

DAFTAR PUSTAKA

- Abdallah, R.S., Rachmansyah, A. and Yanuwidi, B. (2019) 'Phytoremediation of Lead-Contaminated Soil by Using Vetiver Grass (*Vetiveria zizanioides* L.)', *The Journal of Experimental Life Sciences*, 9(1), pp. 54–59. Available at: <https://doi.org/10.21776/ub.jels.2019.009.01.09>.
- Abdel-Shafy, H.I. *et al.* (2024) 'Landfill leachate: Sources, nature, organic composition, and treatment: An environmental overview', *Ain Shams Engineering Journal*, 15(1), p. 102293. Available at: <https://doi.org/10.1016/j.asej.2023.102293>.
- Abdel-Shafy, H.I. and Mansour, M.S.M. (2018) 'Solid waste issue: Sources, composition, disposal, recycling, and valorization', *Egyptian Journal of Petroleum*, 27(4), pp. 1275–1290. Available at: <https://doi.org/10.1016/j.ejpe.2018.07.003>.
- Acharya, A. *et al.* (2025) 'Current Assessment and Future Perspectives on Phytoremediation of Heavy Metals', *Plants*, 14(18), pp. 1–26. Available at: <https://doi.org/10.3390/plants14182847>.
- Adi Saputra, W., Setiani, O. and Rahardjo, M. (2020) 'Water Quality and Pollution Index of Kreo and Garang River from Jatibarang Landfill in Semarang City', *E3S Web of Conferences*, 202, pp. 1–12. Available at: <https://doi.org/10.1051/e3sconf/202020205018>.
- Aisyah, A.N. *et al.* (2025) 'Synthesis of Magnetite / Chitin / Fulvic Acid Derived from Goat Manure Compost and Adsorption Study of Zn (II) for Water Security Enhancement', 1(June), pp. 34–41.
- Akhtar, S. *et al.* (2025) 'Long term urban wastewater irrigation drives zinc bioaccumulation and health risks in contaminated vegetables', *Scientific Reports*, 15(1), pp. 1–17. Available at: <https://doi.org/10.1038/s41598-025-06026-5>.
- Akpoedafe, T.O. *et al.* (2023) 'Appraising the Impact of Automobile Mechanic Workshop Activities on the Soil's Heavy Metals Contamination Level in Isoko Community, Niger Delta Region of Nigeria'. Available at: <https://doi.org/10.21203/rs.3.rs-3304408/v1>.
- Albureikan, M.O.I. (2024) 'Enhancement of Plant Growth with Plant-Based Compost and the Heterotrophic Azotobacter and Streptomyces Inoculation under Greenhouse Conditions', *Journal of Pure and Applied Microbiology*, 18(3), pp. 1632–1647. Available at: <https://doi.org/10.22207/JPAM.18.3.13>.
- Antonio, P. and Viera, I. (2020) 'Carotenoids and Chlorophylls as Antioxidants'.
- Aziz, R.A. *et al.* (2023) 'Bioaccumulation and Translocation of Heavy Metals in Paddy (*Oryza sativa* L.) and Soil in Different Land Use Practices', *Sustainability (Switzerland)*, 15(18). Available at: <https://doi.org/10.3390/su151813426>.
- Banerjee, R., Goswami, P., Pathak, K., Mukherjee, A., Lavania, S. and Lavania, U.C. (2019) Morpho-physiological, biochemical and antioxidant responses of different vetiver (*Chrysopogon zizanioides* L.) genotypes grown on iron mine overburden soil. *Ecological Engineering*, 132, pp. 120–136. <https://doi.org/10.1016/j.ecoleng.2018.11.018>
- Banerjee, R. *et al.* (2019) 'Vetiver grass is a potential candidate for

- phytoremediation of iron ore mine spoil dumps', *Ecological Engineering*, 132(October 2018), pp. 120–136. Available at: <https://doi.org/10.1016/j.ecoleng.2018.10.012>.
- Barcellos-Silva, I.G.C. *et al.* (2025) 'Vetiver, *Vetiveria zizanioides* (L.) Nash: Biotechnology, Biorefineries, and the Production of Volatile Phytochemicals', *Plants*, 14(10), pp. 1–29. Available at: <https://doi.org/10.3390/plants14101435>.
- Bouzayani, F., Aydi, A. and Abichou, T. (2014) 'Soil contamination by heavy metals in landfills: Measurements from an unlined leachate storage basin', *Environmental Monitoring and Assessment*, 186(8), pp. 5033–5040. Available at: <https://doi.org/10.1007/s10661-014-3757-y>.
- Bushron, R. *et al.* (2025) 'SAINS TANAH – Journal of Soil Science and Agroclimatology Soil nutrient improvement with organic amendments : a basis for lemon orchard management', 22(2), pp. 180–189.
