

Contents

Degree of association and cause-effect Analysis for spot blotch disease resistance and ancillary characters of yield in barley (<i>Hordeum vulgare</i> L.)	1-8
Kailash Chandra, Ravindra Prasad, L.C. Prasad, Kuduka Madhukar, Rashmi Reddy and Padma Thakur	
Studies on genetic diversity in brinjal (<i>Solanum melongena</i> L.)	9-15
V. Silambarasan, R. Eswaran, N. Ssenthilkumar, P. Thangavel and S. Thirugnanakumar	
Effect of salinity stress on photosynthetic enzymes of two sesame (<i>Sesamum Indicum</i> L.) varieties	16-20
R. Desingh and G. Kanagarj	
Induction of defense-related enzymes in onion by using combined application of fungal and bacterial biocontrol agents with AM fungi against <i>Fusarium oxysporum</i> f. sp. <i>cepae</i>	21-24
R. Yuvarani, K. Raja Mohan, P. Balabaskar and K. Sanjeev Kumar	
Sensory, Physical and Nutritional Qualities of Cookies and Pinnis prepared from brown rice and wheat flour	25-31
Kamaldeep Kaur and Balmeet Singh Gill	
Commercial production of <i>Aloe vera</i> : Resource use efficiency analysis	32-34
T. Ponnarasi, K. Sitadevi and C. Prabakar	
Taxonomic Significance On Comparative Petiole Anatomy Of Twelve Species Of <i>Curcuma</i> L. (zingiberaceae) From South India	35-41
Anu S. and Mathew Dan	
A study on adoption of eco-friendly technologies and constraints	42-46
Darling B. Suji and A.M. Sathish Kumar	
Impact of some atmospheric factors on ultraviolet radiation for selected monitoring stations in Iraq	47-55
Osama Tareq Al-Taai, Iqbal Khalaf Al-Ataby and Basim Abdulsada Al-Knani	
Relationship between genetic markers (BM2113, ETH10, ETH225) with some blood traits, prolactin and cortisol hormones	56-58
Marwah H.R. Al-Mosawy, Ali A. Al-Sadoon and Hadi A. Al-Barkat	
Study of bearing some Carnation (<i>Dianthus caryophyllus</i> L.) cultivars for salt stress under Iraq conditions	59-69
Jalal Hameed Ali Al-Sahn, Jamal Ahmed Abbass and Janan Kassim Hussein	
Efficiency of two isolates of the fungus <i>Lecanicillium lecanii</i> and the fungus <i>Beauveria bassiana</i> against oriental yellow scale <i>Aonidiella orientalis</i> in laboratory and field	70-72
Ali M. Amran* and Hussam Aldin A. Mohammad	
Effect of Foliar Applications on Arjuna (<i>Terminalia arjuna</i>) Seedlings under Drought and Salt Stresses	73-85
Shohra Abdel-Twab, Faisal Saadawy, Salah Abdel-Aziz Gomaa, Amira Sh. Soliman and Mohamed S. Abbas	
Evaluation the ability of some organic compounds is protecting bean seedling against infection with <i>Rhizoctonia solani</i>	86-90
Aqell A.K. Al-Luhaiby and Aalaa K. Hassan	
Effect of Irrigation Systems under Different Nitrogen and Organic Manure Levels on Potato Productivity	91-98
Abd El Lateef E.M., A.E.M. Eata, M.A.A. Abduo, A.A. Abd-Elmonsef and M.S. Abd El-Salam	
Determinants of Consumption expenditure on Fish in Baghdad City	99-104
Muna Abdukadir Ahmad and Sura Sa'uil Abd	
Reducing water stress on apricot saplings Cv. Zanjelly	105-108
Ahmed Talib Joodyv	
Antimicrobial Activities of Chitosan Produced from <i>Agaricus bisporus</i> Stalks	109-114
Abbas Fadhil and Ebtisam F. Mous	
Screening, Isolation, Optimization and Molecular Identification of <i>Pseudomonas aeruginosa</i> NRC-S4 and Investigation of Its b-glucosidase Production	115-124
Nivien A. Abo-Sereih, Abeer E. Mahmoud, Abbas A. El-Ghamery, Tahany M. El-Kawokgy and Ahmed F. El-Sayed	
Bacterial isolation and identification from aborted placenta of women and ewes and goat in Al-Fallujah city	125-131
AL-Karbolii M. M. and Alwan M. J.	
Evaluation of growth and productivity of barley (<i>Hordeum vulgare</i> L.) genotype under southern Iraq conditions	132-136
Haider A.M. Al-Magheer¹, Layla S. Al-Dhahak² and Salih H.F. Al-Sali³	
Effect of spraying organic fertilizer extract, Potassium and Zinc fertilizer on growth and yield of Jerusalem artichoke <i>Helianthus tuberosus</i> L. and its content of Inuline	137-149
Jamal Ahmed Abbass* and Qasim Malik Hussein	
The effect of irrigation periods and spraying of humic acids on the growth and production of okra under protected agriculture conditions	150-154
Jawad Ali Falah and Nasser Fahem Yasir	
Evaluation of training courses for agricultural employees conducted by the Training and Rehabilitation Department belonging to the Extension and Training of Agricultural in Iraq	155-162
Bayan Abdul Jabbar Ridha, Ihsan Radhe Hassuni and Ahmed Thwaini Hdoom Al-Salhi	

Effect of addition of organic and chemical fertilization and spraying of alpha tocopherol on the growth and yield of tomato (<i>Solanum lycopersicum</i> Mill.)	Fatima Hussein Ali AL Katia and Mohammed Zedan Khalaf ALMharib	163-168
Genetic polymorphism in HSP90AA1 gene and associated with the heat tolerance coefficient in Holstein cows at south of Iraq	Khalid Adnan Abdullah AL-Luhaibe and Salih Hassan Al-Azzawi	169-175
Study of the Synergism Effect of Garlic and Extra Virgin Olive Oil against some Otitis Externa and Otitis Media Bacteria <i>In vitro</i>	Khamael Lutfi Shakir Al-Taie and Hassan Majeed Rashseed	176-180
Effect of some Sugars on Carbapenemase Gene Expression in <i>Pseudomonas aeruginosa</i>	Mena Najim Abed and Hassan Majeed Rasheed	181-186
Effect of Alternate Water Quality Irrigation on Pore Sizes Distribution During Drainage in Clay Loam Texture Soil	Tareq K. Masood and Salloum B. Salim	187-195
Effect of foliar application with Nano IQ-Combi and Seaweed extract on some growth parameter of Citrus Rootstock Saplings C-35	Baneen A. K. Al-Abedy and Ghalib B. A. Al-Abbasi	196-200
Evaluation of Physico-chemical parameters of bottled water marketed in Babel Governorate: Iraq	Zaid B. Hameed, Sundus S. Nehaba, Alaa A. Obayes and Abbas T. Khlaif	201-206
Measuring the efficiency and the marketing margins within the value chain of the potato crop of the spring season of 2018	H.A. Jassim, A.F. Ahmed and M.S. Ghilan	207-219
Effect of clipping date and plant density on some traits of four <i>sorghum bicolor</i> L. varieties	Nadhem A. Sayer and Faisal M.M. Al-Tahir	220-224
Efficiency evaluation of some entomopathogenic fungi on dust mite <i>Oligonychus afrasiaticus</i> (McGregor) (Acari: Tetranychidae)	Hatim M. Hussein, Sindab S.J. Al-Dahwy and Omar K. Ruman	225-228
Movement of Water and Salt Accumulation in Soil as Effected by Emulsified and Un-emulsified Crude Oil	Ali Hamdhi Dheyab	229-243
Efficiency of Salicylic acid in induce systemic Resistance in Potato Plants against <i>Pectobacterium carotovorum</i>	Nazar Rashid Merzah and Jamal Hussein Kadhim	244-248
Some Responses of <i>Ricinus communis</i> L. to soil salinity in Babylon province, Iraq	Batool Mohammad Hassan Al-Adily, Shaemaa Muhi Hasoon Al-Amery, Rasha Hashim Hussein and Mohammed Jawad Salih Al-Haidarey	249-252
Role of Soaking Seeds with Cobalt and Ascorbic Acid in Alleviation of Mung Bean under Water Stress Effect.	Makaya Kadhum Alak and Tammam Mohammad Hussein Baqer AL-Sabagh	253-259
Inhibition of tomato yellow leaf curl virus (tylcv) by extract of algae <i>cladophora crispata</i>	Abdulkareem Kassim Jabar, Hussein Ali Salim and Abbas Fadhil Ali	260-264
Effect Of Sowing Dates, Soil Mulching And Foliar Spraying of Calcium On Leaves Chemical Components Of Okra Plant Grown In Plastic Houses	Kazem S.L. Alhamrani, Abdullah A. Abdullah and Dhia Ahmed Taain	265-272
Effect of foliar sprayings of indole acetic acid on growth and yield of durum wheat genotypes	Ali Raheem Al-Hasany, Dhurgham Sabeeh Altai and Hekmat Basim Alhadi	273-278
Inhibiting and healing activity of honey and molasses (date syrup) in contaminated wounds against pathogenic bacteria	Athal Ahmed Abdulredha and Ithar Khamil Abbas	279-282
Economic analysis of the effect of some factors on the agricultural expansion of the rainy lands in Iraq for the period (1980-2016)	Mena Yousif Al-sudani and Aidah Fawzi Ahmed	283-290
Study the effect of Tree Eucalyptus leaves, shell and fruits on cowpea beetle (<i>Callosobruchus maculatus</i>), which affects chickpeas in stores	Mohammed Saheb Abed	291-297
Extraction and Purification of Enzyme Actinidin from Kiwi Fruit (<i>Actinidia chinensis</i>)	Rasha Adnan Kazem and Adnan Wahhsb Habeeb	298-302
Phytochemical constituents, antioxidant and allelopathic activities of <i>Aizoon Canariense</i> L. on <i>Zeamays</i> (L.) and Associated weeds	Yasser A. El-Amier and Oday N. Al-hadithy	303-310
A study of chemical composition and effective materials in Chamomile flowers (<i>Matricaria chamomilla</i> L.)	Mohamed Baqer Hussine Almosawi	311-312
Effect of clipping number, planting dates and varieties on grain yield and the components of six varieties of barley	Mahmoud T. Al-Jayashi, Faisal M.M. Al-Tahir and Husham S. Ali	313-319
Sequential extraction of zinc and nickel elements in contaminated soils	Hind Saieb Ibrahim and Kadhim Makke Naser	320-324

continued on next page

Effect of flour type on phytic acid degradation during biscuit making	Jassim M. Nasser and Ezuldeen K. Hammood	325-330
Sour orange seedling response to the treatment of Carbon dioxide and Nitrogen Source	N.H. Khalil	331-336
Antidiabetic medicinal plants in Morocco: Ethnobotanical survey of the population of Béni Mellal	Zaouai Fouad and Zidane Lahcen	337-343
Morphological and biochemical responses to boron and zinc fertilizers in <i>Stevia rebaudiana</i>	Sanjeev Kumar Maurya and Sanjay Kumar Garg	344-348
<i>Merops superciliosus persicus</i> palls, 1773 (Coraciiformes: Meropidae) in the provinces of Baghdad and Babylon	Adel Khudair Abdel-Hamza and Kameela Ward Shaher	349-354
Effect of Variety and Planting Date on Growth and Yield of Barley (<i>Hordeum vulgare</i> L.)	Ali Ahmed Hussein Al Myali, Ali Saleh Hassoon and Ahmed Adnan Kadhim Alaameri	355-358
Bacteriophage as bio-preserving to enhance shelf life of fruit and vegetables	Farah Rami Saleh	359-362
Sequences of Adherence genes among <i>S. aureus</i> and <i>M. catarrhalis</i> isolated from throat infections, Iraq	Iham A. Bunyan, Safaa S. Naji and Haeder H.S. Aljadoa	363-383
Biological study of oriental spider mite <i>Eutetranychus orientalis</i> (Klein) in laboratory on grapefruit and lemon leaves	Hala K.J. Aljboori and Sindab S.J. Al Dahwi	384-388
Roles of Mycorrhiza and Salicylic Acid in Carrying the Carnation Plant <i>Dainthus caryophyllus</i> to water Stress	Mahmood Shaker Ahmed and Sawsan Abdullah Abdul Latif	389-394
Study of the activity of <i>Anabaena variabilis</i> alga on some immune indicators in male mice	Lamiaa A. Gharb and Hind H. Obaid	395-398
Using plant protease from wild Cantaloupe fruit (<i>Cucumis trigonus</i> Rox-b) as tenderizing agent of aged bull meat	Hemn Ghazi Zahir, Hatem Hasoon Saleh and Ayad Bakir Mahmud	399-407
Effect of Organic and Bio Fertilization in Yield Characters and Fruit Quality of Strawberry <i>Fragaria x ananassa</i> Duch. Ruby GEM	Shymaa S. Neamah, Ghalib B. A. Al-Abbasi and Alaa E. Hasan	408-412
The Palynological study of Ten species for <i>Alyssum</i> (Brassicaceae) in Mid and North of Iraq	Mohammad A. Hashem Al-Blesh and Marwa D. Salman Al-Joany	413-416
Alleviation of salinity stress in wheat by ACC deaminase-producing <i>Bacillus aryabhatai</i> EWR29 with multifarious plant growth promoting attributes	Mohamed G. Farahat, Mohamed Kamal Mahmoud, Sameh H. Youseif, Saleh A. Saleh and Zeinat Kamel	417-429
Study of the Association of Rotavirus and Astrovirus in Children Infected with Acute Gastroenteritis in Baghdad City	Musa K. Al-Janabi, Saife D. Al-Ahmer and Faisal G. Al-Hamdani	430-434
Effect of Spraying Date of Gibberellic Acid and Boron on Some Physical Characteristics of Palm Tress CV. Khadhrawi	S.H. Jabbar and Z.A. Hassan	435-442
Detection of the contamination of Aflatoxin by using HPLC and several concentrations of heavy metals by using Atomic Absorption Spectrophotometers (AAS) in both bared and packed spices (Iraq and turkey)	Ahmed Sabah Qasim and Ithar Kamil Al-Maayaly	443-448
Impact of vermicompost and foliar spray of vermivash on growth, yield and nutritional status of Lettuce plants	Yassen A.A., Entsar M. Essa, Neama M. Marzouk and Sahar M. Zaghloul	449-455
The <i>in silico</i> gene-transcriptional effects of 2-((4-acetophenyl)-2-chloro-N-methyl) ethyl ammonium chloride on the acute lymphoblastic leukemia cell lines, C7-14 (glucocorticoid sensitive) and C1-15 (glucocorticoid resistance)	Israa Najm Abdullah Al-Ibadi, Alyassari Abdulkareemsalman, Neamah Ahmed jasim, Alaa Abdulaziz Abed and Miranl A Al-Rammahi	456-460
Some Post-cryopreserved Semen Characteristics of Holstein Bulls as Influenced by Adding Aqueous Extract of Urtica Dioica and Date Palm Pollen Powder to Tris Extender	Omar Adel Mohamed and Talal Anwer Abdulkareem	461-467
Effect of Adding Propionic Acid, Formic Acid and Antibiotics to Broiler Diet on the Production Performance, Some Histological traits and Microbial Characteristics	Wars Saud Tawfeeq and Hanan Essa Al_Mashhdani	468-472
Root qualities and nitrogen uptake efficiency for hybrid of maize and their parents	Jawad Ali Hamood and Layla Ismail Mohammed Al-Majidi	473-479
New Method of Evaluation for Isolation and Fusion of the Rice Protoplast (<i>Oryza Sativa</i> L.) Using Different Concentrations of PEG	Ali Nadhim* and Layla Ismail Mohammed	480-484

