Arne Malzahn demonstrated that increase of CO₂ impact phytoplankton and resulted in differential growth and biochemical composition of a key herbivore, a calanoid copepod *Acartia tonsa*.
- ❖ Dr. Hussein Al Masroori showed significant differences between fish selectivity using J and Circle hooks. This has serious implications for fishing policy.
- ❖ Using a metagenomic approach Dr. Sergey Dobretsov demonstrated that the composition of biofilms developed on antifouling coatings differed from coating to coating with clear differences between copper-free and copper-based biocidal coatings.
- ❖ **Publications**
- ❖ In 2014, the department published 28 peer review articles, 2 books, 4 book chapters, 1 conference proceedings, 32 conference abstracts, 6 technical reports and 9 newspaper articles.
- ❖ 5 articles at SQU newspapers have been published.
- ❖ The department produced an average of 2.8 papers per faculty.

Conferences, workshops, seminars:

- ❖ In 2014, the department presented results of research projects in 27 oral presentations at international conferences. 12 talks at local seminars and workshops have been made.
- ❖ The department organized a training course for Royal Oman Navy Cadets in the disciplines of oceanography, marine pollution, climate change, fisheries law and policy and integrated coastal zone management in February 2014.
- ❖ Members of the department organized a workshop on larval fish otolith research at the Marine Science and Fisheries Center, Oman in February 2014.
- ❖ The Department organized the Fisherman Open Day, in 2013 and the 1st National Conference on Agriculture and Fisheries Research in March 2014.
- ❖ In total, the Department organized 3 conferences and workshops.
- ❖ Currently the Department is organizing the large international conference on fisheries, aquaculture and marine environment of Indian Ocean. This conference will be held in February 2015.

International collaborations

- ❖ The Department established or continued collaborations with academic and scientific institutions from Thailand, Korea, UK, Germany, Ukraine, South Africa, USA, Japan, Canada, Brazil, France and UAE.
- ❖ 4 new letters of agreement between the College of Agricultural and Marine Sciences and Kagoshima University (Japan), IFREMER (France), Düsseldorf University (Germany) and Second University of Naples (Italy) have been signed.
- ❖ The table below represents collaborations between members of the department and academic and research institutions from other countries.

No.	Organization	Type of Cooperation/ Contact Person	Contact Dept / Extent of Benefit
1	University of Sterling, UK	Identification of fish parasites/ Dr James Bron	Dr. Gilha Yoon. Institute of Aquaculture/ Establish fish parasite database in Oman
2	NFRDI Korea	Diagnosis of fish bacteria/ Dr Myong Ae Park	Dr. Gilha Yoon. Department of fish pathology/ To diagnosis and treat of potential hazards for aquaculture in Oman
3	Fish Vet Group, Thailand	Treatment of fish diseases and immune stimuli of fish/ Dr Andy Shinn	Dr. Gilha Yoon. Fish Vet Group/ To develop fish disease treatment methods and apply to field
4	Institute of Biology of the Southern Seas (Ukraine)	Scientific cooperation/Dr. I.Prusova	S.Piontkovski

5	University of East Anglia, UK	Scientific cooperation Prof. K. Heywood	S. Piontkovski
6	South African Institute for Aquatic Biodiversity (SAIAB)	Previous postdoc supervisor/Prof Alan Whitfield	Dr. Laure Carassou/ symposium organization
7	Rhodes University/Department of Zoology and Entomology	Previous postdoc co-supervisor/Dr Nicole Richoux	Dr. Laure Carassou/ join publications
8	University of Southern Mississippi	Previous postdoc supervisor and collaborator/Dr Franck J. Hernandez and Dr William M. Graham	Dr. Laure Carassou/ join publications
9	Institute of Research for the Development (IRD)	Multiple research collaborations/ Dr Dominique Ponton, Dr Michel Kulbicki	Dr. Laure Carassou/ Co-writing of book chapters and manuscripts
10	Kagoshima University, Japan	Academic and research	Drs. Hussein Al Masroori, Gallardo/ letter of agreement
11	Thuenen Institute, Rostock, Germany, GEOMAR Kiel, Germany	Supervision of a join PhD student	Dr. Arne Malzahn
12	Alfred Wegener Institute for Polar and Marine Research (AWI), University of Hamburg	Supervision of join PhD students, join research	Dr. Arne Malzahn
13	University of British Columbia, Canada	Join research	Dr. Hussein Al Masroori
14	Düsseldorf University, Germany	Knowledge transfer, join research	Dr. Sergey Dobretsov/ join publications
15	University of Oldenburg, Germany	Visits exchange, knowledge transfer	Dr. Sergey Dobretsov/ join PhD student
16	IEAPM, Universidade Federal Fluminense, Brazil	Visits exchange, knowledge transfer	Dr. Sergey Dobretsov/ join students, post-docs and publications
17	University of Toulon, France	Visits exchange, knowledge transfer	Dr. S. Dobretsov visited the university and provided some consultations

18	University of Perpignan	Genetic adaptation of corals to high temperature.	Dr. Michel Claereboudt, exchange visit, publications
19	Museum Histoire Naturelle de Paris	Planning and participation to field sampling in Oman.	Dr. Michel Claereboudt, Sampling, collection of invertebrates, expertise in invertebrate taxonomy
20	New York University, Abu Dhabi	Coral reef ecology in extreme environment.	Dr. Michel Claereboudt, Sampling, collection of corals

COMMUNITY SERVICES

- ❖ The department provided consultations in the areas of oceanography, marine pollution, climate change, fisheries law and policy, integrated coastal zone management, biofouling, and Oman marine species to government and non-government companies and institutions.
- ❖ 4 faculties serve at the Scientific Committee Oman Animal and Plant Genetic Resources Center (TRC, Oman).
- ❖ 7 faculties were involved in journal editorial boards and boards of professional organizations
- ❖ Faculties reviewed 58 books, journals, research proposals and promotion dossiers.
- ❖ 2 MSc and PhD thesis were externally examined by the department members.
- ❖ 6 technical reports have been prepared.
- ❖ Staff and faculties of the department consult the Ministry of Agriculture and Fisheries, the Ministry of Environment and Climate Affairs (MECA), the Ministry of Heritage and Culture.
- ❖ Additionally, consultancies in the following projects have been provided: The New Maritime History Museum Project, Maritime Archaeology and Cultural Heritage in Oman, Fishing Gear National Scientific Team, Sea Turtle By-catch and Sustainability Fishing on Masirah, the Collaboration Program between the Ministry of Agriculture and Fisheries and the World Bank in Sustainable Management of the Fisheries Sector, the Development of the Strategic Plan for Marine Environment Protection.

