CURRICULUM VITAE (CV)

Prof. Khaleel Ibrahem Za'l Jawasreh

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Personal data: Date of Birth: NOV.16.1974 Place of birth: Alkhanasry, Al-Mafraq/ Jordan Citizenship: Jordanian. Marital Status: Married and father to four Children (Ibrahem, Hoida, Mohammad and Yasmeen)

Education:

 Ph.D. in Animal Breeding and Genetics from Baghdad University (2003). (Very Good)
 Ph. D. thesis title: Genetic evaluation of Damascus goats in

Ph. D thesis title: Genetic evaluation of Damascus goats in Jordan. (Excellent)

 M.Sc. in Animal Breeding and Genetics from Baghdad University (2000). (Very Good)

M.Sc. thesis title: **Estimation of some genetic and non-genetic parameters for some growth traits of Awassi sheep in Jordan.**

• **B.Sc.** in Animal Resources, Mousol University, 1997.

Scientific visits:

• Scientific visit to the George August University in Goettingen Department of Animal Breeding and Genetics, 2010. Germany. Prof. Dr. Hener Simianer. Germany .

- Scientific visit to the University of Hohenheim –Department of Animal Production in Tropics and Subtropics, 2010. Stuttgart. Germany Prof. Dr. Anne Valle Zarate. Germany
- Scientific visit to the University of Hohenheim –Department of Animal Production in Tropics and Subtropics, 2007. Stuttgart, Germany. Prof. Dr. Anne Valle Zarate. Germany

Experiences, Workshop and Training Courses:

- Bioinformatics' tools for sequence alignment and Primers design (BioEdit, Mega, Primer3Plus and some others)
- 2. Quantitative genetic as Major.
- 3. Molecular genetics, RAPD, Microsatellites and RFLP, Animal Genotyping, GWAS Sequence analysis and mutation detection.
- 4. Conducting training courses in Using PCR, SNP's and GWAS techniques in Animal breeding Studies starting from DNA extraction up to genotyping. In addition to biodiversity (RAPD, Microsatellites and RFLP techniques and their relevant statistical and genetic analysis).
- 5. A specialized training course in bio-security and Bio-safety in Lab. Denmark, 2010
- A specialized training Course in "Molecular Characterization of Small Ruminant Breeds". ICARDA, Aleppo, Syria 1-14/4/2007.
- 7. Using Zplan Software in Animal Breeding 2007. University of Hohenheim. Germany.
- 8. Responsibility of genetic improvement programs in Jordanian breeding stations through the period 2003 to 2011.
- 9. Supervising the cross breeding programs of small ruminant and poultry in Jordan (2003-2011)
- A training course in data analysis by using SAS and MINITAB programmes, Baghdad. Iraq.
- Genetic analysis by using SAS and animal Model Programmes. Baghdad. Iraq.

- Using EWE and Me program in Sheep and Goat Management 22-29 Aug 2004.Al-Mafraq-Jordan.
- Using Arabic Soft Ware program for Sheep and Goat Management, 10 March 2005. Amman, Jordan.
- 14. Workshop on improvement the nutritional values of agricultural by products and its effect on animal performance.21-25 May 2005, Amman Jordan.

Work and Experiences:

