



The Eighth Scientific Agricultural Conference ESAC-2018

**Karak, Jordan
October 15 -17, 2018**



Conference Contacts

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8th Scientific Agricultural Conference
15 - 17 Oct., 2018

Conference Program

Organized by:

**Faculty of Agriculture, Mutah University (MU)
Karak, Jordan**

In collaboration with:

Jordanian Universities {the University of Jordan (JU), Tafila Technical University (TTU), the Hashemite University (HU), Jordan University of Science and Technology (JUST), Al-Balqa' Applied University (BAU), and Jerash University (JU)}

National Agricultural Research Center (NARC)

Food and Agricultural Organization (FAO)

Economic and Social Commission for Western Asia (ESCWA)

Association for Agricultural Research Institutions in the Near East and North Africa (AARINENA)

EcoConsult

Ministry of Agriculture (MOA)

Ministry of Water and Irrigation (MOWI)



المركز الوطني للبحوث الزراعية
National Agricultural Research Center



Hashemite Kingdom of Jordan
Ministry of Water and Irrigation



ESCWA Technology Centre



Conference's Schedule

First day: Monday: 15 October 2018
Faculty of Agriculture

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| Time | Opening Ceremony (Theater) | |
| 08:00 - 10:00 | Registration and Reception | |
| 10:00 - 10:05 | National Anthem | |
| 10:05 - 10:10 | Hoday Quran | |
| 10:10 - 10:40 | Welcome statements | Prof. Adel Abdel-Ghani Dean of Faculty of Agriculture |
| | | Prof. Thafer Assaraira President of Mutah University |
| | | Mr. Faisal Al-Fayez President of the Senate |
| 10:40 - 10:55 | Reportage about the Faculty of Agriculture, Mutah University | |
| <p>Opening session Faculty of Agriculture (Theater)</p> | | |
| Chairman: Prof. Mahmud Al-Duwayri | | Rapporteur: Prof. Firas Al-Zyoud |
| Time | Keynote speaker | Topic |
| 11:00- 11:30 | Prof. Rida Shibli Jordanian Senate Jordan | Climate change and its impact on agriculture |
| 11:30 - 12:00 | Prof. Mohamed Darghouth AARINENA Tunisia | The association for agricultural research institutions in the Near East and North Africa: Becoming a region hub for NENA stakeholders engaged in agricultural research and innovation through is new strategy |
| 12:00 - 12:30 | Dr. Martin Keulertz AUB (ESCWA) Germany | Bridging the gap between science and policy for water and food security in the Arab region |
| 12:30 - 13:00 | Session's discussion | |

13:00 - 15:00 Lunch break (Faculty of Agriculture)

Plenary Sessions
Faculty of Agriculture
First day: Monday: 15 October, 2018

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|---|--|--|
| Session 1: Technology and Innovation for Agriculture Development | | Threater |
| Chairman: Prof. Rida Shibli | | Rapporteur: Prof. Firas Al-Zyoud |
| 15:00 - 15:20 | Dr. Esteban Baeza The Netherlands | Optimum greenhouse design in arid regions: A modeling approach |
| 15:20 - 15:40 | Dr. Jouke Campen The Netherlands | Water efficiency protected horticulture: Experience from Estidamah research center in Saudi Arabia |
| 15:40 - 16:00 | Prof. Adel Abdel-Ghani MU, Jordan | Mapping drought related traits in barley |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:05 | Dr. Theib Oweis ICARDA, Amman, Jordan | Integrated approach for restoration of degraded rangelands: Empirical examples from Jordan |
| 17:05 - 17:20 | Dr. Nael Thaher University of Guelph, Canada | Leveraging intellectual property management for crop biotechnology innovation |
| 17:20 - 18:00 | Session's discussion | |

20:00 - 22:00 Dinner

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| Session 2: Plant Protection I | | Room 101 |
| Chairman: Prof. Nofal Al-Ameiri | | Rapporteur: Dr. Nehaya Al-Karablieh |
| 15:00 - 15:15 | Prof. Ahmad Al-Momany JU, Jordan | Practical applications of endomycorrhizal fungi in Jordan |
| 15:15 - 15:30 | Prof. Nofal Al-Ameiri JPU, Jordan | Control of cucumber damping-off in the field by the bio-agent <i>Trichoderma harzianum</i> |
| 15:30 - 15:45 | Prof. Ahmad Katbeh Bader JU, Jordan | First record of the cochineal scale insect <i>Dactylopius opuntiae</i> (Cockerell) (Hemiptera: Dactylopiidae) in Jordan |
| 15:45 - 16:00 | Prof. Khaled Al-Absi MU, Jordan | Chemical control of the olive fruit fly <i>Bactrocera oleae</i> (Rossi) (Dip., Tephritidae) and its effect on olive quantity and quality parameters in Jordan |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Dr. Hassan Asoufi NARC, Jordan | Green synthesis of iron sulfide (FeS) nanoparticles and their effects on the green peach aphid <i>Myzus persicae</i> (Hom., Aphididae) |
| 17:00 - 17:15 | Dr. Salaheddin Araj JU, Jordan | Floral resources and hyperparasitism |
| 17:15 - 17:30 | Prof. Hussain Aldakil JUST, Jordan | First report of <i>Fusarium equiseti</i> on cucumber in Jordan Valley |
| 17:30 - 18:00 | Session's discussion | |