HUMAN RESOURCES

- Dr. Sergey Dobretsov was appointed as the head of department from 31 August 2014.
- In August 2014, Dr. Adnan Al-Azri has been transferred to the Ministry of Foreign Affairs.



Dr. Slim Zekri

**Head of the Department –
Natural Resource Economics**

College of Agricultural and Marine
Sciences

The Department of Natural Resource Economics offers a Bachelors of Natural Resource Economics. Students are allowed to elect a minor in Business Administration from the College of Economics and Political Science. The Department also offers a Master of Science degree and a PhD in Natural Resource Economics.

The mission of the Department is the application of economic principles to natural resources, food and agriculture. The Department introduces students to the subject area of economics and then proceeds to use this understanding in the analysis of commerce and policy in the natural resource sectors, including agriculture, food, fisheries and water. Issues which the Department would typically consider include how best a food processing business in Oman should organize its purchases of inputs to maximize its profitability, what is the most efficient way of allocating water to different users in an economy characterized by acute water scarcity, how the negative impacts on natural resources and the environment of business investment should be evaluated and internalized, and the assessment of the economic benefits from fishermen and farmers cooperating together.

The skills graduates learn in the Department of NRE at SQU are applicable across all economic sectors. The courses offered ensure that graduates will have particular strengths in jobs where commercial and economic analysis is required. Thus they can be expected to make valuable contributions in government and other public sector institutions as well as in the private sector, as applied economists, business analysts, market researchers and planners. Our students are equipped with a myriad of quantitative tools such as statistics for economics, optimization, econometrics and cost-benefit analysis.

DEPARTMENT OF NATURAL RESOURCE ECONOMICS (NRE)



TEACHING

- ❖ Seven faculty are serving in the Department. They taught 30 sections during 2013-14. The total number of students reached 802 with an average of 27 students/course or section. Each faculty has taught an average of 4 courses per year.

RESEARCH

- ❖ The Department Faculty published 12 refereed journal papers and 4 book chapters, with a substantial improvement compared to 2012-13 (9 papers and 2 book chapters).
- ❖ Faculty members continued working as PI's on their awarded SQU-funded research projects :
 - Below is the list of grants active in 2013-14
 - The preferences and determinants of dairy farmer's participation in alternative marketing channels in Oman (Dr. Mbaga, RO 10,000).
 - Estimating the capital stock and investment in artisanal fishery in Oman (Dr. Bose, RO 4,900).
 - Dr. Slim Zekri continues to work on his TRC research project titled "Monitoring Ground Water Using Smart Meter and Precision Irrigation" (RO 213,000) which is going to be extended till end of September 2015.
 - Dr. Houcine Boughanmi secured an international grant from WTO titled "Assessing food security through WTO Multilateral

trading system and market oriented policies” with a budget of O.R 87,000.

- Dr. Omar Al-Jabri and Dr. Sarath Kodithuwakku have applied for new grants which will be activated during 2014-15 academic year.

Publications

- The department Faculty published 12 papers in refereed journals, contributed 4 chapters in forthcoming books and submitted 2 technical reports.

International Collaborations

- Dr. Houcine started the collaboration with the World Trade Organization which resulted in him being appointed WTO chair for the GCC region and the grant mentioned above.

VISITORS

- ❖ Dr. Kaveh Madani, from Imperial College of London has visited the Department and collaborated on Dr Zekri's TRC project.

COMMUNITY SERVICES

- ❖ Dr. Shekar Bose and Dr. Omar Al-Jabri completed a consultancy titled “The Role of Small and Medium Enterprises (SMEs) and Agricultural Cooperatives in Promoting Sustainable Agriculture for Rural Development and Food Security”. (Completed: May 2014).

Student Group Activities

The following activities were organized during 2013-2014:

- A Workshop on How to Start a Business. Presented by Mr. Mohammed Al-Hinai from Knowledge Oasis, November 2013
- How to master EXCEL Workshop. Presented by Dr. Shekar Bose, NRE, SQU, February 2014
- The Sixth Agricultural Scientific Festival (18-20/03/2014), CAMS
- The First Gulf Agricultural Festival (14-16/04/2014), Muscat
- The Climb Towards Entrepreneurship (SMEs Workshop and Exhibition), 05-07/05/2014, CAMS

HUMAN RESOURCES

Recruitment

- The recruitment Committee is in the process of pre-selecting a candidate for the position of Associate Professor in Marketing. 52 applications were received out of which only 20 are valid for the position.



Dr. Hayder Abdul Rahman

**Head of the Department –
Soils, Water and Agricultural
Engineering**

College of Agricultural and Marine
Sciences

The Department of SWAE prepares students both at the undergraduate and graduate levels in agricultural, environmental, soil and water, and engineering related courses pertaining to the management of land and water resources to meet the needs of the Sultanate. The Department's faculty and staff are actively engaged in teaching, research and outreach activities trying to solve problems related to soil, water and agricultural engineering.. Areas of current research and outreach activities include: soil salinity, water and solute movement in the soil profile, management of wastewater disposal, disposal of production water in oil industry, grey-water reuse potential, agricultural impacts on groundwater quality, desalination plant brine characteristics, controlled area agriculture, machinery and equipment development with appropriate technology, computer vision technology applications for food industry etc. The department was very successful in attracting external and internal research funds and maintains an excellent publication record and contributions to professional bodies. The department has highly trained technical staff operating the laboratories equipped with state of the art instruments for educational and research activities. The department takes an active role in extension and community outreach making its expertise and laboratory facilities available to the community. Our alumnae are contributing to the Sultanate in numerous ways at ministries, research stations, in the public and private sectors and we are proud of them. The Department will continue to strive for excellence in every aspect of its activities in the coming years.