Manufacturing of baby's food from local sources and study of chemical and sensory properties	Alaa Aid, Baidiaa Hafidh Mohammed and Ashraq Monir Mahmed	485-488
Effect of mutation (C33379782T) in quantitative traits loci (QTL) in local Iraqi chickens on productive and physiological performance	Dhiyaa M. Zamil and Bassam G.M. Al Khatib	489-494
Histopathological effect of sunset yellow in Albino Mice treated with vitamin E	Haneen A.L. and Salema Lafta Hassan	495-500
Impact of Cubeb (piper cubeba) and turmeric (curcuma longa) dietary inclusion on broiler's performance and carcass cuts	Mohammed Ali Makki Al Rubaee	501-504
The response of productive broiler chickens for adding nano-zinc to drinking water under high temperatures in Iraq	Fadhil Rasool Al-Khafaji and Ihab Abbas Al-Jabbawi	505-511
Effect of use of alcoholic extract of lemon grass and anise seeds on productive performance, some biochemical blood and reproductive hormones in local female goats	Mohammed Saleh Mohammed Al-Salam and Mohsen Yas Mohsen Almajmaee	512-516
Enhanced <i>in vitro</i> multiplication and rooting of date palm cv. Yellow Maktoum by zinc and copper ions	Zeinab E. Zayed, Maiada M. EL-Dawayati, Fadia A Hussien and Tahani Y. Saber	517-528
Effect of injection of different levels of Equine Chorionic Gonadotropin (eCG) on semen qualities in Shami goats	Hind Hamid Salman Al-Mahdawi and Ali Shihab Ahmed	529-532
The effect of magnetically treated water against <i>Fusarium</i> wilt disease in tomato caused by the fungus <i>Fusarium oxysporum</i> and its effect on production under fertilized farming conditions	Mena W. Hatem, Hussein M. Shukri, Khalid A. Rasheed, Majeed H. Nawar, Salah M. Hasan and Rawaa Adnan	533-536
Ethnomedicinal uses of some plants used by <i>Gond</i> Tribe of Dindori District, Madhya Pradesh	Ramesh Kumar Ahirwar	537-541
Effect of <i>Rosmarinus officinalis</i> on the female adults and nymphs of <i>Bemisia tabaci</i> (Aleyrodidae)	Athraa H. Jasim Al- Rahmany	542-546
Water-associated diseases : A Review	Sanaa Rahman Oleiwi	547-550
Rapid-test and ELISA based identification of <i>Rotavirus</i> in camel calves in middle and south of Iraq	Hamed A.H. Al-jabory, Ibrahim A.H.AL-Zubaidy and Ahmed jasim Neamah	551-556
Effect of Spraying Nutrients on the Characteristics of the wheat seeds (<i>Triticum aestivum</i> L) of the basis of the local c.v. Babil 113.	Najm Abd Traad and Ayad Hussein Al-Maeni	557-564
Evaluation of enzymes role in insecticides resistance mechanism of <i>Bemisia tabaci</i> (Gennadius) from seven Governorates of Egypt	Raghdia M. Hassan, Hala M. AbouYousef, Karima H. E. Haggag and Bahia Y. Riad	565-573
Effect of adding wheat organic residues and salicylic acid on growth and corms production of <i>Freesia hybrida</i> plants	J.A. Abbass, M.T.H. AL-Zurfi, A.M. Al-Abbasi, M.J. Swadi and E.S. Kadhim	574-578
Detection the antimicrobial activity of AGNPS synthesized by <i>quercusinfectoria</i> plant	Reem M. A. Al Majeed, Nehia N. Hussein and Khalida F.AL-Azaw	579-584
Potato supply response to changes in price and non-price factors in Iraq during the period (1989-2018)	Najlaa S. Madlul, Firas I. Arhaeem, Yousra T. Baker and Najah Ali Abdalkareem	585-591
Effect of Citric Acid on Some Morphological Characteristics and the Content of Major Nutrient of Chamomile (<i>Matricaria chamomilla</i> L.) at Increasing Concentrations of Kinetin	Basma Adel Qader Al-Zubaidi; Bahaa El-Din Makki and Fayrouz Al-Rubaie	592-596
Effect of Bio-fertilizer (EMa) and nutritious solution (Al-Jamia) in Vegetative traits for two cultivars of broad bean (<i>Vicia faba</i> L.)	Wafaa Mohammad Lafta Al-Tamimi and Ahmed Mohammad Lahmood	597-602
Effect of pellet diameter with difference levels of protein and energy on broiler chicken performance	Hersh Abdulazal Faraj and Saman Abdulmajid Rashid	603-608
Effect of ground and natural zeolite on growth and yield of wheat	Nisreen Aqeel Hussain and Abdul Mohsin Abdullah Radi	609-615
Effect of the Silver nanoparticles on <i>ERG11</i> expression in fluconazole-resistant <i>Candida albicans</i> isolates	Fatima R. Abed-Alwahed and Nemat J. Abed Al-baqi	616-620
Phytochemical screening, antioxidant and allelopathic activities of <i>diplotaxis harra</i> crude extracts	Fahad M. Alzuaibr, Yasser A. El-Amier and Sami A. Al-Barati	621-626
The inhibitory effect of <i>Trichoderma</i> crude extract against some human pathogenic bacteria	Ali Shamil Khayat and Alaa Mohsin Al-Aaraji	627-632

Effect of Bacterial inoculum, spraying with Calcium nitrate and Salicylic acid in Vegetative and flowery growth traits of <i>Gerbera jamesonii</i>	Riyadh Abdul Jabbar Mohammed and Ban Mohammed Ali Abood	633-638
Comparative studies on Morphology, anatomy and phytochemistry of selected species of <i>Croton</i> L. (Euphorbiaceae)	Bhavana R., Ramya Rajan & Binu Thomas	639-656
Potential of Antagonist and am fungi on the management of onion basal rot caused by <i>fusarium oxysporum</i> f.sp. <i>cepae</i>	R. Yuvarani, K. Raja Mohan, P. Balabaskar and P. Sivasakthivelanc	657-660
Ethnobotanical study of wild edible food plants used by the tribals and rural populations of Odisha, India for food and livelihood security	Samarendra Narayan Mallick, Tirthabrata Sahoo, Soumendra Kumar Naik and Pratap Chandra Panda	661-669
Economics of Different <i>Gladiolus</i> Cultivars Grown Under Open Field Conditions in Southern Zone of Andhra Pradesh	Devi Priya Avilala, K. Swarajya Lakshmi, R. Nagaraju and D. Drinivasa Reddy	670-672
A mini review on cucumber and giloe: A neuroprotective and immunomodulator agent	Zeeshan Fatima and Ekta Khare	673-678
Effect of organics with boron and silicon fertilization on the yield of tomato and soil properties in coastal soil	D. Elayaraja and S. Jawahar	679-685
Genetic Variability and Correlation Studies in Chilli (<i>Capsicum annum</i> L.)	J. Gokulakrishnan, C. Nagaraja, S. Ranjith rajaram and M. Prakash	686-690
Ethnobotanical significance of plants referred in holy bible found in the agasthiamalai range, the tail end of western Ghats	S. Mary Sheeja and J. Lohidas	695-700
Isolation, identification and antagonistic potential of <i>Streptomyces</i> ANSCa22 for biocontrol of <i>Rhizoctonia bataticola</i> infection of Soybean	Amarja S. Khendkar and Aarti R. Deshpande	701-707
Assesment of Molecular Diversity in Maize Inbreds Derived from Different base Populations	B. Bharathi Veeramani And M. Prakash	708-712
Digital land resource inventory for sustainable agriculture -a case study in koranahalli subwatershed	D. Ravikumar and Govindaraju	713-720
Assessment of gentic variability parameters in Coriander (<i>Coriandrum sativum</i> L.) Genotypes for growth, foliage yield and quality traits	Shiwangi P., Hadimani H.P., Satish D., Awati M. and Kantharaju V. and Biradar I.B.	721-726
Impact of organic manures on rice weed control	R.M. Kathiresan and C. Vinoth Kumar	727-730
Study on diversity of phylloplane fungi associated with the dried-decaying leaves of <i>Solanum nigrum</i> L. and inhibition of conidial germination of <i>Alternaria alternara</i> by the phylloplane fungi	Jyoti Chauhan and D.K. Jain	731-737
Variability studies among rice genotypes (<i>Oryza savita</i> L.) Under Coastal Saline Condition	C. Praveen Sampath Kumar, Mahesh Naik, J.L. Joshi and R. Ebenezer Babu Rajan	738-740
Effect of sulphur and boron on hybrid sunflower	Kalaiyarsan C.; D.Tamizhselvan; S. Jawahar; S. Ezhilkumar; K. Suseendran; S. Madhavan and S. Ramesh	741-746
Studies of Bio efficacy and phytotoxicity of Azoxystrobin 120 + Tebuconazole 240 SC Powdery mildew (<i>Leveillula taurica</i>) in Chilli	T. Sivakumar, R. Kannan, P. Renganathan K. Sanjeevkumar and S. Sudhasha	747-753
Traditional healing methods for bone fracture practiced by the Garo tribe of Meghalaya	Adela D. Marak and Binu Mathew	754-758
Response of aggregatum onion (<i>Allium cepa</i> L. var. <i>aggregatum</i> Don.) to organic inputs, bio fertilizers and biostimulants	D. Anbarasi and K. Haripriya	759-762
Entrepreneurial behaviour of off season cucumber growers: An analysis	Sentibenla Pongener and Kaushal Kumar Jha	763-768
Study of The Mineral Composition of Some Iraqi Soils and Its Effect on Zinc Adsorption	Zeina A.H. Al Tae and Abdul Baqi D.S. Al Maamouri	769-776
Effect of seed stimulation and spraying of salicylic acid in germination, growth and yield of oats (<i>Avena sativa</i> L.) in gypsum soils	Labeed Shareef Mohammed	777-781
Effect of Plant Growth Promoting Rhizobacteria (PGPR) on Growth of Cauliflower (<i>Brassica oleracea</i> L. var. <i>botrytis</i>)	Hussei Ali Salim, Abbas Fadhil Ali, Majida Hadi Mahdi Alsaady, Uday Nayef Saleh, Nassif Hameed Jassim, Ali Rahim Hamad, Jamal Abdulrahman Attia, Jamal Jumaa Darwish and Abdulhafid Falih Hassan	782-786
Effect of Prostaglandin and Oxytocin injection on some biochemical parameters in Awassi ewes of Iraq	Yassen Taha Abdul-Rahaman, Anas Obiad Humide and Aysar Mahmood Mohammed Atea	787-790