20:00 - 22:00 Dinner

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| Session 3: Climate Change and Environmental Degradation I | | Room 203 |
| Chairman: Dr. Abdelnabbi Ferdoos | | Rapporteur: Dr. Naem Mazahrih |
| 15:00 - 15:15 | Eng. Muna Saba NARC, Jordan | Drought monitoring and analysis using satellite vegetation indices |
| 15:15 - 15:30 | Eng. Anas Zwahreh HU, Jordan | Using local plants to inhibit soilborne diseases of vegetables |
| 15:30 - 15:45 | Eng. Maisaa Haddadin NARC, Jordan | التغير المناخي واقع وحقيقة |
| 15:45 - 16:00 | Eng. Ala'a Wahbeh NARC, Jordan | Farmers field schools (FFS): An AR4D approach to help the rural communities overcoming the adverse effects of climate change sustainably |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Dr. Naem Mazahrih NARC, Jordan | Water requirements of selected vegetable crops under protected cultivations in the Jordan Valley |
| 17:00 - 17:30 | Session's discussion | |

20:00 - 22:00 Dinner

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| Session 4: Animal Production I | | Room 102 |
| Chairman: Dr. Faisal Awawdeh | | Rapporteur: Dr. Amani Al-Dawood |
| 15:00 - 15:30 | Dr. Faisal Awawdeh Amman, Jordan | Livestock production system in Jordan: Challenges of sustainability |
| 15:30 - 15:45 | Dr. Faisal Al-Barakeh MOA, Jordan | Small ruminant investments and graduating household in transition (SIGHT) |
| 15:45 - 16:00 | Prof. Raed Al-Atiyat MU, Jordan | Sustainable breeding program of small ruminant (goat and sheep) in Jordan: Simulated work |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:05 | Dr. Amani Al-Dawood TTU, Jordan | Effect of heat stress on adipokines and some blood metabolites in goats from Jordan |
| 17:05 - 17:45 | Session's discussion | |

20:00 - 22:00 Dinner

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| Session 5: Nutrition and Food I | | Room 201 |
| Chairman: Prof. Khalid Al-Ismail | | Rapporteur: Prof. Hussein Algooby |
| 15:00 - 15:30 | Prof. Abdul Salam Babji Malaysia | Anti-oxidative, anti-inflammatory, anti-diabetic, and anti-hypertensive of hydrolysates derived from freshwater fish: A review of multifunctional peptides |
| 15:30 - 15:45 | Prof. Khalid Al-Ismail JU, Jordan | Stability of cardamom <i>Elettaria cardamomum</i> essential oil in microcapsules made of whey protein isolate, guar gum and carrageenan |
| 15:45 - 16:00 | Prof. Hussein Algooby | Production of inhibitory peptides |

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| | Iraq | for pathogenic bacteria from camel milk fermented by <i>Lactobacillus casei</i> |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Dr. Khaled Abu-Alruz MU, Jordan | Rapid visco analyzer as a new technique for measuring cheese meltability |
| 17:00 - 17:15 | Dr. Nisrin Nakshoo Syria | Evaluation of some oils quality and their effects in human health enhancement and prevention of diseases |
| 17:15 - 17:45 | Session's discussion | |

