Curriculum vitae

Professor (Dr.) Fahad Al-Qurainy

Department of Botany and Microbiology, College of Science,

King Saud University, Riyadh -11451, Saudi Arabia

Name: Fahad H. Al-Qurainy

Date & Place of Birth: Muzahimyah, 19/12/1960

Nationality: Saudi

Material Status: Married

E-mail: fahad_alqurainy@yahoo.com, falqurainy@ksu.edu.sa

Web: http://faculty.ksu.edu.sa/qurainy

Academic Qualification

Degree	Year	Institute	Field	Country
B.Sc	1982	King Saud Univ.	Agri. Engineering	Saudi Arabia
M.Sc	1990	Cranfield Univ.	Irrigation Management	U.K.
Ph.D	2000	King Saud Univ.	Plant Physiology	Saudi Arabia

Funded Projects (Complete/ongoing)

1. **Principal investigator** of the research project entitled "Genotoxic effect of heavy metals on *Eruca sativa* (L.) funded by the Research centre, College of Science, King Saud University, Riyadh, Kingdom of Saudi Arabia **(2008-09).**
2. **Principal investigator** of the research project entitled "Mutational approach for enhancement of artemisinin in *Artemisia annua* (L.) funded by the Centre for Excellence in Biotechnology, College of Agriculture, King Saud University, Riyadh, Kingdom of Saudi Arabia **(2009-2010).**
3. **Principal investigator** of the research project entitled, "Establishment of DNA bank for flora of Saudi Arabia (10-BIO1289-02) funded National Plan for Science and Technology, Riyadh, Saudi Arabia **(Ongoing) 2011-2013.**

Research project completed/ongoing

1. **Principal investigator** of the research project entitled "**Genotoxic effect of heavy metals on *Eruca sativa* (L.)** funded by the Research centre, College of Science, King Saud University, Riyadh, Kingdom of Saudi Arabia (2008).
2. **Principal investigator** of the research project entitled "**Mutational approach for enhancement of artemisinin in *Artemisia annua* (L.)** funded by the Centre for Excellence in Biotechnology, College of Agricultue, King Saud University, Riyadh, Kingdom of Saudi Arabia (2009-10).
3. **Principal investigator** of the research project entitled, "**Establishment of DNA bank for flora of Saudi Arabia" (Technology Sector: Biotechnology, Code Number: 10-**

BIO1289-02. funded by the the National Plan for Science & Technology Riyadh-11451 Kingdom of Saudi Arabia(2011-2013) ongoing.

4. **Principal investigator** of the research project entitled, "**In vitro conservation and cryopreservation of Date palm (Phoenix dactylifera) from Saudi Arabia**, 11-BIO1943-02, funded by the the National Plan for Science & Technology Riyadh-11451 Kingdom of Saudi Arabia (2012-2015)

5. **Principal investigator** of the research project entitled, "**Molecular tools for accelerated domestication of a new heat-, drought- and salinity-tolerant forage crop for Saudi Arabia**, 11-BIO2089-02, funded by the the National Plan for Science & Technology Riyadh-11451 Kingdom of Saudi Arabia (2014-2017)

6. **Principal investigator** of the research project entitled, "**Establishment of seed cryo-bank and determination of genome size and ploidy levels of endemic, rare and endangered flora of Saudi Arabia,"** funded by the the National Plan for Science & Technology Riyadh-11451 Kingdom of Saudi Arabia (ongoing).

Book published

Identification of flora of Saudi Arabia using Sequence based DNA markers

Patents

ABDULHAFED ABDULLAH HASSAN ALAMERI , : FAHAD HAMAD AL-QURAINY, SALIM KHAN, Mohammad Nadeem , ABDEL-RHMAN ZAKARIA GAAFAR, Designing

sequence characterized amplified regions (SCAR) primers for the detection of Date Palm (*Phoenix dactylifera*) cultivars sex at early stage of seedlings development.

List of Publications

1. Salim Khan, **Fahad Al-Qurainy**, Mohammad Nadeem (2012). Biotechnological approaches for conservation and improvement of rare and endangered plants of Saudi Arabia. Saudi Journal of Biological Sciences, Saudi Journal of Biological Sciences. 19, 1–11.
2. M. Nadeem, **Fahad Al-Qurainy**, Salim Khan, M. Tarroum, M. Ashraf. Direct Shoot Multiplication In *Ochradenus Arabicus*, An Endemic Medicinal Plant Of Saudi Arabia. Pak. J. Bot., 44(1): 345-347, 2012.
3. Namra Javed, Muhammad Ashraf, Nudrat Aisha Akram and **Fahad Al-Qurainy**. Alleviation of Adverse Effects of Drought Stress on Growth and Some Potential Physiological Attributes in Maize (Zea mays L.) by Seed Electromagnetic Treatment. Photochemistry and Photobiology, 2011, 87: 1354–1362.
4. Nudrat Aisha Akram, Muhammad Ashraf and **F. Al-Qurainy**. Aminolevulinic acid-induced changes in yield and seed-oil characteristics of sunflower (*Helianthus Annuus* L.) Plants under salt stress. *Pak. J. Bot*., 43(6): 2845-2852, 2011.
5. M. Ajmal Ali, Fahad M. Al-Hemaid, **Fahad Al-Qurainy,** M. Tarroum and Salim Khan. Assessment of genetic diversity among Indian populations of *Cuscuta reflexa* based on ITS sequences of nrDNA. Journal of Medicinal Plants Research Vol. 5(7), pp. 1217-1223, 4 April, 2011.

6. **Al-Qurainy**, F., Salim khan, Ali MA, Al-Hemaid FM, Tarroum M, Ashraf M. 2011. Authentication of *Ruta graveolens* and its adulterant using internal transcribed spacer (ITS) sequences of nuclear ribosomal DNA. *Pak. J. Bot*., 43(3): 1613-1620.
7. **Fahad Al-Qurainy**, Salim Khan, Fahad M. Al-Hemaid, M. Ajmal Ali, M. Tarroum, M. Ashraf (2011). Assessing Molecular Signature for Some Potential Date (*Phoenix dactylifera* L.) Cultivars from Saudi Arabia, Based on Chloroplast DNA Sequences rpoB and psbA-trnH. Int. J. Mol. Sci. 2011, 12, 6871-6880.
8. **Fahad Al-Qurainy**, Fahad M. Al-Hemaid, Salim Khan, M. Ajmal Ali, M. Tarroum, M. Ashraf. 2011. Detection of sodium azide-induced mutagenicity in the regenerated shoots of *artemisia annua* l., using Internal Transcribed Spacer (ITS) sequences of nrDNA. Pak J of Bot. 43(4), 2183-2186.
9. M. Ashraf, N. A. Akram**, F. Al-qurainy** and M. R. Foolad. Drought tolerance: roles of organic osmolytes, growth regulators, and mineral nutrients,. Advances in Agronomy, 2011. 111, 249–296.
10. Tahira Nawaz, Mansoor Hameed1, Muhammad Ashraf**, F. Al-Qurainy**, M. Sajid Aqeel Ahmad1, Adnan Younis and Muslim Hayat. Ecological Significance of Diversity in Leaf Tissue Architecture of Some Species/ Cultivars Of The Genus Rosa L. Pak. J. Bot., 43(2): 873-883, 2011.
11. Rajeev K Singlaa, Arun Kumarb, Salim Khan, Fahad **Al-Qurainy**, Rupali Shrivastavaa, Varadaraj Bhat Gd, Hitesh Jaganid. Evaluation of Antimicrobial Activity of 3-(4-1H-Indol-3-yl)-(2,3- dihydro-1H-benzo[b]diazepin-2-yl)- 2H-chromen-2-one. Indo-Global Journal of Pharmaceutical Sciences, 2011, Vol 1., Issue 2: Page No. 127-133