Genetic Behavior of Panicum(<i>Panicum maximum</i> L.) under different sowing dates in Iraq	Hussein Kzar Shalal Al-essawi and Nadhum Y. Abed	791-797
Test sensitivity of some potato varieties cultivated in Iraq to soft rot disease caused by <i>Pectobacterium carotovorum</i> and its relation with contents of dry matters, starch and calcium of tubers	Nazar Rashid Merzah and Jamal Hussein Kadhim	798-802
Effect of selection intensity on the estimation of correlated and direct genetic response depending on milk production in Holstein Friesian cows	Wasan J.M. AL Khazraji, Hamza M. AL-Khuzai and May A. AL-Shaikh	803-806
Germination Scenario and Growth Analysis for Irradiated Cowpea	EI-Biale N.M., and Nawito M.	807-816
Cytotoxic Effect of Synergism Relationship of Oil Extract from <i>Origanum majorana</i> L. and Silicon Nano Particles on MCF-7	Qatar Al-Nada K. Jssim and Ansam G. Abdul-Halim	817-821
Data Analysis for Cloud Cover and Rainfall over Baghdad City, Iraq	Zainab Majeed Abbood and Osama Tareq Al-Taai	822-826
Effect of humic acid and seaweed extract spray in leaf mineral content of mango seedlings	F.S. Hameed Al-Marsoumi and Mustafa E.A. Al-Hadethi	827-830
Study of Bio-efficacy and Phytotoxicity of Azoxystrobin 120 + Tebuconazole 240 SC against <i>Fruit rot and Dieback (Colletotrichum capsici)</i> disease in Chili	T. Sivakumar, R. Kannan, P. Renganathan K. Sanjeevkumar and S. Sudhasha	831-836
Effect of Licorice extract (<i>Glycyrrhiza glabra</i>) on <i>in vitro</i> fertilization of Iraqi Local Goat oocytes	Salah Mahdi AL-Shammary	837-839
Study of effect of Ethyl alcohol and Petroleum ether Extract of <i>Sesbania sesban</i> L. to control moving stages of <i>Trogoderma granarium</i> (Evertes) Coleoptera: Dermestidae	Shaimma N. Sahi and Falah A.S.	840-844
Influence of some factor on somatic embryos induction and Germination of Date Palm cv Barhi by using cell suspension culture technique	Ali Adil Abdul Kareem and Moayed Rajab Abood Al-Dahan	845-850
Response of six true potato seeds genotypes to GA ₃ in germination and yield characters of mini-tubers produced	Aseel Alwan Abd, Fouad Abbass Salman and Ali Hussien Jasim	851-855
The photoperiods influence on two cultivars growth and yield of strawberry plant	Parween Muhammad Kareem Rozbiany and Shler Mahmood Taha	856-860
The value added for the manufacturing of potato chips and the factors affecting them within the value chain of potato crop for the spring season of 2018	H.A. Jassim, A.F. Ahmed and M.S. Ghilan	861-870
Relationship between ants <i>Pheidole megacephala</i> (Hymenoptera: Formicidae) and some dead animals tissue	Dalal Tareq Al-Ameri, Abbas K. Hamza and Ali Sabah Alhasan	871-874
Mycorrhiza and salicylic acid improving drought tolerance in Carnation <i>Dianthus caryophyllus</i>	Mahmood Sh. Ahmed and Sawsan A. Abdullateef	875-885
Effect of Ginger and Cinnamomum Extracts in Protect Orange Fruits from Infection <i>Penicillium digitatum</i> the Pathogen of Green Mould Disease	Ali Faraj Jubair, Ali Ajil Al-Haidery and Firas Hadi Al-Haidary	886-890
Effect of Irrigation Water and Organic Fertilization on Salinity Level, Soil Salt Accumulation and the Growth of <i>Sorghum bicolor</i> L.	Raad Amer Mohammed and Ibtisam Majeed Rasheed	891-896
Effect of foliar spray with Nano-Optimus Plus and Potassium Chelated with amino acids in some growth characters of <i>Citrus aurantifolia</i> L. saplings	Ali M. J. Amin, Ghaleb B.A. Al-Abbasi and Helen J.A.M. Alkurdi	897-900
Effect of adding different levels of tannin powder on total gas and methane production and <i>in vitro</i> digestibility	Mary A. Abdullah and Ashwaq A.A. Hassan	901-907
Association of prostate specific antigen concentration with (KLK3) rs2735839 in infertile patients	Mohammed M. Mohammed and Rasha A. Mahood	908-912
Zinc-Methionine and it's effect on chicken meat quality	Wedad Fadhil Abas, Nadia N. Abed Al-Hajo, Akeel A. Shlij Al Mjbel and Ammar S. Abdulwahid	913-918
Comparative efficacy of fungicides, commercial bioproducts, essential oils and plant defense inducers in controlling Pothos root rot	M.F. Attia, Nour El-Houda A. Reyad, Baiumy M.A.M. and Amira B. Mohamad	919-925
Costs estimation and economies of scale for fish farming projects in Muthanna governorate for 2018	Miqdad J. A., Wadhah R. R. and Oleiwi Abdulridha M.	926-928
Interaction of Thiamethoxam, Spinosad and <i>Beauveria bassiana</i> isolates for control whitefly <i>Bemisia tabaci</i> (Hemiptera: Aleyrodidae) on cucumber	Alyaa K. Mohsin; Bassim SH. Hamad and Mohammed J. Hanawi	929-938
Moringa plant powders as repellent effect against the stored product insects	Salem, S.A.; Abd El-Salam, A.M.E. and Abdel-Raheem, M.A.	939-945

continued on next page

Response of bean plant <i>Phaseolus vulgaris</i> L. to spray with hornwort extract and nano potassium on growth and yield parameters	Malik Sabah Khaber and Manssoor Abed Aboohanah	946-950
Efficiency of biological control of root-knot nematodes in infected grapevines seedling by genetic improved bacteria	Soliman M. Gaziea, Mohamed AH. Shereen, Haggag F. Laila and El-Hady S. Eman	951-961
Effect of adding of the Milk Thistle (<i>Silybum marianum</i>) seed powder in the traits of biochemical blood of the quail	Shahad B. Alassi and Ahmed A. Allaw	962-964
Study of different factors effected in production of Dextranase enzyme from a local isolate of <i>B. subtilis</i> Z2 bacteria	Zahraa H. Abbood and Jasim M. Awda	965-970
Efficacy of three botanical powders as Mung bean grain protectants against <i>Callosobruchus maculatus</i> (Fabricius) (Coleoptera:Bruchidae)	Yusra Jamal Talib	971-977
Preparation and Standardization of liposomes encapsulated Newcastle Disease Vaccine in Unilamellar and Multilamellar forms	Nawal S. Jaafer, Balqees H. A. and Mohanad A. Al-Bayati	978-982
Relationship of STAT5A gene (Exon 7) polymorphism with milk production traits in Holstein Cows in Iraq	Zaid M.M. Al-Azzawi and Mohammed R.K. Al-Dulaimi	983-988
Phytochemical Analysis for Secondary Metabolites and <i>In-vitro</i> Antimicrobial activity of <i>Cuscuta reflexa</i>	Akarsh S. and Thippeswamy B.	989-997
Application of Gallic acid in the manufacturing of Channa cheese	Anwar Hassan Ali and Nidhal Mohammed Salih	998-1002
Impact of different cropping systems on seed yield and quality of Egyptian cotton	Mohamed M. Lamlom, Sherif I. Abdel-Wahab, Tamer I. Abdel-Wahab and Mohamed A.A. Ibrahim	1003-1013
Optimal Conditions for Isolation and Fusion of Protoplasts of Bread Wheat Cultivars	Auday Hamid Taha and Radhi Dheyab Abed	1014-1018
Isolation and diagnosis of <i>Erwinia</i> from soils of different regions of Al- Muthanna governorate	Ali Ajil Jassim, Sofia Jabbar Jassim* and Saad M. Al Jabery	1019-1022
Contribution to the Inventory of the Terricolous and Saxicolous Bryological Flora of Ifrane national park, Morocco	Imane Fadel, Najib Magri, Lahcen Zidane, Allal Douira, Nadia Belahbib and Jamila Dahmani	1023-1033
The Host Plant Preference of the Leaf Miner <i>Liriomyza</i> spp. (Diptera: Agromyzidae) on Eggplant (<i>Solanum melongena</i> L.) and Squash (<i>Cucurbita pepo</i> L.) Crops and its Relation with the Secondary Compounds in Plant	Zeinah T. Mahmoud and Feryal H. Sadek	1034-1038
Effect of soil application seaweed alga-600 and foliar fertilizer black force on growth, yield, and quality of broad bean	Abdulraheem S. Mohammed and Fathel F. R. Ibraheem	1039-1044
Effect of gibberellin and saponins extract of <i>Sanscevieria</i> leaves on anise seeds germination	Ansam Ghazi Abdulhalem	1045-1050
Association between polymorphism of Calpains 1 gene and growth traits in Local Awassi lambs in Iraq	Al-Murshidy A.H.R., Al-Anbari N.N. and Al-Khuzai A.L.D.	1051-1058
Effect of the method adding of modified nutrient solution (Folia Stim Ultra) and its interactions on some chemical traits and the yield of date palm (<i>Phoenix dactylifera</i> L.) Zahdi cultivar	Abbas Hadi Hashim and Thamer H. Khaleel Al-Salihi	1059-1065
Isolation and identification of the causes of dry rot disease on potato and its control by using some environment friendly plant extracts	Kawther F. Alwan, Ali H. Al-Asadi, Muhsen A. Almousawy and Majeed M. Dewan	1066-1070
Effect of Absciscic Acid (ABA) on Yield and its Components of Four Rice Varieties (<i>Oryza sativa</i> L.) under Aerobic Conditions	Ali Jaaffar Baqer Al-jawaheri and Faez Fayad Alogaidi	1071-1076
Detection of Gene Badh2 in Charge of Aromatics in Iraqi Rice Varieties	Layla Ismail Mohammed and Ali Nadhim Farhood	1077-1084
Characterization and standardization of Liposomal Tylosin Preparation	Mohanad A. Al-Bayati; Farrah R. Jaafar and Ban M. Ali	1085-1093
First record of root rot of Rosemary (<i>Rosmarinus officinalis</i>) caused by <i>Rhizoctonia solani</i> in Iraq	Ali Kareem Al-Taae and Huda Hazim Wafi AL-Taae	1094-1098
Effect of Seaweed Extract and Cytokinin (CPPU) Spraying on Growth of Lemon (<i>Citrus limon</i> L.) Seedling Budded on Sour Orange	Tahani Jawad Mohammed Ali and Farah Fadhil Nuri AL-Araji	1099-1104
Protective role of vitamin –TPGS to overcome oxidative stress induced by dipping of sheep with cypermethrin	Moaid Abd-Elshahib twegh, Karrar Jasim Hamzah, Adnan Mansour Jasim and Qassim Abbas Mohammed	1105-1109

Monitoring of green gram [<i>Vigna Radiata</i> (L.)] pests at Baghdad in Iraq	Ahmed Alsabte, Amal Hussein Abdallah and Baraa Muzahim Thakir	1110-1112
Biological Aspects and Predation efficacy of <i>Coccinella undecimpunctata</i> L. on two aphid species under laboratory conditions	Faten G.El-Deen Mohamed, M.A.I. Youssif, K.A. A. Hammad and M.R.A. Hassan	1113-1120
Genetic Analysis of Sorghum Cultivars from USA Using SSR Markers	Russell W. Jessup, Ziyad A.Abed, Hussam F. Najeep and Nagham M. Al-Azawi	1121-1125
<i>In vitro</i> influences of sugar nutrition and light condition on accumulation of some phytochemicals in <i>Verbascum thapsus</i> L. culture	Ashwaq S. Abed, Duha M. Majeed, Mohammed A. Mohammed and Abedaljasim M. Jasim Al-Jibouri	1026-1030
Evaluation of the Bifenthrin 10% EC in both normal and nanoparticles against <i>Dacus frontalis</i> in cucumbers field	Ameer H.O. Al-Soltany, Sindab S. J. Al-Dahwy and Abd-Alkarem J. Ali	1131-1135
Investigation of the antibacterial activity of gram positive and gram negative bacteria by 405 nm laser and Nanoparticles	Marwah Al-Ogaidi and Israa Al-Ogaidi	1136-1140
Response of onion plant to the humic acid application and spraying with liquid fertilizer on growth and yield of green onion	Abdulraheem S. Mohammed and Fathel F. R. Ibraheem	1141-1144
The effect of addition of Acetamidrid, Salicylic acid and bio-health to the culture medium to determining the chemical content of algae species from carbohydrates	Noor Abdulaali Kadhim and Saadoon Abdul Hade Saadoon	1145-1152
Assessment of genetic diversity for Yellow mosaic Virus resistance in blackgram cultivars based on molecular and morphological studies	Malarkodi, A., S. Murugan*, R. Anandan, R. Thirumalai and J. Padmanaban	1153-1163
Studies on the host defense enzymes as influenced by application of composted poultry manure against challenge inoculation with root rot pathogen in Sunflower	J. Raja and V. Rajikumar	1164-1168
Plant immune response strategies against pathogens	Devesh Kumar	1169-1174
Standardization of protocol for <i>in vitro</i> seed germination of citrus <i>macropteramont</i>	Shabaree Y. A. Sangma, Lolly S. Pereira and J.C.Dang	1175-1178
Vegetative Propagation of Guava (<i>Psidium guajava</i> L.) Through Air layering: A Review	Saroj and Krishan Kumar Singh	1179-1188
Review on effects of herbal extract for the treatment of Polycystic Ovarian Syndrome (PCOS)	A.V. Kamble, S.P. Dhamane, A.S. Kulkarni and V.V. Potnis	1189-1195
Green synthesis, characterization and antibacterial activity of iron oxide nanoparticles	Ritu Hooda and Minakshi Sharma	1196-1200
Phytochemical analysis and nutritive value of <i>Bombax ceiba</i> Linn. (Petals)	R.K. Shukla, Keshari Nandan, Abha Shukla and Amanpreet Kaur	1201-1206
Effect of Drying on Germination Index of Sorghum	Ankit Paliwal and Neha Sharma	1207-1212
Effect of Irrigation regimes and method of zinc application on growth and yield attribute of aerobic rice in lateritic soil	B. Mondal and K. Pramanik	1213-1219
The induced Mulagenetic effect of ethyl methane sulphonate on yield contributing characters in <i>psophocarpus tetragonolobus</i> (L.) DC.	A.S. Sonavane	1220-1224
A study on adoption of eco-friendly technologies and its relationship with the characteristics of the respondents	Darling B. Suji and A.M. Sathish Kumar	1225-1228
Paddy Cultivation in Imphal, West Manipur: Status of Information Sources Utilisation	Bidyapati Thangjam and Kaushal Kumar Jha	1229-1234
varietal identification of rice (<i>Oryza sativa</i> (L.) genotypes by RAPD markers	S.M. Naveen, S. Ezhil Kumar, G. Sathiyarayanan and R. Thirumalai	1235-1241
Evaluation of effective Biocontrol Agents and organic amendments against Root Rot incidence of sesame that incited by <i>Macrophomina phaseolina</i> (Tassi) Goid and its Rhizosphere population	P. Renganathan, K. Vinothini, T. Sivakumar, T. Suthin Raj and R. Kannan	1242-1246
Histochemical localization and chromatographic analysis of leaf essential oils of selected species of <i>Curcuma</i> L.	Seema R., Anil Kumar K.S. and Seshu Lavania	1247-1252
Effect of boron and silicon nutrition on the performance of growth and yield of tomato in coastal saline soil	D. Elayaraja and S. Jawahar	1253-1258