20:00 - 22:00 Dinner

Second day: Tuesday: 16 October, 2018

Plenary Sessions Faculty of Agriculture

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| Session 6: Plant Protection II | | Room 101 |
| Chairman: Prof. Ahmad Al-Momany | | Rapporteur: Dr. Mohmmed AlQasem |
| 09:30 - 09:45 | Prof. Firas Al-Zyoud MU, Jordan | Towards integrated pest management of the cereal leafminer: Status, current and future control options |
| 09:45 - 10:00 | Prof. Mohammad Al-Alawi BAU, Jordan | Management of greenhouse insect pests using Jordanian isolates of <i>Beauveria bassiana</i> (Balsamo) Vuillemin |
| 10:00 - 10:30 | Coffee break | |
| 10:30 - 10:45 | Eng. Amani Alawamleh Italy | Evaluation of efficacy of Droskidrink bait for monitoring and control of <i>Drosophila suzukii</i> in Trentino region, Italy |
| 10:45 - 11:00 | Dr. Nehaya Al-Karablieh JU, Jordan | Siderophore-inspired nanoparticles as bio-control agent and plant growth promoting agent |
| 11:00 - 11:15 | Dr. Mohmmed AlQasem NARC, Jordan | Efficiency of (NEMATOX) bio-fertilizer in controlling root knot nematode |
| 11:15 - 11:30 | Dr. Ibtihal Abo Obied NARC, Jordan | بدائل غاز بروميد الميثايل في الزراعة |
| 11:30 - 11:45 | Dr. Mona Mashal and Eng. Basil Obeidat NARC, Jordan | الاجراءات التي تم اتخاذها لمكافحة حشرة سوسة النخيل الحمراء في الاردن |
| 11:45 - 12:00 | Dr. Alaa Ghidan JU, Jordan | Green synthesis of magnesium oxide MgONPs nanoparticles using <i>Chamaemelum nobile</i> flowers extract: Effect on the green peach aphid |
| 12:00 - 12:15 | Dr. Sary El-Sahhar Palestine | Soil-less media as role of integrated pest management controlling white mold disease in eggplant |
| 12:15 - 12:45 | Session's discussion | |

13:00 - 15:00 Lunch break (Faculty of Agriculture)

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| Session 7: Plant Protection III | | Room 101 |
| Chairman: Prof. Tawfiq Al-Antary | | Rapporteur: Dr. Ziad Al-Rawashdeh |
| 15:00 - 15:15 | Prof. Muwaffaq Karajeh MU, Jordan | High efficacy of sulfur compared to other measures in controlling post-harvest blue mold of apple |
| 15:15 - 15:30 | Eng. Rana Jado JU, Jordan | Effect of floral resources on <i>Aphidius colemani</i> viereck (Hym., Brachonidae) the parasitoid of the green peach aphid <i>Myzus persicae</i> Suzler (Hem., Aphididae) |
| 15:30 - 15:45 | Eng. Wafa Nasir JU, Jordan | New records of ground beetles (Coleoptera, Carabidae) from Jordan |
| 15:45 - 16:00 | Dr. Mona Mashal and Eng. Basil Obeidat NARC, Jordan | دراسات بيئية ومكافحة حشرة دوياس النخيل على نخيل التمر في الاردن <i>Ommatissuslybicus</i> |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Dr. Mona Mashal Eng. Basil Obeidat NARC, Jordan | تقييم اثر البرامج المختلفة للمكافحة على كمية ونوعية التمور في بستان النخيل |
| 17:00 - 17:15 | Eng. Zaid Nabas JU, Jordan | Contribution to the Cicadoidea (Hemipteran) of Jordan |
| 17:15 - 17:45 | Session's discussion | |

17:30 - 18:30 Final Session: Recommendations and closure (Theater)

20:00 - 22:00 Dinner

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| Session 8: Water Resources Management for Agricultural Use I | | Room 203 |
| Chairman: Dr. Michel Rahbeh | | Rapporteur: Dr. Reyad Al Dwairi |
| 09:30 - 10:00 | Dr. Koichi Unami Japan | Deterministic dynamic programming for operation of micro irrigation scheme |
| 10:00 - 10:30 | Coffee break | |
| 10:30 - 10:45 | Dr. Reyad Al Dwairi TTU, Jordan | Characterization of Jordanian zeolitic tuff and its potential use as water conservation material |
| 10:45 - 11:00 | Prof. Bashir Jarrar JPU, Jordan | Physico-chemical and microbial properties of Dumate Al-Jandal Lake in Al-Jouf Province of Saudi Arabia |
| 11:00 - 11:15 | Dr. Michel Rahbeh JU, Jordan | Assessment of soil and water conservation practices in Zarqa River basin |
| 11:15 - 11:30 | Dr. Rasha Fadhil Iraq | Markovian properties and distribution of daily rainfall in northern Iraq |
| 11:30 - 11:45 | Eng. Kefah Yousef NARC, Jordan | Effectiveness of continuous contour ridges and intermittent trenches constructed using the vallerani in water harvesting in arid regions |
| 11:45 - 12:45 | Session's discussion | |

13:00 - 15:00 Lunch break (Faculty of Agriculture)

