PROF. DR. MUHAMMAD FAISAL

PUBLICATIONS

A) Research Papers

Sr. No	Year	Authors	Title of Paper	Journal Name	Country	IF/ CITES
1	1999	Faisal, M and Hasnain, S.	Gram-negative rod shaped bacteria exhibiting high level Resistance to Chromium	Proc. Pak. Cong. Zoo, 19: 121-132	Pakistan	**IF=0 Cite (03)**
2	2001	Faisal, M and Hasnain, S.	Reduction of Toxic Hexavalent Chromium by Bacterial strains isolated from the effluents of tanneries.	Pakistan Journal of Botany, 33 (SI) 659-672	Pakistan	**1.28 (04)**
3	2002	Faisal, M and Hasnain, S.	Bacterial mediated aerobic reduction of toxic Cr (VI) in industrial effluents.	Pakistan Journal of Microbiology, 2: 27-32.	Pakistan	-- --
4	2003	Faisal, M and Hasnain, S.	Synergistic Removal of Cr (VI) by *Eichornia crassipes* in conjunction with Bacterial Strains.	Pakistan Journal Biological Sciences, 6 (3): 264-268	Pakistan	-- **(24)**
5	2003	Faisal, M and Hasnain, S.	Accumulation and Reduction of Cr (VI) in industrial effluent by *Bacillus* Sp- strain CrM-1.	Pakistan Journal of Botany, 35(5): 797-804	Pakistan	**1.28** --
6	2004	Faisal, M and Hasnain, S.	Bacterial Role in the Reduction of Toxic Cr (VI) in to Cr (III).	Chinese Journal of Biotechnology, 20 (5): 774-778	China	--
7	2004	Faisal, M and Hasnain, S.	Microbial Conversion of Cr(VI) in to Cr(III) in Industrial Effluent.	African Journal of Biotechnology, 3 (11): 610-617.	Africa	**0.00 (138)**
8	2004	Faisal, M and Hasnain, S.	Comparative Study of Cr(VI) Reduction in Industrial Effluent by *Ochrobactrum intermedium* vs. *Brevibacterium* sp.	Biotechnology Letters, 26 (21): 1623-1628	U.K	**2.7 (65)**
9	2004	Faisal, M and Hasnain, S.	Isolation and Characterization of Chromium Resistant Bacteria from Polluted Environment.	An International Journal of Earth and Life Sciences, 2 (4): 38-45	Pakistan	-- --
10	2005	Faisal, M and	Chromate Resistant *Bacillus*	Journal of Plant	Korea	**2.90 (33)**

		Hasnain, S.	*cereus* improves Sunflower Growth by Reducing the Toxicity of Cr (VI).	Biology, 48(2): 187-194		
11	2005	Faisal, M and Hasnain, S.	Bacterial Cr (VI) reduction concurrently improves *Helianthus annuus* growth.	Biotechnology Letters, 27(13): 943-947	U.K	**2.70 (84)**
12	2005	Faisal, M; Hameed, A and Hasnain, S.	Chromium resistant bacteria and cyanbacteria: Impact on Cr(VI) reduction potential and plant growth.	Journal of Industrial Microbiology & Biotechnology, 32(12): 615-621	USA	**2.824 (54)**
13	2005	Faisal, M and Hasnain, S.	Beneficial role of hydrophytes in removing Cr(VI) from wastewater in association with chromate-reducing bacterial strains *Ochrobactrum intermedium* and *Brevibacterium*.	International Journal of Phytoremediation, 7(4): 271-277	USA	**3.74 (13)**
14	2005	Faisal, M and Hasnain, S.	Colonization of *Vigna radiate* roots by chromium resistant bacterial strains *Ochrobactrum intermedium*, *Bacillus cereus* and *Brevibacterium* sp.	Chinese Journal of Applied and Environmental Biology, 11(5): 528-530	China	-- **(01)**
15	2005	Faisal, M and Hasnain, S.	Growth improvements of Sunflower seedlings by Cr(VI)-resistant bacteria.	Iranian Journal of Biotechnology, 3(4): 114-120	Iran	**1.55 (07)**
16	2005	Faisal, M and Hasnain, S.	Reduction of mobile Cr(VI) under different environmental conditions.	Science International, 27(3): 271-277	Pakistan	-- --
17	2006	Faisal, M and Hasnain, S.	Growth stimulatory effects of *Bacillus cereus* and *Ochrobactrum intermedium* on *Vigna radiata* plants	Letters in Applied Microbiology, 43: 461-466	U.K	**2.4 (68)**
18	2006	Faisal, M and Hasnain, S.	Colonization of *Triticum aestivum* and *Helianthus annuus* roots by chromium resistant bacterial strains *Ochrobactrum intermedium*, *Bacillus cereus* and *Brevibacterium* sp.	Journal of Plant Sciences, 1(1): 36-41	USA	-- **(01)**
19	2006	Faisal, M and Hasnain, S.	Detoxification of Cr (VI) by *Bacillus cereus* S-6.	Research Journal of Microbiology, 1 (1): 45-50.	USA	-- **(18)**
20	2006	Faisal, M and Hasnain, S.	Plant growth promotion by *Brevibacterium* under chromium stress.	Research Journal of Botany, 1(1): 24-29.	USA	-- **(09)**
21	2006	Faisal, M and	Hazardous impact of chromium on	Journal of	USA	--