- Full Professor since 28/2/2021
- Associate Professor since 28/2/2016
- Assistant of Faculty of Agriculture Dean (JUST) (1/9/2012 -1/9/2013)
- Assistant professor of Animal Breeding and genetics. Department of Animal, Production-Faculty of Agriculture/Jordan University of Science and Technology (JUST) since 13/2/2011 to 28/2/2016.
- Expert of Animal breeding and genetics at The Arab Organization for Agricultural Development (AOAD) since 1/3/2015 till 2016, main topics are Animal conservation and genetic improvement.
- Conducting so many animal genetic conservation training courses in several Arab Countries (Al-Sudan, Oman, Tunisia, Jordan and other countries)
- Team member of the team that established the Animal Genetic Resources network for the Arab countries and trainer of the Arab countries teams in how to use this network.
- Director of Livestock and Range land Researches Program, National Center for Agricultural Research and Extension, (NCARE), (11/7/2006-13/2/2011).
- Establisher of Animal Biotechnology Lab. In NCARE
- Researcher in AL-Khanasry Station for Sheep and Goat Research's. That dealt with Sheep and goat managements and concentrate on sheep breeding of Awassi sheep and Local goat breeds (March 1, 2003 - 11/7/2006) NCARTT.
- Designing and practicing of the breeding strategy of both species in the station.
- Data analysis, including both fixed and random by using SAS, MINITAB, SPSS, MTDFREML, Single Trait Animal Model and Asreml
- A head of committee of sheep and goat genetic improvement program for the entire King Dome of Jordan Stations that raised Local and Exotic sheep and

goat breeds. (Ministry of Agriculture, from 2003 up to 8/2/2011).

- A head of committee of Local Goats (Dhaiwi and Mountain Black) genetic improvement program.(2003 up to 8/2/2011) NCARE/ Jordan

- Working for 4 years in Broiler farms.

- Designing of Jordanian software for sheep and goat farms management, 'Electronic farm' that leads to managing the farms by using computer, with experience in using the other Software's (EWE and ME and Technical assistant programs).

- Trainer and user of all computer programs that mentioned above in addition to my software that dealt with Small Ruminant farms Management.
- Data analysis of Master degree trials for some Students in Jordanian Universities by using SAS Program.

- Consultant of Animal Breeding and Genetics. ACSAD (Syria) as Expert in animal Breeding and Genetics (evaluating Syrian Awassi Sheep Genetically) and participation in planning of the future strategies for Syrian Awassi sheep selection program.

- Responsible of Artificial Insemination Lab. found at Al- Khanasry Station and Trainer of sheep and goat Artificial Insemination Processes (A.I. Course).
- Head of Jordanian Team (Small Ruminant artificial insemination) through the period 2004 to 8/2/2011). Now I'm conducting the Small Ruminant A.I. Process using (Shot on the dark, Cervical, Trans cervical & laparoscopic techniques
- Trainer of Sheep and goat Artificial insemination for some foreigner and local trainees groups.

ARAB Organization for Agricultural Development experience and duties:

- Start working as part time expert of Animal genetic resources since 2013 at AOAD.
- Director of the Arabian Animal Genetic Resources Network. <u>https://aoad-app.org/agb/</u>

- Supervising and monitoring the network in all Arab countries, <u>https://aoad-app.org/agb/</u>
- Participating in establishing and the approval process of the Arabian extension low for managing the animal genetic resources and the gained indigenous knowledge in the Arabian countries. (approved by all Arabian ministers of Agriculture and related bodies), In Arabic (<u>https://aoadapp.org/agb/img/6_2016.pdf</u>)
- Participating in establishing and the approval process of the Arabian extension low and guide line on the use of Artificial insemination in the animal genetic resources in the Arabian countries (approved by all Arabian ministers of Agriculture and related bodies). In Arabic (<u>https://aoadapp.org/agb/img/5_2016.pdf</u>)
- Responsible for the approval of all breed/strain or lines inserted in the Arabian Network (<u>https://aoad-app.org/agb/</u>)
- Proposing several Projects and studies for the development of the Arabian Agriculture Sector.
- Participating in the preparation (Animal resources informations in the Arab world) and the writing of the Arabian Food Security annual Reports. <u>http://www.aoad.org/AAFS.htm</u>
- Supervising the goat farm that belongs to AOAD locate in Jordan Valley, Jordan.
- Conducting many training courses in the field of Animal breeding and Genetics in addition to Artificial Insemination and statistical analysis.
- A member of sheep and beef Agribench Mark Thunen institution, Germany, <u>http://www.agribenchmark.org/beef-and-sheep.html</u>

Community services

Through my work period as Director of Livestock and Rangeland research directorate at NCARE and also when I start working in the academic area at JUST University and as an expert at AOAD I did a lot of work in the farmers' fields in all the kingdom governorates and also in some Arab countries. Among this among these duties:

✓ I have developed (along with my research team) a new genetic group of Sheep (Awassi) that contains both the Calliypyge and FecB genes, now I'm negotiating with ACSAD (Who ask for it) to start disseminating the new genetic group to all Arabian Awassi sheep population through the AI procedure (frozen semen technique).