DEPARTMENT OF SOILS, WATER AND AGRICULTURAL ENGINEERING (SWAE)



TEACHING

- ❖ The Department offered 42 undergraduate sections during last year with an enrollment of 1404 students. The overall FTA for the Department was 17.55 per semester on the average.
- ❖ The Department graduated 9 undergraduate students majoring in Soil and Water Management 5 in Water Technology and 7 in Agricultural Engineering
- ❖ The Department graduated 5 M. Sc. students and granted its first Ph. D. degree conferred in September 2014 (Dr. Saif Al Khamisi from the Directorate of Agriculture and Animal Research, MAF).

RESEARCH

- ❖ The Department Faculty and Research Associate secured 8 internally funded and 8 externally funded research grants.
- ❖ Al-Maktoumi is the co-investigator in an ongoing project on Radar Probing of Groundwater in Hyper-Arid Environments: Understanding Aquifer Dynamic In High Discharge Areas. The project is funded by USAID-FABRI led by California Institute of Technology and Jet Propulsion Laboratory NASA-USA in collaboration with the Institute of Agronomy and Veterinary Science Hassan II, Rabat, Morocco. The total project budget is \$ 1.4 Million.
- ❖ Al-Maktoumi is the Principal Investigator of another USAID-FABRI funded project on Managed Aquifer Recharge using Treated Wastewater in Different Geological Settings of MENA countries in collaboration with the University of Nebraska-Lincoln, USA, and University of Jordan, Jordan. The project is worth \$ 254,000.

- ❖ Dr. Ahmed Al-Busaidi is the PI of a USAID funded project “Mitigating Environmental Risks of Wastewater Reuse for Agriculture” (total funding of 300,000 USD. Dr. Mushtaque, Dr. Hemanatha, Dr. Shaharoona, Dr Salim Al-Rawahy are involved among others from the University and the MAF.
- ❖ The Department Faculty published 25 refereed journal articles, 4 conference proceedings, 6 abstracts, 3 book chapters, 3 book 4 articles in local newspapers and magazines and attended 18 workshops.
- ❖ The Department was awarded two FURAP projects funded by TRC (Each worth 2,400 R.O.) on Characterization of Urban Soils at A'Seeb Area; Supervised by Said Al-Ismaily & Baby Shaharoona and Efficiency of Household Water Filters in Various Regions; Supervised by Ali Al-Maktoumi & Mushtaque Ahmed.
- ❖ Dr. Shabbir A. Shahid (ICBA) and Mushtaque Ahmed edited a book on “Environmental Cost and Face of Agriculture in the Gulf Cooperation Council Countries-Fostering Agriculture in the Context of Climate Change published by Springer. The book is an outcome of a Workshop held as a part of the 3rd Gulf Research Meeting at Cambridge University 11-14 July 2012.
- ❖ Dr. Mani and Dr. Hemanatha edited a book on Imaging in Electromagnetic Spectrum published by Springer – June 2014).
- ❖ Dr. Yaseen Al-Mulla and Dr. Hemanatha edited a special issue of Acta Horticulturae (International Society of Horticultural Sciences – Commission Horticultural Engineering) to publish selected papers from the International Conference on Agricultural Engineering held by the Department. 2014 (in press)

International Collaborations

- Dr. Ali Al-Maktoumi attended an International Workshop on Isotope Hydrology for better understanding of Water Resources (IAEA); Vienna 4 – 15 November 2013.
- The Department and the Water Research Center deliberated on possible collaboration with the team from the Institute for the Development of Water Resources (Jaroslav Cerni Institute (JCI)) in Belgrade, Serbia lead by its Director General Prof. Milan Dimkic' on the issues of Development of groundwater recourses, Produced Water Treatment and Use and Water-saving irrigation techniques. 1 - 3 December 2013
- Dr. Ahmed Al-Busaidi visited Rottenberg, university of applied science in Germany in January 2014 as a guest lecturer.
- Dr. David R. Thompson, Emeritus Professor and Associate Dean, Stillwater, Oklahoma. USA, reviewed the Agricultural Engineering structure and advised on preparations for ABET accreditation. 23 – 27 February 2014
- Dr. Ahmed Al-Busaidi (SWAE) as a PI of the USAID funded project conducted a series of meetings at SQU with collaborators from the National Research Institute for Rural Engineering, Water, and Forestry (Tunisia), University of Jordan (Jordan) and University of Florida (USA). April 2014
- As part of the USAID-FABRI funded project, a number of technical meetings and workshops were conducted with collaborators from JPL-NASA, Caltech, University of Nebraska Lincoln-USA, and University of Jordan. 18 to 22 June 2014.

COMMUNITY SERVICES

Consultancies

- The Department conducted a consultancy study on Soil Classification and Analyses for the Million Palm Project in favor of the contractors, the Institute for the Development of Water Resources (Jaroslav Cerni Institute (JCI)) in Belgrade, Serbia. June 2014
- Dr. Al Busaidi has two running consultancy projects, one for HAYA on the “Evaluation and Assessment of Treated Sludge (KALA Fertilizer) Application in Agriculture” and the other for the Industrial Innovation Center on the “Exploration and prospection of white clay (Kaolinite) deposits in the Sultanate of Oman and its potential for industrial use for the Bahla pottery factory with Dr. Iftikhar Ahmed (College of Science, SQU) as PI.