		Hasnain, S.	environment and its appropriate remediation	Toxicology and Pharmacology, 1(3): 248-258		**(12)**
22	2007	Iftikhar, S., Faisal, M and Hasnain, S.	Cytosolic reduction of Toxic Cr(VI) by indigenous Microorganism.	Research Journal of Environmental Sciences, 1(2): 77-81	USA	-- **(12)**
23	2007	Iqbal, U., Mehmood, S., Faisal, M and Hasnain, S.	Chromosomal analysis of girls with short stature and puberty failure.	Trends in Medical Research, 2(4): 204-207	USA	-- **(02)**
24	2007	Anwar, S., Sabri, A.N., Rehman, H., Faisal, M and Hasnain, S.	Impact of Temperatures and pH on Soluble Protein Content and Protein Profile of PY79 (Wild Type) and Sporulation Defective Mutant Strains of *Bacillus*.	Research Journal of Microbiology, 2(11): 866-870	USA	-- **(01)**
25	2007	Zaidi, S., Yasmin, A., Faisal, M and Hasnain, S.	Inoculation effect of bacteria isolated from *Trianthema partulacastrum*, *Rumex dentatus*, and *Coronopus Didymus* plants on *Vigna radiata* seedlings.	World Journal of Agricultural Sciences, 3 (6): 796-800	Pakistan	-- **(01)**
26	2008	Muhammad, K., Yasmin, A, Rehman,H, Faisal, M and Hasnain, S.	Growth responses of *Vigna radiata* to arid land bacteria exhibiting antimicrobial activity.	Research Journal of Environmental Sciences, 2(2): 139-144	USA	-- --
27	2010	Afrasayab, S, Faisal, M and Hasnain, S.	Comparative study of Wild and transformed salt tolerant bacterial strains on *Triticum aestivum* growth under salt stress.	Brazilian Journal of Microbiology, 41 (4): 946-955.	Brazil	**2.20 (30)**
28	2010	Ikram, M and Faisal, M.	Comparative assessment of selenite (SeIV) detoxification to elemental selenium (Se0) by *Bacillus* sp.	Biotechnology Letters 32: 1255-1259	U.K	**2.70 (42)**
39	2010	Riaz, S, Faisal, M and Hasnain, S	*Cicer arietinum* growth promotion by *Ochrobactrum intermedium* and *Bacillus cereus* in the presence of $CrCl_3$ and K_2CrO_4.	Annals of Microbiology, 60: 729-733.	Italy	**3.00 (10)**
30	2011	Rehman, Y., Rizwan, M., Faisal, M and Hasnain, S.	Seasonal Effects of Domestic Wastewaters on the Cr (VI) Reduction Potential of *Bacillus cereus* S-6 and *Ochrobactrum intermedium* CrT-1.	Biology and Environment, 111 (1): 33-40.	Ireland	**1.087 (06)**
31	2011	Riaz, S., Faisal, M., Hasnain, S.	Antibiotic susceptibility pattern and multiple antibiotic resistances (MAR) calculation of extended	Afr. J Biotechnol, 10(33):6325-	Africa	**0.573 (91)**