12. Zafar Iqbal Khan, Kafeel Ahmad, Shahneela Kashaf, Muhammad Ashraf, **F. Al-Qurainy,** Muhammad Danish, Asia Fardous, Sumaira Gondal, Abid Ejaz and Ehsan Elahi Valeem. Evaluation of iron content in a potential fodder crop oat (*Avena Sativa* L.) grown on soil treated with sugarcane filter cake. *Pak. J. Bot*., 43(3): 1547-1550, 2011.
13. Kafeel Ahmad, Abid Ejaz, Mehwish Azam, Zafar Iqbal Khan,Muhammad Ashraf, **F. Al-Qurainy**, Asia Fardous, Sumaira Gondal,Ali Reza Bayat and Ehsan Elahi Valeem. Lead, Cadmium and Chromium contents of Canola irrigated with sewage water. *Pak. J. Bot*., 43(2): 1403-1410, 2011.
14. Mansoor Hameed1, Muhammad Ashraf1, **F. Al-Quriany**, Tahira Nawaz, Muhammad Sajid Aqeel Ahmad, Adnan Younis, Nargis Naz. Medicinal flora of the cholistan desert: a review. *Pak. J. Bot*., 43: 39-50, Special Issue, December, 2011.
15. **F. Al-Qurainy**, S. Khan, M. Tarroum, F.M. Al-Hemaid and M.A. Ali. Molecular authentication of the medicinal herb *Ruta graveolens* (Rutaceae) and an adulterant using nuclear and chloroplast DNA markers. Genetics and Molecular Research 10 (4): 2806-2816 (2011).
16. Ejaz Hussain Siddiqi, Muhammad Ashraf, **Fahad Al-Qurainy** and Nudrat Aisha Akram. Salt-inducedmodulation in inorganic nutrients, antioxidant enzymes, proline content and seed oil composition in safflower (*Carthamus tinctorius* L.). *J Sci Food Agric* 2011; 91: 2785–2793.
17. Zafar Iqbal Khan & Muhammad Ashraf & **F. Al-Qurainy** & Kafeel Ahmad & Sumaira Gondal &Asia Fardous. Studies on the Transfer of Copper from Soil to Pastures at Different Sampling Periods: A Case Study of a Semiarid Region (Sargodha) in Pakistan. Biol Trace Elem Res (2011) 141:126–130.

18. Mohamed Tarroum, Salim Khan and **Fahad Al-Qurainy**. 2011. Evaluation of drought tolerance of γ-irradiated mutants of *Hordeum vulgare*. Journal of Medicinal Plants Research, 5(14), 2969-2977.
19. Mansoor Hameed, Muhammad Ashraf, Nargis Naz and **F. Al-Qurainy**. Anatomical adaptations of *cynodon dactylon* (l.) pers., from the salt range Pakistan, to salinity stress. i. root and stem anatomy. *Pak. J. Bot*., 42(1): 279-289, 2010.
20. **Fahad Al-Qurainy**. Application of inter simple sequence repeat (ISSR marker) to detect genotoxic effect of heavy metals on *Eruca sativa* (L.). African journal of biotechnology vol. 9(4), pp. 467-474, 25, January 2010.
21. Zafar Iqbal Khan, Kafeel Ahmad, Nasira Raza, **F. Al-Qurainy**, Muhammad Ashraf and Abrar Hussain. Assessment of chromium concentrations in soil-plant-animal continuum: possible risk for grazing cattle. *Pak. J. Bot*., 42(5): 3409-3414, 2010.
22. Rashida Perveen, Qasim Ali, Muhammad Ashraf, **Fahad Al-Qurainy**, Yasir Jamil and Muhammad Raza Ahmad. Effects of different doses of low power continuous wave He–Ne laser radiation on some seed thermodynamic and germination parameters, and potential enzymes involved in seed germination of Sunflower (*Helianthus annuus* L.) Photochem Photobiol. 2010. 86(5):1050-5.
23. Nawaz K, Ashraf M, Akram NA, **Al-Qurainy F**. 2010. Modulation of growth parameters, proline content and mineral nutrients in maize (Zea mays L.) by exogenously applied glycinebetaine at different growth stages under salt stress. Journal of Applied Botany and Food Quality-Angewandte Botanik. 83 (2), 204-211.

24. **Fahad Al-Qurainy** and Salim Khan. Mutational approach for enhancement of artemisinin in *Artemisia annua.* Journal of Medicinal Plants Research Vol. 4(17), pp. 1714-1726, 4 September, 2010.
25. Salim Khan, **Fahad Al-Qurainy**, Mauji Ram, Sayeed Ahmad , Malik Zainul Abdin (2010). Phyllanthin biosynthesis in *Phyllanthus amarus*. Schum and Thonn growing at different altitudes. Journal of medicinal Plant Research 4 (1), pp. 041–048.
26. **Fahad Al-Qurainy**, Abdulhafed Abdullah Alameri and Salim Khan. RAPD profile for the assessment of genotoxicity on a medicinal plant; *Eruca sativa.* Journal of Medicinal Plants Research Vol. 4(7), pp. 579-586, 4 April, 2010.
27. N. Naz, M. Hameed, M. Ashraf, **F. Al-Qurainy**, and M. Arshad. Relationships between gas-exchange characteristics and stomatal structural modifications in some desert grasses under high salinity. Photosynthetica 48 (3): 446-456, 2010.
28. Zafar Iqbal Khan, Muhammad Ashraf, Kafeel Ahmad, **F. Al-Qurainy**. Seasonal assessment of selenium as a hazardous element in pasture and animal system: A case study of Kajli sheep in Sargodha, Pakistan Journal of Hazardous Materials 179 (2010) 1111–1114.
29. Salim Khan, Khanda Jabeen Mirza, **Fahad Al-Qurainy**, Malik Zainul Abdin. Authentication of the medicinal plant Senna angustifolia by RAPD profiling. Saudi Journal of Biological Sciences (2011) 18, 287–292.
30. Salim Khan, **Fahad Al-Qurainy**, Firoz Anwar. Sodium Azide: a Chemical Mutagen for Enhancement of Agronomic Traits of Crop Plants. Environ. We Int. J. Sci. Tech. 4 (2009) 1-21.

31. Salim khan and **Fahad Al-Qurainy**. Mutagenic Effect of Sodium Azide on Seed Germination of *Eruca sativa* (L.) Australian Journal of Basic and Applied Sciences, 2009, 3(4): 3081-3087.
32. **Fahad Al-Qurainy** (2009) Toxicity of heavy metals and their molecular detection on *Phaseolus vulgaris* (L.). Australian Journal of Basic and Applied Sciences, 3(3): 3025-3035.
33. **Fahad Al-Qurainy** (2009) Effects of sodium azide on growth and yield traits of *Eruca sativa* (L.). World Applied Science Journal, 7 (2): 220-22.
34. Braj Raj Singh, Aminuddin, Abdulaziz A. Al-Khedhairy, **Fahad Al-Qurainy** and Javed Musarrat (2009). Molecular diagnostics and phylogenetic analysis of '*Candidatus* phytoplasma asteris' (16SrI- Aster yellow group) infecting banana (*Musa* spp.). African Journal of Biotechnology Vol. 8 (21), pp. 5819-5824.
35. **Fahad Al-Qurainy,** Salim Khan. Mutagenic Effects of Sodium Azide and Its Application in Crop Improvement. World Applied Science, 2009. 1589-1601.
36. Khan S., **F. Al-Qurainy**, M. Nadeem and M. Tarroum. Development of genetic markers for *Ochradenus arabicus* (Resedaceae), an endemic medicinal plant of Saudi Arabia. Genetics and Molecular Research 11 (2): 1300-1308 (2012).
37. Ashraf, M ; Hussain, M ; Ahmad, MSA ; **Al-Qurainy, F**; Hameed, M · STRATEGIES FOR CONSERVATION OF ENDANGERED ECOSYSTEMS. PAKISTAN JOURNAL OF BOTANY Volume: 44 Special Issue: 2 Pages**:** 1-6 Published: MAY 2012.
38. Saleem, A ; Ashraf, M; Akram, NA ; **Al-Qurainy, F** .Salinity-induced changes in key anti-oxidant enzyme activities and in the levels of some anti-oxidants, osmo-protectants, inorganic ions, and chlorophyll pigments in okra fruit (Abelmoschus esculentus L.)

JOURNAL OF HORTICULTURAL SCIENCE & BIOTECHNOLOGY Volume: **87** Issue: 3 Pages: 271-277 Published: MAY 2012

39. Ahmad, P; Ashraf, M ; Younis, M ; Hu, XY; Kumar, A ; Akram, NA **; Al-Qurainy, F** . Role of transgenic plants in agriculture and biopharming. Source: BIOTECHNOLOGY ADVANCES Volume: 30 Issue: 3 Pages: 524-540 DOI: 10.1016/j.biotechadv.2011.09.006 Published: MAY-JUN 2012.