- Effect of wheat seed treatment with sporulation suspension of three isolates of *Trichoderma harzianum* and its interaction with half of NPK fertilizer recommendation on some growth characteristics of wheat crop
Mustafa A. Al-Jiashy, Ali Ajil Al-Haidery and Faisal M. Al-Taher 259-1264
- Heat shock proteins genes: A Review
Wafaa Ismail Ibrahim, Ali Najem Abdullah and Ahmed Ismail Khalaf 1265-1272
- Threshold temperature and thermal constant of potato tuber moth *phthorimaea operculella* on some Potato varieties
Z.A. AL-Tamimi and R.S. AL-Jorany 1273-1278
- Optimization of Copper Removal from Clay Soil Using Electro-Kinetic Remediation by Taguchi Method
Maryam S. Karbool, Sata K. Ajjam and Hassan A.Z. Al-Fetlawi 1279-1283
- Fertilizer Type Effect on the Concentration of Ammonium Ion into the Rhizosphere of *Zea mays* L.
Raid SH. Jarallah and Fatimah Mahdi Rahi 1284-1288
- Determination of Heavy Metals in Tattoo Inks from the local market in Baghdad city
Alzahraa Rasool Abd Ali and Nada Abdul Rahman Fleeah Al-Easawi 1289-1292
- Effect of Fenpyroximate in normal and nanoparticles to the control of Ghobar Mite *Oligonychus afrasiaticus* (McGregor) (Acari: Tetranychidae)
Zeena M.M. Almrsoy, Sindab S.J. Al-Dahwy and Abd-alkarem J. Ali 1293-1297
- Floral Characteristics of Mung bean (*Vigna radiata* L.) as affected by Planting Dates and Brassinolide Spraying
Ahmed A.K. Khashan and Intsar Hadi Hamed Al-Hilfy 1298-1302
- Characterization of composted poultry manure with or without plant residues
Hussein Finjan Al-delfi and Mohammed A. Abdulkareem 1303-1310
- Treatment of uterine prolapse in cows by new method (uterine rubber ball)
Alaa Kamil Abdulla, Dhia Hussein Jassim Al-Delemi and Fadhil Kadhim Hassooni 1311-1314
- Contribution to the study of the bryological diversity of the Benslimane region, Morocco
Imane Fadel, Najib Magri, Lahcen Zidane, Oumaima Benharbit, Allal Douira, Nadia Belahbib and Jamila Dahmani 1315-1325
- Effect of Adding Different Levels of Amla Fruit Extract and Vitamin C to Tris-Based Extender in The Semen Properties preserved at 5°C of Awassi Rams
Mina S.M. Jaafar and Husam J.H. Banana 1326-1330
- Effect of Anise seeds treated and untreated with formaldehyde in heat tolerance and some biochemical parameters of Holstein cow under heat stress
Mohammed Ahmed Shwayel and Raghad Hazem Hamed Al-Mafraji 1331-1334
- The impact of primary productivity and biomass on the occurrence of zooplankton throughout the year.
Khadija Kadhem Hreeb and Nada Moufeed 1335-1343
- Effect of partial and total substitution for Azolla plant (*Azolla pinnata*) powder instead of soybean meal in broiler chickens diets on blood biochemical traits
Mohannad M. AL-Rekabi, Nihad Abdul-Lateef Ali and Fadhil Rasul Abbas 1344-1348
- Influence of shading levels on growth, yield and andrographolide content of Kalmegh
Somanan Liphan* and S. Detpiratmongkol 1349-1354
- Effect of some plant powders in larvae stage of hairy grain beetle *Trogoderma granarium* (Evest) (Coleoptera: Dermastidae)
Falah A.S., Nareman R. and Athra A. 1355-1358
- Effect of Soil Salinity on Spectral Reflectance of RED and NIR wavelengths in AL-Salamiyat project
Afrah K.S. AL-Jubouri and Kusay A. Wheib 1359-1365
- The first record to moth of *ocnogyna loewii* zell. (arctiidae: lepidoptera) on wheat plants in Iraq and Evaluate efficacy of some aqueous plant extracts against its Caterpillars
Hussein Ali Salim, Majida Hadi Mahdi Alsaady and Liqaa Mohammed Shiblawi 1366-1370
- Genetic variability of different isolates of *Fusarium* spp. isolated from imported banana fruits *Musa* spp.
Ali F. Jubair, Sabah L Alwan and Aqeel N AL-Abedy 1371-1380
- Effect of water and salt stress on growth and yield of two varieties of wheat (*Triticum aestivum* L.)
Aws M. Kreet and Samira N. H. Al Hasson 1381-1388
- Zinc-methionine and it's effect on chicken meat quality
Wedad Fadhil Abas, Nadia N. Abed Al-Hajo, Akeel A. Shlij Al Mjbel and Ammar S. Abdulwahid 1389-1394
- Sequencing of the *sdIA1* amplicons among *Salmonella typhi* isolated from patients with typhoid fever, Iraq
Ilham A. Bunyan and Ali A. Obeis 1395-1403
- Lindernia micrantha* D. Don (*Linderniaceae*): A red listed plant species New discovery to Tamil Nadu, India
L. Velayudham, K. Jeyaprakash N. Balachandran and M. Rajantheran 1404-1408

continued on next page

- Germination and seedling growth in primed sorghum seed with gibberellic and salicylic acids
Mohammad Omar Shihab and Jalal Hameed Hamza 1409-1416
- Effect of cutting dates and different levels of nitrogen on the yield of green feed and grain yield for barley crop (*Hordeum vulgare* L.)
Hasan N. Mansoor and Bushra A. Jeber 1417-1422
- Economic and Econometrics analysis of the most important factors affecting the investment allocations for agricultural reclamation in Iraq for the period 1990 - 2017
Yusra Tariq Baker Al-Bajjari, Eman Younis Al-Najjar and Sundus Khawam Shamil 1423-1431
- Diagnosis and Count Density Determination of Symbiotic Protozoa into Hindgut of *Microcerotermes diversus* (Silvestri)
Dalal Tareq Al-Ameri and Ali Sabah Alhasan 1432-1436
- Seasonal presence of aphid natural enemies and effect of the fungus *Lecanicillium lecanii*, IGR Muligan and the pesticide Confidor on the seven-spot ladybird *Coccinella septempunctata*
Zahraa Abdul Muati Al-Ghadban 1437-1440
- Effect of Adding garlic and turmeric in the diet contaminated with aflatoxin B1 on performance of growth and different blood indicators of common carp fish (*Cyprinus carpio* L.)
Duha Basim Dheyab, Luay Mohamed Abbas and Raaed Sami Atte 1441-1447
- The Influence of factors in damage starch ratio of the local wheat flour and bread making
N.F. Hassan and M.A. Musa 1448-1452
- Investigation of heavy metals in fruits and vegetables and their potential risk for Egyptian consumer health
Mohamed A. Kandil, Mona A. Khorshed, Ibrahim A. Saleh and Mohamed R. Eshrawy 1453-1463
- Effect of *Withania somnifera* Plant Extracts in Immature Stages of *Culex quinquefasciatus* (Diptera: Culicidae)
Muthanna Jamal Jawad Al Sakini and Makki Hamad Abd Ali 1464-1468
- Effect of adding Palm Kernel Meal in common carp diet *Cyprinus carpio* L.
Ahmed Thwaini Ahmed Al-Maadhedey, Hussam Hekmat Nafea and Taghreed Sadeq Mohson Alubaydi 1469-1474
- Effect of Adding Thyme Powder and Tomato Powder in Diet on the Carcass and Meat Characteristic of Quail
Mohammed S B. Al-Hlawee 1475-1478
- Activity of Leaves and Root Extracts of *Chenopodium album* against Damping-off disease on Bread Wheat under Greenhouse Conditions
Jawadayn Talib Alkoorane 1479-1482
- Micropropagation of *Calathea medallion* an Ornamental Plant
EL-Saady M. Badawy, Effat E. El-Meadawy and Walid H. El-Ezawy 1483-1489
- Effect of normal and Synthetic Anti mycotoxin on levels of Neurotransmitter hormones and immune state in Broiler Chickens
Murtadha Abd Alrazaq Sabar, and Amjed H. Ulaiwi 1490-1494
- Effect of potassium humate foliar application on yield and quality of soybean (*Glycine max* L.) grown on calcareous soil under irrigation water regime
Sona Salem El-Nwehy, Dalal Hereimas Sary and Rasha Ramzy Mohamed Afify 1495-1502
- The dietary impact of clove and cinnamon powders and oil supplementations on the performance, ileum morphology, and intestine bacterial population of quails
Pakiza H., Wasman and Mahbuba A.G., Mustafa 1503-1509
- Response of rice to foliar application of plant growth regulator on growth and yield of rice
K. Suseendran, C. Kalaiyarasan, S. Jawahar, P. Stalin, G. Murugan, S.R. Vinodkumar and K. Arivukkarasu 1510-1514
- Evaluation of the efficiency of aqueous and alcoholic extract of *Thevetia peruviana* and its comparison with pesticide Ortus in controlling the Broad mite *Polyphagotarsonemus latus* (Banks) (Acari: Tarsonemidae), on Karisma pepper in greenhouse
Tadmur A. Malik and Feryal B. Hermize 1515-1520
- Effect of Mint oil and Colistin antibiotic on *fliC* Virulence Gene among *Pseudomonas aeruginosa* Clinical Infection Isolates from Baghdad, Iraq
Shehab K. Shehab* and Emad H. Jassim 1521-1529
- Gas Chromatography – Mass Spectroscopic analysis of *Lawsonia inermis* L., *Eruca sativa* Mill., *Simmondsia chinensis* (Link) Schneider and *Boswellia* spp.
Haider Sabeah Shanow Al-jabir, Dhia Ahmed Tain and Abdulla A. Abdulla 1530-1536
- Effect of plant variety, boric acid spray and potassium soil application on seed yield parameters of table beet *Beta vulgaris* L.
Zainab Hasan Thajeel Al-Khuzae and Jamal Ahmed Abbass 1537-1542
- Scenario of major Oilseed crop in Agro Climatic Zones of Madhya Pradesh, India
Shubh Laxmi and R.M. Sahu 1543-1549
- Integrated weed management practices on weed control in sunflower (*Helianthus annuus* L.)
S. Kalaisudarson, A.P. Srinivasaperumal, P. Senthilvalavan, T. Balakrishnan and P.V. Arathi 1550-1552
- Effect of Naphthalene Acetic Acid on yield attributes of Cowpea cultivars
Devesh Kumar, Saroj Singh Chahar and A.K. Singh 1553-1556
- Genetic divergence in rice (*Oryza sativa* L.) genotypes based on seed yield and quality parameters under Coastal Saline Ecosystem**
S. Sabarinathan, S.T. Ponsiva, S. Periyar Selvam, A. Anandan, N. Senthil Kumar and S. Thirugnanakumar 1557-1567

continued on next page

- Green Synthesis of Zinc oxide Nanoparticles using fruit extract of *Cupressus sempervirens* and analysis of their antioxidant and antimicrobial potential **Bhawna Pawar and Devendra Singh Negi** 1568-1572
- Endophytic Fungi from *Alternanthera pungens* Kunth **Harshdeep B. Sartape and Ashfaque M. Khan** 1573-1576
- GC-MS analysis of bioactive compounds present in ethanolic stem bark extract of an endemic plant *Chionanthus mala-elengi* (Dennst.) P.S. Green (Oleaceae) **Malathi K.*, Krishnaveni C., Sahithya S. and Akila Shree J.** 1577-1582
- Training participation of women sarpanchs towards rural development in bialspur district of Chattisgarh **Kumari Jyoti and M. L. Sharma** 1583-1586
- Doctorine of signatures in the traditional knowledge system of the Paraja and Gadaba communities of Koraput, India **Jnana Ranjan Pattanayak and Jayanta Kumar Nayak** 1587-1592
- Effect of composted poultry manure amendment on root rot disease incidence of Sunflower **J. Raja and V. Rajikumar** 1593-1597
- A Facile, Green Approach for Enhanced Synthesis of Silver Nanoparticles by *Weissella Confusa* produced Dextran **S. Chaitanya Kumari and P. Naga Padma** 1598-1602
- Efficacy of various spawn substrate, substrate pasteurization and supplements in the spawn base on Sporophore production of *Hypsizygus ulmarius* (Blie Oyster Mushroom) **Sutha Raja Kumar R., Eswaran A., Darwin Christdhas Henry L., Kannan R. and Suthin Raj T.** 1603-1606
- Effect of sulphur and boron on growth and yield of hybrid sunflower **Kalaiyaran C., D. Tamizhselvan, S. Jawahar, S. Ezhilkumar, K. Suseendran, S. Madhavan and S. Ramesh** 1607-1610
- Additive main effects and multiplicative interaction (ammi) stability analysis for seed yield in blackgram (*Vigna mungo* L. Hepper) Genotypes **V.A. Mohanlal*, K. Saravanan and T. Sabesan** 1611-1614
- Response of different preservatives on vase life and quality of *Gladiolus* flower cv. Yellow stone **Vishwa Nath, Sapna Sharma and Anuradha Singh** 1615-1618
- Sustainable Energy Management In Low Forest Density Sites Of Central India : Significance Of Women Participation **Garima Tiwari** 1619-1623
- Purslane: A Perspective Plant Source of Nutrition and Antioxidant **Md Kamal Uddin, Li Quan, Md Mahmudul Hasan, Motmainna and Mohammed Selamat Madom** 1624-1630
- Expression of heterosis for yield and its components in Indian mustard (*Brassica juncea* L. Czern & Coss) under timely sown irrigated conditions **Akanksha, Kartikeya Srivastava and B. Sinha** 1631-1638
- The Usage of Oil Palm Biomass as a Source of Electricity Generation In South West of Aceh, Indonesia **Agustiar, Tajuddin Bantacut, Moh. Romli and Bambang Pramudya** 1639-1644
- Fetus sex, late gestation and lactation period of awassi ewes on some hematological and biochemical parameters **Aead Nasreat Abd Ulwahhab and Raaed Ibrahim Khalil** 1645-1649
- Biology of Cigarette Beetle *Lasioderma serricorne* (F.) (Coleoptera : Anobiidae) on Baker's Yeast *Saccharomyces cerevisiae* **Samar Muthanna Shahrabani and Shaymaa Hameed AL-Obaidy** 1650-1652
- Genetic Variability Induction, UPR, ISSR and GC-MS Identification Through EMS Mutagenesis of *Datura stramonium* L. **Sudad K. Al Taweel, Thaera khairi Al-Rawi and Hussein A. Al Amrani** 1653-1663
- Serosurvey of brucello, coxiellosis and chlamydiosis in sheep from Baghdad city **Shahad Amer Alkahachi, Sufian Saleh Salman and Alaa Kamil Mahmood** 1664-1668
- The leaf miner, *Liriomyza trifolii* (Burgess) and its parasitoids on faba bean plants **Ali Sh. A.M., M.A.I. Youssif and Sherin M.M.Y. Helaly** 1669-1680
- Effect of blood sampling method during a mating time in male camels (dromedary camels) **Alaa Kamil Abdulla, Ali Habeeb Jaber AL-bdeery and Basim Hameed Abed Ali** 1681-1686
- Molecular and Bactereological study of methicillin resistant *staphylococcus aureus* isolated from different sources **Qanat M.Atiyea, Payman A. Kareem, Hilin S. Aldowri and Ranaa W. Younis** 1687-1692
- Land suitability for food crops and plantations in Bangli Regency Province Bali-Indonesia **Made Sri Sumarniasih and Made Antara** 1693-1701
- Comparison of resistance rate in ten wheat (*Triticum aestivum*) varieties against common bunt disease caused by (*Tilletia tritici*) **Rafal Esmaeil Majeed, Firas Tareq Rasheed and Hatem Jabar Atiya** 1702-1706
- Farm Labour Homogeneity Alfalfa (*Medicago Sativa* L.) Production In Diyala Province as a Case Study **Eskander H. Ali** 1707-1714
- Effect of Some Growth Regulators on glycosides leaf content of *Stevia rebaudiana bertonii* In vitro **Baydaa Rasheed Hilo, Nahlah Hamoodiy Hussain and Sabaa Abdullah Khaleel** 1715-1720