			spectrum β-lactamase (ESBL) producing *Escherichia coli* and *Klebsiella* species in Pakistan	6331		
32	2011	Riaz, S., Faisal, M., Hasnain, S and and Khan, N.A.	Antibacterial and Cytotoxic Activities of *Acacia nilotica* Lam (Mimosaceae) Methanol Extracts Against Extended Spectrum Beta-Lactamase Producing *Escherichia coli* and *Klebsiella* Species	Tropical Journal of Pharmaceutical Research, 10(6):785-791	Nigeria	**0.523 (17)**
33	2012	Riaz, S., Faisal, M., Hasnain, S.	Prevalence and comparison of Beta-lactamase producing *E. coli* and *Klebsiella* spp from clinical and environmental sources in Lahore, Pakistan.	Afr J Microbiol Res, 6(2): 465-470.	Africa	**0.539 (31)**
34	2012	Sheik, CK., Mitchell, T.W., Rizvi, F.Z., Faisal, M., Hasnain, S., McInerney, M.J, and Krumholz, L.R.	Exposure of soil microbial communities to Chromium and Arsenic alters their diversity and structure.	Plos One 7(6): 1-13. e40059. doi:10.1371/journal.pone.0040059	USA	**3.7 (287)**
35	2012	Kiran, M., Afrasayab, S., Abbas, Z., Faisal, M. and Hasnain, S.	Plant growth promoting capability of Azotobacter as mono and mix culture on *Vigna radiata*	Afr J Microbiol Res, 6: 1291-1296.	Africa	**0.539 (03)**
36	2012	Yasin, M and Faisal, M.	Comparative analysis of tannery-effluent contaminated soil and mixed culture bacterial inoculation on *Helianthus annuus* L. growth	Journal of Chemical Society of Pakistan 34(6): 1573-1577	Pak	**0.300**
37	2012	Sultan, S., Mubashar, K and Faisal, M.	Uptake of toxic Cr (VI) by biomass of exo-polysaccharides producing bacterial strains	Afr J Microbiol Res, 6: 3329-3336.	Africa	**0.539 (31)**
38	2013	Yasin, M and Faisal, M.	Assessing the phytotoxicity of tanneries waste contaminated soil on *Zea mays* (Lin) growth.	Polish Journal of Environmental Studies 22(6):1871-1876.	Poland	**1.96 (07)**
39	2013	Ejaz, S., F.Z.Rizvi, S, Anwar. Faisal, M.	Biotransformation potential of hexavalent chromium by *Bacillus pumilus*-S4, *Pseudomonas doudoroffii*-S5 and *Exiguobacterium*-S8 in association	International Journal of Environmental Science and Technology, 10:	Iran	**3.10 (12)**

			with hydrophytes	709-718.		
40	2013	Yasir, R., Rizvi, F.Z., Faisal, M and Hasnain, S	Arsenic and Chromium Reduction in Co-Cultures of Bacteria Isolated from Industrial Sites in Pakistan	Microbiology, 82(4): 428-433.	Russia	**1.50 (14)**
41	2013	Yasin, M., Faisal, M and Sultan, S.	Growth responses of *Triticum aestivum* after inoculating with *Pseudomonas* and *Stenotrophomonas*	Afr J Microbiol Res, 7: 1952-1956.	Africa	**0.0 (02)**
42	2013	Reza, F.A and Faisal, M	Growth promotion of maize by desiccation tolerant *Micrococcus luteus*-chp37 isolated from Cholistan desert, Pakistan	Australian Journal of Crop Sciences, 7(11):1693-1698.	Australia	**0.00 (34)**
43	2013	Faisal, M	Inoculation of Plant Growth Promoting Bacteria *Ochrobactrum intermedium*, *Brevibacterium* sp. and *Bacillus cereus* Induce Plant Growth Parameters	Journal of Applied Biotechnology, 1:45-53	USA	**0.00 (15)**
44	2013	Anam, Qureshi, A.H and Faisal, M	Beneficial impact of selenium resistant bacteria on selenium contaminated soil and plant growth	Punjab University Journal of Zoology, 28(2): 55-60	Pak	**0.00**
45	2014	Ghalib, AK, Yasin, M., Faisal, M	Characterization and Metal Detoxification Potential of Moderately Thermophilic *Bacillus cereus* from Geothermal Springs of Himalaya	Brazilian Archive of Biology and Technology, 57: 554-560.	Brazil	**1.07 (12)**
46	2014	Yasin, M., Faisal, M	Comparative effect of Selenium and Selenium tolerant microbes on *Brachiaria reptans* L. growth	Pakistan Journal of Botany, 46(6): 2293-2296.	Pak	**1.28 01**
47	2014	Faisal, M	Detoxification of carcinogenic Cr (VI) by combined action of *Bacillus pumilus*-S4 and *Pseudomonas doudoroffii*-S5 in associated with hydrophytes	Journal of Pure & Applied Microbiology, 8(6): 4289-95.	India	**0.80 --**
48	2014	Siddiqa, A., Sultan, S and Faisal, M	Selenite detoxification by *Bacillus* spp isolated from indigenous polluted sites	Journal of Environment & Earth Sciences, 4: 196-201.	China	
49	2015	Yasin, M., El-Mehdawi, AF., Jahn, CE., Anwer, A., Turner, MFS.,	Seleniferous soils as a source for production of selenium-enriched foods and potential of bacteria to enhance plant selenium uptake	Plant and Soil, 386(1): 385-394.	Netherland	**4.90 (78)**