40. **Fahad Al-Qurainy**, Salim Khan, M. Nadeem, M. Tarroum, Abdullah Alaklabi (2013) Assessment of phylogenetic relationship of rare plant species collected from Saudi Arabia using internal transcribed spacer sequences of nrDNA, Genetics and molecular research (Accepted). **ISI**

41. **Fahad Al-Qurainy**, Abdel-Rhman Z. Gaafar[1], Salim Khan**,** M. Nadeem[1], M. Tarroum1, Abdullah Alaklabi[2], Jacob Thomas[1] Antibacterial activity of leaf extract of *Breonadia salicina*; An endangered plant of Saudi Arabia**.** Genetics and molecular research.**ISI**

42. **Fahad Al Qurainy**, Mohammad Nadeem, Salim Khan, Saleh Alansi And Mohamed Tarroum. Efficient regeneration of a potential medicinal plant *Ochradenus baccatus* delile from cotyledon and shoot axis. Pak J of Botany, 2013.

43. **Fahad Al-Qurainy**, Salim Khan, M. Nadeem, M. Tarroum and A.R.Z. Gaafar. Selection of DNA barcoding loci for *Nepeta deflersiana* Schweinf. ex Hedge from chloroplast and nuclear DNA genomes, Genetics and Molecular Research 13 (1): 1144-1151 (2014). **ISI**

44. **F. Al-Qurainy**, Abdel-Rhman Z. Gaafar**,** Salim Khan, M. Nadeem,Abdulhafed A. Al-Ameri And M. Tarroum (2014). Genetic Diversity In *Breonadia Salicina* Based On Intra-Species Sequence Variation Of Chloroplast Dna Spacer Sequence. *Pak. J. Bot*., 46(2): 599-604. **ISI**

45. **Fahad Al-Qurainy**, Mohammad Nadeem**,** Salim Khan, Saleh Alansi, Mohamed Tarroum, and Abdulhafed Al–Ameri (2014). Synseed production for storage and conservation of *Ochradenus baccatus* Delile. Pak. J. Bot., 46(3): 897-902. **ISI**
46. **Fahad. Al-Qurainy**, Salim Khan, M. Nadeem, M. Tarroum and Abdulhafed Al-Ameri (2014) Selection of DNA barcoding loci and phylogenetic study of a medicinal and endemic plant; *Plectranthus asirensis* J.R.I. Wood from Saudi Arabia. Genetics and Molecular Research. Genetics and Molecular Research 13 (3): 6184-6190. **ISI**
47. Gaafar A.R.Z., **Fahad Al-Qurainy**, Salim Khan. Assessment of genetic diversity in the endangered populations of Breonadia salicina (Rubiaceae) growing in The Kingdom of Saudi Arabia using inter-simple sequence repeat markers. BMC Genetics 2014, 15:109. **ISI**
48. **Fahad Al-Qurainy**, Salim Khan**,** Mohammad Nadeem, Mohamed Tarroum. 2015. SCoT marker for the assessment of genetic diversity in Saudi Arabian date palm cultivars. Pak. J. Bot., 47(2): 637-643, 2015.
49. Khan, ZI; Bibi, Z; Ahmad, K; Akram, NA; Ashraf, M; **Al-Qurainy, F** Risk Evaluation of Heavy Metals and Metalloids Toxicity through Polluted Vegetables from Waste Water Irrigated Area of Punjab, Pakistan: Implications for Public Health.. Pakistan J. Zool., vol. 46(3), pp. 633-641, 2014.
50. Khan, ZI; Firdos, A; Ahmad, K; Ashraf, M; Bibi, Z; Akram, NA; Rizwan, Y; **Al-Qurainy, F**. Assessment of Hazardous and Essential Elements in a Food Crop Irrigated with Municipal Sewage Water: Risk Appraisal for Public Health. Human and Ecological Risk Assessment: An International Journal. Volume 21, Issue 8, 2015.

51. Zulfiqar Ali1, Muhammad Ashraf, **Fahad Al-Qurainy**, Salim Khan and Nudrat Aisha Akram. Field screening of guar [*Cyamopsis tetragonoloba* (l.) taub.] accessions for enhanced forage production on hot drylands. *Pak. J. Bot*., 47(4): 1429-1437, 2015.
52. Zulfiqar Ali, Muhammad Ashraf, **Fahad Al-Qurainy**, Salim Khan and Nudrat Aisha Akram. Appraising drought tolerance in local accessions of Sesbania [*Sesbania sesban* (l.) merril.] using biomass production, relative membrane permeability and photosynthetic capacity as selection criteria. *Pak. J. Bot*., 47(3): 845-850, 2015.
53. Mian Jahan Zaib Rasheed, Kafeel Ahmad, Muhammad Ashraf, **Fahad Al-Qurainy**, Salim Khan and Habib-Ur-Rehman Athar. Screening of Diverse Local Germplasm of Guar [*Cyamopsis Tetragonoloba* (L.) Taub.] for Salt Tolerance: A Possible Approach to Utilize Salt-Affected Soils. Pak. J. Bot., 47(5): 1721-1726, 2015.
54. **Fahad Al Qurainy**, Mohamed Tarroum, Salim Khan and Mohammad Nadeem. Effect of Drought on Antioxidant Volume: 21 Issue: 8 Pages: 2126-2136 DOI: 10.1080/10807039.2015.1017879.Published: NOV 17 2015
55. **Fahad Al-Qurainy**, Salim Khan**,** Mohammad Nadeem, Mohamed Tarroum. 2015. SCoT marker for the assessment of genetic diversity in Saudi Arabian date palm cultivars. Pak. J. Bot., 47(2): 637-643, 2015. **ISI**
56. Barakat, MN; Saleh, M); Al-Doss, AA; Moustafa, KA; Elshafei, AA; **Al-Qurainy, FH**. Identification Of New Ssr Markers Linked To Leaf Chlorophyll Content, Flag Leaf Senescence And Cell Membrane Stability Traits In Wheat Under Water Stressed Condition. Acta Biologica Hungarica Volume: 66 Issue: 1 Pages: 93-102
57. Khalid, A; Athar, HUR; Zafar, ZU; Akram, A; Hussain, K; Manzoor, H; **Al-Qurainy, F**; Ashraf, M. Photosynthetic capacity of canola (Brassica napus L.) plants as affected by

glycinebetaine under salt stress JURNAL OF APPLIED BOTANY AND FOOD QUALITY Volume: 88 Pages: 78-86 DOI: 10.5073/JABFQ.2015.088.011 Published: 2015

58. **Fahad Al-Qurainy**, Mohammad Nadeem*, Salim Khan, Mohamed Tarroum And Saleh Alansi. Development Of High Efficiency Micropropagation Rotocol For *Tamarix Nilotica* Ehrenb With Valued Medicinal Properties. *Pak. J. Bot.*, 47(6): 2355-2359, 2015**.**
59. Abdulhafed A. Al-Ameri, **Fahad Al-Qurainy**, Abdel-Rhman Z. Gaafar, Salim Khan And M. Nadeem. Male Specific Gene Expression in Dioecious *Phoenix dactylifera* (Date Palm) Tree at Flowering Stage. *Pak. J. Bot*., 48(1): 131-135, 2016. **ISI**
60. Abdulhafed A. Al-Ameri, **Fahad Al-Qurainy**, Abdel-Rhman Z. Gaafar, Salim Khan, and M. NadeemMolecular Identification of Sex in *Phoenix dactylifera* Using Inter Simple Sequence Repeat Markers. BioMed Research International Volume 2016, Article ID 4530846, 5 pages http://dx.doi.org/10.1155/2016/4530846. **ISI**
61. Saleh Alansi, Mohamed Tarroum, **Fahad Al-Qurainy**, Salim Khan and Mohammad Nadeem. 2016. Use of ISSR markers to assess the genetic diversity in wild medicinal Ziziphus spina-christi (L.) Willd. collected from different regions of Saudi Arabia. BIOTECHNOLOGY & BIOTECHNOLOGICAL
62. **Fahad Al Qurainy**, Mohamed Tarroum, Salim Khan and Mohammad Nadeem. Effect of Drought on Antioxidant Enzymes and Oxidative Stress Marker in *Hordeum vulgare. FEB (24: 11); 2015.* **ISI**
63. Barakat, M.N.[ab] , Saleh, M.S.[c], Al-Doss, A.A.[a], Moustafa, K.A.[a], Elshafei, A.A.[ad], Zakri, A.M.[a], **Al-Qurainy, F.H.**[c] Mapping of QTLs associated with abscisic acid and water stress in wheat **(Article).** Biologia Plantarum. Volume 59, Issue 2, 1 June 2015, Pages 291-297
64. Athar, H.-U.-R.[ab] , Ambreen, S.[ac], Javed, M.[a], Hina, M.[a], Rasul, S.[c], Zafar, Z.U.[a], Manzoor, H.[c], Ogbaga, C.C.[b], Afzal, M.[d], **Al-Qurainy, F.**[e], Ashraf, M.[ef]. Influence of sub-lethal crude oil concentration on growth, water relations and photosynthetic capacity of maize (Zea mays L.) plants. Environmental Science and Pollution Research Volume 23, Issue 18, 1 September 2016, Pages 18320-18331