- Al Chami, Z. *et al.* (2013) 'Effect of compost and manure amendments on zinc soil speciation, plant content, and translocation in an artificially contaminated soil.', *Environmental science and pollution research international*, 20(7), pp. 4766–4776. Available at: <https://doi.org/10.1007/s11356-012-1439-2>.
- Chaudhary, K., Agarwal, S. and Khan, S. (2018) 'Role of Phytochelatins (PCs), Metallothioneins (MTs), and Heavy Metal ATPase (HMA) Genes in Heavy Metal Tolerance BT - Mycoremediation and Environmental Sustainability: Volume 2', in R. Prasad (ed.). Cham: Springer International Publishing, pp. 39–60. Available at: https://doi.org/10.1007/978-3-319-77386-5_2.
- Chen, Q. *et al.* (2024) 'Soil Microorganisms: Their Role in Enhancing Crop Nutrition and Health', *Diversity*, 16(12), pp. 1–26. Available at: <https://doi.org/10.3390/d16120734>.
- Cheng, Y. *et al.* (2023) 'The Early Effect of Plant Density on Soil Physicochemical Attributes and Bacterial and Understory Plant Diversity in Phoebe zhennan Plantations', *Forests*, 14(8). Available at: <https://doi.org/10.3390/f14081612>.
- Daud, M.K. *et al.* (2018) 'Potential of Duckweed (*Lemna minor*) for the Phytoremediation of Landfill Leachate', *Journal of Chemistry*, 2018. Available at: <https://doi.org/10.1155/2018/3951540>.
- Desalegn, E. *et al.* (2024) 'Determination of the levels of selected essential and toxic metals in soil collected from the flower farm in Roshara Roses PLC (Bishoftu) of Ethiopia and assessment of associated human health risks', *Discover Applied Sciences*, 6(7). Available at: <https://doi.org/10.1007/s42452-024-06028-4>.
- Dingus, A., Roslund, M.I. and Weidenhamer, D. (2024) 'Arabidopsis response to copper is mediated by density and root exudates : Evidence that plant density and toxic soils can shape plant communities', (February 2023), pp. 1–15. Available at: <https://doi.org/10.1002/ajb2.16285>.
- Duan, S. *et al.* (2024) 'Spectroscopic insights into the binding characteristics of heavy metals to dissolved organic matter in landfill leachate', *Chemosphere*, 352(January), p. 141433. Available at: <https://doi.org/10.1016/j.chemosphere.2024.141433>.
- Dubey, D. and Pathak, G.C. (2024) 'Zinc: A Critical Micronutrient for Growth and Development of Plants', *Journal of Applied Bioscience*, 50(2), pp. 95–102.

- Available at: <https://doi.org/10.61081/joab/50v2i104>.
- El-Shahir, A.A. *et al.* (2021) 'The effect of endophytic *Talaromyces pinophilus* on growth, absorption and accumulation of heavy metals of *Triticum aestivum* grown on sandy soil amended by Sewage Sludge', *Plants*, 10(12). Available at: <https://doi.org/10.3390/plants10122659>.
- Endalamaw, B., Dawud, S.M. and Gobezie, T. (2022) 'Effect of planting density on root biomass and distribution, and soil organic carbon stock of *Acacia decurrens* stands in Northwestern Ethiopia', *F1000Research*, 11, p. 1375. Available at: <https://doi.org/10.12688/f1000research.128472.1>.
- Ermilinda, M., Werdiningsih, R. and Winarn, A.T. (2022) 'Implementasi Perda Nomor 6 Tahun 2012 Tentang Pengelolaan Sampah (Studi Kasus Pengelolaan Sampah Kota Semarang)', *Jurnal Pendidikan dan Konseling*, 4(5), pp. 5716–5724.
- Fernández, B. and Espina, J.A. (2021) 'Comparative Study on the Treatment of Leachate From a Mine Waste Dump With Two Agricultural Biowastes', *Journal of Geoscience and Environment Protection*, 09(09), pp. 52–63. Available at: <https://doi.org/10.4236/gep.2021.99004>.
- Futalan, C.M. *et al.* (2022) 'Modification Strategies of Kapok Fiber Composites and Its Application in the Adsorption of Heavy Metal Ions and Dyes from Aqueous Solutions : A Systematic Review'.
- Gautam, M. and Agrawal, M. (2017) 'Phytoremediation of metals using vetiver (*Chrysopogon zizanioides* (L.) Roberty) grown under different levels of red mud in sludge amended soil', *Journal of Geochemical Exploration*, 182, pp. 218–227. Available at: <https://doi.org/10.1016/j.gexplo.2017.03.003>.
- Greco, M. *et al.* (2012) 'In *Posidonia oceanica* cadmium induces changes in DNA methylation and chromatin patterning', *Journal of Experimental Botany*, 63(2), pp. 695–709. Available at: <https://doi.org/10.1093/jxb/err313>.