- The Early Growth of *Abelmoschus esculentus* L. (Okra) Using Arid Sandy Soil Amended with Powdered Date-Palm Karab Waste
Maryam Haroon AL-Soufi and Rosimah Nulit 1721-1729
- Comparison of the role of plant growth regulators impact on growth characteristics and yield of Rice under saline stress condition
S.F. Hadi and M.M.A. Abdul-Razak 1730-1734
- Application of alginate bead encapsulated N_2 -fixing bacteria is improving wheat yield under drought stress
Maged M. Saad; Hanaa A. Abo-Koura; Khaled M. Abd El-Latif and Mona M. Aly 1735-1747
- The Biological Sterilization Efficiency Test in Controlling Pathogenic Fungus *Rhizoctonia* Spp. Which Infects Potatoes (*Solanum Tuberosum*)
Maab Abdul Kazim Hashi and Tarik Abd Al Sada Kareem 1748-1754
- Efficacy of eco-friendly compounds in enhancing biochemically mango resistance to powdery mildew disease
EI-Mslmany Rabab A., Abd-Elkader Dawlat A. and Atia M. M. 1755-1764
- Evaluation of land Degradation of Mymona Project in Misan government by Using Remote Sensing
Ahmed F. Mahdi and Amal M. Salah 1765-1772
- Effect of feed supplementation of probiotic and digestive enzymes in production performance and intestinal biometrics of laying hens
Mahdi Salih Jasim and Ghassan Yacoub Fadel 1773-1781
- Clinical and therapeutic study of postparturient anestrous of cow
Jawad Khadim Taher, Hussein Abbas Khamees and Haider Rashash Abbas 1782-1784
- Total flavonoid content and antioxidant activity in leaves of ten cultivated *Sonchus arvensis* L. accessions
Tatik Raisawati, Maya Melati, Sandra Arifin Aziz and Muhamad Rafi 1785-1792
- Evaluation of the efficiency of some herbicides in the control of broad leaves accompanying bread wheat (*Triticum aestivum* L.) and its effect on yield and yield components
A.J. Kh. Al-Khazali, Naeem Abdullah Mutlag, M.N. Kadum, H.M. Madhi and K.A. Salman 1793-1798
- Nutrient availability of n and p elements from mangrove litters in the sopping Riaja, Barru, South Sulawesi
A. Malik, R. Affandi, K. Soewardi, S. Hariyadi and M. Krisanti 1799-1804
- Effect of applying selenium element and ascorbic acid on reducing the harmful effect of environmental stress on wheat plants irrigated by water contaminated with lead and cadmium
Kadhim Makee Naser, Ali Jasim Hadi AL-Tameemi and Hayder A. Baqir 1805-1811
- Investigation on serum trace element status (Copper; Iron and Zinc) in Iraqi camels (*Camelus dromedaries*)
Ibrahim A.H.AL-Zubaidy, Lina Shaheed Waheed, Hamed A.H. Al-Jabory, Shatha Mohammed Abbas and Ahmed Hasan Salh 1812-1816
- Seed pre-treatment with gibberellic and salicylic acids to tolerate drought stress in sorghum cultivars
Mohammad Omar Shihab and Jalal Hameed Hamza 1817-1825
- New Records of The Dwarf and tall *Sagittaria chilensis* Engelm (Alismataceae) from the Euphrates River, Basrah Province, Iraq, with notes on *S. sagittifolia* L. and *S. graminea* Michaux from the region
Khadeejah Kadhem Huraib 1826-1830
- Isolation, Refinement Screening of heavy metals tolerant biosurfactant-producers microorganisms from egyptian soil
M.M.S. El-Shahed, M.W. Sadik, M.I. Mabrouk and M.Z. Sedik 1831-1842
- Toxicological impacts of heavy metals upon the residents and worker of brick kilns, Iraq
Sara Gatea Fayyadh Al-Omairi, Sarhan R. Sarhan and Jameel S. Al-Sarai 1843-1855
- Study of *Panaeolus semiovatus* (Sowerby) S. Lundell and Nannf., (1938), a coprophilous fungus
Ajana M., El Kholfy S., Ouabbou A., Nmichi A., Ouazzani Touhami A., Benkirane R. and Douira A. 1856-1858
- Effect of Nitrogen Fertilization through Inorganic, Organic and Biofertilizers Sources on Vegetative Growth, Yield and Nutritional status in Murcott Tangerine trees
Ahmed M. Fikry, T.A.M. Abou Sayed-Ahmed, F.S. Mohsen and M.M. Ibrahim 1859-1868
- Molecular and phenotypic study of silver nanoparticle effect on pyocyanin produced from *Pseudomonas aeruginosa*
Rawaa Hasan Abdali and Naghham Shakir Al-Attar 1869-1875
- Effect of Bacterial and Fungal Bio-Fertilizer and Potassium Fertilizer on Iron, Copper and Zinc Availability and Yield of *Zea mays* L. Crop
Mohammed Ajmi Salman and Jawad A. Kamal Al-Shibani 1876-1882
- Protamine genes polymorphisms and their relationship with the incidence of oligozoospermia and asthenozoospermia in Iraqi patients
Istikrar M. Hade and Ismail A. Abdul-Hassan 1883-1889
- Evaluation of the activity of the Alcohol Extracts, nanomolecules and green silver nanoparticles of the plant *Salvia officinalis* and *cinnamon* in treating aflatoxin B1 from *Aspergillus flavus* in contaminated poultry feed
Suha Mohamed Ibrahim, Labeeb Ahmed Al-Zubaidi and Sunbul Jassim Hamodi 1890-1896

continued on next page

- Mineral, Organic and Bio-fertilizers Effect on the Concentration of Nitrate Ion in the Rhizosphere of *Zea mays* L. Crop
Raid SH. Jarallah and Fatimah Mahdi Rahi 1897-1902
- Acrylonitrile testicular seminoma in Beagle male dogs (pathological and hormonal assay)
Anas A. Humadi, Bushra I. AL-Kaisei and Taghreed J. Humadi 1903-1909
- Response of some feed mixtures to NPK fertilizer and its effect on fiber types
Mariam R. Al-Absawy and Manal A. Askar 1910-1916
- Isolation and Purification of α_2 -CN Local Goat milk and studying Its Hydrolysates Inhibition Efficacy towards ACE1
AL-Shammary O.A. and Dosh K.S. 1917-1925
- Serological and biochemical study of ovine chlamydiosis In Baghdad City
Sufyan Saleh Salman, Alaa Kamil Mahmood and Saba Thamer Mosa 1926-1929
- Efficacy of Certain native botanical extracts against two spotted spider mite, *tetranychus urticae* (koch) on horse gram
V. Sathyaseelan, M. Senthil Kumar, M. Pazhanisamy and V. Baskaran 1930-1932
- Phytoremediation of waste water by using *azolla-anabaena* consortium and its aquatic associates : A review
Pradip Kumar Prusty and Kunja Bihari Satapathy 1933-1943
- Comparative Analysis of Vitamin - C Content from Locally Available Fruits and Vegetables
Khude Varsha Sanjay 1944-1946
- Effect of different sources and levels of sulphur on growth and nutrient uptake of irrigated summer groundnut (*Arachis hypogaea* L.) Cv. VRI-2 for loamy soils
C. Ravikumar, R. Ariraman, M. Ganapathy and A. Karthikeyan 1947-1952
- Studies on the phytochemical constituent and antimicrobial potential of an important medicinal plants: *Gymnema sylvestre* (Retz.)
Jyoti Chauhan and D. K. Jain 1953-1958
- R. Br. Ex Sm
Ashish Tejasvi 1959-1962
- Response of Azad P₁ cultivar of pea in fly ash amended soil
Suseendran K., P. Stalin, C. Kalaiyaran, S. Jawahar, G. Murugan, S.R. Vinod Kumar and K. Arivukkarasu 1963-1969
- Studies on the integrated nutrient and weed management practices on growth, yield and economics of rice (*Oryza sativa* L.)
Yogesh Kumar Agarwal, Ramchandra, Hemant Kumar and Anil Kumar 1970-1974
- Performance analysis and economics of coriander (*Coriandrum sativum* L.) cultivation under subabul (*Leucaena leucocephala*) based Alley cropping system
Khadija A.T., Abd-Wahab R.A. and Fadhil A.M. 1975-1978
- Effect of ethanolic extract of *chlorella* Sp. on *entamoeba histolytica* parasite *in vivo*
Ramakanta Mishra, Pradeep Kumar Chand and Kunja Bihari Satapathy 1979-1986
- Some new additions to the lichen flora of Odisha
K. Murugaiyan And K. Sivakumar 1987-1993
- Seasonal Variation in Biochemical And Elemental Composition Of Some Marine Algae of Mandapam, Southeast Coast of India
Mohit Agarwal, Rajesh Singh Tomar, Anurag Jyoti and Rama Kant Singh 1994-2000
- Synthesis and antimicrobial activities of Gold Nanoparticles against *Salmonella* ser. *Typhi*
Rajashekhar D. Barker and G. Chandrakantha 2001-2004
- Groundwater and hydrological studies in Ajjampur subwatershed
Arthy M., S. Kandasamy and C. Kalaiyaran 2005-2006
- Effect of Nutrient management practices on yield and Nutrient uptake in Maize (*Zea mays* L.)
Tirthabrata Sahoo, Laxmikanta Acharya and Pratap Chandra Panda 2007-2017
- Plant Diversity Along Disturbance Gradients In Tropical Moist Deciduous Forests of Eastern Ghats of India
Damayanti Bhattacharya and Manoranjan Chakraborty 2018-2022
- Evaluation of *Trichoderma* species against *Alternaria* for management of blight disease of *Vigna unguiculata*
Aditi Eliza Tirkey, N.S.Barua, Akashi Sarma, Prakash Kalita and Samindra Baishya 2023-2029
- Comparative study on interrelationship between physio-biochemical attributes and grain yield at two different nitrogen levels
Thiri Bhuaneswari Ramachandran, Karthick Murugan and Manikandan Gurusamy 2030-2036
- Rapid clonal propagation through in vitro shoot tip and nodal explants of *Pisonia grandis* Br.
S. Bhuaneswari and Sangama 2037-2039
- Standardisation of packages for freshness retention and shelf life extension of crossandra flowers under different storage conditions
T. Nalini, S. Ambika and R. Kanagarajan 2040-2044
- Plant Diversity Along Disturbance Gradients In Tropical Moist Deciduous Forests of Eastern Ghats of India
Kakoli Banerjee, Archana Snehasini Turuk and Rakesh Paul 2045-2054
- Studies on abundance of *Oecophylla smaragdina* Fabricius (Hymenoptera: Formicidae) and their nest formation in *Mangifera indica* and *Manilkara sapota*
Jyoti Rani, Manish Kapoor and Rupinder Kaur 2055-2060
- Seaweed: The Blue Crop for Food Security as Mitigation Measure to Climate Change
- In-vitro* Phytochemical screening of *Eclipta prostrata* leaves extracts