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| Session 9: Water Resources Management for Agricultural Use II | | Room 203 |
| Chairman: Prof. Munir Rusan | | Rapporteur: Dr. Suhail Sharadqah |
| 15:00 - 15:15 | Prof. Munir Rusan JUST, Jordan | Management of olive mill wastewater |
| 15:15 - 15:30 | Dr. Kholoud Mashal HU, Jordan | Assessment of PAHs desorption in urban soil samples |
| 15:30-15:45 | Dr. Suhail Sharadqah TTU, Jordan | Evaluate the vulnerability and the risk of groundwater contamination in Alkura District-Jordan |
| 15:45 -16:00 | Dr. Nabeel Bani Hani NARC, Jordan | Effect of deficit irrigation on water productivity and characterization of navel oranges mature fruit in the Jordan Valley |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Eng. Khadija Khamish HU, Jordan | Influence of different irrigation water types and levels on blue panic <i>Panicum antidotale</i> germination and yield as a climate change mitigation measures |
| 17:00 - 17:15 | Eng. Faris Al-Shayeb HU, Jordan | Sequential fractionation of inorganic phosphorus of calcareous soils in Jordan |
| 17:15 - 17:30 | Session's discussion | |

17:30 - 18:30 Final Session: Recommendations and closure (Threater)

20:00 - 22:00 Dinner

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| Session 10: Climate Change and Environmental Degradation II | | Room 206 |
| Chairman: Dr. Kholoud Mashal | | Rapporteur: Dr. Mohammed AL-Qinna |
| 15:00 - 15:15 | Prof. Raed Al-Atiyat MU, Jordan | Climate change and diversity of indigenous cattle breeds: Current situation of Jordan and Saudi Arabia |
| 15:15 - 15:30 | Dr. Mohammed AL-Qinna HU, Jordan | Climate change future projections for Jordan using dynamic downscaling |
| 15:30 - 15:45 | Dr. Haifa Al-Mohammed JU, Jordan | تقييم تدهور الأراضي والتصحّر في وسط وجنوب الاردن باستخدام تطبيقات الاستشعار عن بعد (الوضع الحالي والاتجاهات المستقبلية) |
| 15:45 - 16:00 | Eng. Maram Noimat JU, Jordan | Use of remote sensing and ground data to assess vegetation changes in WadiAlshaumari |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Eng. Safa'a Ayyash JU, Jordan | Investigating the potential use of the dimensionless tempreture as a new drought index |
| 17:00 - 17:30 | Session's discussion | |

17:30 - 18:30 Final Session: Recommendations and closure (Threater)

20:00 - 22:00 Dinner

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| Session 11: Nutrition and Food II | | Room 201 |
| Chairman: Prof. Abdul Salam Babji | | Rapporteur: Dr. Ibrahim Dabbour |
| 09:30 - 10:00 | Prof. Hamed Takruri JU, Jordan | Use of selected traditional foods in the prevention of colon and breast cancers |
| 10:00 - 10:30 | Coffee break | |
| 10:30 - 10:45 | Prof. Riadh Al-Tahiri Jordan | Restoration of sustainable creation and natural resource livelihoods C management in Badiacommunities project |
| 10:45 - 11:00 | Prof. Jafar El-Qudah BAU, Jordan | Macro and micronutrients content of regular diet meals served at governmental Jordanian hospitals |
| 11:00 - 11:15 | Dr. Mohammed Ibrahim MU, Jordan | A study of nutritional awareness of Jordanian consumers towards functional foods |
| 11:15 - 11:30 | Dr. Ibrahim Dabbour MU, Jordan | Vitamin D status in patients with type 2 diabetes mellitus in Makkah region of Saudi Arabia |
| 11:30 - 11:45 | Prof. Saqer Herzallah MU, Jordan | A large number of unlabeled genetically modified ingredients found in tofu products in the markets of Chengdu, China: Gene-specific Real time PCR and event-specific end-point PCR assays for tofu products |
| 11:45 - 12:00 | د. نزيه الخليله MU, Jordan | انتاج جبن مطبوخ قابل للمد وتدعيمه بكتيريا البروبيوتيك <i>Lactobacillus acidophilus</i> LA -5, <i>Bifidobacterium animalis subsp lactis</i> (Bb12) ودراسة نموها وحيويتها تحت ظروف التخزين |
| 12:00 - 12:15 | Eng. Arwa Abu-Laban JU, Jordan | Hypocholesterolytic effect of sesame seeds and its products: tahineh, halaweh and black cumin paste on blood serum of rats fed high cholesterol diet |
| 12:15 - 12:45 | Session's discussion | |

13:00 - 15:00 Lunch break (Faculty of Agriculture)

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| Session 12: Nutrition and Food III | | Room 201 |
| Chairman: Prof. Hamed Takruri | | Rapporteur: Dr. Khaled Abu-Alruz |
| 15:00 - 15:30 | Prof. Abdul Salam Babji Malaysia | Edible bird's nest hydrolyate as health food supplement |
| 15:30 - 15:45 | Dr. Buthaina Alkhatib JU, Jordan | The impact of nutrition in preventing disease |
| 15:45 - 16:00 | Eng. Sameeha Al-Thnaibat JU, Jordan | Anti-hyperglycemic and anti-hyperlipidemic effects of Hawthorn phytosomes |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Eng. Maryam Alawneh MU, Jordan | Obesity, body measurements and health |
| 17:00 - 17:15 | Eng. Anfal AL-Dalaeen JU, Jordan | Evaluation of oxidant-antioxidant status in obese children |
| 17:15 - 17:30 | Session's discussion | |