- Guan, Y. *et al.* (2025) 'Zinc promotes nitrogen uptake and plant growth by regulating the antioxidant system and carbon-nitrogen metabolism under drought condition in apple plants.', *Plant physiology and biochemistry: PPB*, 221, p. 109619. Available at: <https://doi.org/10.1016/j.plaphy.2025.109619>.
- Hammam, K., Amer, A. and Noreldin, T. (2019) 'Vetiver (*Vetiveria zizanioides* L.) Yield and its water use efficiency affected by different plant populations under reclaimed soil conditions', ~ 126 ~ *Journal of Medicinal Plants Studies*, 7(5), pp. 126–134.
- Hamzah Saleem, M. *et al.* (2022) 'Functions and strategies for enhancing zinc availability in plants for sustainable agriculture', *Frontiers in Plant Science*, 13(October), pp. 1–13. Available at: <https://doi.org/10.3389/fpls.2022.1033092>.
- Hassan, M.U., Ngadda, Y.H. and Adamu, A. (2021) 'Measurement of Levels of Concentrations of Some Heavy Metals in Soils of Some Selected Areas of Pindiga, Nigeria', *Nipes - Journal of Energy Technology and Environment*, 3(2), p. 29. Available at: <https://doi.org/10.37933/nipes.e/3.2.2021.4>.
- Hasthi, S., Budiati, L. and Setiadi, R. (2023) *Study of Waste Management at the Jatibarang Landfill, Semarang City*. Atlantis Press SARL. Available at: https://doi.org/10.2991/978-2-38476-072-5_11.
- Hee, J. *et al.* (2011) 'Role of organic amendments on enhanced bioremediation of

- heavy metal (loid) contaminated soils', *Journal of Hazardous Materials*, 185(2–3), pp. 549–574. Available at: <https://doi.org/10.1016/j.jhazmat.2010.09.082>.
- Hidayati, N. and Rini, D.S. (2020) 'Assessment of plants as lead and cadmium accumulators for phytoremediation of contaminated rice field', *Biodiversitas*, 21(5), pp. 1928–1934. Available at: <https://doi.org/10.13057/biodiv/d210520>.
- Hoodaji, M. *et al.* (2022) 'Growth and Biochemical Responses of Vetiver Grass (*Vetiveria Zizanioides*) to Magnetized Water and Pb', *The Indian Journal of Agricultural Sciences*, 92(5), pp. 643–647. Available at: <https://doi.org/10.56093/ijas.v92i5.124790>.
- Huslina, F. *et al.* (2026) 'Investigating the Impact of Planting Density of *Juncus pauciflorus* on the Phytoremediation of Arsenic-Contaminated Mine Waste with the Addition of Biochar and *Bacillus subtilis*', pp. 1–18.
- Islam, M. and Sandhi, A. (2023) 'Heavy Metal and Drought Stress in Plants : The Role of Microbes — A Review', pp. 695–708. Available at: <https://doi.org/10.1007/s10343-022-00762-8>.
- Kafeel, M. *et al.* (2012) 'Heavy Metal Stress and Cellular Antioxidant Systems of Plants: A Review', (Table 1), pp. 1–10. Available at: <https://doi.org/10.18805/ag.RF-321.Submitted>.
- Kafle, A. *et al.* (2022) 'Phytoremediation: Mechanisms, plant selection and enhancement by natural and synthetic agents', *Environmental Advances*, 8(February), p. 100203. Available at: <https://doi.org/10.1016/j.envadv.2022.100203>.
- Kaparwan, D., Rana, N.S. and Dhyani, B.P. (2020) 'Heavy Metals Toxicity in Agricultural Soils– Critical Review of Possible Sources, Influence on Soil Health and Remedial Measures to Remove, Reduce and Stabilize Contaminants in Soil', *International Journal of Current Microbiology and Applied Sciences*, 9(6), pp. 1467–1482. Available at: <https://doi.org/10.20546/ijcmas.2020.906.182>.
- Kaur, H. *et al.* (2024a) 'Behavior of zinc in soils and recent advances on strategies for ameliorating zinc phyto-toxicity', *Environmental and Experimental Botany*, 220(December 2023), p. 105676. Available at: <https://doi.org/10.1016/j.envexpbot.2024.105676>.
- Kaur, H. *et al.* (2024b) 'Behavior of zinc in soils and recent advances on strategies for ameliorating zinc phyto-toxicity', *Environmental and Experimental Botany*, 220(February), p. 105676. Available at: <https://doi.org/10.1016/j.envexpbot.2024.105676>.
- Kaur, H. and Garg, N. (2021) 'Zinc toxicity in plants: a review', *Planta*, 253. Available at: <https://doi.org/10.1007/s00425-021-03642-z>.
- Kaushik, A. and Nair, S.J. (2021) 'A Study to Understand Reduction Behavior of Toxic Metal in Leachate Using Bentonite', *Journal of University of Shanghai for Science and Technology*, 23(06), pp. 402–408. Available at: <https://doi.org/10.51201/jusst/21/05272>.