- I have conducted a community based intensive production project that lasts for 5 years at NCARE (NARC), included a technology transfer to farmers in the North, Middle and Southern parts of Jordan, I succeed in reaching more than 30 to 40 farmers and many private and governmental associations yearly.
- Conducting several field days at livestock and range land communities
- Conducting a lot of training courses for farmers and private sector enhancing their knowledge in livestock and rangeland management and protection
- I have started a community based breeding program (participatory Animal breeding) that has been conducted at the three Jordanian regions and establishing a team work that reach the farmers in their regions at NCARE collecting performance records and succeed in recording the pedigree for more than 927 ewes and milk production info.
- I manage to reach high percentage of farmers through livestock and range land extension services.
- Establishing a recording system for farmers and governmental stations and I trained a lot of Jordanian and Egyptian famers in the know how techniques
- Conducting several training courses in some Arab countries (Tunisia, Sudan, Egypt, Oman, ...etc)
- Establishing An extension Low for Artificial insemination and Genetic material use for the Arab countries (AOAD)
- Establishing a network for the Animal Genetic Resources, for the Arab world and I am the technical advisor for it in the Arab countries (AOAD).
- The majority of my MSc. Students and also my research work focusing in farmers' fields.
- Participating and take a lot of responsibilities in Badia Bench mark project that has been conducted in Badia Region.
- Task force leader for Small Ruminant components that was conducted at Farmers fields

- Coordinator of the Mashriq Maghrib Project that was conducted at farmers' fields
- Participating in Writing the Badia compensation project documents or proposal.

Membership and Representation:

- National Coordinator for Animal Genetic Resources Group of Food and Agricultural Organization FAO), 2010-2019
- Focal Point for the Near East Countries and the Vice President of Animal Genetic Resources Group at FAO (2011-2013)
- National Coordinator for Animal Genetic Resources Group of Arab organization for Agricultural Development (AOAD), 2012- 2014.
- Official Expert in Conservation of Animal Genetic Resources and animal breeding and genetics at AOAD, 2013.
- Agricultural Engineers Association 1997- Now.

Supervision for Graduate Students:

Supervisor of some M. Sc. students at JUST University

- Alaa Al-Qaisy: Project Title: The effect of some Ovine Genes in Some economic traits of Awassi Sheep
- Abdel-Mun'm Banyyounes: Project Title: Genetic Characterization of Some sheep Breeds sing Microsatellite Markers.
- Feisal Houssein Iye: Project title: Genetic evaluation of Awassi sheep for some growth traits
- Safwan Al Athamneh: Project Title: Growth performance and Carcass characteristics of Four broiler strains in Jordan
- Roaa Nawasreh: Project Title: Gene expression of heat shock protein gene of three subspecies of honey bee (Apis Melleferia. L.) at different temperatures.
- Haitham Omary: Project Title: Determination of the mutation(s) that may cause Microtia in Awassi sheep.
- Basel Nusairat: Project Title: Deferential expression of the Heat shock proteins (HSPs) in some carcass cuts of Broiler as affected by some feed additives