65. Method of identifying date palm gender using SCAR primers. Inventor(s): Abdulhafed Abdullah Hassan Alameri, **Fahad Hamad Al-Qurainy**, Salim Khan, Mohammad Nadeem, Mohammad Nadeem, Patent Assignee Name(s): KACST,Patent Number: 9,598,732,ISI

66. Ibrahim, M; Yasmeen, S; Zaman, G; Bin, L**; Al-Qurainy, F;** Athar, HUR; Shah, KH; Khurshid, M; Ashraf, Protein profiling analysis of Gossypium hirsutum (Malvales: Malvaceae) leaves infested by cotton whitefly Bemisia tabaci (Homoptera: Aleyrodidae). APPLIED ENTOMOLOGY AND ZOOLOGY. (51 (4),2016.

67. Maleeha Razzaqa, Nudrat Aisha Akrama,, Muhammad Ashrafb,c, Hira Naza, **Fahad Al-Qurainy**. Interactive effect of drought and nitrogen on growth, some key physiological attributes and oxidative defense system in carrot (Daucus carota L.) plants. *Scientia Horticulturae 225 (2017) 373–379.*

68. **Fahad Al-Qurainy**, Salim Khan, Mohammad Nadeem, Mohamed Tarroum, Saleh Alansi, Abdulhafed A Al-Ameri, Abdel-Rhman Z Gaafar, Aref Alshameri. Assessing Genetic Fidelity in Regenerated Plantlets Of Date Palm Cultivars After Cryopreservation. Fresenius Environmental Bulletin. Volume 26 – No. 2a/2017, pages 1727-1735.

69. **FahadAl-Qurainy**,Mohammad Nadeem, Salim Khan, Saleh Alansi, Mohamed Tarroum, Abdulhafed A.Al-Ameri, Abdel-Rhman Z.Gaafar, Aref Alshameri. Rapid plant regeneration, validation of genetic integrity by ISSR markers and conservation of *Reseda pentagyna* an endemic plant growing in Saudi Arabia. Saudi Journal of Biological Sciences. Xxxx.

70. **Fahad Al-Qurainy**, Salim Khan, Mohammad Nadeem, Mohamed Tarroum, and Abdel-Rhman Z. Gaafar. Antioxidant System Response and cDNA-SCoT Marker Profiling in Phoenix dactylifera L. Plant under Salinity Stress. International Journal of Genomics Volume 2017, Article ID 1537538.

71. **Fahad Al-Qurainy**, Salim Khan, Mohamed Tarroum, Mohammad Nadeem, Saleh Alansi and Aref Alshameri. Biochemical and genetical responses of *Phoenix dactylifera* L. to cadmium stress. International Journal of Genomics. Volume 2017, Article ID 9504057, 9 pages.

72. **FahadAl-Qurainy**, Mohammad Nadeem, Salim Khan, Saleh Alansi, Mohamed Tarroum, MICROPROPAGATION AND EVALUATION OF GENETIC FIDELITY OF MAERUA

OBLONGIFOLIA (FORSSK.) A. RICH: A RARE MEDICINAL PLANT FROM SAUDI ARABIA. Fresenius Environmental Bulletin; 2018, Vol. 27 Issue 1, p165-171.

73. Saleh Alansi, **Fahad Al-Qurainy**, Mohammad Nadeem, Salim Khan, Abdel-Rhman Z. Gaafar, Mohamed Tarroum, Aref Alshameri (2018) Efficient micropropagation via somatic embryogenesis of potential cultivar Sagai of *Phoenix dactylifera* L. Pak J of Botany, 50 (6), 2251-2258.2018.
74. **Fahad Al-Qurainy**, Abdulhafed A. Al-Ameri, Salim Khan, Mohammad Nadeem, Abdel-Rhman Z.Gaafar, Mohamed Tarroum· SCAR marker for gender identification in date palm (*Phoenix dactylifera* L.) at the seedling stage. International Journal of Genomics. (2018). Volume 2018, Article ID 3035406, 6 pages.
75. Nudrat aisha akram*, shamim kausar, Naila Farid, muhammad ashraF & **Fahad al-Qurainy**.5-Aminolevulinic Acid Induces Regulation in Growth, Yield and PhysioBiochemical Characteristics of Wheat under Water Stress. Sains Malaysiana 47(4)(2018): 661-670.
76. Mutahhar Y. Al-Khaishany, **Fahad H. Al-Qurainy**, Ibrahim A. Alaraidh1, Mohamed Najeb Barakat2, Adel Ahmed Elshafei3, Manzer H. Siddiqui1, Saud A. Alamri1, Hayssam M. Ali1, Abdulaziz A. Alsahli1, Saud M. Alzahrani1 and Muhammad Ishfaq4. Genetic Variation of Wheat for Salt Tolerance Based on Physiological and Agronomic Traits. INTERNATIONAL JOURNAL OF AGRICULTURE & BIOLOGY ISSN Print: 1560–8530; ISSN Online: 1814–9596.
77. Nudrat Aisha Akram1 & Majid Iqbal1 & Atta Muhammad1 & Muhammad Ashraf2 & **Fahad Al-Qurainy** & Sidra Shafiq1. Aminolevulinic acid and nitric oxide regulate oxidative defense and secondary metabolisms in canola (Brassica napus L.) under drought stress. Protoplasma (2018) 255:163–174.
78. **Fahad Al-Qurainy**, Aref Alshameri, Abdel-Rhman Z.Gaafar, Salim Khan, Mohammad Nadeem, , Mohamed Tarroum[1] Comprehensive Stress-Based De Novo Transcriptome Assembly and Annotation of Guar (Cyamopsis tetragonoloba (L.) Taub.): An Important Industrial and Forage Crop. International Journal of Genomics. Volume 2019, Article ID 7295859, 14 pages. https://doi.org/10.1155/2019/7295859.
79. Muhammad Sadiq1 · Nudrat Aisha Akram1 · Muhammad Ashraf2,3 · **Fahad Al-Qurainy** · Parvaiz Ahmad3. Alpha-Tocopherol-Induced Regulation of Growth and Metabolism

in Plants Under Non-stress and Stress Conditions. Journal of Plant Growth Regulation (2019) 38:1325–1340.

80. Firdos Kosar1 · Nudrat Aisha Akram1 · Muhammad Sadiq1 · **Fahad Al-Qurainy** · Muhammad Ashraf2. Trehalose: A Key Organic Osmolyte Effectively Involved in Plant Abiotic Stress Tolerance. Journal of Plant Growth Regulation (2019) 38:606–618.
81. **Fahad Al-Qurainy**, Salim Khan, Mohamed Tarroum, Mohammad Nadeem, Saleh Alansi, Aref Alshameri and Abdel-Rhman Gaafar Comparison of salt tolerance between two potential cultivars of *Phoenix dactylifera* L. growing in Saudi Arabia. PAK J of Botany, 52(3): DOI: http://dx.doi.org/10.30848/PJB2020-3(16) 2020.
82. Saleh Alansi, **Fahad Al-Qurainy**, Mohammad Nadeem, Salim Khan, Aref Alshameri, Mohamed Tarroum and Abdel-Rhman Gaafar. An efficient micropropagation protocol via indirect organogenesis from callus of economically valuable crop date palm (*Phoenix dactylifera* l.) cultivars "sagai and khalas. Pak J of Botany, 2020.
83. Aref Alshameri, **Fahad Al-Qurainy**, Abdel-Rhman Gaafar, Salim Khan, Mohammad Nadeem, and Saleh Alansi. Identification of heat-responsive genes in Guar [Cyamopsis 3 tetragonoloba (L.) Taub]. International Journal of Genomics Volume 2020, Article ID 3126592, 17 pages https://doi.org/10.1155/2020/3126592.
84. Hassan O. Shaikhaldein, **FahadAl-Qurainy**, Mohammad Nadeem, Salim Khan, Mohamed Tarroum & Abdalrhaman M. Salih.Biosynthesis and characterization of silver nanoparticles using Ochradenus arabicus and their physiological efect on Maerua oblongifolia raised in vitro. Hassan O. Shaikhaldein, FahadAl-Qurainy, Mohammad Nadeem, Salim Khan, MohamedTarroum & Abdalrhaman M. Salih. Scientific Reports. 10: 17569.
85. Aref Alshameri , **Fahad Al-Qurainy** , Abdel-Rhman Gaafar , Salim Khan , Mohammad Nadeem , Saleh Alansi , Hassan O. Shaikhaldein , and Abdalrhaman M. Salih. Identification of Differentially Expressed Drought-Responsive Genes in Guar [Cyamopsis tetragonoloba (L.) Taub]. International Journal of Genomics Volume 2020, Article ID 4147615, 16 pages https://doi.org/10.1155/2020/4147615.