- Khan, A.H. *et al.* (2022) 'Current solid waste management strategies and energy recovery in developing countries - State of art review', *Chemosphere*, 291(August 2021). Available at: <https://doi.org/10.1016/j.chemosphere.2021.133088>.

- Khan, O. *et al.* (2023) 'Experimental Investigation and Multi-Performance Optimization of the Leachate Recirculation Based Sustainable Landfills Using Taguchi Approach and an Integrated McDm Method', *Scientific Reports*, 13(1). Available at: <https://doi.org/10.1038/s41598-023-45885-8>.
- Khanna, K. *et al.* (2019) 'Metal resistant PGPR lowered Cd uptake and expression of metal transporter genes with improved growth and photosynthetic pigments in *Lycopersicon esculentum* under metal toxicity', (March), pp. 1–14. Available at: <https://doi.org/10.1038/s41598-019-41899-3>.
- Kou, B. *et al.* (2024) 'Effect of soil organic matter-mediated electron transfer on heavy metal remediation: Current status and perspectives.', *The Science of the total environment*, 917, p. 170451. Available at: <https://doi.org/10.1016/j.scitotenv.2024.170451>.
- Lacalle, R.G. *et al.* (2023) 'Phytostabilization of soils contaminated with As, Cd, Cu, Pb and Zn: Physicochemical, toxicological and biological evaluations', *Soil and Environmental Health*, 1(2). Available at: <https://doi.org/10.1016/j.seh.2023.100014>.
- Li, J. *et al.* (2021) 'Effect of manure and compost on the phytostabilization potential of heavy metals by the halophytic plant wavy-leaved saltbush', *Plants*, 10(10), pp. 1–13. Available at: <https://doi.org/10.3390/plants10102176>.
- Lim, M., McBride, M.B. and Kessler, A. (2017) 'Arsenic Bioaccumulation by *Eruca sativa* Is Unaffected by Intercropping or Plant Density', *Water, Air, & Soil Pollution*, 228(9), p. 364. Available at: <https://doi.org/10.1007/s11270-017-3544-9>.
- Lin, G. *et al.* (2024) 'Optimal Planting Density Increases the Seed Yield by Improving Biomass Accumulation and Regulating the Canopy Structure in Rapeseed', *Plants*, 13(14). Available at: <https://doi.org/10.3390/plants13141986>.
- Lin, J. *et al.* (2024) 'Zinc mediates control of nitrogen fixation via transcription factor filamentation', *Nature*, 631(8019), pp. 164–169. Available at: <https://doi.org/10.1038/s41586-024-07607-6>.
- Liu, D.Y. *et al.* (2019) 'Zinc uptake, translocation, and remobilization in winter wheat as affected by soil application of zn fertilizer', *Frontiers in Plant Science*, 10(April), pp. 1–10. Available at: <https://doi.org/10.3389/fpls.2019.00426>.
- Liu, L. *et al.* (2009) '[Effect of planting densities on yields and zinc and cadmium uptake by *Sedum plumbizincicola*.]', *Huan jing ke xue= Huanjing kexue*, 30(11), pp. 3422–3426.
- Liu, N. *et al.* (2024) 'Non-phytoremediation and phytoremediation technologies of integrated remediation for water and soil heavy metal pollution: A comprehensive review', *Science of the Total Environment*, 948(April), p. 174237. Available at: <https://doi.org/10.1016/j.scitotenv.2024.174237>.
- Ma, T. *et al.* (2019) 'Effects of Phthalate Esters on *Ipomoea Aquatica* Forsk. Seedlings and the Soil Microbial Community Structure Under Different Soil Conditions', *International Journal of Environmental Research and Public Health* [Preprint]. Available at: <https://doi.org/10.3390/ijerph16183489>.
- Mahmoudpour, M. *et al.* (2021) 'Evaluation of Phytoremediation Potential of Vetiver Grass (*Chrysopogon Zizanioides* (L.) Roberty) for Wastewater Treatment', *Advances in Materials Science and Engineering*,

- 2021(1). Available at: <https://doi.org/10.1155/2021/3059983>.
- Makuleke, P. and Ngole-Jeme, V.M. (2020) 'Soil Heavy Metal Distribution With Depth Around a Closed Landfill and Their Uptake by *Datura Stramonium*', *Applied and Environmental Soil Science*, 2020, pp. 1–14. Available at: <https://doi.org/10.1155/2020/8872475>.
- Martin, A., Montavon, G. and Landesman, C. (2021) 'A combined DGT - DET approach for an in situ investigation of uranium resupply from large soil profiles in a wetland impacted by former mining activities', *Chemosphere*, 279, p. 130526. Available at: <https://doi.org/10.1016/j.chemosphere.2021.130526>.