- Ahmad Abu Lubad: Project Title: Determination of the mutation that may cause the high prolificacy in Al-Watish sheep breed.
- Ahamd Abo-Lubad: Project Title: screening for the mutation that cause high prolificacy in the African sheep (Alwatish sheep breed)
- Co-Advisor of M. Sc student (Othman alqaisi) in Hohenheim University (Germany). Thesis title: A contemporary comparison between three Different genetic groups of Awassi sheep according to their Productive and Reproductive performance.
- Mohammad Sawalha, Thesis title: The use of melatonin or progesterone on advance puberty in Awassi ewe lambs.
 - External examiner of M. Sc. student (Mustafa Al-Shdaifat) in Jordan University for Science and Technology (JUST). (Jordan) Thesis title: Effects of feeding Prosopis Juliflora pods on milk yield and composition and on lamb growth rate of Awassi ewes,2011.
 - External examiner of M. Sc. student (Abd El-Hafeed Dalab) in Jordan University for Science and Technology (JUST). (Jordan),2011.
 - External examiner of M. Sc. student (Amal Salah) in Jordan University for Science and Technology (JUST). (Jordan,2007.
 - External examiner of M. Sc. student (Ahmad Al-Khraisat) in Jordan University for Science and Technology (JUST). (Jordan) Thesis title: Using Non-Conventional feed in fish diet,2012.
 - External Examiner of Another 15 M. Sc Thesis in Jordan University of Science and Technology (JUST) University, Jordan. The Majority of work was in Molecular Biology.

Funded Project and rewards:

- The first Award of the Arab Organization for Agricultural development, food security Award (2020), Competing with all Arab countries in the field of Animal breeding and Genetics.
- Awarded the distinguish Researcher award (NARC, Jordan 2007).

- Improving the productivity of Awassi Sheep at Farmers level through the introgression of some economical genes into their Awassi flocks External Fund of \$ 30000. Farmer's based project.
- The introgression of the Callipyge gene into Awassi sheep as a mean for improving meat productivity of Awassi local Breed. SRF (51,000 JD)
- Project titled "the effect of Thermal manipulation of Broilers Embryos on Growth and gene expression"
- Obtaining more than 15 projects grants from JUST with more than 150.000 JD
- National Coordinator of DFG, Germany funded project, 2005-2011 "Increasing of meat and milk production of FAT tail Awassi sheep in the Middle East by Breeding.
 - National coordinator of Mashreq/ Magrib Project (M&M III). ICARDA and USAID.
 - National Coordinator of Project that dealt with the genes associated with Blindness in Awassi sheep (USAID).
 - National Coordinator of Local chicken's improvement program by means of selection and crossing.
 - Task force Leader of Small Ruminant Component, MERAP Project. Denmark.
 - Task force Leader of Livestock Component of Badia Rehabilitation Project. GTZ and ACSAD.
 - Coordinator of Participatory animal breeding project.

University Courses I Taught

- 1. Quantitative Genetics
- 2. Advanced Animal Breeding
- 3. Animal Genetics And Breeding
- 4. Beef Cattle Production
- 5. Dairy Cattle Production
- 6. Electronic Farming

- 7. Experimental Design & Statistical Analysis
- 8. Farm Animal Products (For Non Animal Production And Nutrition And Food Technology students)
- 9. Farm Animal Products And Production (For Non Agriculture And Veterinary Students)
- 10. Introduction To Biostatistics
- 11. Meat Science
- 12. Practical Applications(I)
- 13. Practical Applications(Ii)
- 14. Principles Of Animal Science
- 15. Range Animal Nutrition
- 16. Seminar
- 17. Sheep And Goats Production
- 18. Special Topics
- 19. Special Topics (Conservation of Animal Genetic Resources)

Research Papers:

- 1. KI Jawasreh, N Haddad, AA Lubad, A Al-Amareen. 2021. Genome-wide association study for milk production of Awassi sheep in Jordan. Journal of the Saudi Society of Agricultural Sciences. In press.
- 2. Mohammad H Brake, Hussein M Migdadi, Monther T Sadder, Sami Awabdeh, Khaleel Jawasreh, Wisam Obeidat, Ruba Al Omari, Nizar J Haddad. 2021.Complete mitochondrial genome sequence of Awassi-Jo sheep breed (Ovis aries) in Jordan. 2021. Mitochondrial DNA Part B. 6(3): 1263-1264.
- Romaz MA Omer, Mai A Masri, Lutfi MA Musa, Ikhlas A Nour, Mitsuru Tsubo, Faisal M El-Hag, Ahmed DA Biraima, Khaleel IZ Jawasreh, Yasunori Kurosaki, Mohammed-Khair A Ahmed . 2021. SNP Association in the Leptin Gene and Beef Quality Traits in IndigenousSudanese Baggara Cattle. 2021. Annals of Advanced Agricultural Sciences, 5, 1
- 4. AZ Abdelgadir, LMA Musa, KI Jawasreh, AO Saleem, F El-Hag, 2021. G1 point mutation in growth differentiation factor 9 gene affects litter size in Sudanese desert sheep. Veterinary World 14 (1), 104

- Jawasreh, K.I.Z.; Al-Omari, H. .-A. 2020. Duplication in ECR Near HMX1 and a SNP in GATA6 Genes Regulate Microtia in Awassi Sheep. *Genes* 2020, *11*, 597. Q1 Journal
- Mohamed SEI, Ahmed RM, Jawasreh KIZ, Salih MAM, Abdelhalim DM, Abdelgadir AW, Obeidat MT, Musa LMA, Ahmed MA. 2020 Genetic polymorphisms of fecundity genes in Watish Sudanese desert sheep, Veterinary World, 13(4): 614-621. (*Q2 Journal*, <u>www.doi.org/10.14202/vetworld.2020.614-621</u>)
- Jawasreh, K.; Amareen, A.A.; Aad, P.2019. Relationships Between Hha1 Calpastatin Gene Polymorphism, Growth Performance, and Meat Characteristics of Awassi Sheep. *Animals* 2019, 9, 667. doi.org/10.3390/ani9090667, *Q1 Journal*
- Jawasreh, K.; Amareen, A.A.; Aad, P. 2019. Effect and Interaction of β-Lactoglobulin, Kappa Casein, and Prolactin Genes on Milk Production and Composition of Awassi Sheep. *Animals* 2019, 9, 382. doi: 10.3390/ani9060382, *Q1 Journal*
- 9. Jawasreh, K.I.; Alamareen, A.H.; Obeidat, M.D.; Aad, P.Y. 2019. Growth Performance and Meat Characteristics of the First Awassi–Rambouillet Callipyge Backcross. *Animals* 2019, 9, 517. doi: 10.3390/ani9080517, *Q1 Journal*
- 10. **Khaleel Ibrahem Jawasreh**, Ahmad Al-Amareen, Pauline Aad. **2019** Growth Performance and Meat Characteristics of the First Filial Awassi-Rambouillet Callipyge ram lambs. , **Veterinary world**, 12(6): 783-788. *Q2 Journal*
- Eljarah A, Abdullah M, Ababneh M, Jawasreh K, Alnimr M4, El-Bahr S. 2019. CIDR estrous synchronization in the Arabian Oryx (Oryx leucoryx). Theriogenology. Apr 15;132:113-117.doi: 10.1016/j.theriogenology.2019.04.017. (*Q1 Journal*)
- Khaleel Jawasreh and Ismail ZB. 2019. Effects of calpastatin gene polymorphism on hematology and selected serum biochemical parameters in Awassi lambs. Journal of Advanced Veterinary and Animal Research, 6(2): 193-196. Q3 Journal
- Khaleel Jawasreh, Safwan Al Athamneh, Mohammad Borhan Al-Zghoul, Ahmad Al Amareen, Ibrahem AlSukhni & Pauline Aad 2019. Evaluation of growth performance and muscle marker genes expression in four different broiler strains in Jordan, Italian Journal of Animal Science, 18(1): 766-776. DOI: 10.1080/1828051X.2019.1573647. Q2 Journal
- 14. Obeidat M.D., Abdullah A.Y., Sofian Kolib, Obeidat, B. S., Jawasreh, K., Subih H.S. 2019. Pre-weaning growth performance and carcass traits of Awassi and Chios-Awassi lambs. South African Journal of Animal Science, 49(1). Q2 Journal
- Jawasreh KI, Ismail ZB. 2019. Polymorphism of prolactin, growth differentiation factor 9, and calpastatin genes and their effects on weight traits in Awassi lambs. J Adv Vet Anim Res 2019; 6(1):86–91. Q3 Journal
- 16. Belal S Obeidat, Kamel Z Mahmoud, Mohammad D Obeidat, Mysaa Ata, Rami T Kridli, Serhan G Haddad, Hosam H Titi, Khaleel I Jawasreh, Hosam J Altamimi, Hadil S Subih, Safaa M Hatamleh, Majdi A Abu Ishmais, Ruba Abu Affan. 2018. The effects of Saccharomyces cerevisiae supplementation on intake, nutrient digestibility, and rumen fluid pH in Awassi female lambs. Veterinary world 11(7): 10-15. *Q2 Journal*
- 17. **KI Jawasreh**, MM Ababneh, ZB Ismail, AMB Younes, I Al Sukhni. **2018**. Genetic diversity and population structure of local and exotic sheep breeds in Jordan using microsatellites markers. **Veterinary world, 11 (6): 778-781**