86. Abdalrhaman M. Salih. **Fahad Al-Qurainy**, Salim Khan, Mohamed Tarroum, Mohammad Nadeem, Hassan O. Shaikhaldein. Nadiyah M. Alabdallah, Saleh Alansi and Aref Alshameri. Mass propagation of Juniperus procera Hoechst. Ex Endl. From seedling and screening of bioactive compounds in shoot and callus extract. BMC Plant Biology (2021) 21:192.

87. Abdel-Rhman Zakaria Gaafar, **Fahad Al-Qurainy**, Aref Alshameri, Salim Khan, Mohammad Nadeem, Mohamed Tarroum, Saleh Alansi, Hassan O. Shaikhaldein, Abdalrhaman M. Salih & Norah Arrak Alenezi (2021) High RNA quality extracted from the tolerant crop *Cyamopsis tetragonoloba* (L.) despite possession of low RNA integrity number, Biotechnology & Biotechnological Equipment, 35:1, 608-618, DOI: 10.1080/13102818.2021.1910567.

88. **Fahad Al-Qurainy**, Abdel-Rhman Z. Gaafar, Salim Khan, Mohammad Nadeem, Aref M. Alshameri, Mohamed Tarroum, Saleh Alansi, Naser B. Almarri and Norah S. Alfarraj. Estimation of Genome Size in the Endemic Species Reseda pentagyna and the Locally Rare Species Reseda lutea Using comparative Analyses of Flow Cytometry and K-Mer Approaches. s. Plants 2021, 10, 1362. https://doi.org/10.3390/ plants10071362.

89. **Fahad Al-Qurainy**, Mohammad Nadeem, Salim Khan, Masoom Raza Siddiqui, Fohad Mabood Husain, Abdel Rhman Z. Gaafar, Saleh Alansi, Aref Alshameri, Mohamed Tarroum, Norah Arrak Alenezi, Abdalrhaman M. Salih & Hassan O. Shaikhaldein (2021) Phytosynthesis and assessment of silver nano particles from in vitro developed Ochradenus arabicus (Resedaceae) and evaluation of antibacterial potential, Biotechnology & Biotechnological Equipment, 35:1, 1238-1246.

90. Shaikhaldein, H.O.; **Al-Qurainy, F**.; Khan, S.; Nadeem, M.; Tarroum, M.; Salih, A.M.; Gaafar, A.-R.Z.; Alshameri, A.; Alansi, S.; Alenezi, N.A. Biosynthesis and Characterization of ZnO Nanoparticles Using *Ochradenus arabicus* and Their Effect on

Growth and Antioxidant Systems of *Maerua oblongifolia*. Plants 2021, 10, 1808. https://doi.org/10.3390/ plants10091808.

91. Abdalrhaman M. Salih, **FahadAl-Qurainy**, Salim Khan, Mohamed Tarroum, Mohammad Nadeem, Hassan O. Shaikhaldein, Abdel-Rhman ZakariaGaafar & Norah S.Alfarraj. Biosynthesis of zinc oxide nanoparticles using Phoenix dactylifera and their efect on biomass and phytochemical compounds in Juniperus procera. Scientifc Reports | (2021) 11:19136.

92. **Fahad Al-Qurainy,** Mohamed Tarroum , Salim Khan, Mohammad Nadeem, Abdel-Rhman Z. Gaafar,Saleh Alansi and Norah S. Alfarraj. Genome Estimation and Phytochemical Compound Identification in the Leaves and Callus of Abrus precatorius: A Locally Endangered Plant from the Flora of Saudi Arabia. Plants **2022**, 11, 567. https://doi.org/10.3390/plants11040567.
93. Norah Arrak Alenezi, **Fahad Al-Qurainy**, Mohamed Tarroum , Mohammad Nadeem , Salim Khan, Abdalrhaman M. Salih , Hassan O. Shaikhaldein , Norah S. Alfarraj, Abdel-Rhman Z. Gaafar , Abdulrahman Al-Hashimi and Saleh Alansi. Zinc Oxide Nanoparticles (ZnO NPs), Biosynthesis, Characterization and Evaluation of Their Impact to Improve Shoot Growth and to Reduce Salt Toxicity on Salvia officinalis In Vitro Cultivated. Processes **2022**, 10, 1273. https://doi.org/10.3390/pr10071273.
94. Abdalrhaman M. Salih, **Fahad Al-Qurainy**, Mohamed Tarroum , Hassan O. Shaikhaldein and Abdulrahman Hashimi. Screening and Estimation of Bioactive Compounds of Azanza garckeana (Jakjak) Fruit Using GC-MS, UV–Visible Spectroscopy, and HPLC Analysis. Separations **2022**, 9, 172. https://doi.org/10.3390/separations9070172.
95. Hassan O. Shaikhaldein , **Fahad Al-Qurainy**, Mohamed Tarroum , Salim Khan, Mohammad Nadeem and Abdalrhaman M. Salih. Phytochemical Analysis of Maerua oblongifolia, and Assessment of the Genetic Stability of M. oblongifolia under In Vitro Nanoparticles Exposure. Horticulturae **2022**, 8, 610. https://doi.org/10.3390/horticulturae8070610.
96. Hassan O. Shaikhaldein , **Fahad Al-Qurainy**, Mohammad Nadeem, Salim Khan, Mohamed Tarroum , Abdalrhaman M. Salih , Saleh Alansi, Abdulrahman Al-Hashimi , Alanoud Alfagham and Jawaher Alkahtani. Assessment of the Impacts of Green Synthesized Silver

Nanoparticles on Maerua oblongifolia Shoots under In Vitro Salt Stress. Materials 2022, 15, 4784. https://doi.org/10.3390/ma15144784.

97. Norah S. Alfarraj, **Fahad Al-Qurainy**, Mohammad Nadeem, Mohamed Tarroum, Saleh Alansi, Abdalrhaman M. Salih, Norah Alenezi, Hassan O. Shaikhaldein, Asma R. Alanazi And Latifah A. Al-Humaid. An Efficient And Improved Micropropagation Method Of Rumex Nervosus: A Valuable Medicinal Plant From Saudi Arabia. *Pak. J. Bot*., 54(5): 1909-1917, **2022.**

98. **Fahad Al-Qurainy**, Saleh Alansi, Salim Khan, Mohammad Nadeem, Aref Al-Shameri, Mohamed Tarroum, Abdel-Rhman Z. Gaafar And Nora Al-Farraj. An Efficient Micropropagation Of Reseda Lutea: A Rare Plant Of Saudi Arabia. *Pak. J. Bot*., 54(6): DOI: http://dx.doi.org/10.30848/PJB**2022**-6(21).