		Faisal, M and Pilon-Smith, EAH				
50	2015	Naseem, S. Yasin, M., Ahmed, A and Faisal, M	Chromium accumulation and toxicity in Corn (*Zea mays* L.) seedling	Polish Journal of Environmental Studies 24(2): 899-904.	Poland	**1.96 (06)**
51	2015	Yasin, M., El-Mehdawi, A., Anwar, A., Elizabeth Pilon-Smits and Faisal, M	Microbial-enhanced selenium and iron biofortification of wheat (*Triticum aestivum* L.)-applications in phytoremediation and biofortification	International Journal of Phytoremediation, 17(4):339-341.	USA	**4.17 (110)**
52	2015	Yasin, M., El-Mehdawi, AF., Pilon-Smith, EAH and Faisal, M	Selenium-fortified wheat: Potential of microbes for biofortification of selenium and other essential nutrients	International Journal of Phytoremediation, 17(8): 777-786.	USA	**4.17 (40)**
53	2015	Rehman, F and Faisal, M	Toxic hexavalent chromium reduction potential of *Bacillus pumilis*, *Cellulosimicrobium cellulans* and *Exiguobacterium*	Chinese Journal of Oceanology and Limnology, 33: 585-589.	China	**1.60 (15)**
54	2015	Younis, T and Faisal, M.	Functional and genomic diversity of *Pinus roxburghii* rhizospheric bacteria and their potential role in plant growth promotion.	Research Journal of Biotechnology, 10(3): 54-61.	India	**0.30 01**
55	2015	Reza, F.A., Amin, A and Faisal, M	Characterization of desiccation tolerant rhizobacteria from Cholistan desert, Pakistan: Their impact on growth of *Zea mays* L	Polish Journal of Environmental Studies, 24(4): 223-231.	Poland	**1.96 04**
56	2015	Ahmad, T., Faisal, M., Iqbal, S., Khalil, M and Qazi, M.H	Factors affecting detoxification of hexavalent chromium into trivalent in industrial effluents by indigenous bacteria	Journal of Environment and Earth Science, 5(15): 111-118.	China	--
57	2015	Javed, S., Sarwar, A., Tassawar, C. and Faisal, M	Conversion of selenite to elemental selenium by indigenous bacteria isolated from polluted areas	Chemical Speciation & Bioavailability, 27(4): 162-168.	U.K	**3.30 (20)**
58	2016	Akhtar, M., Siddiqa, A and Faisal, M	Impact of UV treatment on Exo-toxin production by *Bacillus* species	Research Journal of Biotechnology, 11(9): 8-15.	India	**0.30 --**

59	2016	Rizvi, F.Z., Kanwal, W., Faisal, M	Chromate reducing profile of bacterial strains isolated from industrial effluents of Punjab, Pakistan	Polish Journal of Environmental Studies, 25(5):1-8	Poland	**1.96 (04)**
60	2016	Sultan, S and Faisal, M	Isolation and Characterization of Iron and Sulfur Oxidizing Bacteria from Coal Mines	Journal of Environment and Earth Sciences, 6(3): 153-157	China	--
61	2016	Nasim, S., Yasin, M., Faisal, M and Ahmed, A	Comparative Study of Plant Growth Promoting Bacteria in Minimizing Toxic Effects of Chromium on Growth and Metabolic Activities in Wheat (*Triticum aestivum*)	Journal of Chemical Society of Pakistan, 38(3): 509-516	Pak	**0.300 (04)**
62	2017	Nawaz, H and Faisal, M	Diversity of *Bacillus* sp. isolated from rhizosphere of Corn and Wheat for their use as potential plant growth promoting bacteria	Research Journal of Biotechnology, 12(3): 53-59.	India	**0.300**
63	2018	Khan, WA., Yasin, NA., Ahmad, SR., Ali, A., Ahmad, A., Faisal, M	Role of *Burkholderia cepacia* CS8 in Cd-stress alleviation and phytoremediation by *Catharanthus roseus*	International Journal of Phytoremediation, 20(6):581-592	USA	**4.17 (39)**
64	2018	Mehmood U and Faisal, M	Bacterial flora of *Arachis hypogea* plants from Punjab Pakistan	Int J Sci Basic Appl Res, 40(2): 78-86.	-	-
65	2019	Bano, A., Munir, I and Faisal, M	Impact of Phosphate Solubilizing Bacteria on Wheat (*Triticum aestivum*) In The Presence of Pesticides	Brazilian Journal of Biology, 79 (1): 29-37.	Brazil	**1.71 21**
66	2019	Ullah, Z., Jabeen, S., Faisal, M., Ahmad, H and Khalid, AN	*Leucoagaricus brunneus* sp. nov. from Khyber Pakhtunkhwa, Pakistan	Mycotaxon, 134: 601-611.	USA	**0.545**
67	2020	Shahid, S., Aslam, M.A., Ali, S., Zameer, M., Faisal, M	Self-Healing of cracks in Concrete using *Bacillus* strains encapsulated in Sodium alginate beads	ChemistrySelect, 5: 312-323	Europe	**2.23 11**
68	2020	Ullah,Z; Khurshed, R; Khan, MB; Ahmad, I; Jabeen, S; Faisal, M;	*Melanoleuca kashmirensis* sp. nov. in subg. Urticocystis from Pakistan	Phytotaxa, 434 (1): 89-100	New Zealand	**1.171**