- Biomass Yield, Nutrient Uptake and Chemical Constituents of *Withania Somnifera* (L.) Dunal and *Adhatoda Vasica* Nees Medicinal Valued Species Influenced by Microbial Inoculation **K.K Chandra** 2061-2069
- Estimation of standard heterosis in bhendi (*abelmoschus esculentus* L. moench)
P. Siva Ranjani, R. Ebenezer Babu Rajan, C. Praveen Sampath Kumar, J.L. Joshi and Ajish Muralidharan 2070-2072
- Economics of rice as influenced by age of seedlings, levels and methods of fertilizer application **S.D. Raut, U.V. Mahadkar, G.K. Bahure, Yadav A.M., Chavan A.R., L.S. Chavan, S.B. Dodke, M.M. Burondkar and J.S. Dhekale** 2073-2078
- Studies on integrated nutrient management practices on irrigated Maize **Arthy M., S. Kandasamy and R. Krishnamoorthy** 2079-2080
- Response Of *Chenopodium Album* L. To Varying Levels Of Water Stress: Effects On Physiological And Biochemical Parameters
Bhawna Dahiya and Smita Chaudhry 2081-2086
- Quantitative Assessment of Species Richness and Diversity in Pali Katghora Forest Division and Achnakmar Shivtarai Forest division
Mexudhan Jaiswal and Dr. Gunjan Patil 2087-2092
- Phytodiversity of Dhauligiri Hill and its adjoining area, Odisha, India: A floristic approach
Niquehat Noor and Kunja Bihari Satapathy 2093-2102
- Relevance of *Alternaria* Spores over green gram field **G.M. Pathare** 2103-2104
- First record on interaction between ants, other insect visitors and extrafloral nectaries (EFNs) in selected crops from India
T. Nalini and R. Jayanthi 2105-2113
- In vitro* effect of Iron oxide nanoparticles on xanthine oxidase activity **Ritu Hooda and Minakshi Sharma** 2114-2118
- Evaluation of the effect of Al-Jaafari extracts *Tagetes erecta* on the growth, viability and spores formation of fungus *Paecilomyces lilacinus*
Nadhun Trat Abood, Raja Gaze Abdul-Mohsen and Israa Jalil Hussein 2119-2224
- Effect of heavy metals (Copper and Zinc) on proline, polyphenols and flavonoids content of tomato (*Lycopersicon esculentum* Mill.)
Osmane Badiia, Houcine Abdelhakim Reguieg Yssaad and Bülent Topcuoglu 2125-2137
- Detection of C3678T SNP in growth hormone Secretagogue Receptor (GHSR) gene polymorphisms and its effect on some of production and physiological traits of Iraqi local chicken **Ibtisam Q. Abdul Kareem, Bassam G.M. Al-khatib and Alan A. Noori** 2138-2142
- Rural Women's Contribution in Agricultural Productive Activities To Improve The Economic Situation in Iraq **Najwa S. Ali** 2143-2148
- Molecular detection of *Proteus vulgaris* isolated from urine of cow in Al-Anbar province of Iraq
Hafsa Qasem Al-mahemdy and Asmaa Hamoody Abdullah 2149-2152
- Impact of some genetically improved rhizobacteria in controlling *Meloidogyne incognita* and two weeds infecting *Solanum lycopersicum* seedlings under greenhouse conditions
Hoda Hussein Ameen, Gaziea Mohamed Soliman, Mona Adel El-Wakeel, Usama Samy Elkelay and Shereen Abdel Hameed Mohamed 2153-2160
- Environmental pesticide residues and health biomarkers among farmers from greenhouses of Erbil Cucumber Crops
Bakhtyar A. Othman and Esmail S. Kakey 2161-2169
- Reducing Growth Rate of Three *Aspergillus* species (Maize Seeds-borne Fungi) by Using Aqueous Extract of Some local plants
Zahid Noori Kamaluddin, Intissar Al-Salami and Ali F. Merjan 2170-2174
- Histological and Scanning Study on the Liver of Newborn and Adult White Swiss Mice
AL-Zubaidi K.A. and Ahmed Ali K. Hirallah 2175-2183
- The Effect of Adding Phytase and Protease Enzymes and Their Mixture to the Diet on the Production Performance of Broiler
Esraa Shuhaip Hamid and Sunbul Jassim hamodi 2184-2190
- Influence of Seasonal Rainfall to the Water Quality of Slim River Lake in Perak, Malaysia
Yonis Ahmed Kitan and Som Cit Si Nang 2191-2198
- Review on morphological mutants and pharma-cological studies on *andrographis paniculata* (burm. f.) nees
S. Kasthuri and D. Dhanavel 2199-2204
- Graphene oxide synthesis from sugarcane bagasse & its application for removal of Pb (II) in wastewater
Vishakha Wagh and Pravin Nalawade 2205-2208
- Effect of nanoparticles and ordinary zinc oxide fertilizer and humic acid on growth of maize *Zea mays* L.
Hawraa Talal Mohsen Al-Aaraji and Mohammed Abed Al-Rubaye 2209-2216
- In Silico docking and dynamics of flavonoid 'Diplacone' as a potential natural inhibitor of Acetylcholinesterase
Aakansha Chaudhary, Richa Dave Nagar and Anees Ahmad Siddiqui 2217-2224
- In-ivtro* evaluation of antimicrobial and anticancer activity of two diazotropic cyanobacteria from Bilaspur Chhattisgarh, India
Khamhan Das Bhaskar and Sushil Kumar Shahi 2225-2232

continued on next page

- Determination of LD₅₀, Seed Germination, Morphological Mutants for Induced Mutagenesis through Gamma Radiation *Andrographis paniculata* (Burm. f.) Nees **S. Kasthuri and D. Dhanavel** 2233-2237
- Experimental analysis on Chlorophyll, Amino acid and Nitrate contents of Apocynaceae and Asclepiadaceae **Silvy Mathew** 2238-2242
- Arabidopsis* DCP5, a decapping complex protein interacts with Ubiquitin-5 in the processing bodies **Gagan Kumar Panigrahi and Kunja Bihari Satapathy** 2243-2247
- Effect of gypsum and integrated nutrient management on soil properties of partially reclaimed salt affected soils of South Gujarat **S. D. Chaudhari, V. R. Naik, H. B. Sodavadiya and B. K. Patel** 2248-2250
- Antioxidant efficiency of berberine on oxytetracycline induced renal toxicity in Rats **Zena Shakir M. AL-Tamemi, Aryaf Mahmood Sabea, Gusson A.AL-Neamah, Jawad Kadhim Faris, Auday Sulaiman Khudhair and Manal Muhi Murad** 2251-2257
- Effect of variety and temperature in the Vase life of Rose hybrid flowers **Abeer Qasim Kadhim and Manar Ismail Alwan** 2258-2262
- Effect of plastic mulching and deficit irrigation on yield, water productivity, soil temperature and characteristics of maize **R. Absy, A.M. Hassan, H.M. Abdel-Lattif and M.E. Abuarab** 2263-2273
- Study of water pollution problem in Basra city of Iraq: A case study **Aqeel M. Ali Al-Lami; Zaid Raad Abbas and Assal Ghazi Alshammary** 2274-2276
- Isolation and identification of local isolate of *Bacillus subtilis* produced polygalacturonase from rotten apple **Dhuha Alaa Abdulridha and Hameed Abbood Jebur** 2277-2284
- Reformulation of Newcastle disease vaccine using chitosan nanoparticles in broiler **Ameer Adil Hamza, Balqees Hassan Ali and Muhanad A. Albayati** 2285-2290
- Study of Rheological and Sensory Properties of Soft Wheat (*Triticum aestivum*) and Germinated Products **Fatima Ali Fadel and Adnan Wahhab Habeeb Al – Mudhafar** 2291-2296
- The Addition of Citric and Lactic Acids and Their Mixture to the Productive Performance and Eggs Qualitative traits of the Laying Hens **Ammar Taleb Dhiab** 2297-2305
- Detection of the IL-1b gene polymorphism among renal failure patients with and without CMV by RFLP-PCR Technique, Iraq **Hanan Saad and Mahdi H. Alammr** 2306-2310
- A new decomposer of *Quercus suber* (Morocco): *Gymnopilus liquiritiae* (Pers.) P. Karsten (1879) **Ajana Mohamed, Abdelkrim EL-ASSFOURI, Saifeddine EL Kholfy, Anas Nmichi, Amina Ouazzani Touhami, Rachid Benkirane and Llal Douira** 2311-2312
- The Effect of Partial Substitution Protein of Local Grass pea Seed (*Lathyrus sativus* L.) Replacing Soybean Protein on Production Performance of Laying Chickens **Doaa Abdulkareem, Ibrahim Al_Zuhairi and Ali Jawad Razzoqi** 2313-2318
- The effect of glutathione and zinc oxide nanoparticles application and their interaction on some of the physiological characteristics of *Vicia faba* L. exposed to salinity stress **Sahar F. Mahadi and Wifak A. Al-Kaisy** 2319-2326
- Ultrasound and salinity effects on growth chemical composition and protein quality of clover sprouts **Tahany A.A. Aly, Abdullateef Taiye Mustapha, Cunshan Zhou, Yanhui Sun and Haile Ma** 2327-2337
- A Contribution to the Establishment of a Management System for Food Safety According to ISO 22000 for Salted Anchovies in Drums (Factory LAFALUCA in Kenitra, Morocco) **Elgali Larbil, Zaouai Fouad, Slim Mostafa and Dennai Naima** 2338-2342
- Evaluation of The activity of *Bacillus Subtilis* and *Actinomyces sp.* against *Macrophomina phaseolina* (Tassi) Goid. Causative agent of Charcoal rot on Sesame **Sara W. Abd and Hurria H. AL-Juboory** 2343-2348
- The Spraying effect of zinc and salicylic acid and their combination on the growth and production of cherry tomato plant **Othman Kalid AL-Mafargy, Hussien Aziz Mohammed and Dhufir Ghani Omar** 2349-2354
- Protective role of pomegranate peel and *piper longum* fruit on the testicular function of Thioacetamide-Induced reproductive Toxicity of Male Albino Rats **Sarwar Nawzad Jafar and Kalthum Asaf Mawlood** 2355-2362
- Land cover change detection using satellite images based on Modified Spectral Angle Mapper Method **Rafah Rasheed Ismail, Bushra Qassim Al-Abudi and Zainab Fadel Hussein** 2363-2371
- Isolation and molecular identification of *Komagataeibacter nataicola* cellulose producing bacteria **R.N. Majeed and E. I. Al – Shamary** 2372-2376
- Effect of Sowing Date and Genotype on Qualitative Traits of Triticale (x *Triticosecale wittmack*) **Balsam Mansour Mohammed and Mohammed Ibrahim Mohammed** 2377-2382
- Molecular identification of some isolates of *Tomato yellow leaf curl virus* (TYLCV) and their cytological effects in infecting tomato (*Solanum lycopersicum* L.) plants **Suhair Q. Hassan, Jamal H. Kadhim, Aqeel N. Abedy and Ghulam M. Sahi** 2383-2391
- An analysis of Seasonal Rainfall data for Center and South Iraq using Hydrological statistics **Iman A. Hameed** 2392-2398

continued on next page

- Characterization of Free and Immobilized Catalase Purified from *Convolvulus arvensis* L. **Nazar Abdulameer Hamzah** 2399-2404
- Co^{II}, Ni^{II} and Cd^{II} complexes derived from mixed azo-linked Schiff-base ligands: formation, characterisation, Thermal analysis and biological study **Enaam I. Yousif, Ahmed K. Hussien and Hasan A. Hasan** 2405-2411
- Correlation Study of Obestatin and Progranulin with Liver Function Enzyme in Iraqi Females patients with Colorectal Cancer **Warka'a T. AL-Sa'adsi, A.F. ALTaie and Forat Yahya Mohsin Shabil** 2412-2416
- Effect of Algae Extract Foliar Application on Yield and Quality Traits of Soybean (*Glycine max* L.) Grown on Calcareous Soil Under Irrigation Water Regime **Dalal Hereimas Sary, Sona Salem El-Nwehy and A. M. A. Mokhtar** 2417-2430
- Preview on edapho-floristic bio-resources of guertoufaregion (Tiaret mountains-west Algeria) **Nouar Belgacem, Hasnaoui Okkacha, Mamar Benchohra, Soudani Leila and Berrabah Hicham** 2431-2434
- Effect of spraying with seaweed extract and licorice extract in the growth and yield traits of Broad Bean (*Vicia faba* L.) **Mahdi Abdel Hamza and Ammar Hadi Abbas** 2435-2442
- Anatomical Study of The Petiole and Pulvinus in Five Species of *Cassia* Cultivated in Iraq **Noor Mahmmod Naji and Nidaa Adnan Abu-Serag** 2443-2446
- Antimicrobial activity of novel peptide compound produced by *Bacillus licheniformis* isolated from Iraqi soil on UTI bacteria **Amel H.Mussa, Afrah Fahad Abdulkareem and Mohammed Kammas Abdul Kareem** 2447-2453
- Effect of Addition of *Glycyrrhiza glabra* Roots in Feeding of *Cyprinus carpio* **Ban Salman Kadhim AL-Mafragi** 2454-2456
- Response of Green Beans Planted in the Plastic House to Nitrogen Fixing Bacterial Inoculation and Molybdenum **Maad Nassar Mohammed Al-Rukabi and Kadhum Daily Hassan Al-Jebory** 2457-2464
- Biomarkers of the ecosystem in Lead (Pb) polluted areas of Baghdad city, Iraq **Nisreen Sabti Mohammed Ali, Huda Farooq Zeki, Estabraq Mohammed Ati and Reyam Naji Ajmi** 2465-2468
- Green synthesis and characterization of the prepared *Aloe vera* plant extract thin film in a simple chemical method **Ahmed N. Abd, Shahlaa M. Abd Al Hussan and Duha M.A. Latif** 2469-2472
- Multivariate Analysis In Blackgram (*Vigna Mungo* (L.) Hepper) Genotypes For Mungbean Yellow Mosaic Virus (Mymv) Resistance **R. Thirumalai and S. Murugan** 2473-2480
- Preparation of Different Zein Films from Corn Gluten Meal and Their use in Coating of Different Model Foods **Sampy Duggal, Somesh Sharma, Rachna Verma and Dinesh Kumar** 2481-2486
- Effect of efficient nutrient management strategies in achieving production potential of Sorghum **G. Sivakumar** 2487-2490
- Diversity of Angiospermic Tree species with their Economic utilization in J.P. Nagar (Amroha) District of Uttar Pradesh, India **Shiv Pratap Singh and Beena Kumari** 2491-2496
- In vitro* culture establishment and callus proliferation in *Simarouba glauca* L. **Kuldip Dwivedi, Rita Sharma, S.P. Bajpai and Nidhi Shukla** 2497-2501
- Rooting Capacity Of Chrysanthemum Cuttings By Using Different Types Of Growing Media **Ajish Muraleedharan, K. Sha, S. Kumar, J.L. Joshi and C. Praveen Sampath Kumar** 2502-2504
- Studies on Phytochemical Constituents of *Azadirachta indica* A. Juss. and *Melia azedarach* Linn. **Vilas C. Bhagwat and Vasant B. Kadam** 2505-2508
- Management Of *Colletotrichum Capsici* (Syd.) Butler And Bisby Causing Fruit Rot Of Chilli Using Fermented Leaf Extracts **P. Nishanthi, R. Gobika, M. Charumathi, H. Ann Suji and T. Suthin Raj** 2509-2514
- Integration of different granular organic manures with inorganic fertilizers for increasing the growth attributes of hybrid maize (*Zea mays* L.) **S.M. Suresh Kumar, G. Baradhan, S. Elankavi, N. Ramesh and J. Sam Ruban** 2515-2519
- Impact Assessment of Medium-Early Duration Paddy Variety Shiats Dhan-1 under Irrigated Condition in Bhadohi District of Uttar Pradesh **Shishir Kumar and A.A. Broadway** 2520-2524
- Residual effect of industrial wastes in tapping the production potential of rice fallow blackgram **G. Sivakumar** 2525-2528
- Variability analysis and character association for sodicity tolerance in F_{2,3} biparental population of rice under sodic condition **Prashant Bisen, P.K. Singh, Bapsila Loitongbam, Namrata, Ashok Singmasetti and B. Sinha** 2529-2534
- Variability Studies on Blackgram (*Vigna Mungo* (L.) Hepper) Genotypes for Mungbean Yellow Mosaic Virus (MYMV) resistance **R. Thirumalai and S. Murugan** 2535-2539
- Effect of aqueous extracts of Sorghum on Horse purslane (carpet weed) **S.M. Suresh Kumar, G. Baradhan, K. Arivukkarasu, S. Ramesh and J. Sam Ruban** 2540-2542