17:30 - 18:30 Final Session: Recommendations and closure (Threater)

20:00 - 22:00 Dinner

| Session 13: Animal Production II | | Room 102 |
|---|--|--|
| Chairman: Prof. Raed Al-Atiyat | | Rapporteur: أ.د. نهاد عبد اللطيف علي |
| 09:30 - 09:45 | Prof. Ashwaq Hassan Iraq | Effect of adding potassium nitrite to barley straw on fermentation characters and in vitro methane production |
| 09:45 - 10:00 | Dr. Marwan Al-Hijazeen MU, Jordan | Effects of tannic acid on lipid and protein oxidation, color, and volatiles of raw and cooked chicken breast meat during storage |
| 10:00 - 10:30 | Coffee break | |
| 10:30 - 10:45 | أ.د. نهاد عبد اللطيف علي العراق | دراسة تأثير اضافة الريبايوتكني عليقة فروج اللحم ومقارنته بالريبايوتكن المحلي العراقي على صفات الدم القسلجية |
| 10:45 - 11:00 | Dr. Arwa AlRwashdeh Jordan | Alternative uses of antibiotics in animal production |
| 11:00 - 11:15 | Prof. Nabil Hailat JUST, Jordan | Diagnosis of transboundary animal diseases (TADs) using histopathology, Immunohistochemistry (IHC) and PCR in Jordan |
| 11:15 - 11:30 | Prof. Akram Al Abboodi JUST, Jordan | Antibiotics residues in egg and poultry meat |
| 11:30 - 11:45 | Dr. Khaleel Jawasreh JUST, Jordan | Gene's technology for economic sheep production |
| 11:45 - 12:00 | Prof. Yaser Tarazi JUST, Jordan | Molecular characterization of enterohemorrhagic <i>Escherichia coli</i> isolates from human and animal sources in northern Jordan |
| 12:00 - 12:15 | Dr. Ismail Malkawi JUST, Jordan | Prevalence and genotypes of <i>Campylobacter Jejuni</i> and <i>Campylobacter coli</i> among chilled and frozen chickens, human patients and food handlers in Northern Jordan |
| 12:15 - 12:45 | Session's discussion | |

13:00 - 15:00 Lunch break (Faculty of Agriculture)

| Session 14: Animal Production III | | Room 102 |
|--|--|---|
| Chairman: Dr. Faisal Al-Barakeh | | Rapporteur: Dr. Arwa Al-Rwashdeh |
| 15:00 - 15:15 | Eng. Husein Miqdady MOA, Jordan | The current situation of the poultry sector in Jordan |
| 15:15 - 15:30 | Dr. Marwan Al-Hijazeen MU, Jordan | Effect of oregano oil and tannic acid combinations on the quality and sensory characteristics of cooked chicken meat |
| 15:30 - 15:45 | Dr. Hassan Al-Omari MU, Jordan | Effect of exogenous GnRH on testosterone secretions in three breeds of goat bucks during breeding season of semi-extensive system in Jordan |
| 15:45 - 16:00 | Eng. Hussien Haweleh MOA, Jordan | واقع الاعلاف في الاردن ودور وزارة الزراعة |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Eng. Majdi Alamer MOA, Jordan | The current situation of feed and feedstuff in Jordan |
| 17:00 - 17:30 | Session's discussion | |

17:30 - 18:30 Final Session: Recommendations and closure (Threator)