		Ahmad, H; Fiaz, M; Khalid, AN.				
69	2020	Rehman A, Anam, Saleem H, Tariq H, Javed S, Faisal M.	Selenium resistant bacteria enhance *Zea mays* growth parameters under selenium stress	Abasyn Journal of Life Sciences 2020; 3(2): 164-174.	Pak	
70	2021	Ayesha, S., Munir, R and Faisal, M	Antitumor effect of sodium selenite on acute lymphocytic leukemia	Journal of Cancer Research and Therapeutics, 17(1): 266-268	India	**1.24**
71	2021	Zaheer, A., Munir, I and Faisal, M	Diversity of Phosphate Solubilizing Bacteria and their plant growth promoting attributes for the maintenance of sustainable agriculture system	Polish Journal of Environmental Studies (Accepted)	Poland	**1.96**
72	2021	Ziaullah, Jabeen, S., Zainab., Bashir, H., Faisal, M., Ahmad, H and Khalid, A.N	*Pholiota malakandensis* sp. Nov., in subg. Flammuloides from Pakistan	Nova Hedwigia, 113(1-2): 229-241	Germany	**1.254**
73	2022	Javed S., Faisal, M., Reza ZA, Rehman A,	Isolation and characterization of indigenous biosurfactant producing *Bacillus* and *Staphylococcus* spp. During motor oil degradation	Applied Ecology and Environmental Research 20(1):79-102	Hungary	**0.74**
74	2022	Zain-ul-Abadin, Faisal, M	Selenium Resistant Bacilli and *Pseudomonas* as Potential Candidate for Selenium and Iron Biofortification in Maize Plants	Bioscientific Reviews 4(1): 44-58.	Pak	
75	2022	Sumbal, MA., Mehmood, SS., Ali, M., Fayyaz, T and Faisal, M	Cross antigenicity of *Salmonella typhi* and novel coronavirus antibody in second wave of Covid-19 pandemic	Int. J. Biol. Biotech., 19 (4): 423-428, 2022	Pak	
76	2022	Siddiqa Ayesha and Faisal Muhammad	Isolation of Selenite reducing plant growth promoting novel genus bacteria from Pakistan	Res J Bioethanol., 17 (10): 1-11	India	**0.300**

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B) Research Paper/s in Proceedings

1. Neelam Zia and Muhammad Faisal. 2014. Detoxification of Selenite to Elemental Selenium by Exo-polysaccharides producing desert isolates. pp. 690-697. *EurAsia Waste Management Symposium, 28-30 April 2014, YTU 2010 Congress Center, İstanbul/Türkiye.*

C) Book/s

1. Huma Nawaz and Muhammad Faisal. 2012. Biosurfactant producing Bacteria: Screening and role in oil biodegradation. ISBN 978-3-659-16195-7. LAP Lambert Academic Publishing