- Potential medicinal plants used against *diabetes mellitus* : A review
Somani Jethi, Sagar Kumar Mishra and Kunja Bihari Satapathy 2543-2550
- Sacrificed Surveillance Process favours Plant defense : A Review **Gagan Kumar Panigrahi and Kunja Bihari Satapathy** 2551-2559
- Outbreak of Leptospirosis in Kerala, India after floods: A survey **Jobin S.R. and J.W. Prakash** 2560-2562
- Physicochemicla, Textural and sensory Properties of yoghurt as effected by carboxymethyl cellulose from short, medium and long rice husks **Sumira Rashid and Himjyoti Dutta** 2563-2572
- Problems perceives by Farmers of north-east India in adopting improved agricultural practices for mitigating the adverse effects of climate change **Sesenlo Kath and K. Kanagasabapathi** 2573-2576
- Constraints encountered by the paddy growers in the adoption of recommended paddy cultivation technologies **Jeremy Konsam and V. Sakthivel** 2577-2580
- Studies on the medico-botany of plants used in hawan in Jajpur district of Odisha **P.K. Mishra, K.B. Satapathy, G.S.J.P. Jena and A. Mohapatra** 2581-2586
- Field evaluation of biorational insecticides against shoot and fruit borer *earias vittella* (fabricious) on Bhendi **K. Archunan and M. Pazhanisamy** 2587-2590
- Evolution of Anti-bacterial activity of *Zanthoxylum ovalifolium* Wight (Rutaceae). against selected pathogenic bacteria **P. Pavani and Raja Naika** 2591-2594
- Phytoremediation potential of aquatic macrophyte *Azolla Pinnata* R.BR. and *Salvinia Molesta* Mitchell to remve Chrove Chromium form waste water **Prativa Parida, Kunja Bihari Satapathy and Ashirbad Mohapatra** 2595-2601
- Labellum diversity in selected Epiphytic Orchids from Western Ghats, Goa, India **Bukhari Mehtab Jahan** 2602-2604
- Siderophore production by indigenous bacillus isolate and its role in growth of *cicer arietinum* **G. Sai Krishna, S. Shalini Devi and K. Anuradha** 2605-2608
- Enhancement of Xylanase Activity on Different Cultural Conditions of *Aspergillus Niger* in Submerged Culture **Nazish and A.K. Jaitly** 2609-2613
- Mycorrhizal association in *porpax reticulata* an epiphytic orchid from western ghats, India **Bukhari Mehtab Jahan** 2614-2616
- An Introduction of *Parthenium hysterophorus* to be Boon for Agricultural Land: Under Heavy Metal Contamination **Madhulika Singh, Pratibha Singh, Rajiv Kumar Singh, Pankaj Kumar Singh, Sheo Mohan Prasad and Aparna Pandey** 2617-2623
- Effect Of Fortified Organic Manure With Micronutrients And Bio Active Compound On The Nutrient Availability And Zn And Fe Bio Fortification Of Black Gram In Coastal Saline Soil **D. Arul Raja Sekaran, R. Singaravel and P. Senthilvalavan** 2624-2628
- Availability of soil nitrogen and soil biological activity in rice-wheat cropping system under conventional and conservation agricultural practice **R. Mittal, B. Chakrabarti, M. Rawat, R.S. Jatav and R. Dhupper** 2629-2635
- Studies on pteridophytic flora with special reference to their ethnomedicinal uses in Angul district of Odisha, India **Smaranika Nayak, Pradeep Kumar Chand and Kunja Bihari Satapathy** 2636-2640
- Restoration of Soil Microbial Biomass Using Multipurpose Trees **Rex Immanuel R. and M. Ganapathy** 2641-2645
- Biochemical studies of drought tolerant and susceptible genotypes of *Sorghum bicolor* **Manisha Rathore and Vineet Soni** 2646-2650
- Effect of Physical and Chemical mutagens individual and in combination in M1 generation of Cowpea (*Vigna unguiculata* L.) **Rakhi Kumari, A.K. Pal, K. Srivastava and Sunil Singh** 2651-2654
- Increasing tomato (*Solanum lycopersicum* L.) tolerance of water stress conditions by using some agricultural practices **Mohamed A. Badawy, A. Abdel-Wahab and Eman G. Sayed** 2655-2676
- Removal of Methylene Blue by Coontail (*Ceratophyllum Demersum*) using Phytoremediation Concept **Hind Mufeed Ewadh** 2677-2682
- Detection of *Salmonella* species in viscera of carp fish **Ameer Hatem Abd ALameer, Osama Faidullah Atshan, Majid Mohammed Mahmood, Watheq Mohammed Al-Jewari and Abd Alwahaab Mohammed** 2683-2686
- Effects of spraying of humic acid and the addition of different levels of organic fertilizer on growth and yield of two varieties of potatoes (*Solanum tuberosum* L.) under drip irrigation **Mohammad A.H. Alhadeedy** 2687-2691
- A new method in some German grape wines using ZIC-HILIC technology with UV detection to separate and identify quercetin **Raad Radi Karabat, Ashraf Saad Rasheed and Mohammed Jasim M. Hassan** 2692-2696
- Isolation and identification of *Candida* Species from oral and vaginal and determination of Virulence Factor **Hamzia Ali Ajah, Ashraf Sami Hassan and Ghufuran Khalid Rahi** 2697-2706
- Flavonoid contents of some species from Cynarea and Cichorea tribes (Asteraceae) in Iraq **Shaima H.A. AL-Abbasi, Talib O.H. Al-Khesraji and Sirwan H.S. Meran** 2707-2710

continued on next page

- Study of the effect of antifungal on *Candida albicans* isolated from different cases
Ataa Kamil Abadi and Fatima Abdul-Hussein Mejbil 2711-2716
- Effect of irrigation intervals and different levels of nitrogen fertilizer on vegetative growth and yield components of cotton plant *Gossypium hirsutum* L.
Mohamed Ali Al-Assaf 2717-2721
- Influence of weather parameters on incidence of yellow stem borer, *Scirpophaga incertulas* (Walker) in rice ecosystem Shivamogga, Karnataka
D. Shilpa, K.L. Naik and B.B. Hosetti 2722-2726
- Detection of antidepressant effect of alcoholic extract of *Alhagi maurorum* Medik on mice
Meison Abdulbary, Ikhlass A. Al-Hilaly, Sara Zuher Ghani and Abeer Fhadil 2727-2730
- Vitamin D and Risk of Osteoarthritis among Iraqi Patients with and without Metabolic Syndrome
Noor Thair Tahir, Hind Shakir Ahmed and Firas Younis Mohsen 2731-2736
- Vibrio cholerae*: A review on the genetics of pathogenesis and epidemiology
Hadaf Mahdi Kadhim 2737-2741
- Effect of use of (*Lactuca sativa*) on the function and histological structure of kidney in locale male rabbits
Auday Suliaman Khudhiar, Mohammed Hasan Dakheel, Moaed Abd-Al Saheb Twuej and Jawad Kadhim Faris 2742-2746
- Analytical study of ZnO: NiO Nanocomposite of Antibacterial Activities
Itab fadhil Hussein, Asmaa Deiaa Nusseif and Aseel Mustafa Abdul Majeed 2747-2750
- Effect of alternative irrigation, moisture preservation and humus on some growth and yield of cabbage
Hameed M. Abed, Ali H. Jasim, Abdullah Y. Eanawi, Nadheema S. Al-Shammari and Rehab M. Hasan 2751-2754
- Seed dressing and foliar spray with different fungicide alternatives for controlling maize diseases under Natural field conditions
Nehal S. El-Mougry, Hesham M. Abouelnaser and Mokhtar M. Abdel-Kader 2755-2759
- The Effect of Diluted Foliar Fertilizer with Magnetic Treated Water in Vegetable Growth Characteristics And Productivity Of Tomato
Janan K. AL-Tarjuman, Faten N. MulaAbed, Hazem A. Qasim and Fahad K. Y. AL-Dulaimi 2760-2764
- Effect of the use of micro-nano fertilizers, normal micro fertilizer and Gibberellic acid and their interference in some growth, chemical, medicinal characteristics and yield in Fenugreek (*Trigonella foenum graecum* L.)
Haider Abed Alameer Madhoor and Maher Zaki Faisal 2765-2777
- Effect of melatonin use in hot weather in Iraq on semen traits in Arabia rams
Zeaid Amad Zeny, Atheer Salih Mahdi and Aiman Mohammed Baqir Al-Dhalimy 2778-2780
- Relationships of Pnumonial infection and *Mycobacterium tuberculosis*
Azhar Omran Althahab, Lubna Abdul Muttalib Al-Shalah, Frial Gemil Abid and Sarah Hashim Al-Helli 2781-2784
- Efficacy of Gibberellic acid and Indole acetic acid from fungi growth accompanying medicinal plants
Zahra Majed Jasem and Ban Mousa Hassan 2785-2792
- Evaluation of genetic variation among some sorghum genotypes using SRAP and RAPD markers
Sara B.H. Awaly and Dalia S. Ahmed 2793-2801
- Impact of NaCl, KCl, MCl₂, MgSO₄ and CaCl₂ on the leaf anatomy of cucumber (*Cucumis sativus* cv. MTi2)
Samar Jasim Mohammed and Rosimah Nulit 2802-2806
- Application of hydrophilic interaction chromatography methods for prednisolone acetate determination in their pure and tablet, syrup dosage forms
Ali Saad Ali and Ashraf Saad Rasheed 2807-2812
- Study of some physical and chemical parameters in Euphrates river in Samawah city, Iraq
Ansam Saad Al-Khafaji and Ibtehal Aqeel Al-Tae 2813-2818
- Removal of Lead Ions from Aqueous Solution on to Low Cost Activated Carbon as a source of woods sawdust waste
Firdos M. Abdulla and Haiyam Mohammed Alayan 2819-2824
- Evaluation of IL-6 and Toll Like Receptor-2 in saliva of some Iraqi addicted
Adel Yaseen Taher and Frial G. Abd 2825-2828
- Impact of Interaction Between Nano Particles and bacterial and Amino Fertilizers on Growth and Yield of Wheat Plant
Mayyadah Fakhir Jaafar and Asaad Kadhim Abdullah 2829-2835
- First Molecular diagnosis of some different cestodes of freshwater fishes in Misan Province, South of Iraq
Hussain A. Mhouse Alsaady and Ali Idan Chekhyor 2836-2840
- Correlation Study of Retinol Binding Protein(-4), Nesfatin and Thyroid Hormones in Colorectal Cancer Iraqi Male Patients
A.F. AL-Taie, Warka'a T. Saloum and Forat Yahya Mohsin Shabil 2841-2846
- Spectral Characteristics Of Humic And Hymatomelanin Acids In Lake Peats Of The Right Bank Of The Ob River (Western Siberia)
O.A. Gurova, T.Yu. Somikova, A.A. Novikov, I.D. Komissarov, I.V. Grekhova and N.V. Litvinenko 2847-2850

continued on next page

- Azotobacter chroococcum* and *Rhizobium leguminosarum* inoculums survival in soil and efficiency in enhancing plant growth
Hutaf A.A. Alsalmim 2851-2859
- Polycyclic Aromatic Hydrocarbons (PAHs) as Biomarkers in the controlling headquarters, Al-Muthanna military airport, Baghdad, Iraq
Maysaa Shaker Saeed and Reyam Naji Ajmi 2860-2864
- Separation and quantitative analysis of chlorpheniramine maleate by the application of the ZIC-HILIC technique in bulk and medicine formulations
Ali Saad Ali and Ashraf Saad Rasheed 2865-2870
- Determination the effect of different calcium Ca²⁺ levels on hepatocytes division in White rats *Rattus norvegicus*
Ali A. Ghazzay 2871-2874
- Accumulation of Heavy Metals in Plant Leaves (*Salix alba*) and its effect on chlorophyll content near the Diesel Generators Associations in Iraq
Rafeef Jawad 2875-2881
- Activated charcoal production from *Ceratophyllum demersum* by pyrolysis for treating Acute Poisonings
Rafal F. Ghanim and Amile M. Al-Mayah 2882-2886
- Immobilization of *Saprolegnia ferax* in date palm fibrillium as biological filter for polluted water with heavy metals
Noor A.; Rana H. Hameed and Huda F.Z. 2887-2892
- The influence of genetic polymorphisms of IL17a in the acquisition of *helicobacter pylori* and PUD (Peptic ulcer disease) development
Ashwaq Hussein and Ahmed Adil Ali 2893-2896
- Antifungal effect of silver nanoparticles on dermatophytes isolated from clinical specimens
Hawraa S. Al-Jobory, Kawther M.A. Hasan and Ayad F. Alkaim 2897-2903
- Usage of Soybean (*Glycine max*) diluent in storage of semen of bulls at 5°C
Jaleel Ibrahim Asaad, Hazim Ismaeel AL-Ahmed, Khalid Suhail AL-Azzawi, Nameer Ismail Said and Rasha Abdull-Husien Mahood 2904-2908
- Evaluation of HLA-DQA1 and HLA-DOB1 associated with *Helicobacter pylori* infection in patients with active gastritis
Dheyaa Mohammed Naser and Azhar Omran Althahab 2909-2914
- Herbarium: historical account, significance, preparation techniques and management issues
Surender Singh Yadav 2915-2926
- In vitro* assessment of total phenolic content and antioxidant properties of *Citrullus colocynthis* root extracts
Sushila Saini and Jaya Prakash Yadav 2927-2930
- Antifungal Activity Of *Rhizophora Apiculata* Against *Alternaria Solani*
Mahalakshmi G., L. Vengadeshkumar, Sanjaygandhi S., Rajamohan K., Udhayakumar R. and A. Mary Sharmila 2931-2936
- Influence of different rice establishment methods and weed management practices on growth and yield of rice
M.S. Bhagavathi, G. Baradhan, S.M. Suresh Kumar and S. Arivudainambi 2937-2941
- An Economic Analysis On The Domestic Concerns Of The Fish Export Market In India
Y. Shelton Peter, C. Prabakar, K. Sita Devi, P. Ramesh and I. Chandrakanth Reddy 2942-2946
- Effect of *Musa Paradisiaca* Flowers on Enzymatic and Non- Enzymatic Activities in Streptozotocin-induced Diabetic Rats
R. Kowsalya and V. Barathi 2947-2950
- Isolation, cultural characterization and antagonistic activity of *Trichoderma viride* against *Macrophomina phaseolina*
Thirunarayanan P., Sanjaygandhi S*, Rajamohan K., Udhaya Kumar R. and L. Vengadesh Kumar 2951-2955
- Factors influencing symbolic adoption behaviour of paddy growers on organic farming practices
M. Kavaskar and Santha Govind 2956-2960
- First record of three of *Myxobolus* Butschli, 1882 species (Myxozoa: Myxoporea) in Iraq from the Gills of the Cyprinid fish *Arabbarbus grypus* (Heckel, 1843)
Fatima Abdul-Razak Sheyaa and Kefah Naser Abdul-Ameer 2961-2964
- Studies on Site Specific Nutrient Management (SSNM) on the growth and yield of Transplanted Rice
D. Kalyanasundaram, S. Harini Sri, K.P. Senthilkumar and S.R. Vinod Kumar 2965-2967
- Influence of organic inputs in augmenting the growth and yield attributes of okra (*Abelmoschus esculentus* (L.) Moench.)
T. Uma Maheswari and M. Raj Kumar 2968-2970
- Varietal identification of Rice (*Oryza sativa* L.) Genotypes using ISSR markers
S.M. Naveen, S. Ezhil Kumar, G. Sathiyarayanan and R. Thirumalai 2971-2978
- The Phytochemical potential of Gnetaceae with peculiar reference to *Gnetum ula* and Traditional uses of *Gnetaceae* species
Mohammad Irfan Ali, Shabina Shabir, Lokesh Kumar Soni, Mahabeer Prasad Dobhal and Sarmad Moin 2979-2986
- Assessment of suitability of soil test method for available-P estimation to soybean grown in Vertisols
Narendra Chouhan, S.K. Sharma and Rashmi Singhai 2987-2995