20:00 - 22:00 Dinner

| Session 15: Plant Production I | | Room 202 |
|--|---|--|
| Chairman: Prof. Khalad Tarawneh | | Rapporteur: Prof. Taleb Abu-Zahra |
| 09:30 - 10:00 | Prof. Ghazi Al-Karaki Just, Jordan | Hydroponic green fodder production: Hype or new perspective |
| 10:00 - 10:30 | Coffee break | |
| 10:30 - 10:45 | Prof. Monther Sadder JU, Jordan | Loss of stress adaptive alleles during plant domestication: A phylogenetic prospective |
| 10:45 - 11:00 | Prof. Ayed Al-Abdallat JU, Jordan | Identification of a novel photoperiod-insensitive <i>HvPPD-H1</i> allele conferring early flowering phenotype in barley (<i>Hordeum vulgare</i> L.) |
| 11:00 - 11:15 | Prof. Taleb Abu-Zahra BAU, Jordan | Effect of different organic matter sources on strawberry (<i>Fragaria X Ananassa</i> Duch) growth and fruit quality in a plastic house at Humrat Al-Sahen |
| 11:15 - 11:30 | Dr. Maher Tadros JUST, Jordan | Management of <i>Prosopis juliflora</i> the Invasive species in Jordan Valley |
| 11:30 - 11:45 | Dr. Abdurraheem Al-Bawalize NARC, Jordan | Assessment of agro-morph. and genetic variation among two Jordanian landraces of vetches by AFLP molecular marker |
| 11:45 - 12:00 | ا.د. الاء صالح عاتي العراق | دور عمليات إدارة الري في إنتاجية المياه ونمو وإنتاجية صنفين من الحنطة |
| 12:00 - 12:15 | Dr. Bashir Qadri MOA, Jordan | Investigation of morphological, agronomical traits and ISSR markers for tetraploid wheat germplasm from Jordan |
| 12:15 - 12:45 | Session's discussion | |

13:00 - 15:00 Lunch break (Faculty of Agriculture)

| Session 16: Plant Production II | | Room 207 |
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| Chairman: Prof. Saeid Abu-Romman | | Rapporteur: Dr. Foad Salameh |
| 09:30 - 09:45 | Prof. Saeid Abu-Romman BAU, Jordan | Molecular cloning and characterization of <i>LcOPR1</i> , a gene encoding oxophytodieneic acid reductase in lentil |
| 09:45 - 10:00 | Eng. Nawal AlHajaj NARC, Jordan | Multivariate analysis of diversity of wild oat populations <i>Avena sterilis</i> L. from Jordan |
| 10:00 - 10:30 | Coffee break | |
| 10:30 - 10:45 | Eng. Anas Musallam JU, Jordan | Cloning and characterization of <i>Dehydrin</i> gene from <i>Atriplex</i> species |
| 10:45 - 11:00 | Dr. Ibrahim Al-Shomali JU, Jordan | Analysis of salinity stress genes in three common fig genotypes <i>Ficus carica</i> from Jordan |
| 11:00 - 11:15 | Dr. Foad Salameh Jordan | انتاج البذور الهجينة في الاردن |
| 11:15 - 11:30 | م. راند لطفي احمد NARC, Jordan | دراسة مقارنة اربعة اصناف نخيل ذكرية وتأثيرها على الصفات الكمية والنوعية لصنفي مجهول وبرحي وانشاء مركز لحبوب اللقاح في الاردن |
| 11:30 - 11:45 | م. انور حداد Jordan | أفاق وتحديات زراعة وانتاج التمور في الاردن |
| 11:45 - 12:00 | م. ايمان ناصر الزين MOA, Jordan | تسجيل بذور الخضروات وفق تعليمات ز/٣٠ لسنة ٢٠١٦ المنبثق عن قانون الزراعة رقم ١٣ لسنة ٢٠١٥ |

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| 12:00 - 12:15 | Eng. Jad Zreiqat MU, Jordan | The effect of zeolitic tuff from Tafila mines (Halla 2) and compost as a mulch around the trunk on apple trees |
| 12:15 - 12:30 | Dr. Asad Alkhader NARC, Jordan | Effect of nitrogen level applied by drip fertigation on nutrients contents and uptake of watermelon <i>Citrullus lanatus</i> |
| 12:30 - 12:45 | Eng. Ahmad Al-Majali MU, Jordan | Selection for high yield and quality related traits in bitter vetch <i>Vicia ervilla</i> |
| 12:45 - 13:00 | Session's discussion | |

13:00 - 15:00 Lunch break (Faculty of Agriculture)

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| Session 17: Plant Production III | | Room 202 |
| Chairman: Prof. Ayed Al-Abdallat | | Rapporteur: Dr. Maher Tadros |
| 15:00 - 15:15 | Dr. Basel Khader SRS Fund Jordan | Assessment of pre and post harvest losses and food waste along the wheat value chain in Jordan |
| 15:15 - 15:30 | Dr. Luna Al-Hadidi NARC, Jordan | Effect of irrigation with treated wastewater effluent on the yield and quality of tomato crop |
| 15:30 - 15:45 | Eng. Maisaa Haddadin NARC, Jordan | Response of barely varieties to drought stress imposed at different developmental stages |
| 15:45 - 16:00 | Dr. Saleh Shdiefat JPU, Jordan | تأثير موقع الزراعة (الارتفاع عن سطح البحر) على تركيبة الأحماض الدهنية في زيت الزيتون |
| 16:00 - 16:30 | Coffee break and poster viewing | |
| 16:30 - 16:45 | د. ياسر الطاهر مصر | التقنية المغناطيسية والاستخدام الأمثل في كل القطاعات الزراعية والتنمية المستدامة فكرة عمل جهاز دلتا ووتر |
| 16:45 - 17:00 | Eng. Raieda Al-Maitah MOA, Jordan | Performance of eight wheat genotypes grown under different water treatments in a semi-arid environment |
| 17:00 - 17:15 | Eng. Luma Hamdi JU, Jordan | Evaluating the performance of the DSSAT Cropping System Model (CSM)-CERES-wheat for saline soils |
| 17:15 - 17:30 | Session's discussion | |