HUMAN RESOURCES

- Mr. Adel Al-Mahdouri obtained his Ph. D. in Mechanical System and Design for his theses “A Study of Radiative Heat Transfer through Greenhouse Covering Materials”, Institute of Fluid Science, Tohoku University Japan. March 2014.
- Dr. Hemanatha got promoted to the post of Associate Professor effective 20 May 2014
- Dr. Basunia won the khalifa International Date Palm Award (Third Category: Best Technical Award- 2nd winner) for his project on Solar Drying of Dates.



Dr. Malik Mohd Al-Wardi

**Director –
Agricultural Experiment Station**

College of Agricultural and Marine Sciences

The Agricultural Experimental Station (AES) was established in 1986 with a mission to provide quality field support and skillful expertise for the various departments in the College of Agricultural and Marine Sciences in particular and the SQU in general; foster their teaching, research, extension, and community services activities while conserving and sustaining the natural resources.

The AES is situated at the north side of Sultan Qaboos University over an area of more than 70 hectares and it has grown today into a state-of-the art station with integrated farming systems, fully equipped facilities, advanced infrastructure, and professional staff. The station is currently composed of 14 fields and over 33 units organized under three major sections: Plant, Animal, and Services. The AES staff consists of 41 members in various areas of expertise. These areas include: 1- Crop Production; 2- Plant Protection; 3- Greenhouse Management; 4- Landscape Horticulture; 5- Honey Production and Bee Management; 6-Fruiting Trees; 7- Animal Health; 8- Livestock Production and Management; 9- Equine Breeding and Management 10- Camel breeding and management 11- Poultry Production; 12- Aquaculture; 13- Irrigation Engineering; 14- Soil and Water Management; 15- Machinery operation, repair and fabrication; 16- Shop and Store Management. All staff undergo extensive training both on the job and in local, regional, and international institutions and are involved in teaching, research, routine production and management operations, community services, training, and extension. As an example of staff participation, they support the practical training of more than 20 courses and support of more than 20 research projects each semester. Staff also hold annual workshops in Bee Keeping and Ornamental Plants for general SQU staff and their families.

The AES participates in many events organized by SQU and the College of Agricultural and Marine Sciences like University Open Day and Farmers Day where staff present lectures to the scientific community and to the general public on a variety of subjects disseminating the most current information attained by research conducted at the College and the AES. The station also hosts tours for school students and other groups as part of its community outreach service.

The AES, and through its activities, also generates income that goes to SQU from the sale of a variety of products, including dairy products, animals, dates, date offshoots, chickens, eggs, meat, honey and beehives, indoor and outdoor plants, sweet corn, mangoes, lemons, and manure.

AGRICULTURAL EXPERIMENT STATION (AES)

Teaching

Animal Section

- ❖ Supported practical training labs of eight courses that took place at AES. Technical and labor staff was involved to train and demonstrate to students the various activities in different sections.
- ❖ Provided support in 5 research projects. In addition, assistance was provided to a student from Kassel University in Germany on her research project on goats as part of her PhD program. Also assistance was provided to a student from the Department of Animal and Veterinary Sciences who conducted research in poultry production as part of her MSc program.
- ❖ Milk production has increased during the current season due to the increase of herd size of lactating cows.
- ❖ A baby horse was delivered which brought the total number of horses at AES to 6.
- ❖ More than RO 230,000 was received from central administration to build new horse stables, horse and camel facilities, and enclosed auction area.
- ❖ Started constructing new milking parlor at AES in order to replace the old building. In addition to milking hall, the new milking building includes two isolation rooms, treatment room, milk tank room, chemicals room, two stores and office.

Plant Section

- ❖ Supported practical training labs of nine courses that took place at AES. Technical and labor staff was involved in training and demonstrating to students the various activities in different sections.
- ❖ Provided support in 12 research projects
- ❖ Planted more date palms which help to increase the production of dates in the future.
- ❖ Hosted 3 workshops on
 - growing and propagation of indoor plants
 - bee keeping
 - floral arrangements
- ❖ Participated in many activities by CAMS social committee and other societies

Services Section

- Supported practical training labs of eight courses that took place at AES. Technical and labor staff was involved in training and demonstrating to students the various activities in different sections
- Provided support in 5 research projects.
- Obtained more than RO 125,000 to execute the following at AES:
 - Establishment of irrigation supply main feeding the hose reel mobile irrigator equipped with a booster pump and variable frequency drive motor.
 - Establishment of a weather station set up to replace the old set up equipped with automatic refill pan evaporation apparatus.
 - Establishment of the irrigation mains for the new boom irrigation system to replace old movable sprinkler laterals.
 - Purchase of new JCP earth mover as a replacement of the very old JCP which has served the AES Since the time of establishment.
 - To reduce the running cost of the Station, a complete study has been carried out and identified location for re drilling a new bore well to replace well number 4 which has been collapsed. The replacement well is found productive and the water quality is satisfactorily suitable for irrigation of most agricultural crops. More reduction in the amount of water abstraction from the university main line would be possible during 2015
- Established stand by booster pumps for the pumping station 1 and 3 together with installation of a new booster pump for drip irrigation trials in Field 11.