- Masinire, F. *et al.* (2021) 'Phytoremediation of Cr(VI) in wastewater using the vetiver grass (*Chrysopogon zizanioides*)', *Minerals Engineering*, 172, p. 107141. Available at: <https://doi.org/10.1016/j.mineng.2021.107141>.
- Mi, K. *et al.* (2025) 'Planting density affects yield of indica-japonica hybrid rice by regulating population and photosynthetic characteristics', *The Crop Journal* [Preprint], (xxxx). Available at: <https://doi.org/10.1016/j.cj.2025.10.009>.
- Morales-Hernández, S. *et al.* (2022) 'Phytoremediation Plants of Metals in Leached Urban Solid Waste Phytoremediation in Landfill', *Horticulture International Journal*, 6(4), pp. 189–194. Available at: <https://doi.org/10.15406/hij.2022.06.00264>.
- Mossa, A.W. *et al.* (2021) 'The effect of soil properties on zinc lability and solubility in soils of Ethiopia - An isotopic dilution study', *Soil*, 7(1), pp. 255–268. Available at: <https://doi.org/10.5194/soil-7-255-2021>.
- Mukherjee, S., Leri, A.C. and Bandaranayaka, C. (2025) *Sustainable management of post-phytoremediation biomass*. Available at: <https://doi.org/10.1007/s40974-025-00364-w>.
- Natasha, N. *et al.* (2022) 'Zinc in soil-plant-human system: A data-analysis review', *Science of the Total Environment*, 808. Available at: <https://doi.org/10.1016/j.scitotenv.2021.152024>.
- Ni, J. *et al.* (2020) 'Modelling root growth and soil suction due to plant competition', *Journal of Theoretical Biology*, 484, p. 110019. Available at: <https://doi.org/10.1016/j.jtbi.2019.110019>.
- Nyiramigisha, P., Komariah and Sajidan (2021) 'The concentration of heavy metals zinc and lead in the soil around the Putri Cempo landfill, Indonesia', *IOP Conference Series: Earth and Environmental Science*, 824(1), pp. 0–6. Available at: <https://doi.org/10.1088/1755-1315/824/1/012050>.
- Ochoa Tufiño, V. *et al.* (2025) 'Arabidopsis thaliana Zn transporter genes ZIP3 and ZIP5 provide the main Zn uptake route and act redundantly to face Zn deficiency', *Plant Journal*, 121(3), pp. 1–17. Available at: <https://doi.org/10.1111/tpj.17251>.
- Ololade, O.O. *et al.* (2019) 'Impact of Leachate From Northern Landfill Site in Bloemfontein on Water and Soil Quality: Implications for Water and Food Security', *Sustainability*, 11(15), p. 4238. Available at: <https://doi.org/10.3390/su11154238>.
- Ondo, N. *et al.* (2021) 'Phytoremediation Potential of Vetiver Grass (*Vetiveria Zizanioides*) in Two Mixed Heavy Metal Contaminated Soils from the Zoundweogo and Boulkiemde Regions of Burkina Faso (West Africa)', pp. 73–88. Available at: <https://doi.org/10.4236/gep.2021.911006>.

- Oueld Lhaj, M. *et al.* (2025) 'Application of Compost as an Organic Amendment for Enhancing Soil Quality and Sweet Basil (*Ocimum basilicum* L.) Growth: Agronomic and Ecotoxicological Evaluation', *Agronomy*, 15(5), pp. 1–27. Available at: <https://doi.org/10.3390/agronomy15051045>.
- Özçoban, M.Ş. and Acarer, S. (2022) 'Investigation of the Effect of Leachate on Permeability and Heavy Metal Removal in Soils Improved With Nano Additives', *Applied Sciences*, 12(12), p. 6104. Available at: <https://doi.org/10.3390/app12126104>.
- Park, J.H., Lamb, D., Paneerselvam, P., Choppala, G., Bolan, N. and Naidu, R. (2011) Role of organic amendments on the remediation of metal(loid) contaminated soils. *Journal of Hazardous Materials*, 185(2–3), pp. 549–574. <https://doi.org/10.1016/j.jhazmat.2010.09.082>
- Petrushka, K. *et al.* (2024) 'Risks of Soil Pollution With Toxic Elements During Military Actions in Lviv', *Journal of Ecological Engineering*, 25(1), pp. 195–208. Available at: <https://doi.org/10.12911/22998993/175136>.
- Piccolo, A. *et al.* (2019) 'Soil washing with solutions of humic substances from manure compost removes heavy metal contaminants as a function of humic molecular composition', *Chemosphere*, 225, pp. 150–156. Available at: <https://doi.org/10.1016/j.chemosphere.2019.03.019>.
- Qiao, R. *et al.* (2024) 'Planting density effect on poplar growth traits and soil nutrient availability, and response of microbial community, assembly and function', *BMC Plant Biology*, 24(1). Available at: <https://doi.org/10.1186/s12870-024-05648-7>.