99. Abdalrhaman M. Salih, **Fahad Al-Qurainy**, Salim Khan, Mohammad Nadeem, Mohamed Tarroum and Hassan O. Shaikhaldein. iogenic silver nanoparticles improve bioactive compounds in medicinal Plant (*Juniperus procera*). Front. Plant Sci., 26 September 2022

100. Mohamed Tarroum, Walid Ben Romdhane, **Fahad Al-Qurainy**, Ahmed Abdelrahim, Abdullah Al-doss, Lotfi Fki and Afif Hassairi. A novel PGPF Penicillium olsoni isolated from the rhizosphere of Aeluropus littoralis promotes plant growth, enhances salt stress tolerance, and reduces chemical fertilizers inputs in hydroponic system. Frontiers in Microbiology, **2022**, **Accepted.,** 9 October 2022

101. Mohamed Tarroum *, Norah S. Alfarraj, **Fahad Al-Qurainy**, Abdulrahman Al-Hashimi, Salim Khan,Mohammad Nadeem, Abdalrhaman M. Salih and Hassan O. Shaikhaldein. Improving the Production of Secondary Metabolites via the Application of Biogenic Zinc Oxide Nanoparticles in the Calli of *Delonix elata*: A Potential Medicinal Plant. Metabolites **2023**, 13, 905. https://doi.org/10.3390/metabo13080905.

102. Norah S. Alfarraj, Mohamed Tarroum *, **Fahad Al-Qurainy**, Mohammad Nadeem, Salim Khan, Abdalrhaman M. Salih , Hassan O. Shaikhaldein , Abdulrahman Al-Hashimi , Saleh Alansi and Kahkashan Perveen. Biosynthesis of Silver Nanoparticles and Exploring Their Potential of Reducing the Contamination of the In Vitro Culture Media and Inducing the Callus Growth of *Rumex nervosus* Explants. Molecules **2023**, 28, 3666. https://doi.org/10.3390/molecules28093666.

103. Salim Khan , Fahad Al-Qurainy, Abdulrahman Al-hashimi , Mohammad Nadeem, **Mohamed Tarroum** , Hassan O. Shaikhaldein and Abdalrhaman M. Salih. Effect of Green Synthesized ZnO-NPs on Growth, Antioxidant System Response and Bioactive Compound Accumulation in *Echinops macrochaetus*, a Potential Medicinal Plant, and Assessment of Genome Size (2C DNA Content). Plants **2023**, 12, 1669. https://doi.org/10.3390/plants12081669.

104. Hassan O. Shaikhaldein , **Fahad Al-Qurainy** , Khalid A. Babiker , Mohammad Nadeem , SalimKhan ,Mohamed Tarroum ,1 and AbdalrhamanM. Salih. Evaluating Impacts of Biosynthetic Silver Nanoparticles on Morphophysiological Responses in Barley (Hordeum vulgare L.). Hindawi, Journal of Nanomaterials, Volume 2024, Article ID 7524774, 13 pages

105. Abdel-Rhman Z.Gaafar ,Fahad Al-Qurainy, Salim Khan,Mohammad Nadeem, Mohamed Tarroum, Abdulrahman Al-Hashimi. First draft of the nuclear genome assembly and annotation of the multi-stress tolerant desert giant milkweed *Calotropis procera*. South African Journal of Botany 166 (2024) 442_454

1. Sequence submitted to NCBI GenBank database (DNA bank for flora of Saudi Arabia)

2. ITS sequences of nrDNA of *Cuscuta reflexa* (HQ728491, HQ728492, HQ728493, HQ728494, HQ728495, HQ728496, HQ728501, HQ728502, HQ728503, HQ728515, HQ728516, HQ728517, HQ728518, HQ728519 HQ728520, HQ728504, HQ728505, HQ728506, HQ728511, HQ728512, HQ728514, HQ728497, HQ728498, HQ728499, HQ728500, HQ728507, HQ728508, HQ728509, HQ728510).

3. ITS sequences of nrDNA amplified from various shoot mutants of *Artemisia annua* having high production of artemisinin (accession number: HQ735409, HQ735410, HQ735411, HQ735412, HQ735413, HQ735414).

4. ITS sequences of nrDNA of *Ruta graveolens* and *Euphorbia dracunculoides* for identification and authentication in local herbal markets (HQ830197, HQ830198).
5. *Phoenix dactilifera* cultivars (accession number for rpoB gene)

   Khodry (JN854236), *Khalas*(JN854237), *Ruthana*(JN854238), *Sukkari* (JN854239), *Sefri* (JN854240), *Segae*(JN854241), *Ajwa* (JN854242) and *Hilali* (JN854243).

6. *Phoenix dactilifera* cultivars (accession number for *psbA-trnH* gene)

   Khodry (JN854228), *Khalas*(JN854229), *Ruthana*(JN854230), *Sukkari* (JN854231), *Sefri* (JN854232), *Segae*(JN854233), *Ajwa* (JN854234) and *Hilali* (JN854235).

7. Chloroplast spacer sequences of *Ruta graveolens rpoB* and *rpoC1* (JQ005149 and JQ005148)

8. Chloroplast spacer sequences of *Ruta graveolens rpoB* and *rpoC1* (JQ005150 and JQ005151).

9. ITS and chloroplast spacer sequences *for Ochradenus arabicus* and *Ochradenus baccatus*: JQ899053, JQ899054, JQ899052, JQ899051, JQ899050, JQ899049, JQ899048, and JQ899047
10. Selection of DNA barcoding loci for *Nepeta deflersiana* Schweinf. ex Hedge from chloroplast and nuclear DNA genomes (Accession Number: KF765442)
11. Internal transcribed spacer sequences of nuclear ribosomal DNA submitted to GenBank are KC311151 (*Commiphora myrrha*), KC311152 (*Heliotropium strigosum*), KC311153, (*Pancratium tortuosum*), KC311154 (*Scadoxus multiflorus*), KC311155 (*Senecio hadiensis*), *Ochradenus arabicus* (JQ899053) and *Ochradenus baccatus* (JQ899054)

12. Selection of DNA barcoding loci for *Nepeta deflersiana* Schweinf. ex Hedge from chloroplast and nuclear DNA genomes (KF765442)

13. Sequence submitted to NCBI GenBank database (DNA bank for flora of Saudi Arabia)

KSU_ID	GenBank accession number
KSUFS15	KJ623266 (*Plectranthus asirensis*)
KSUFS10	KF805088 (*Stachys aegyptiaca*)
KSUFS11	KF805089(*Juniperus phoenicea*)
KSUFS61	KF805090(*Scorzonera intricata)*
KSUFS86	KF805091(*Pluchea dioscoridis*)
KSUFS121	KF805092(*Leptadenia pyrotechnica*)
KSUFS130	KF805093(*Periploca aphylla*)
KSUFS148	KF805094(*Convolvulus buschiricus*)
KSUFS140	KF805095(*Rumex vesicarius*)
KSUFS209	KF805096(*Ehretia obtusifolia*)
KSUFS216	KF805097(*Coptosperma graveolens*)
KSUFS234	KF805098(*Hypoestes forskaolii*)
KSUFS235	KF805099(*Aerva javanica*)
KSUFS238	KF805100(*Solanum surattense*)
KSUFS321	KF805101(*Sarcostemma forskaolianum*)
KSUFS306	KF805102(*Olea europaea*)
KSUFS344	KF805103(*Polygala abyssinica*)
KSUFS374	KF805104(*Pergularia tomentosa*)
KSUFS462	KF805105(*Micromeria mimbricata*)
KSUFS548	KF805106(*Cuscuta planiflora*)
KSUFS527	KF805107(*Polygala erioptera*)
KSUFS20	KF805108(*Reseda lutea*)
KSUFS28	KF805109(*Cleome Arabica*)
KSUFS54	KF805110(*Astragalus spinosus*)
KSUFS85	KF805111(*Heliotropium lasiocarpum*)
KSUFS122	KF805112(*Teucrium oliverianum*)
KSUFS92	KF805113(*Cocculus pendulus*)
KSUFS115	KF805114(*Helianthemum lippii*)
KSUFS116	KF805115(*Heliotropium bacciferum*)
KSUFS127	KF805116(*Haplophyllum tuberculatum*)
KSUFS137	KF805117(*Alhagi graecorum*)
KSUFS144	KF805118(*Pennesetum divisum*)
KSUFS146	KF805119(*Dipcadi erythraecum*)
KSUFS153	KF805120(*Eremobium aegyptium*)