Sales

Sales during the year 2014

Item	R.O.
Animals	24,427.580
Chickens	2,366.500
Eggs	4,770.000
Meat	420.00
Raw Milk	26,022.000
Manure	774.800
Date Palm	2,214.500
Honey and Bee hives	5,120.000
Total	66,115.380

Staffing

Dean's Office	
Anvar Kacimov	Professor & Dean
Mohammed Al-Rawahi	Director of Administration
Majid Al-Mugheiry	College Superintendent
Said Al-Ismaily	Assistant Professor & ADUS
Michel Claereboudt	Associate Professor & ADPSR
Osman Gaafar	Prof & ADTCS
Said Al-Ghanbousi	Assistant Director of Administration
Leonila Magpantay	Coordinator, DO
Azza Al-Akhzami	Coordinator, ADUS
Fe Alcachupas	Coordinator, ADPSR
Huda Al-Busaidi	Coordinator, ADTCS
Wafa Al-Raeesi	Coordinator, ADMIN
Jamal Al-Sabahi	Senior Technician
Mohammed Al-Darai	Storekeeper
Aneesa Al-Jahwari	Clerk
Moza Saif Al-Kindi	Clerk
Safiya Hamed Al-Siyabi	Clerk
Badriya Saif Al-Rahbi	Clerk
Tariq Al Alawi	Computer Technician
Suroor Al-Ghafri	Driver
Juma Ali Al-Musalmi	Messenger
Agricultural Experiment Station	
Malik Al-Wardy	Assistant Professor & Director
Khalifa Al-Hinai	Deputy Director & Assistant Director (Services)
Abdullah Al-Abri	Assistant Director (Animal)
Abdulbaqi Al-Raeesi	Assistant Director (Plant)
Mohammed Al-Rashdy	Coordinator
Negib Al-Raeesi	Clerk
Abduljalil Al-Zadjali	Veterinarian
Mohammed Lamoum	Veterinarian
Mohammed Al-Masroori	Assistant Vet
Ahmed Al-Yaqoubi	Technician
Ananias Justan	Technician (Dairy)
Attia Nageeb Mohd	Technician (Dairy)
Manolito Mengullo	Technician (Dairy)
Reynaldo Bello	Technician (Sheep)
Salim Al-Waheebi	Technician (Poultry)
Anwer Mohiuddin	Labourer (Goats)
Khalfan Al-Hinai	Labourer
Mohd Al-Khuziri	Labourer
Hamed Al-Mahraki	Technician (Greenhouse)
Saleh Al-Shargi	Technician (Ornamental/Fruit)
Yousuf Al-Belushi	Technician (Fields)
Hafidh Al-Mahraki	Technician (Bee)
Zahir Al-Abri	Clerk
Mohd Akbar Khan	Labourer (Greenhouse)
Mohd Al-Mubaishi	Labourer (Fields)
Noor Khan	Labourer (General)
Salim Al-Nabhani	Labourer (General)

*Sauod Al-Owas	Labourer
Abdulla Al-Muqbali	Technician(Irrigation)
Ahmed Al-Ghafri	Technician (Irrigation)
Ali Suleiman Al-Zahimi	Technician (Mechanical)
Ernesto Pereira	Technician (Mechanical)
Salim Al-Mawaly	Technician (Central Store)
Abdullah Al-Qanoobi	Labourer (Irrigation)
Mohd Mazher Uddin	Labourer (Mechanical)
Ahmed Al-Malki	Labourer (General)
Haitham Al-Daghaishi	Labourer
Mohammed Al-Oaissi	Labourer
Ramon Morata	Mechanical Technician
Animal & Veterinary Sciences	
Waleed Al-Marzooqi	Associate Prof & HOD
Naseeb Al-Saqry	Superintendent
Nawal Al-Aghbari	Coordinator
Eugene H. Johnson	Professor
Osman Gaafar	Professor & ADTCS
Isam Kadim	Professor
Patrick Akin Bobade	Associate Professor
Yasmin El Taher Ahmed	Assistant Professor
Mohamed Tageldin	Assistant Professor
Mohammed Al-Abri	Lecturer
Salma Al-Adwani	Lecturer
Ahmed Al-Ansari	Demonstrator
Rashid Al-Busaidi	Associate Researcher
Samera Khalaf	Senior Technician
Khalid Al-Habsi	Technician
Musab Al-Busaidi	Technician
Sadeq Al-Lawatia	Technician
Rabea Al-Maqbali	Technician
Kaadhia K. Al-Kharousi	Technician
Mathankumar Somasundaram	Veterinarian
Crop Sciences	
Abdullah Al-Sadi	Associate Professor & HOD
Yousef Al-Maqbali	Superintendent
Salwa Al-Zadjali	Coordinator
Michael Deadman	Professor
Ahmed Al-Maskri	Associate Professor
Fahad Al-Said	Associate Professor
Mumtaz Khan	Associate Professor
Rashid Al-Yahyai	Associate Professor
Farid Talukder	Assistant Professor
Ali Khalfan Al-Wahaibi	Assistant Professor
Amna Al-Ruheili	Demonstrator
Ali Ahmed Al-Raeesi	Technician
Ali Masoud Al-Subhi	Technician
Issa Al-Mahmooli	Technician
Khamis Al-Habsi	Technician
Latifa Al-Kharousi	Technician
Omar Al-Mantheri	Technician
Yacoob Al-Mahrooqi	Technician
Zainab Al-Balushi	Technician

Food Science & Nutrition	
Nejib Guizani	Professor & HOD
Rashid Al-Belushi	Senior Engineer & Superintendent
Fatima Al-Amri	Coordinator
Mohd Shafiur Rahman	Professor
Amanat Ali	Associate Professor
Ahmed Al-Alawi	Assistant Professor
Lyutha Al-Subhi	Assistant Professor
Mostafa Al-Waly	Associate Professor
Ismail Al-Bulushi	Assistant Professor
Mohamed Essa	Associate Professor
Zaher Al-Attabi	Assistant Professor
Mohd Al-Khusaibi	Assistant Professor
Nasser Al-Habsi	Assistant Professor
Dalila Al-Bahri	Technician
Buthaina Al-Bulushi	Technician
Insaaf Al-Marhubi	Associate Researcher
Mohammed Al-Rizeiqi	Associate Researcher
Intisar Al-Zakwani	Technician
Raya Al-Malky	Technician
Salha Al-Maskari	Technician
Zahra Al-Kharusi	Technician
Jamila Al-Zadjali	Technician
Farhat Al-Naabi	Technician
Fathiya Al Hamadani	Technician
Cesar Uñalivia	Dairy Plant Manager
Isauro Orlino	Technician
Sulium Al-Abri	Technician
Sami Suleiman Al-Kharusi	Engineer
Hamad Al Khatri	Labourer
Marine Science & Fisheries	
Hussein Al-Masroori	Asst. Prof & HOD
Khamis Al-Riyami	Superintendent
Nadia Al-Kalbani	Coordinator
Michel Claereboudt	Associate Professor & ADPSR
Sergey Piontkovski	Associate Professor
Sergey Dobretsov	Associate Professor
Anesh Govender	Associate Professor
Saud Al-Jufaili	Assistant Professor
Adnan Al- Azri	Assistant Professor
Y.V. B. Sarma	Assistant Professor
Arne Malzhan	Assistant Professor
Gilha Yoon	Assistant Professor
Wenresti Gallardo	Associate Professor
Laure Carassou	Assistant Professor
Miaad Al-Mammari	Demonstrator
Said Al-Barwani	Associate Researcher
Khalid Al-Hashmi	Associate Researcher
Harib Al-Habsi	Senior Technician
Aisha Ambu Ali	Lab Supervisor
Ahmed Al-Souti	Technician
Sulaiman Al-Sheili	Technician
Salim Al-Khusaibi	Technician