- Qin, Y. *et al.* (2021) 'Influence of Planting Density on the Phytoremediation Efficiency of *Festuca arundinacea* in cd-Polluted Soil', *Bulletin of Environmental Contamination and Toxicology*, 107(1), pp. 154–159. Available at: <https://doi.org/10.1007/s00128-021-03173-z>.
- Ran, L. *et al.* (2019) 'Bioresource Technology Study of the morphological changes of copper and zinc during pig manure composting with addition of biochar and a microbial agent', 291(41). Available at: <https://doi.org/10.1016/j.biortech.2019.121752>.
- Rasool, F. *et al.* (2021) 'Phenylalanine ammonia-lyase (Pal) genes family in wheat (*Triticum aestivum* L.): Genome-wide characterization and expression profiling', *Agronomy*, 11(12). Available at: <https://doi.org/10.3390/agronomy11122511>.
- Ratnawati, R. and Fatmasari, R.D. (2018) 'FITOREMEDIASI TANAH TERCEMAR LOGAM TIMBAL (Pb) MENGGUNAKAN TANAMAN LIDAH MERTUA (*Sansevieria trifasciata*) DAN JENGGER AYAM (*Celosia plumosa*)', *Al-Ard: Jurnal Teknik Lingkungan*, 3(2), pp. 62–69. Available at: <https://doi.org/10.29080/alard.v3i2.333>.
- Rehman, M.U. *et al.* (2023) 'Hazardous Effects of Heavy Metal Toxicity on Soil and Plants and Their Bioremediation: A Review', *Agricultural Sciences* [Preprint]. Available at: <https://doi.org/10.22620/agrici.2023.38.002>.
- Rezapour, S. *et al.* (2018) 'Impact of the uncontrolled leakage of leachate from a municipal solid waste landfill on soil in a cultivated-calcareous environment', *Waste Management*, 82, pp. 51–61. Available at: <https://doi.org/10.1016/j.wasman.2018.10.013>.
- Rompon, M.S. *et al.* (2024) 'Correlation Analysis Between the Contents of Zinc

- (Zn) in Soil and Corn Seeds on Lime Main Material', *Tcsam*, 55(2). Available at: <https://doi.org/10.62321/issn.1000-1298.2024.02.01>.
- Roy, R. *et al.* (2025) 'Alleviation of Heavy Metal Accumulation in Rice: A Synergistic Planetary Health Approach of Organic Amendment and Phytoremediation in Cadmium Contaminated Soil', *Environmental Chemistry & Ecotoxicology*, 19(July), p. 100864. Available at: <https://doi.org/10.1016/j.hazadv.2025.100864>.
- Santos, E.F. *et al.* (2024) 'Low Zinc Availability Limits the Response to Phosphorus Fertilization in Cotton', *Journal of Plant Nutrition and Soil Science*, 187(3), pp. 375–387. Available at: <https://doi.org/10.1002/jpln.202300453>.
- Saputra, W.A., Setiani, O. and Raharjo, M. (2020) 'Water Quality and Pollution Index of Kreo and Garang River From Jatibarang Landfill in Semarang City', *E3s Web of Conferences*, 202, p. 5018. Available at: <https://doi.org/10.1051/e3sconf/202020205018>.
- Sari, M.O.S.K., Hastuti, E.D. and Darmanti, S. (2019) 'Potential of Water Jasmine (*Echinodorus palaefolius*) In Phytoremediation of Fe in Leachate Jatibarang Landfill', *Biosaintifika*, 11(1), pp. 55–61. Available at: <https://doi.org/10.15294/biosaintifika.v11i1.17447>.
- Satriani, E. *et al.* (2025) 'INSOLOGI: Jurnal Sains dan Teknologi Studi Literatur: Pencemaran TPA Air Sebakul dan Pemanfaatan Sampah Organik Rumah Tangga dengan Biogas', *Media Cetak*, 4(3), pp. 354–366. Available at: <https://doi.org/10.55123/insologi.v4i3.5336>.
- Semarang, K. (2020) 'Pengelolaan sampah di tempat pembuangan akhir (tpa) jatibarang, kota semarang', 17(2), pp. 185–197.
- Sethi, G. *et al.* (2025) 'Enhancing soil health and crop productivity: the role of zinc- solubilizing bacteria in sustainable agriculture', pp. 601–617.
- Shao, H. *et al.* (2024) 'How does increasing planting density regulate biomass production, allocation, and remobilization of maize temporally and spatially: A global meta-analysis', *Field Crops Research*, 315(June). Available at: <https://doi.org/10.1016/j.fcr.2024.109430>.
- Sharma, S. and Singh, D. (2022) 'Zinc for Enhancing Crop Growth of Rice-a Brief Review', *Journal of Natural Resource Conservation and Management*, 3(2), pp. 125–129. Available at: <https://doi.org/10.51396/anrcm.3.2.2022.125-129>.