- K Jawasreh, ZB Ismail, F Iya, VJ Castañeda-Bustos, M Valencia-Posadas. 2018. Genetic parameter estimation for pre-weaning growth traits in Jordan Awassi sheep. Veterinary world, 11 (2): 254-258. *Q2 Journal*
- RMA Omer, MARM Masri, KI Jawasreh, IA Nour, ADA Biraima, LMA. 2018. Molecular Detection of Selected Genetic Polymorphisms in Growth Hormone and Insulin Like Growth Factor 1 Genes in Indigenous Sudanese Baggara Cattle. Musa,Kafkas Üniversitesi Veteriner Fakültesi Dergisi 24 (2). : 187-194, 2018. Q2 Journal
- 20. Khaleel I Jawasreh, Rola Jadallah, A H AL-Amareen, Abdullah Y Abdullah, Alaa AL-Qaisi, Ibrahim M AlRawashdeh, Moh''d Borhan F AL-Zghoul, M KHAIR A Ahamed and Belal Obeidat. 2017. Association between *MspI* calpastatin gene polymorphisms, growth performance, and meat characteristics of Awassi sheep. Indian Journal of Animal Sciences 87 (5): 635–639. 2017. *Q3 Journal*
- 21. Romaz Mohammed Ahmed Omer, Ikhlas Ahmed Nour Ibrahim, Khaleel Jawasreh and Mohamed-Khair Abdalla Ahmed. 2017. Genetic And Environmental Factors Affecting Friesian Cows Reproductive Performance Under Dryland Conditions. *Int. J. Agric.Sc & Vet.Med. Vol. 5(4):11-21.*
- Khaleel I.Z. Jawasreh, Rola Jadallah And Al-Massad, M.M.2017 . Association Between the Prolificacy of Romanov Sheep Breed And Fecundity Gene, Growth Differentiation Factor 9 Gene And Prolactin Gene Genotypes. Malays. Appl. Biol. (2017) 46(2): 41- 48. *Q3 Journal*
- Abdulhakeem Eljarah, Abdulrhman K. Alhaider, Khalil Jawasreh, Zuhair Bani Ismail, Ashraf Alhalah, and Sabry M. El-Bahr. 2017. Investigation of scrotal circumference, testicular dimensions and semen characteristics of the vulnerable Arabian oryx (Oryx leucoryx): an approach supports the future use of artificial insemination. Italian Journal Of Animal Science, 16:3, 484-489 DoI: http://dx.doi.org/10.1080/1828051X.2017.1290508. *Q2 Journal*
- 24. A Eljarah, M Ababneh, K Jawasreh, ZB Ismail, A Alhalah, SM El-Bahr. 2017. Estimation of Genetic Diversity of Arabian Oryx (Oryx Leucoryx) In Wadi Rum Area of Jordan by Microsatellite Markers. JAPS, Journal of Animal and Plant Sciences, 27 (6), 1861-1866. Q3 Journal
- Jawasreh, K. I., A. H. Al-Amareen, and A. Y. Abdullah. 2016. Growth performance and meat characteristics of Awassi sheep that holds the Callipyge gene. J. Anim. Sci. 94:175-176. doi:10.2134/jas2016.947supplement4175b. *Q1 Journal*
- 26. K. Jawasreh, P. J. Boettcher, and A. Stella. (2016) Genome-wide association scan suggests basis for microtia in Awassi sheep. Animal Genetics, 47: 504-506. *Q1 Journal*
- 27. **K. I. Jawasreh**. A. Youseh Abdullah, H. Talafha, H. Salah, F. Hijazeen.(2014). Callipyge -Awassi Growth and Meat Characteristics In Comparison To The Pure Awassi. 2nd International Congress on Food Technology; November 05-07, 2014 Kusadasi/ Turkey .Association of Food Technology/Turkey & Ankara University/Turkey. (Abstract).
- Jawasreh, K. I. Z. ., Ababneh, H., Awawdeh, M. A. Al-Massad and A. M. Al-Majali. (2012). Genotype and Allelic Frequencies of a Newly Identified Mutation Causing Blindness in Jordanian Awassi Sheep Flocks. Asian-Aust. J. Anim. Sci. Vol. 25, No. 1: 33 36. *Q1 Journal*