17:30 - 18:30 Final Session: Recommendations and closure (Theater)

20:00 - 22:00 Dinner

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| Session 18: Plant Production IV | | Room 207 |
| Chairman: Prof. Ghazi Al-Karaki | | Rapporteur: Dr. Mohammad Brake |
| 15:00 - 15:15 | Dr. Mohammad Brake JPU, Jordan | Assessment of genetic diversity among Jordanian tomato landrace using molecular markers |
| 15:15 - 15:30 | Prof. Abdel-Monnem Khalel Iraq | Influence of foliar spray and soil application of three amino acids compounds in growth and yield of onion (<i>Allium cepa</i> L.) |
| 15:30 - 15:45 | Dr. Yhaya Shakhathreh | Sustainable agricultural production of wheat |

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| | NARC, Jordan | and forage legumes (common vetch) under conservation agriculture systems in Jordan |
| 15:45 - 16:00 | Dr. Rasha Amarin JU, Jordan | Effect of saline water irrigation and growing media on growth, physiological and mineral parameters of clove pink <i>Dianthus caryophyllus</i> |
| 16:00 - 16:45 | Coffee break and poster viewing | |
| 16:45 - 17:00 | Eng. Dua'a Al-Majali NARC, Jordan | Evaluation of genetic diversity among Jordanian fig germplasm accessions by morphological traits and ISSR markers |
| 17:00 - 17:30 | Session's discussion | |

17:30 – 18:30 **Final Session: Recommendations and closure (Threater)**

20:00 - 22:00 **Dinner**

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| Session 19: Agricultural Extension and Marketing I | | Room 206 |
| Chairman: Prof. Mohammed Al-Bdour | | Rapporteur: Dr. Ebraheem Al-Tahat |
| 09:30 - 10:00 | Prof. Samira Al-Thamir Al-Kasim-Green University Iraq | Economic analysis of the determinants of production and estimation of production cost functions and marketing efficiency of date crops in Iraq |
| 10:00 - 10:30 | Coffee break | |
| 10:30 - 11:20 | Prof. Mohammed Al-Bdour MU, Jordan | استخدام التحليل المالي لتقييم الأنماط الإدارية المتبعة في إدارة مزارع البندورة في الأغوار الجنوبية للأردن |
| 11:20 - 11:40 | Dr. Ebraheem Al-Tahat JPU, Jordan | المشكلات الإنتاجية والتسويقية التي تواجه مزارعي النخيل في الأردن |
| 11:40 - 12:00 | Dr. Mohammad Al Tarawneh JPU, Jordan | تحليل إقتصادي لدور الإرشاد التسويقي الزراعي في الحد من مشاكل منتجي الخضروات في وادي الأردن |
| 12:00 - 12:15 | Dr. Omar Hoteah Adrar Univ., Algeria | استخدام التكنولوجيا الرقمية في الزراعة كمدخل للتنمية الزراعية المستدامة في الدول العربية |
| 12:15 - 12:45 | Session's discussion | |

13:00 - 15:00 **Lunch break (Faculty of Agriculture)**

17:30 - 18:30 **Final Session: Recommendations and closure (Threater)**

20:00 - 22:00 **Dinner**

Wednesday: 17 October 2018

09:00 AM - 15:00 PM: **Field tour to some agricultural farms and historic places in Karak**