- Shen, M. *et al.* (2022) 'Advanced oxidation processes for the elimination of microplastics from aqueous systems: Assessment of efficiency, perspectives and limitations', *Science of the Total Environment*, 842(June), p. 156723. Available at: <https://doi.org/10.1016/j.scitotenv.2022.156723>.
- Solihat, R.F. and Susila, R. (2021) 'Keanekaragaman Tumbuhan Fitoremediasi Di Ekosistem Riparian DAS Citarum', *Paspalum Jurnal Ilmiah Pertanian*, 9(2), p. 145. Available at: <https://doi.org/10.35138/paspalum.v9i2.298>.
- Stanton, C. *et al.* (2022) 'Zinc in plants: Integrating homeostasis and biofortification', *Molecular Plant*, 15(1), pp. 65–85. Available at: <https://doi.org/10.1016/j.molp.2021.12.008>.
- Tamma, A.A. *et al.* (2025) 'Advancing Phytoremediation: A Review of Soil Amendments for Heavy Metal Contamination Management', *Sustainability (Switzerland)*, 17(13). Available at: <https://doi.org/10.3390/su17135688>.

- Tan, H.W. *et al.* (2023) ‘A state-of-the-art of phytoremediation approach for sustainable management of heavy metals recovery’, *Environmental Technology and Innovation*, 30, p. 103043. Available at: <https://doi.org/10.1016/j.eti.2023.103043>.
- U.S. EPA (2007) ‘Ecological soil screening levels for Zinc, Interim Final’, *United States Environmental Protection Agency*, (April), p. OSWER Directive 9285.7-68.
- Umair Hassan, M. *et al.* (2024) ‘Zinc Seed Priming Alleviates Salinity Stress and Enhances Sorghum Growth by Regulating Antioxidant Activities, Nutrient Homeostasis, and Osmolyte Synthesis’, *Agronomy*, 14(8), pp. 1–16. Available at: <https://doi.org/10.3390/agronomy14081815>.
- Usoh, G. *et al.* (2023) ‘Mathematical Modeling and Numerical Simulation Technique for Selected Heavy Metal Transport in MSW Dumpsite’, *Scientific Reports*, 13(1). Available at: <https://doi.org/10.1038/s41598-023-32984-9>.
- Vasile, G. *et al.* (2021) ‘Bioavailability, Accumulation and Distribution of Toxic Metals (As, Cd, Ni and Pb) and Their Impact on Sinapis alba Plant Nutrient Metabolism’.
- Vinogradov, D. and Zubkova, T. V (2021) ‘Accumulation of Heavy Metals by Soil and Agricultural Plants in the Zone of Technogenic Impact’, *Indian Journal of Agricultural Research* [Preprint]. Available at: <https://doi.org/10.18805/ijare.a-651>.
- Visconti, D. *et al.* (2023) ‘Compost and microbial biostimulant applications improve plant growth and soil biological fertility of a grass-based phytostabilization system’, *Environmental Geochemistry and Health*, 45(3), pp. 787–807. Available at: <https://doi.org/10.1007/s10653-022-01235-7>.
- Wang, G. *et al.* (2024) ‘A comprehensive assessment of photosynthetic acclimation to shade in C4 grass (*Cynodon dactylon* (L.) Pers.)’, *BMC Plant Biology*, 24(1), pp. 1–16. Available at: <https://doi.org/10.1186/s12870-024-05242-x>.
- Wang, L. (2024) ‘Research Progress and Hotspots on Disposal Of Landfill Leachate: A Bibliometric Analysis Using Knowledge Mapping Method’, *Polish Journal of Environmental Studies*, 33(3), pp. 2373–2381. Available at: <https://doi.org/10.15244/pjoes/174783>.
- Wang, Y. *et al.* (2020) ‘Stabilization of heavy metal-contaminated soils by biochar: Challenges and recommendations’, *Science of the Total Environment*, 729, p. 139060. Available at: <https://doi.org/10.1016/j.scitotenv.2020.139060>.
- Wei, T.J. *et al.* (2024) ‘Compost mediates the recruitment of core bacterial communities in alfalfa roots to enhance their productivity potential in saline-sodic soils’, *Frontiers in Microbiology*, 15(November), pp. 1–14. Available at: <https://doi.org/10.3389/fmicb.2024.1502536>.
- Xu, J., Li, Y. and Li, L. (2025) ‘A Comprehensive Review of the Effects of Organic Amendments on Soil Health and Fertility: Mechanisms, Greenhouse Gas Emissions, and Implications for Sustainable Agriculture’, pp. 1–15.
- Yan, A. *et al.* (2020) ‘Phytoremediation: A Promising Approach for Revegetation of Heavy Metal-Polluted Land’, *Frontiers in Plant Science*, 11(April), pp. 1–15. Available at: <https://doi.org/10.3389/fpls.2020.00359>.