D) Book Chapters

S. No	Year	Title of Chapter	Publisher
1	**2007**	Afrasayab, S; Faisal, M and Hasnain, S. 2007. Induction of Salinity Tolerance in Plants through Indigenous Bacteria. Applications of Biotechnology Published by Avishankar Publisher India	**Avishankar**
2	**2014**	Muhammad Yasin, Muhammad Faisal and E.A.H. Pilon-Smits. 2013. Microbial-enhanced selenium biofortification of Wheat (*Triticum aestivum* L.). In: Selenium in the environment and human health (Gary S. Banuelos, Zhi-Qing Lin, Xuebin Yin), CRC Press, Taylor & Francis Group, USA. ISBN 978-1-138-00017-9.	**Taylor & Francis**
3	**2016**	Yasin M, El-Mehdawi AF, Faisal M. & Pilon-Smits EAH. 2015. Microbe-assisted selenium phytoremediation and phyto-management of natural seleniferous areas. Eds: Gary S. Banuelos et al. Selenium in the environment and human health. CRC Press 2015. pp 199-200, ISBN-978-1-138-02731-2. DOI:10.1201/b19204-101	**Taylor & Francis**
4	**2016**	Muhammad Yasin, Iqra Munir and Muhammad Faisal. 2016. Can *Bacillus* spp enhance K^+ uptake in crops species pp163-170. In: Potassium Solubilizing Microorganisms for Sustainable Agriculture, V.S. Meena *et al*. (eds). Springer 2016. DOI 10.1007/978-81-322-2776-2_12	**Springer**
5	**2016**	Iqra Munir and Muhammad Faisal. 2016. Plant Growth Promoting Bacteria: A good source for phytoremediation of metal contaminated soil. In: Phytoremediation. Management of Environmental Contaminants, Volume 4. By AA Ansari, SS Gill, R Gill, GR Lanza, L Newman. Springer ISBN 978-319-41810-0	**Springer**
6	**2017**	Zain ul Abadin, Muhammad Yasin and Muhammad Faisal. 2017. Bacterial mediated Selenium Biofortification of *Triticum aestivum*: A strategy for improvement in Selenium phytoremediation and Biofortification. pp 299-315. *In*: Agriculturally Important Microbes for Sustainable Agriculture, Vol-I Plant Soil Microbe Nexus. ISBN 978-981-10-5588-1. Springer Nature Singapore Pve Ltd, 2017.	**Springer**
7	**2018**	Hera Naheed Khan and Muhammad Faisal. 2018.	**Springer**

		Phytoremediation of industrial wastewater by hydrophytes. *In*: Phytoremediation: Management of Environmental Contaminants Vol-6 by Ansari et al. pp. 179-200. Springer. DOI: 10.1007/978-3-319-99651-6	
8	**2018**	Ayesha Siddiqa and Muhammad Faisal. 2018. Phytoremediation of chromium polluted soil using plants in conjunction with microbes. *In*: Phytoremediation: Management of Environmental Contaminants Vol-6 by Ansari et al. Springer. DOI: 10.1007/978-3-319-99651-6	**Springer**
9	**2020**	Ayesha Siddiqa and Muhammad Faisal, 2020. Heavy Metals: Source, toxicity mechanisms, health fffects, nanotoxicology and their bioremediation. pp. 117-142. *In*: Contaminants in Agriculture: Sources, Impacts and Management Naeem et al. Eds Springer. https://doi.org/10.1007/978-3-030-41552-5. ISBN 978-3-030-41551-8	**Springer**
10	**2020**	Hera Naheed Khan and Muhammad Faisal, 2020. Planning and engineering strategies of agricultural wastes and their remediation strategies. pp. 219-232. *In*: Contaminants in Agriculture: Sources, Impacts and Management Naeem *et al*. Eds Springer. https://doi.org/10.1007/978-3-030-41552-5. ISBN 978-3-030-41551-8	**Springer**
11	**2021**	Ayesha Siddiqa and Muhammad Faisal. 2021. Microbial degradation of organic pollutants using indigenous bacterial strains. Pp. 625-637. In: Handbook of Bioremediation; Physiological, Molecular and Biotechnological Interventions, Mirza, H., M.N.V Prasad 1st Eds, Elsevier. ISBN 9780128193839	**Elsevier**
12	**2021**	Uqba Mahmood and Muhammad Faisal. 2021. Materialization of CO_2 from distilleries in Algae based biofuel and biomass. In: Sustainable Ethanol and Climate Change. Muhammad Arshad Eds. Springer. https://doi.org/10.1007/978-3-030-59280-6. ISBN 978-3-030-59279-0	**Springer**
13	**2022**	Ayesha Siddiqa, Bisma Shahzadi and Muhammad Faisal. 2022. Bacterial polyamines: a key mediator to combat stress tolerance in plants. pp. 277-282 In: Hazardous and Trace Materials in Soil and Plants. ISBN: 9780323916325	**Elsevier**
14	**2022**	Ayesha Siddiqa, Bisma Shahzadi and Muhammad Faisal. 2022. Alleviation in the Toxicity of Heavy Metals in Crop Production by Metal-Resistant Bacteria. pp 447-459. In: Agrochemicals in Soil and Environment, https://doi.org/10.1007/978-981-16-9310-6_20	**Springer**
15	**2022**		**Taylor & Francis**
16	**2024**	Hera Naheed Khan and Muhammad Faisal, 2024.	**Taylor &**