- Effect of post-emergence herbicide tembotrione on weed control and yield in hybrid maize
K. Arivukkarasu, Gudapati Ashoka Chakravarthy and P. Sivasakthivelan 2996-2998
- Attitude of Farm Youth towards ICT Tools in Tiruvannamalai District of Tamil Nadu
D. Balu and M. Kavaskar 2999-3002
- Reaction of groundnut germplasm against leaf caterpillar, *Spodoptera litura* Fab. (Noctuidae: Lepidoptera)
Manikandan P. and V. Selvanarayanan 3003-3006
- Survey, cultural characters and pathogenicity of *Macrophomina phaseolina* causing sesame root rot disease
Thirunarayanan P., Sanjaygandhi S., Vengadeshkumar L., Rajamohan K. and R. Udhayakumar 3007-3010
- Response of plant growth regulators on rooting of hardwood cuttings in guava (*psidium guajava*. L) cv. Lucknow-49
M. Gayathiri and S. Vijayaraj 3011-3013
- Best organic media for growing turmeric minisetts in protray nursery
M. Gayathiri and V. Narendhiran 3014-3016
- Effect of rooting hormone on rooting and survival of neruim (*nerium odorum* L.) var. pink pink single
S. Kumar, Ajish Muraleedharan, S. Kamalakannan, R. Sudhagar and K. Sanjeevkumar 3017-3019
- Communication Behaviour of Coconut Growers in Tiruppur District of Tamil Nadu
Janusia J.U. and V. Balamurugan 3020-3022
- Biological control of *Fusarium solani*, the causal agent of grass root and crown rot using grass rhizobacteria
Shahram Riahinia and Elham Musavi Jafari Poor 3023-3028
- Highly Efficient removal of Textile Dye "Direct Yellow (DY12) dyes" from aqueous systems using Coconut Shell as a waste plants
Aseel M. Aljeboree, Abass Noor Alshirifi and Ayad F. Alkaim 3029-3038
- Impact Study of slope aspect in the biological crust properties of some gypsiferous soils using remote sensing and GIS
Aiad Abdullah Khalaf AL-Duliami, Salahaldeen H. Altai and Ammar S. Ismaeal 3039-3050
- The environmental status of Tigris river water in Mosul city, Northern of Iraq
Reem A.A. Al-Shanona, Alaa T.H. Al-Maathide and Azhar Y.R. Al-Asaaf 3051-3056
- Occurrence and management of resistant weed species in fgv plantation in Malaysia : A review
Kamalul Adham bin Che Ruzlan and Muhammad Saiful Ahmad Hamdani 3057-3062
- Quantitative analysis of water erosion processes in marl soils in the Oued Mina watershed
Neggaz Fatima Zohra and Kouri Lakhdar 3063-3072
- Biochemical and Histological study of rat liver toxicity induced by Gentamicin and Protective action of Berberine
Ahlam J.H. Al-Khamas, Zahraa Hussein Kadhim, Areej GH Al-Charak and Jawad Kadhim Faris 3073-3078
- Water quality assessment using the NSFQI model for drinking and domestic purposes: A case study of groundwater on the left side of Mosul city, Iraq
Noor A.S. Al-Hamdany, Yusra M.S. Al-Shaker and Abdalaziz Y.T. Al-Saffawi 3079-3085
- Adsorption of Pharmaceutical contaminants from aqueous solutions By using natural plants as adsorbents assisted by ultrasound process
Hannan Muheisen Hadi, Aseel M. Aljeboree and Ayad F. Alkaim 3086-3090
- Identification of Isovaleryl-CoA Dehydrogenase Catalytic Residue in *Paracoccus denitrificans* Pd1222
Rafid M. Karim 3091-3096
- Association of ATP1B2 gene polymorphism with milk yield, milk composition and heat resistance traits of cattle bred in Iraq
Salah H. Faraj, Asaad Y. Ayied and Noor F. Mahde 3097-3100
- Molecular Detection of integron Class 1 gene in *Proteus mirabilis* isolated from diabetic foot infections
Sddiq Ghani Al-Muhanna, Shaima R. Banoon and Israa Abdul Ameer Al-Kraety 3101-3107
- Isolation of *Escherichia coli* from skin wounds in cow
Alaa Kamil Mahmood, Karrar Jasim Hamzah, Ameer Ridha Dirwal and Ahmed Hassan Salh 3108-3110
- Effect of soaking with bread yeast extract on sorghum seed germination under salt stress conditions
Adawia Sajed Mustafa, Nesier Feraj Shajai, Fadia Fouad Saleh And Jalal Hameed Hamza 3111-3116
- Nitrification Potential Of A Tropical Peat Soil Under Oil Palm (*Elaeis Guineensis* Jacq.) Cultivation At Different Operational Zones And Soil Depths
Mohd Rizal Ariffin, Osumanu Haruna Ahmed, Halimi Mohd Saud, Isharudin Md Isa and Mohd Nizar Khairudin 3117-3122
- Growth behaviour of *in vitro* growing Agegezi Shami and Picual olive cultivars in response to boron stress
Olbrahim Hmam and Abdou M. Abd Allatif 3123-3129
- Management of Tomato Early Blight Disease Using Mangorve Leaf Extract
Mahalakshmi G., L. Vengadeshkumar, Sanjaygandhi S., Rajamohan K., Udhayakumar R. and A. Mary Sharmila 3130-3134
- Removal of Amoxicillin drug onto Nano composites surface using ultrasound assistance
Aseel M Aljeboree, Abass Noor Alshirifi and Ayad F. Alkaim 3135-3140

continued on next page

Effect of mechanical properties on some growth characteristics for wheat crop	Naim Shtewy, Ibrahim J. Hamzah and Salih Kadhim Alwan Alsharifi	3141-3148
Removal of Phenylephrine hydrochloride as a model of pharmaceutical compounds by using ultrasonicated adsorption technique in the presence of Nano composites	Aseel M. Aljeboree, Abass Noor Alshirifi and Ayad F. Alkaim	3149-3153
Effect of Site Specific Nutrient Management on yield characteristics and economics of transplanted rice in the Cauvery deltaic zone	D. Kalyanasundaram, S. Harini Sri, S.R. Vinodkumar and K.P. Senthilkumar	3154-3156
Epidermal features and Petiole anatomy of leaf of <i>Garcinia dulcis</i> (Roxburgh) Kurz, newly reported species from North East India	Ajima Begum	3157-3160
Study of the inhibitory effects of <i>Rheum ribes</i> extracts on a pathogenic fungi and cancer cell line	Fayhaa M. Awad, Abdulmonaim Hamad M. Al-Samarrai and Batol I. Dheeb	3161-3168
Efficacy of mineral nitrogen and organic manures on growth, dry matter production and nutrient uptake in lowland rice	Manivannan R., Sriramachandrasekharan M.V. and P. Senthilvalavan	3169-3173
Heavy Metals Toxicity And Their Remediation Through Phytotechnology : A Review	Sandeep Kumar, Asha Singh, Vishal, Bharti Singh, Vikram Mor and Sunil Kumar	3174-3186
Removal of textile dyes form aqueous solutions by using coconut as a source of activated carbon: As a model of Equilibrium and thermodynamic studies	Aseel M. Aljeboree, Abbas N. Alshirfy and Ayad F. Alkaim	3187-3195
Effect of weed management practices on weed indices in transplanted kodo millet	S. Jawahar, S. Ramesh, S.R. Vinod Kumar, C. Kalaiyaran, K. Arivukkarasu and K. Suseendran	3196-3198
Relationship between bacterial microorganisms and gallstones formation	Alaa Hussien Alwan, Mohanned Hussien Alwan and Anmar Sael Hussien	3199-3202
Effect of <i>azotobacter chroococcum</i> , <i>azospirillum brasilense</i> and poultry residues on some growth Traits of (<i>Sorghum bicolor</i> L.)	Hussein Ahmed Abdul Ali and Jawad Abdul Kadhim Kamal	3203-3210
Effect of silicon on dry matter yield and nutrient uptake of hybrid maize	S. Jawahar, K. Suseendran, C. Kalaiyaran, S. Ramesh, S.R. Vinodkumar and K. Arivukkarasu	3211-3 215
Effect of fertilization type on the concentration of ammoniumion and nitrate in the rhizosphere of <i>Zeamays</i> L.	Raid SH. Jarallah and Fatimah Mahdi Rahi	3216-3220
Application of the logarithmic water quality index (WQI) to evaluate the wells water in Al-Rashidiya area, North Mosul for drinking and civilian uses	Ahmed J.A. Jaafer and Abdulaziz Y.T. Al-Saffawi	3221-3228
Measurement of Interleukin-2 and Interleukin-8 in Sera of Patients Infected with Adenoviral Keratocon-junctivitis in Iraq	Younus Abdulridha Al-Khafaji, Ali Talib Akraa and Qasim Kadhim Al-Rubaey	3229-3239
Field Screening of Sunflower (<i>Helianthus annuus</i> L.) Accessions Against Head Borer (<i>Helicoverpa armigera</i> Hubner)	Amala Hyacinth A.M. and Chand Asaf	3240-3242
Herbal Bio-formulation : An effective mean to control <i>Alternaria solani</i>	Bhanu Raj Meena, Deepali Chittora, Shivangi Mittholiya and Kanika Sharma	3243-3247
Impact of Climate Change Variables on Crop Pests and Mitigation Strategies : A Review	Chand Asaf	3248-3254
Exploration, Distribution and Identification of Mushroom Species in Khurda District of Odisha, India	Jibanjyoti Panda and Kunja Bihari Satapathy	3255-3270
The relationship between leptin receptor gene polymorphisms and some productive and reproductive traits in Holstein primiparous cows	H.R.A Al-Janabi, A.J. Al-Rawi and N.N. Al-Anbari	3271-3276
Efficacy of redoxil and ridomex gr 5% (metalaxyl) and mancolaxyl wp 72% (metalaxyl + mancozeb) Fungicides in controlling Cucumber seeding damping-off disease caused by <i>Pythium aphanthermatum</i>	Laleh Naraghi, Maryam Rastegar, Laleh Dehghan, Hossein Azimi and Hassan Almasi	3277-3284
Hypolipidemic Effect of Rice Bran oil on Chronic Renal Failure (Undergoing Hemodialysis) Patients	Neelesh Kumar Maurya, Pratibha Arya, N.S. Sengar	3285-3289
Bio-efficacy of <i>Euphorbia Hirta</i> L. on the Growth and Anti Oxidant Activity <i>Ofcicer Arientinum</i> L.	Sheeba Menon And Janki Thakker	3290-3294
PCR detection of biofilm Gene's in antibiotic resistance <i>Pseudomonas aeruginosa</i> isolates from otitis media	Duha Ali Hasan Kashkool and Abbas Shakir Al-Muhanna	3295-3300

continued on next page

- The role of silver nanoparticles and some extracts of Damas *Conocarpus lancifolius* in controlling stored dates moth *Ephesia cautella* (Walker) **Naseer Malaky Abbood and Sadik Thajib Ali** 3301-3305
- A Study on Information Sources Utilisation Behaviour of Tapioca Growers in Salem District of Tamil Nadu, India **V. Sakthivel and M. Manoharan** 3306-3308
- Antimicrobial Effect of Gold and Silver Nanoparticles on MDR *E. coli* and Molecular Detection of Aminoglycoside Modifying Enzymes-producing MDR *E. coli* Isolated from UTI Patient **Fatima Radhaoui Al-Mashhady and Baydaa Abood Hassan Al-Janabi** 3309-3314
- Corrosion inhibition of carbon steel in sodium chloride solution using *artemisia* plant extract **Ishtaq K. Ibrahim and Juman A. Naser** 3315-3319
- Efficiency of Pre-emergence Herbicide and Cultural Methods of Weed Management on Growth and yield of hybrid Cotton (RCH-2) **A. P. Srinivasaperumal, S. Kaliasudarsan, P. Senthilvelavan, T. Balakrishnan, S. Srinivasan and D. Babu** 3320-3322
- Impact of abiotic factors on population dynamics of rice Stem borer *Scirpophaga incertulas* (Walker) and Leaf folder *Cnaphalocrocis medinalis* (Guenee) **R. Priyadharsan and N. Muthukumaran** 3323-3327
- Assessment of Land Suitability for Soybean Crop in Varied Agro-ecological Zone of Marathwada Region (M.S., India) **Malode K.R. Patil V.D. and Deshmukh V.A.** 3328-3335