- 29. Khaleel I. Z. Jawasreh, Ibrahim M. Alrawashdeh, Motasem M. Al-Masad, Mustafa S.Alrawashdeh, Alaa A. Al-Qaisi, Ibrahim A. Al Sukhni, Mohammad A. Mayyas. (2014). Gene and Genotype Frequencies of Mspi, Ncoi And Hhai Calpastatin Generestriction Sites In Awassi Sheep. Mitteilungen klosterneuburg 64, 2.
- 30. Khaleel I. Z. Jawasreh, Rami M. Mukbel, Anas Abdel Qader, Mohammad A.Mayyas. (2013). Coccidiosis in Awassi, Romanov, Charollais and Suffolk sheep breeds during the winter and summer seasons in Jordan. International Journal of Applied Science and Technology. Vol. 3 No. 6. Q3 Journal
- 31. Mohammad-Borhan Al-Zghoul, Zuhair Bani Ismail, Abd Elhafeed S. Dalab, Abdulla Al-Ramadan, Thnaian A. Althnaian, Saeed Y. Al-ramadan, Abdelhadi M. Ali, Ibrahim F. Albokhadaim, Khalid Ahmed Al Busadah, Abdulhakeem Eljarah, Khaleel I. Jawasreh, Kevin M. Hannon.2015. Hsp90, Hsp60 and HSF-1 genes expression in muscle, heart and brain of thermally manipulated broiler chicken. Research in Veterinary Science 99,105-111. Q1 Journal
- 32. Jawasreh K. I. Z, Awawdeh, F. T. and Al-Qaisy A. (2014). Association between GDF9, FecB and Prolactin gene polymorphisms and prolificacy of Awassi sheep. Proceedings, 10th World Congress of Genetics Applied to Livestock Production. Canada. Vancouver. 17-22 August.
- 33. Mohammad-Borhan Al-Zhgoul, Abd Elhafeed S. Dalab, Mustafa M. Ababneh, Khaleel I. Jawasreh, Khalid Ahmed Al Busadah, Zuhair Bani Ismail.(2013). Thermal manipulation during chicken embryogenesis results in enhanced Hsp70 gene expression and the acquisition of thermotolerance. Research in Veterinary Science, 95: 502-507. Q1 Journal
- 34. Huthaifa Salah Ababneh , Mustafa Mohammed Kheir Ababneh ,Wael Mahmoud Hananeh , Fawzi Mohammad Alsheyab , Khaleel Ibraheem Jawasreh ,Moath Ahmad Al-Gharaibeh ,Mohammed Mahmoud Ababneh.(2014). Molecular identification of chlamydial cause of abortion in small ruminants in Jordan. Trop Anim Health Prod. 46: 1407-1412. *Q1 Journal*
- 35. K. Jawasreh, A.-AL-Majali, D. Al Ramammeh and A. A. Alqaisi (2012). The effect of MspI Calpastatin Gene Genotypes on some Hematological and Biochemical Blood Values in Awassi Sheep. Proceedings of the 15th AAAP Animal Science Congress, 26-30 November2012, Thammasat University, Rangsit Campus, Thailand.
- 36. Jawasreh, K.I.Z., I.M. Al-Rawashdeh, A. Al-Majali, H. Talafha, A. Eljarah, and F. Awawdeh.(2011).Genetic relatedness among Jordanian local Awassi lines Baladi, Sagri, and Blackface and the black Najdi breed using RAPD analysis. Genomics and Quantitative Genetics. 2: 31 – 36.
- 37. Jawasreh, K. I. Z., Alqaisi, O., Awawdeh, F, Al-Majali, A., El-Jarah, A.(2012). Comparative Performance testing between Afec-Awassi crossbred, Improved Awassi and Local Awassi reared intensively in Jordan. Jordan Journal of Agricultural Sciences.9 (2):184-192.
- 38. Jawasreh, K., O. Alqaisi, Y. Alsatary, and A. Al_Nsoor.(2012). Grazing Behavior of Awassi Sheep and the Biodiversity of Plant Species under Semiarid Reserved Conditions. Arid Ecosystems. Vol. 2, No. 4, pp. 245–252. Q3 Journal