Bioremediation of heavy metals using the symbiosis of hydrophytes and metal resistant bacteria. *In*: Membrane technologies for heavy metal removal from water and wastewater. 1st Edt by Jaafar J, Zaidi AA, Naseer MN. ISBN 9781032353050; Taylor & Francis Group. **Francis**

BACTERIAL CULTURE COLLECTION

Chromium and Arsenic Resistant Strains

Acinetobacter sp. AsK07 Accession No. GQ503319; *Bacillus megaterium* strain AsK08 Accession No.GQ503320; *Pontibacter korlensis* strain AsK09 Accession No. GQ503321; *Bacillus* sp. AsK15 Accession No. GQ503322; *Bacillus subtilis* strain AsK18 Accession No. GQ503323; *Bacillus licheniformis* strain AsK03 Accession No. GQ503324; *Exiguobacterium* sp. AsK04 Accession No. GQ503325; *Bacillus pumilus* strain CrK08 Accession No. GQ503326; *Staphylococcus pasteuri* strain CrK14 Accession No. GQ503327; *Cellulosimicrobium cellulans* strain CrK16 Accession No. GQ503328; *Bacillus cereus* strain CrK20 Accession No. GQ503329; *Exiguobacterium* sp. CrK19 Accession No. GQ503330; *Bacillus licheniformis* strain CrK21 Accession No. GQ503331

Biosurfactant producing / Oil degrading Strains

Enterobacter sp. S1-8 Accession No. JN565979; *Acinetobacter* sp. S5-1 Accession No. JN544140; *Pseudomonas stutzeri* S7-13 Accession No. JN565980

Staphylococcus sp- Z1, *Enterobacter aerogenes*- Z3, *Enterobacter asburiae*- Z4, *Bacillus cereus*- Z5, *Bacillus anthracis*- Z6; *Pseudomonas aeruginosa*-S1, *Pseudomonas aeruginosa*-SC, *Enterobacter cloacae*-SF, *Pseudomonas aeruginosa*-M13

Plant Growth Promoting Strains

Pseudomonas aeruginosa PRM1 Accession No. JN544141; *Bacillus cereus* strain PRM2 Accession No. JN544142; *Exiguobacterium acetylicum* strain PRM3 Accession No. JN544143; *Comamonas* sp.-PRM4 Accession No. JN544144; *Exiguobacterium acetylicum*- PRM5 Accession No. JN544145; *Pseudomonas mendocina* -PRM6 Accession No. JN544146; *Bacillus licheniformis*- PRM7 Accession No. JN544147; *Acinetobacter* sp.- PRM8 Accession No. JN544148; *Lysinibacillus* sp.- PRM9 Accession No. JN544149; *Enterobacter* sp.- PRL1 Accession No. JN544150; *Bacillus subtilis* -PRL2 Accession No. JN544151; *Bacillus simplex* - PRL3 Accession No. JN544152; *Bacillus* sp.- PRL4 Accession No. JN544153; *Exiguobacterium* sp.- PRL5 Accession No. JN544154; *Bacillus* sp.- PRL6 Accession No. JN544155; *Pseudomonas* sp.- PRL7 Accession No. JN544156; *Pantoea* sp.- PRL8 Accession No. JN544157; *Pseudomonas aeruginosa* - PRL9 Accession No. JN544158; *Chryseobacterium gleum*- PRR1 Accession No. JN544159; *Bacillus pumilus* - PRR2 Accession No. JN544160; *Acinetobacter lwoffii*- PRR3 Accession No. JN544161; *Bacillus pumilus*- PRR4 Accession No. JN544162; *Acinetobacter* sp. - PRR5 Accession No. JN544163; *Brevibacillus laterosporus*- PRR6 Accession No. JN544164; *Pseudomonas aeruginosa* - PRR7 Accession No. JN544165

Bacillus subtilis- CSH27, *Bacillus cereus*- Cu47, *Bacillus axarquiensis*- CF18, *Bacillus* sp.- CSH23, *Bacillus safensis*- CN17, *Bacillus cereus*- CMS17, *Bacillus endophyticus*- CU33, *Bacillus subtilis*- CN2, *Bacillus pumilis*- CSH7, *Bacillus cereus*- CMS7, *Bacillus pumilis*- CSH4, *Bacillus subtilis*- WRY23, *Bacillus* sp- WM3, *Bacillus cereus*- WSK9, *Bacillus anthracis*- WUS2, *Bacillus thuringiensis*- WG5, *Bacillus anthracis*- WFS6, *Bacillus*

amyloliquefaciens- WSH8, *Bacillus* sp.- WG1, *Bacillus anthracis*- WRY1, *Bacillus subtilis*- WRY11, *Bacillus cereus*- WFS20, *Bacillus subtilis*- WL22, *Bacillus anthracis*- WSH13, *Bacillus subtilis*- WSK11, *Bacillus pseudomycoides*- WSK6