- Yan, K. *et al.* (2016) ‘Saline soil desalination by honeysuckle (*Lonicera japonica* Thunb.) depends on salt resistance mechanism’, *Ecological Engineering*,

- 88, pp. 226–231. Available at: <https://doi.org/10.1016/j.ecoleng.2015.12.040>.
- Yang, D. *et al.* (2019) ‘Optimizing plant density and nitrogen application to manipulate tiller growth and increase grain yield and nitrogen-use efficiency in winter wheat’. Available at: <https://doi.org/10.7717/peerj.6484>.
- Yang, X. *et al.* (2019) ‘Preparation and Modification of Biochar Materials and Their Application in Soil Remediation’, *Applied Sciences*, 9(7), p. 1365. Available at: <https://doi.org/10.3390/app9071365>.
- Yi, X. *et al.* (2022) ‘Organic amendments improved soil quality and reduced ecological risks of heavy metals in a long-term tea plantation field trial on an Alfisol.’, *Science of the Total Environment*, 838(May), p. 156017. Available at: <https://doi.org/10.1016/j.scitotenv.2022.156017>.
- Youssef, S.M. *et al.* (2023) ‘Quality in Normal and Calcareous Soils’.
- Zajac, M. and Skrajna, T. (2024) ‘Effect of Composted Organic Waste on *Miscanthus sinensis* Andersson Yield, Morphological Characteristics and Chlorophyll Fluorescence and Content’, *Agronomy*, 14(8). Available at: <https://doi.org/10.3390/agronomy14081672>.
- Zeng, Y. *et al.* (2025) ‘Organic-based remediation of heavy metal-contaminated soils in the Taojia river basin affected by long-term non-ferrous mining and logging activities’, *Frontiers in Plant Science*, 16(March), pp. 1–14. Available at: <https://doi.org/10.3389/fpls.2025.1486575>.
- Zhang, S. *et al.* (2020) ‘Trace Elements in Soils of a Typical Industrial District in Ningxia, Northwest China: Pollution, Source, and Risk Evaluation’, *Sustainability* [Preprint]. Available at: <https://doi.org/10.3390/su12051868>.
- Zhao, D., Dong, J. and Li, Y. (2025) ‘Zinc Translocation from Coastal Soil to Wheat as Mediated by Zinc Supply Levels and Soil Properties’, pp. 1–15.
- Zheng, W.L. *et al.* (2023) ‘Effects of biochar application and nutrient fluctuation on the growth, and cadmium and nutrient uptake of *Trifolium repens* with different planting densities in Cd-contaminated soils’, *Frontiers in Plant Science*, 14(September), pp. 1–10. Available at: <https://doi.org/10.3389/fpls.2023.1269082>.
- Zheng, X. *et al.* (2024) ‘Remediation of heavy metals polluted soil environment: A critical review on biological approaches’, *Ecotoxicology and Environmental Safety*, 284(April). Available at: <https://doi.org/10.1016/j.ecoenv.2024.116883>.
- Zhou, C. *et al.* (2022) ‘Root Foraging Behavior of Two Agronomical Herbs Subjected to Heterogeneous P Pattern and High Ca Stress’, *Agronomy*, 12(3), pp. 1–16. Available at: <https://doi.org/10.3390/agronomy12030624>.
- Zhou, R. *et al.* (2017) ‘International Biodeterioration & Biodegradation Remediation of Cu, Pb, Zn and Cd-contaminated agricultural soil using a combined red mud and compost amendment’, *International Biodeterioration & Biodegradation*, 118, pp. 73–81. Available at: <https://doi.org/10.1016/j.ibiod.2017.01.023>.
- Zhou, S. *et al.* (2023) ‘Biochar-amended compost as a promising soil amendment for enhancing plant productivity: A meta-analysis study’, *Science of the Total Environment*, 879(March), p. 163067. Available at: <https://doi.org/10.1016/j.scitotenv.2023.163067>.
- Zhuang, S. and Lu, X. (2022) ‘Determining Environmental Risk and Source of

- Heavy Metal(loid)s in the Surrounding Farmland Soil of a Zinc Smelter in Water Source Area, Northwest China’, *Environmental Earth Sciences*, 81(3). Available at: <https://doi.org/10.1007/s12665-022-10203-4>.
- Zou, J. *et al.* (2021) ‘Phytoremediation potential of wheat intercropped with different densities of *Sedum plumbizincicola* in soil contaminated with cadmium and zinc.’, *Chemosphere*, 276, p. 130223. Available at: <https://doi.org/10.1016/j.chemosphere.2021.130223>.
- Репкина, Н.С., Nilova, I. and Казнина, Н.М. (2023) ‘Effect of Zinc Excess in Substrate on Physiological Responses of *Sinapis Alba L.*’, *Plants*, 12(1), p. 211. Available at: <https://doi.org/10.3390/plants12010211>.