KSUFS163 KF805121(*Launaea mucronata*)
KSUFS671 KF805122(*Polycarpaea repens*)
KSUFS546 KF805123(*Anagallis arvensis*)
KSUFS592 KF805124(*Paspalidium geminatum*)
KSUFS594 KF805125(*Atriplex suberecta*)
KSUFS607 KF805126(*Reseda sphenocleoides*)
KSUFS619 KF805127(*Halothamnus bottae*)
KSUFS627 KF805128(*Farsetia longisiliqua*)
KSUFS631 KF805129(*Abutilon fruticosum*)
KSUFS642 KF805130(*Heliotropium longiflorum*)
KSUFS653 KF805131(*Cucumis prophetarum*)
KSUFS666 KF805132(*Panicum coloratum*)
KSUFS668 KF805133(*Dicanthium annulatum*)
KSUFS669 KF805134(*Tamarix nilotica*)
KSUFS672 KF805135(Cenchrus ramosissimus)
KSUFS684 KF805136(*Sporobolus ioclados*)
KSUFS688 KF805137(*Cyperus conglomerates*)
KSUFS692 KF805138(*Aeluropus lagopoides*)
KSUFS696 KF805139(*Halocnemum strobilaceum*)
KSUFS700 KF805140(*Schismus barbatus*)
KSUFS704 KF805141(*Erodium laciniatum*)
KSUFS504 KF805142(*Tetrapogon villosus*)
KSUFS511 KF805143(*Morettia parviflora*)
KSUFS514 KF805144(*Trichodesma africanum*)
KSUFS521 KF805145(*Juncus rigidus*)
KSUFS529 KF805146(*Anagallis arvensis*)
KSUFS532 KF805147(*Leysera leyseroides*)

KSUFS87 KF815491 (*Senna alexandrina*)
KSUFS88 KF815492(*Ocimum basilicum*)
KSUFS112 KF815493(*Rhazya stricta*)
KSUFS124 KF815494(*Glossonema varians*)
KSUFS117 KF815495(*Scrophularia deserti*)
KSUFS129 KF815496(*Gymnocarpos decandrum*)
KSUFS145 KF815497(*Scrophularia hypericifolia*)
KSUFS150 KF815498(*Silene villosa*)
KSUFS178 KF815499(*Ziziphus nummularia*)
KSUFS183 KF815500(*Plantago boissieri*)
KSUFS221 KF815501(*Plantago boissieri*)
KSUFS341 KF815502(*Chrozophora oblongifolia*)
KSUFS365 KF815503(*Senna italica*)
KSUFS388 KF815504(*Chrozophora tinctoria*)
KSUFS555 KF815505(*Plantago coronopus*)
KSUFS453 KF815506(*Schrophularia hypericifolia*)
KSUFS547 KF815507(*Euphorbia granulata*)
KSUFS626 KF815508(*Ziziphus spina-Christi*)
KSUFS645 KF815509(*Saccharum spontaneum*)
KSUFS646 KF815510(*Rhynchosia minima*)
KSUFS119 KF815511(*Pulicaria glutinosa*)

KSUFS106 KF815512(*Farsetia aegyptiaca*)
KSUFS192 KF815513(*Pulicaria schimperi*)
KSUFS239 KF815514(*Pulicaria schimperi*)
KSUFS516 KF815515(*Anvillea garcinii*)
KSUFS674 KF815516(*Polycarpaea repens*)
KSUFS698 KF815517(*Ziziphus spina-Christi*)
KSUFS93 KF815518(*Tribulus terrestris var parvispinus*)
KSUFS542 KF815519(*Astragalus sieberi DC*.)
KSUFS543 KF815520(*Isatis lusitanica*)
KSUFS450 KF815521(*Cyperus conglomeratus*)
KSUFS531 KF815522(*Silene linearis*)
KSUFS603 KF815523(*Chrozophora oblongifolia*)
KSUFS643 KF815524(*Fagonia paulayana*)

KSUFS174 KF850547 (*Maltkiopsis ciliata*)
KSUFS181 KF850548 (*Cleome amblyocarpa*)
KSUFS182 KF850549 (*Cakile Arabica)*
KSUFS187 KF850550 (*Launaea capitata*)
KSUFS201 KF850551 (*Salsola kali*)
KSUFS217 KF850552 (*Euclea schimperi*)
KSUFS225 KF850553 (*Panicum turgidum*)
KSUFS226 KF850554 *(Asparagus africanus*)
KSUFS265 KF850555 (*Adenium obesum)*
KSUFS276 KF850556 (*Cleome ramosissima*)
KSUFS232 KF850557 (*Persicaria barbata*)
KSUFS270 KF850558 (*Acacia abyssinica*)
KSUFS274 KF850559 (*Cadia purpurea*)
KSUFS342 KF850560 (*Jasminum grandiflorum*)
KSUFS354 KF850561 (*Althea Ludwigii)*
KSUFS362 KF850562 (*Spergula fallax*)
KSUFS366 KF850563 (*Atractylis arabicus*)
KSUFS391 KF850564 (*Halothamnus iraqensis*)
KSUFS397 KF850565 (*Diplotaxis acris*)
KSUFS448 KF850566 (*Stipagrostis drarii)*

KSUFS451 KF850567 (*Asphodelus tenuifolius*)
KSUFS452 KF850568 (*Maltkiopsis ciliata*)
KSUFS459 KF850569 (*Lepidium aucheri*)
KSUFS479 KF850570 (*Morettia parviflora*)
KSUFS499 KF850571 (*Morettia parviflora*)
KSUFS500 KF850572 (*Hibiscus micranthus*)
KSUFS545 KF850573 (*Notoceras bicorne*)
KSUFS781 KF850574 (*Andrachne aspera*)
KSUFS736 KF850575 (*Polypogon monspeliensis*)
KSUFS780 KF850576 (*Anvillea garcinii*)
KSUFS796 KF850577 (*Tribulus terrestris*)
KSUFS778 KF850578 (*Pergularia tomentosa*)
KSUFS779 KF850579 (*Antirrhinum orontium*)
KSUFS789 KF850580 (*Gypsophila capillaris*)
KSUFS801 KF850581 (*Periploca aphylla*)
KSUFS720 KF850582 (*Ricinus communis*)

KSUFS725 KF850583 (*Bassia muricata*)
KSUFS728 KF850584 (Plantago lanceolata)
KSUFS731 KF850585 (Chenopodium murale)
KSUFS741 KF850586 (Lawsonia inermis)
KSUFS746 KF850587 (Teucrium leucocladum)
KSUFS773 KF850588 (Lactuca serriola)
KSUFS787 KF850589 (Plantago afra)
KSUFS791 KF850590 (Trigonella stellata)
KSUFS793 KF850591 (Gymnocarpos decandrum)
KSUFS805 KF850592 (Plantago amplexicaulis)
KSUFS808 KF850593 (Picris babylonica)
KSUFS821 KF850594 (Ferula communis)
KSUFS840 KF850595 (Ficus cordata subsp. salicifolia)
KSUFS806 KF850596 (Bromus rubens)
KSUFS827 KF850597 (Lindenbergia indica)
KSUFS809 KF850598 (*Fagonia boveana)*
KSUFS711 KF850599 (Panicum turgidum)
KSUFS716 KF850600 (Salsola imbricata)
KSUFS719 KF850601 (Anagallis foemina)
KSUFS721 KF850602 (Ochradenus baccatus)
KSUFS723 KF850603 (Dactyloctenium aegyptium)
KSUFS729 KF850604 (Polygonum argyrocoleum)
KSUFS738 KF850605 (Setaria verticillata)
KSUFS739 KF850606 (Zygophyllum hamiense)
KSUFS740 KF850607 (Cistanche tubulosa)
KSUFS763 KF850608 (Echinochloa colona)
KSUFS765 KF850609 (Conyza bonariensis)
KSUFS769 KF850610 (Suaeda aegyptiaca)
KSUFS772 KF850611(Cenchrus echinatus)
KSUFS785 KF850612 (Sisymbrium erysimoides)
KSUFS786 KF850613 (Stipa capensis)
KSUFS792 KF850614 (*Phagnalon schweinfurthii var . androssorii)*
KSUFS802 KF850615 (Biscutella didyma)
KSUFS811 KF850616 (Cucumis prophetarum)
KSUFS818 KF850617 (Indigofera oblongifolia)
KSUFS823 KF850618 (Lavandula coronopifolia)
KSUFS1 JQ899053 (Ocradenus arabicus)
KSUFS22 JQ899054 (Ochradenus baccatus)
KSUFS81 KC311152 (*Heliotropium strigosum*)
KSUFS82 KC311151 (*Commiphora myrrha*)
KSUFS91 KC311155 (*Senecio hadiensis)*
KSUFS114 KC311153 (*Pancratium tortuosum)*
KSUFS78 JX026929 (*Rumex nervosus)*
KSUFS307 KC311154 (*Scadoxus multiflorus)*
KSUFS18 KF765442 (*Nepeta deflersiana* Schweinf. ex Hedge)
KSUFS17 KC751413 (*Senecio asirensis*)
KSUFS178 KF815499 *Ziziphus nummularia*)
KSUFS49 KJ004285 (*Maytenus senegalensis*)
KSUFS100 KJ004286 (*Seddera latifolia*)
KSUFS299 KJ004287 (*Maytenus arbutifolia*)
KSUFS699 KJ004288 (Rumex vasicarious)
KSUFS387 KJ004289 (Cressa cretica)