Selenium Resistant Plant Growth Promoting Strains

Bacillus foraminis-YAK-1 Accession No. JX203248; *Bacillus thuringiensis* serovar finitimus-YAK2 Accession No. JX203249; *Bacillus licheniformis*-YAK4 Accession No. JX203250; *Proteus penneri*-YAK6 Accession No. JX203251; *Bacillus endophyticus*-YAK7 Accession No. JX203252; *Bacillus licheniformis*-YAP1 Accession No. JX203253; *Bacillus cereus*-YAP6 Accession No. JX203254; *Bacillus licheniformis*-YAP7 Accession No. JX203255; *Bacillus endophyticus*-YAM1 Accession No. JX203256; *Bacillus pichinotyi*-YAM2 Accession No. JX203257; *Bacillus jeotgali*-YAM3 Accession No. JX203258; *Bacillus licheniformis*-YAM4 Accession No. JX203259

Salt Tolerant Plant Growth Promoting Strains (Soil)

Exiguobacterium profundum-B9 Accession No. JX112643; *Bacillus pumilus*-B10 Accession No. JX112644; *Pseudomonas* sp.-B12 Accession No. JX112645; *Pseudomonas stutzeri*-B15 Accession No. JX112646; *Bacillus licheniformis*-B16 Accession No. JX112647; *Bacillus subtilis*-B18 Accession No. JX112651; *Bacillus flexus*-B32 Accession No. JX112648; *Bacillus* sp.-B33 Accession No.JX112649; *Pseudomonas fluorescens*-IM12 Accession No. JX112652; *Bravibacterium fugoritolerans*-IM20 Accession No. JX112650

Salt Tolerant Plant Growth Promoting Strains (Water)

Pseudomonas mandocina-SM05 Accession No. JX102498; *Pseudomonas pseudoalcaligenes*-M10 Accession No. JX105525; *Microbacterium* sp.-M18 Accession No. JX105526; *Pseudomonas stutzeri*-M19 Accession No. JX105527; *Sphingobacterium* sp.-M30 Accession No. JX102496; *Pseudomonas* sp.-M39 Accession No. JX105528; *Bacillus pumilis*-M45 Accession No. JX102495; *Bacillus subtilis*-M50 Accession No. JX102497; *Bacillus licheniformis*-B37 Accession No. JX105529

Lactic acid bacteria

Lactobacillus fermentum- F1, *Lactobacillus brevis*- F3

Phosphate solubilizing bacteria (Soil)

Pseudomonas putida- Rad-2, *Acinetobacter baumannii*- JA-10, *Pseudomonas oryzihabitans*-Sud-F, *Pseudomonas fulva*- Ros-1, *Pseudomonas aeruginosa*- R-15, *Acinetobacter* sp- L-6, *Pseudomonas frederiksbergensis*- L-22, *Acinetobacter* sp- S6-2, *Pseudomonas* sp- Ros-2, *Pseudomonas koreensis*- L-20, *Ochrobactrum haematophilum*- M-6, *Pseudomonas putida*-SL8, *Enterobacter aerogenes*- W-96, *Pseudomonas* sp- UPG

Biosurfactant producing bacteria

Staphylococcus hominis-F1 Accession No. MT107124; *Staphylococcus* sp.F9 Accession No. MT107125; *Staphylococcus hominis*-F19 Accession No. MT107126; *Paenibacillus* sp.S6 Accession No. MT107127; *Paenibacillus lactis*-SJ1 Accession No. MT107128; *Bacillus safensis*- SJ4 Accession No. MT107129; *Bacillus paranthracis*- SJ10 Accession No. MT103046; *Vagococcus fluvialis*- SJ12 Accession No. MT103047; *Bacillus flexus*- SJ15 Accession No. MT103048; *Bacillus altitudinis*- SJ17 Accession No. MT103049; *Bacillus* sp. SJ19 Accession No. MT103050; *Bacillus flexus*- SJ20 Accession No. MT103051; *Bacillus oceanisediminus*-SJ32 Accession No. MT103052; *Sporosarcina saromensis*- SJ36 Accession No. MT103053; *Bacillus cereus*- SJ37 Accession No. MT103054; *Staphylococcus haemolyticus*- SJ39 Accession No. MT103055; *Bacillus pumilus*- SJ40 Accession No. MT103056; *Bacillus flexus*-SJ41

Accession No. MT103057; *Pseudomonas aeruginosa*-SU2 Accession No. MT093463; *Sporosarcina saromensis*-U8 Accession No. MT103058