List of posters to be presented at ESAC-2018

| No. | Presenter | Institution | Title of Poster |
|-----|------------------------------------|-------------|--|
| 1. | Prof. Firas Al-Zyoud | MU Jordan | Development, mortality and reproduction of the entomophagous ladybird <i>Serangium parcesetosum</i> with <i>Bemisia tabaci</i> as prey |
| 2. | Prof. Firas Al-Zyoud | MU Jordan | Biology, predation potential and prey preferences of the predator <i>Serangium parcesetosum</i> Sicard (Col., Coccinellidae) |
| 3. | Prof. Firas Al-Zyoud | MU Jordan | Releasing the predator <i>Serangium parcesetosum</i> to control the cotton whitefly <i>Bemisia tabaci</i> under greenhouse conditions in Jordan |
| 4. | Prof. Firas Al-Zyoud | MU Jordan | Effect of field history on the cereal leafminer <i>Syringopais temperatella</i> Led. (Lep., Scythrididae) in Jordan |
| 5. | Prof. Muwaffaq Karajeh | MU Jordan | استخدام فطر خميرة الخبز في مكافحة مرض تعفد الجذور النيماتودي على البندوره والخيار في محافظة الكرك |
| 6. | Dr. Hanna Madanat | NARC Jordan | Bioactivity of six acetone plant extract against the green peach aphid <i>Myzus persicae</i> Sulzer (Homoptera: Aphididae) |
| 7. | Dr. Huda Al-Taae | Iraq | Using nested PCR to detect the non defoliating pathotype of <i>Verticillium dahliae</i> on olive orchard |
| 8. | Dr. Mona Mashal Eng. Basil Obeidat | NARC Jordan | ادخال وتقييم المصائد الفيزيائية في مكافحة ومراقبة حشرة دوباس النخيل <i>Ommatissus lybicus</i> على نخيل التمر |
| 9. | Eng. Amani Alawamleh | Italy | Exploitation of lactic acid bacteria for the improvement of the commercial bait Droskidrink for <i>Drosophila suzukii</i> trapping |
| 10. | Eng. Gharam abu Jaleel | JU Jordan | Nematicidal activity of sulfur nanoparticles against root-knot nematode <i>Meloidogyne javanica</i> |
| 11. | Eng. Shereen Abu Zahra | JU Jordan | Characterization of a Jordanian local isolate of the bioagent fungus <i>Trichoderma</i> |
| 12. | Dr. Mona Mashal Eng. Basil Obeidat | NARC Jordan | Evaluate the efficacy of a new trap (ELECTRAP TM) to mass catching red palm weevil <i>Rynchophorus ferrugineus</i> (Olivier) (Col., Curculionidae) comparing with traditional trap in date palm orchards |
| 13. | Prof. Raed Al-Atiyat | MU Jordan | Swap sample collection from camels, horse and game birds for DNA testing |
| 14. | Prof. Raed Al-Atiyat | MU Jordan | Animals and rock art: Example of Saudi cattle drawings in rocks |
| 15. | Prof. Osama Mohawesh | MU Jordan | The potential use of biochar to enhance soil properties and plant growth performance under arid environment |
| 16. | Dr. Mustafa Al Rawaschdeh | MU Jordan | Prevalence and diagnostic of associated poultry infections in Ukraine |
| 17. | Dr. Mustafa Al Rawaschdeh | MU Jordan | Detection of the infectious encephalomyelitis virus in birds |
| 18. | Dr. Ghaid Al- | MU | Effect of removal large particles from milled |

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| 18. | Dr. Ghaid Al-Rabadi | MU Jordan | Effect of removal large particles from milled barley on growth performance in broiler during growing stage |
| 19. | Dr. Nader AlJabarin | TTU Jordan | Production of methane from fermentation of vegetables |
| 20. | Dr. Maher Tadros | JUST, Jordan | Vegetation composition and structure of woody plant communities in Ajloun Forest Reserve in Jordan |
| 21. | د. محمد الطراونة | JPU Jordan | مستوى توجّهات مزارعي الخضراوات في منطقة غور الصافي نحو الزراعة العضوية وعلاقتها ببعض المتغيرات |
| 22. | Eng. Dala Ryalat | NARC Jordan | تدهور الأراضي والتصحر في الأردن |
| 23. | Eng. Safa Mazahreh | NARC Jordan | Identification and mapping of hot spot areas susceptible to soil erosion in Erak Al-Karak area using geo-informatics |
| 24. | Eng. Bayan Al-Momany | BAU Jordan | Molecular characterization and expression profiling of two flavin-dependent oxidoreductase genes from barley |
| 25. | Eng. Maisaa Haddadin | NARC Jordan | Effects of the Jordanian rainfed barley-livestock producers' perceptions and values on their adaptation to climate change |
| 26. | Eng. Maisaa Haddadin | NARC Jordan | Portrait of <i>durum</i> wheat farming: Jordan case study |
| 27. | Eng. Ranim Alkhedr | JU Jordan | Determination of the total phenolic content, total antioxidant capacity and radical scavenging activity of Jordanian royal jelly and honey |
| 28. | Eng. Tamadour Al-Qudah | MU Jordan | Organic farming: From perspective of the students at Al-Balqa applied university at Amman Governorate |
| 29. | Eng. Anwar Al-Assaff | JU, Jordan | Six Jordanian wild edible plants reduce serum malondialdehyde levels in male adult sprague dawley rats fed a high fat diet |
| 30. | Dr. Rukaibaa Chechan | University of Baghdad, Iraq | The protective effect of various doses of Iraqi <i>Pleurotus ostreatus</i> extract against genotoxicity induced by cyclophosphamide in mice bone marrow cells |



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