KSUFS460	KJ004290	(*Parietaria alsinifolia*)
KSUFS99	KJ004291	(*Phyllanthus tenellus*)
KSUFS623	KJ004292	(Berlaria acanthoides)
KSUFS133	KJ004293	(*Senna italica*)
KSUFS405	KJ004294	(*Lotus halophilus*)
KSUFS662	KJ004295	(Chenopodium glaucum)
KSUFS677	KJ004296	(Eclipta alba)
KSUFS722	KJ004297	(Desmostachya bipinnata)
KSUFS737	KJ004298	(Amaranthus viridis)
KSUFS813	KJ004299	(Aerva javanica)
KSUFS125	KJ004300	(Aerva javanica)
KSUFS222	KJ004301	(*Psiadia punctulata*)
KSUFS236	KJ004302	(*Catharanthus roseus*)
KSUFS641	KJ004303	(Hibiscus meidiensis)
KSUFS194	KJ004304	(*Kleinia odora*)
KSUFS394	KJ004305	(*Farsetia stylosa*)
KSUFS693	KJ004306	(Leptadenia pyrotechnica)
KSUFS277	KJ004307	(*Commicarpus grandiflorus*)
KSUFS509	KJ004308	(*Cympogon commutatus*)
KSUFS748	KJ004309	(Fagonia bruguieri)
KSUFS55	KJ004310	(*Halothamnus bottae*)
KSUFS33	KJ004311	(*Zygophyllum coccineum*)
KSUFS79	KJ004312	(*Halopyrum mucronatum*)
KSUFS90	KJ004313	(*Acacia oerfota*)
KSUFS138	KJ004314	(*Salsola imbricata*)
KSUFS176	KJ004315	(*Bromus sericea*)
KSUFS180	KJ004316	(*Neurada procumbens*)
KSUFS195	KJ004317	(*Phagnalon stenolepis*)
KSUFS215	KJ004318	(Panicum turgidum)
KSUFS495	KJ004319	(*Matthiola longipetala*)

KSUFS538	KJ004320	(*Geranium mascatense*)
KSUFS540	KJ004321	(*Polycarpaea repens*)
KSUFS549	KJ004322	(*Scorzonera schweinfurthii*)
KSUFS595	KJ004323	(Momordica balsamina)
KSUFS601	KJ004324	(Saccharum spontaneium)
KSUFS649	KJ004325	(Tephrosia nubica)
KSUFS667	KJ004326	(Pulicaria vulgaris)
KSUFS702	KJ004327	(*Cistanche phelypaea*)
KSUFS707	KJ004328	(Eremobium lineare)
KSUFS356	KJ004329	(*Caylusea hexagyna*)
KSUFS742	KJ004330	(Polycarpaea repens)
KSUFS743	KJ004331	(Stipagrostis plumosa)
KSUFS753	KJ004332	(Melilotus indicus)
KSUFS754	KJ004333	(Agriophyllum minus)
KSUFS760	KJ004334	(Zygophyllum decumbens)
KSUFS762	KJ004335	(Silene villosa)
KSUFS766	KJ004336	(Melilotus indicus)
KSUFS777	KJ004337	(Matthiola longipetala)
KSUFS784	KJ004338	(Dodonaea angustifolia)
KSUFS790	KJ004339	(Senna italica)
KSUFS804	KJ004340	(Brachypodium distachyon)
KSUFS816	KJ004341	(Trichodesma africanum)
KSUFS822	KJ004342	(Spergula fallax)
KSUFS8	KJ004343	(*Anastatica hierochuntica*)
KSUFS104	KJ004344	(*Euphorbia peplus*)
KSUFS128	KJ004345	(*Artemisia monosperma*)
KSUFS141	KJ004346	(*Panicum antidotale*)
KSUFS186	KJ004347	(*Artemisia sieberi*)
KSUFS227	KJ004348	(*Euphorbia aculeata*)

KSUFS316	KJ004349	(*Tamarix nilotica*)
KSUFS339	KJ004350	(*Citrullus colocynthis*)
KSUFS360	KJ004351	(*Filago desertorum)*
KSUFS378	KJ004352	(*Ducrosia anethifolia)*
KSUFS383	KJ004353	(*Lactuca saligna*)
KSUFS428	KJ004354	(*Arnebia linearifolia*)
KSUFS429	KJ004355	(*Carthamus oxyacantha*)
KSUFS430	KJ004356	(*Cornulaca leucacantha*)
KSUFS463	KJ004357	(*Aristida adscensionis*)
KSUFS359	KJ004358	(*Lepidium aucheri*)
KSUFS241	KJ004359	(*Breonadia salicina*)
KSUFS242	KJ004360	(*Breonadia salicina*)
KSUFS243	KJ004361	(*Breonadia salicina*)
KSUFS244	KJ004362	(*Breonadia salicina*)
KSUFS245	KJ004363	(*Breonadia salicina*)
KSUFS246	KJ004364	(*Breonadia salicina*)
KSUFS247	KJ004365	(*Breonadia salicina*)
KSUFS248	KJ004366	(*Breonadia salicina*)
KSUFS249	KJ004367	(*Breonadia salicina*)
KSUFS250	KJ004368	(*Breonadia salicina*)
KSUFS251	KJ004369	(*Breonadia salicina*)
KSUFS252	KJ004370	(*Breonadia salicina*)
KSUFS253	KJ004371	(*Breonadia salicina*)
KSUFS254	KJ004372	(*Breonadia salicina*)
KSUFS255	KJ004373	(*Breonadia salicina*)
KSUFS256	KJ004374	(*Breonadia salicina*)
KSUFS257	KJ004375	(*Breonadia salicina*)
KSUFS258	KJ004376	(*Breonadia salicina*)
KSUFS259	KJ004377	(*Breonadia salicina*)

KSUFS431 KJ004378 (*Monsonia nivea*)

KSUFS315 KJ004379 (*Portulaca oleracea*)

KSUFS161 KJ004380 (*Breonadia salicina*)

KSUFS300 KJ004381 (*Dysphania schraderiana*)

KSUFS309 KJ021874 (*Marrubium vulgare*)
KSUFS147 KJ021875 (*Polycarpaea repens*)
KSUFS135 KJ021876 (*Convovulus arvensis*)
KSUFS751 KJ021877 (*Pistacia khinjuk*)
KSUFS783 KJ021878 (*Gypsophila capillaris*)
KSUFS795 KJ021879 (*Olostegia fruiticosa ssp. Schimperi*)
KSUFS727 KJ021880 (*Chenopodium glaucum*)
KSUFS820 KJ021881 (*Chenopodium murale*)
KSUFS734 KJ021882 (*Salsola lachnantha*)
KSUFS404 KJ021883 (*Brassica tournefortii*)

Conferences/Seminar

- Active participant of International Seminar on **"**DNA Research: A Gateway to knowledge Economy" 2009, at College of Science, King Saud university, KSA.
- Oral presentation on "Application of inter simple sequence repeat (ISSR marker) to detect genotoxic effect of heavy metals on *Eruca sativa*" in the 25th conference of Saudi Biological Society held on 11-13 May, 2010.
- Fahad Al-Qurainy and Salim Khan, 2010. Mutational approach for enhancement of artemisinin in *Artemisia annua*. IBS 2010, 14th International Biotechnology Symposium and Exibition Biotechnology for the Sustainability of Human Society 14-18 September 2010, Rimini-Italy.
- Fahad Al-Qurainy, Salim Khan and M.Tarroum. Molecular typing of *Ruta graveolens* and its adulterant using nuclear and chloroplast DNA markers. Biotech 2011 & 5th Czech-Swiss Symposium with Exhibition, Prague, June 15-17 2011.