Mohammed Al-Gheithi	Technician
Wardalmuna Al-Manthari	Technician
Farid Al-Abdali	Technician
Abdullah Al-Kindi	Technician
Saleh Al-Maashary	Boat Captain
Manolito Barte	Boat Engineer
Natural Resource Economics	
Houcine Boughanmi	Associate Professor & HOD
Juma Saleem Al-Musalmi	Superintendent
Sabra Al-Rijaeby	Coordinator
Slim Zekri	Associate Professor
Shekar Bose	Associate Professor
Hemesiri Kotagama	Assistant Professor
Msafiri Mbaga	Assistant Professor
Omar Al-Jabri	Assistant Professor
Sarath Kodithuwakku	Assistant Professor
Ibtisam Al-Abri	Demonstrator
Amani Juma Al-Alawi	Technician
Soils, Water & Agricultural Engineering	
Hayder Abdel Raman	Associate Professor & HOD
Abdullah Al-Belushi	Superintendent
Asila Al-Rashdi	Coordinator
Anvar Kacimov	Professor/Dean
Mushtaque Ahmed	Associate Professor
Malik Al-Wardy	Assistant Professor & DirAES
Said Al-Ismaily	Assistant Professor & ADUS
Salem Al-Jabri	Assistant Professor
Yaseen Al-Mulla	Assistant Professor
Salim Al-Rawahy	Assistant Professor
Mohammed Basunia	Assistant Professor
Ali Khamis Al-Maktoomi	Assistant Professor
Abdulrahim Al-Ismaili	Assistant Professor
Hemanatha Jayasuriya	Associate Professor
Manickavasagan Annamalai	Assistant Professor
Talal Yasir Al-Shukeili	Lecturer
Ahmed Al-Busaidi	Associate Researcher
Mansour Al-Haddabi	Associate Researcher
Seif Al-Adawi	Chief Technician
Mohammed	Chief Technician
Muna Al-Amry	Senior Technician
Mohamed Al-Balushi	Senior Technician
Hamad Al-Busaidi	Senior Technician
Hamid Al-Handali	Senior Technician
Najat Al-Khaifi	Senior Technician
Hamad Al-Hajri	Technician
Adel Al-Mahdouri	Technician
Said Al-Saqri	Technician
Leelwa Al-Hamadani	Technician
Zeyana Said Al-Hashmi	Technician

Staff Promotions

Department	Staff	New Position/Grade
FSN	Dr. Mohamed Essa	Associate Professor
	Dr. Mostafa Waly	Associate Professor
	Mr. Sami Al Kharusi	Grade 6
	Ms. Raya Al Malki	Grade 4
	Ms. Buthaina Al Bulushi	Grade 6
	Ms. Jamila Al Zadjali	Grade 6
SWAE	Dr. Hemanatha Jayasuriya	Associate Professor

Scholarships and Training

Department	Staff	Nature of Study
AVS	Ms. Salma R. Al Adwani	PhD
	Mr. Ahmed Al Ansari	Doctor of Veterinary Medicine (DVM)
	Mr. Khalid R. Al Habsi	
MSF	Mr. Salim Al-Khusaib	BSc
	Mrs. Aisha AmbuAli	MSc
NRE	Mr. Juma Al Musalami	PhD
	Mrs. Ibtisam Al Ibri	MSc
SWAE	Mrs. Muna Al-Amri	Executive Master Degree in Business Administration (EMBA)

Short Term Training

Department	Staff	Nature of Study
AVS	Mr. Rabea Al-Maqbali	Training in Amino Acid Analyzer, Germany
CROP	Mr. Khamis Al-Habsi	incomplete, Saudi Arabia
	Mr. Issa Al-Mahmooli	incomplete, Universidade Federal de Viçosa, Brazil
	Mr. Yousuf Al-Miqbali	incomplete, Malaysia
FSN	Ms. Salha Al Maskari	Engineering Properties of Food & Bio-Materials/Instrumentation in Food & Bioprocess Technology, Bangkok , Thailand
	Mr. Rashid Al Bulushi	Assertiveness skills Management, Kuala Lumpur, Malaysia
	Ms. Jamila Al Zadjali	Selective Eating and Pediatric Feeding Disorders, Springfield, IL, USA
SWAE	Ms. Muna Al Amri	The use of nuclear and isotopic techniques in studies of soil and water management with the FAO/IAEA Division of Nuclear Techniques in Food and Agriculture Vienna, Austria
	Dr. Baby Shaharoona and Mr. Mohamed Al-Beloshi	Seminar on Staff Induction Policy organized by the Quality Assurance office
	Mr. Hamad Al-Busaidi	Crop Water Requirements and irrigation scheduling using real time climatic and soil moisture salinity monitoring tools, FAO, Sudan Arabia
	Mrs. Leelwa and Ms. Buthaina	Fertilizer analyses, Directorate of Agriculture and Animal Research – MAF, Rumais
	Mr. Hamad Al-Busaidi	Irrigation System Design, Asian Institute of Technology, Thailand
	Mrs. Leelwa Al-Hamadani	Training study on ICP-MS/OES and other equipment, The Center for advanced Analytical Toxicology Services- Universiti Sains, Malaysia.
	Mrs. Asila Al Rashdi	Upper Intermediate General English – B2 course at the Language Gallery, Birmingham, UK