- 39. Eljarah, A., M.B. Al-Zghoul, K. Jawasreh, M. Ababneh, M. Alsumadi, A. Alhalah, Z. Bani Ismail. (2012).Characterization of male reproductive anatomy of the endangered Arabian oryx (Oryx leucoryx). Theriogenology 78, 159–164. *Q1 Journal*
- 40. Mohammad N. Sawalha & Rami T. Kridli & Khalil I. Jawasreh & Cesar A. Meza-Herrera.(2011). The use of melatonin and progestagen–eCG to initiate reproductive activity in pre-puberal Awassi ewe lambs. Trop. Anim. Health Prod. 43(7):1345-50. *Q1 Journal*
- 41. Mohammad Masood Tariq, Masroor Ahmad Bajwa, **Khaleel Jawasreh**, Mohammad Arif Awan, Ferhat Abbas, Abdul Waheed, Majed Rafeeq, Abdul Wadood1, Khalid ullah Khan, Nadeem Rashid, Mohammad Adnan Atique and Farhat Abbas Bukhari. (2012). Characterization of four indigenous sheep breeds of Balochistan, Pakistan by random amplified polymorphic DNAs. African Journal of Biotechnology Vol. 11(10), pp. 2581-2586. *Q3 Journal*
- 42. Abdulhakeem H. Eljarah, Mohd B. Alzoghoul, **Khaleel Jawasreh**, Zuhair A. Bani Ismail, Mustafa M. Ababneh, , Ashraf N. Elhalah, Maen M. Alsumadi. (2012). Female reproductive tract anatomy of the endangered species Arabian oryx (Oryx Leucoryx) in Jordan. Italian Journal of Anatomy and Embryology, Vol 117, (3): 167-174, 2012. *Q3 Journal*
- 43. Khaleel Jawasreh, Hijazi, J., Al-Khasawneh A. and Ababneh, H Awawdeh, F. T. (2010). Quantitative and Molecular genetic analysis for some traits in highly selected Jordanian Awassi Sheep for milk Production. 9th world congress in Genetic Applied To livestock Production. 1-7/8/2010 Leipzig, Germany. Available on line.
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