Visitors

The college received many local and international visitors:

- Dr. Elsadiq Abdalla Zain, College of Veterinary Medicine, University of Bahri, Sudan (Consultant)
- Dr. Mathan Kumar, Diwan Royal Affairs, Sultanate of Oman (Consultant)
- Dr. Shahid Mansoor, National Institute for Biotechnology and Genetic Engineering, Pakistan
- Prof. Matthew Dickinson, The University of Nottingham , UK
- Prof. Fabrício de Ávila Rodrigues, Universidade Federal de Viçosa, Brazil
- Prof. Dalmo Lopes de Siqueira, Universidade Federal de Viçosa, Brazil
- Dr. Gilles J Guillemin, UNSW, Australia
- Prof. Jonathan Gibbons, School of Biological Sciences, University of Reading, UK
- Prof. Karim Alaaf, La Rochelle University, France
- Dr. Mohammed Akbar, National Institute of Health, USA
- Prof. Lawrence Rajendran, University of Zurich, Switzerland
- Visitors from Kagoshima University (Japan), IFREMER (France), Düsseldorf University (Germany) and Second University of Naples (Italy) (Names required)
- Ms. Nicole Schwartz, University of Oldenburg, Germany
- Dr. Hannes Baumann, Stony Brook University, USA
- Dr. Kaveh Madani, Imperial College of London, UK.
- Prof. Shiv Prasher, Faculty of Agriculture and Environmental Sciences, McGill University CANADA.
- Dr. David R. Thompson, Stillwater, Oklahoma. USA.
- Dr. Radisav Pavlovic, Institute for the Development of Water Resources, Serbia.
- Mr. Dejan Milosev, Institute for the Development of Water Resources, Serbia.
- Prof. Mark Adams, Faculty of Agricultural and Environment The University of Sydney, Australia.
- Dr. Leanne Piggott, Business School, University of Sydney, Australia.
- Ms. Sandra Margon, The University of Sydney, Australia.
- Dr. Mohamed E. Al-Aseeri, Dr. Hasan Al-Mulla, Ms. Fatema Janahi Agriculture project at BP, and National Initiative for Agriculture Development. Bahrain Polytechnic, Bahrain

STUDENT SOCIETY

The Agricultural and Marine Sciences Society (AMSS) is one of the most effective student society in SQU There are 6 groups comprised of members from the different departments working under the AMSS.

Every year the different groups organize many different events and activities throughout the year, which have always memorable and endeavor to provide knowledge to the students at CAMS and the SQU community at large.

The Fifth Scientist Festival

The AMSS society organized the scientific festival for the fifth consecutive time *Geern Rafd* was the chosen title this year.

Each group in the society participated in the festival by displaying different scientific projects done by the faculties or by the students themselves. Illustrated modules and posters were used for the projects.



The Open Day

Open day is one of the accompanying activities that come side by side with the festival. The different groups organized different activities and competitions. Each group organizes activities that related to the field of study such as fishing, horse riding, cooking etc.



Activities and specialties exhibitions

The AMSS society participated in the activities week and specialties week that has been organized by the deanship. This time the participation was remarkable as every year the AMSS used to provide a clear display and distinguished presence.

Animal and Veterinary Science Group



The group this year organized the veterinary gathering exhibition which includes some research projects done by the faculties or students in the department of animal and veterinary sciences. Some other participation came from the private sector companies.

Marine Science Group

The group this year organized the fishermen day exhibition which includes a good participation from the private and government sectors. Students also had participated by some projects done in the department.

Activities organized:

- Department student society organized their Open Day.
- During Oman National Day Marine Science and Fisheries students presented a large model of an Omani Flag filled with water coloured in the colours of Oman flag.
- Marine Expo at SQU. Students presented their research projects and achievements.
- Omani fishermen day in Al-Khaboura. Students presented the latest research regarding improvements in fishing techniques.
- Several visits at schools to raise awareness of the importance of preserving the marine environment.
- Workshop on cyclone prediction. In cooperation with the General Authority of Civil Aviation MF students organized a workshop on climatology and weather.

Food Science Group

The group this year organized food companies' exhibition which has this year a good number of private companies working in the fields of food and food processing.

Activities organized:



- Organized Food Companies exhibition, SQU 2 December 2013
- World Food day. SQU, 2-3 December, 2013
- Muscat Municipality open day. SQU, 24 April 2014
- GCC Agricultural and Fisheries wealth Expo. Fall 2013.
- Food safety week. Muscat, 20-24 April 2014
- World water day. Muscat, 22 March 2014

Soil and Water Sciences Group

The group this year organized the water day exhibition which was this year in Sahoia Park. Accompanying activities was used to demonstrate the community on how to save water and minimizing water waste.



Activities organized:

- The SWAE Student Group celebrated the event of the World Water Day on 22 March at Al-Sahwa Park.
- The SWAE Student Group organized awareness forum at SQUH on water conservation, 18-19 August 2014.
- The SWAE Student Group organized their end of the year gathering at the AES. 14 May 2014.
- A number of SWAE students supervised by Dr. Ahmed Al-Busaidi, collected soil, water and plant samples and were trained in scientific methods of physical, chemical and biological analyses. They visited Rumais Labs, for nitrogen analysis and acquaintance with some of the running projects, the Royal Diwan greenhouses and a hydroponic system company. Summer 2014

Plant Science Group

The group this year organized the tree day exhibition which includes many projects related to plant and trees production. Some other companies working in the field of planting and fertilizers products also participated in the exhibition.

Activities organized:



- Tree Day, October 2013.
- CS Students Graduation Ceremony, Nov, 2013.
- CS Students gathering, Spring 2014.
-

Agricultural Economic Science Group

The group this year organized an exhibition for the small companies which include this year a huge number of small and medium enterprises that producing many different products and run by Omanis family to help them in terms of showing their products to public to know them closely.

College Administration



Mohammed Al-Rawahi
Director



Majid Al-Mugheiry
College Superintendent

New Items/Equipment Procured

No.	PRODUCT DESCRIPTION	AMOUNT R.O.
1	RADIAL HONEY EXTRACTOR	1397.000
2	CULTIVATOR WITH ROTARY	1475.000
3	AMINO ACID ANALYSER	43003.000
4	WATER DISTILLER	1460.000
5	TOP LOADING BALANCE	1544.000
6	ANALYTICAL BALANCE	1544.000
7	GPS	2975.000
8	TRIMBLE GEO EXPLORER	7050.000
9	NANO DROP	3600.000
10	INCUBATOR	1390.000
11	ANALYTICAL BALANCE	1200.000
12	HYBRIDIZATION OVEN	1684.000
13	TOTAL STATION FOR LAND SURVEYING	10550.000
14	WATER PURIFICATION SYSTEM	2550.000
15	PLATE READER	3930.000
16	WATER CIRCULATING SYSTEM	1610.000
17	STEREO MICROSCOPE	16597.695
18	HOMOGENIZER	2103.600
19	VACUUM PUMP	2785.000
20	CENTRIFUGE	6335.000
21	LEAF POROMETER SYSTEM	1425.112
22	MILLI-Q WATER PURIFICATION SYSTEM	2120.000
23	SAFETY CABINET	11500.000

24	DATA LOGGER	1105.400
25	ANALYZER FOR O2 & CO2 MEASUREMENT	14154.000
26	DATA LOGGER	1002.930
27	THERMAL CYCLER	2150.000
28	MICROPLATE ELIZA READER	5000.000
29	GC/MS SYSTEM	26009.000
30	AUTOCLAVE	9035.000
31	PROTEIN AND NITROGEN ANALYZER	43230.000
32	SAFETY CABINET	4110.000
33	WEATHER STATION	20500.000
34	TITRATION EQUIPMENT	2800.000
35	MICROSCOPE	11509.200
36	MICROSCOPE	5500.000
37	PHOTOCOPY MACHINE	1600.000
38	SPECTROPHOTOMETER	2390.000
39	HYDRAULIC LIFT	6200.000
40	PLANIMETER	2881.000
41	SPECTROPHOTOMETER	1240.000
42	SAFETY CABINET	2275.000
43	SAFETY CABINET	2050.000
44	ANALYTICAL BALANCE	1146.000
45	INCUBATOR	4443.000
46	HOMOGENIZER	2315.000
47	CABINET	3580.000
48	HUMALYZER PRIMUS,HUAMN	1150.000
49	COLOR MEASUREMENT METER	3340.000
50	MICROPLATE FUOROMETER	6194.000
51	CENTRIFUGE	3785.000
52	HOTPLATE WITH STIRRER	11163.000
53	ICE CREAM FREEZER	2260.000
54	LIGHT TRAP NET	1755.000
55	REFRIGERATOR	3296.000
56	SAP FLOW METER	9380.000
57	STEM PSYCHROMETER	9655.000
58	(EM50G) WITH GSM MODULE	12678.000
59	EM50G WITH GSM MODULE	5735.000
60	COMPACTDAQ CHASSIS	29967.900
61	CHLOROPHYLL METER	4072.000
62	FLUORPEN 100	2381.000
63	LEAF POROMETER	3445.000
64	SOIL WATER SAMPLER 60CM	1855.100
65	MICROLOGGER (R)	8209.000
66	4X4X4 JCP BACKHOE LOADER	29200.000
67	DRYING OVEN	1890.000
68	CHLOROPHYLL METER SPAD 502	3120.000

69	GAS VALVE	3017.089
70	MOISTURE ANALYZER	1400.000
71	LOGGER	4746.050
72	LEVELLOGGER	5556.900
73	LINEAR IRRIGATION BOOMS	74990.000
74	AUTOCLAVE	3000.000
75	TENSILE MACHINE	7427.200
76	AUTOCLAVE	3660.000
78	LC-MS-MS	145878.278
79	UPLC SYSTEM	36000.000
80	GAS CHROMATOGRAPH MASS SPECTROMETER	33742.000
81	PROBE	2058.000
	TOTAL AMOUNT	782060.454

CAMS Office Bearers

Anvar Kacimov	Dean
Michel Claereboudt	Assistant Dean for Postgraduate Studies and Research
Said Al-Ismaily	Assistant Dean for Undergraduate Studies
Osman Mahgoub Gaafar	Assistant Dean for Training and Community Services
Waleed Al-Marzooqi	Head, Department of Animal and Veterinary Sciences
Abdullah Al-Sadi	Head, Department of Crop Sciences
Nejib Guizani	Head, Department of Food Science and Nutrition
Hussein Al-Masroori	Head, Department of Marine Science and Fisheries
Houcine Boughanmi	Head, Department of Natural Resource Economics
Hayder Abdel Rahman	Head, Department of Soils, Water & Agricultural Engineering
Malik Al-Wardy	Director, Agricultural Experiment Station
Mohammed Al-Rawahi	Director of Administration
Majid Al-Mugheiry	College Superintendent

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Dr. Yasmin El-Tahir (Animal and Veterinary Sciences)

Dr. Abdullah Al-Sadi (Crop Sciences)

Dr. Arne Michael Malzahn (Marine Science and Fisheries)

Dr. Shekar Bose (Natural Resource Economics)

Dr. Manickavasagan Annamalai (Soils, Water and Agricultural Engineering)

Ms. Leonila Magpantay (Dean's Office)



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Sultanate of Oman

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