DAFTAR PUSTAKA

Aagaard, T., Orford, J. & A. S. Murray. 2007. Environmental controls on coastal dune formation; Skallingen Spit, Denmark. *Geomorphology*. 83(1-2): 29-47. DOI: 10.1016/j.geomorph.2006.06.007.

Abdel-Motaleb, M. A., Abdel-Hady, E. S., Zaghloul, A. K., Abdel Ghany, G. B & M. H. Sheta. 2025. Impact of bentonite, biochar and compost on physical and hydro-physical properties of a sandy soil. *Egyptian Journal of Soil Science*. DOI: 10.21608/ejss.2024.340842.1929.

Abdo, A. 2021. Changes in sandy soil hydro-physical properties as function of biochar and biogas slurry amendments. *Soil Use and Management*. 37(4): 762-771. DOI: 10.1111/sum.12650.

Abián, M., Cebrián, M., Millera, Á., Bilbao, R & M. U. Alzueta. 2015. CS_2 and COS conversion under different combustion conditions. *Combustion and Flame*. 162(5): 2119-2127. DOI: 10.1016/j.combustflame.2015.01.010.

Abolla, N. B. C., Sartohadi, J., Utami, S. N. H., & Basuki, T. 2020. Improvement of soil quality through minimum tillage for sen cropping patterm in Indonesia. *Indian Journal of Agriculture Research*. 54(2): 205-210. DOI: 10.18805/IJARe.A-482.

Agrios, G. N. 2005. Plant pathology. 5th edition. Elsevier Academic Press. London.

Ahmad, M & S. G. Giap. 2024. Factors affecting soil bulk density: a conceptual model. *Journal of Soil, Environment & Agroecology*. 1(1): 27-45. DOI: 10.37934/sea.1.1.2745.

Akpinar, I., Sar, T., Sah, I & H. Ekinci. 2017. The importance of Fusarium species in agricultural products and potential applications of bioactive agents. In: H. Arapgirlioglu, A. Atik, R. L. Elliott, E. Turgeon (Eds.). Researches on science and art in 21st century Turkey. Volume 2. Gece Publishing. Turkey. pp. 3094.

Alderson, D. M., Evans, M. G., Rothwell, J. J., Rhodes, E. J & S. Boult. 2019. Geomorphological controls on fluvial carbon storage in headwater peatlands. *Earth Surface Processes and Landforms*. 44(9): 1675-1693. DOI: 10.1002/esp.4602.

Aldila, H. F., Fariyanti, A & N. Tinaprila. 2015. Daya saing bawang merah di wilayah sentra produksi di Indonesia. *Jurnal Manajemen & Agribisnis*. 14(1): 43-53.

Aldrian, E. 2008. Meteorologi laut Indonesia. Badan Meteorologi dan Geofisika. Jakarta. ISBN: 978-979-1241-19-9.

Aldrian, E & R. D. Susanto. 2003. Identification of three dominant rainfall regions within Indonesia and their relationship to sea surface temperature. *International Journal of Climatology*. 23: 1435-1452.

Anderson, P. K., Cunningham, A. A., Patel, N. G., Morales, F. J., Epstein, P. R & P. Daszak. 2004. Emerging infectious diseases of plants: pathogen pollution, climate change and agrotechnology drivers. *Trends in Ecology & Evolution*. 19(10): 535-544.

Ansari, M., Choudhary, S., Singh, S., Hossain, A., Kumar, M., Salmen, S., Singh, S., Jha, R & B. Pramanick. 2024. Can site-specific nutrient management improve the productivity and resource use efficiency of climate-resilient finger millet in calcareous soils in India? *Heliyon*. 10(13): e32774. DOI: 10.1016/j.heliyon.2024.e32774.

Arie, T. 2019. Fusarium diseases of cultivated plants, control, diagnosis, and molecular and genetic studies. *Journal of Pesticide Science*. 44(4): 275-281. DOI: 10.1584/jpestics.J19-03.

Aryani, N., Hendarto, K., Wiharso & A. Niswati. 2019. Peningkatan produksi bawang merah dan beberapa sifat kimia tanah ultisol akibat aplikasi vermikompos dan pupuk pelengkap. *Journal of Tropical Upland Resources*. 1(1): 145-160.

Aseeva, T. A., Selezneva, N. A., Sunyaikin, A. A., Tishkova, A. G & E. G. Afanasieva. 2021. Influence of anthropogenic activities on changes in the chemical and biological properties of the soil. *IOP Conference Series: Earth and Environmental Science*. 723(4): 042046. DOI: 10.1088/1755-1315/723/4/042046.

Ashraf, M. N., Hu, C., Wu, L., Duan, Y., Zhang, W., Aziz, T., Cai, A., Abrar, M. M & M. Xu. 2020. Soil and microbial biomass stoichiometry regulate soil organic carbon and nitrogen mineralization in rice-wheat rotation subjected to long-term fertilization. *Journal of Soils and Sediments*. 20(8): 3103-3113. DOI: 10.1007/s11368-020-02642-y.

Asri, M., Wahditiya, A., Mahbub, M., Syam, A., Rauf, A & A. Suddin. 2021. The growth response and shallot production on some dosage of NPK nitrate compound fertilizer 16-16-16. *IOP Conference Series: Earth and Environmental Science*. 911(1): 012048. DOI: 10.1088/1755-1315/911/1/012048.

Astuti, F. A., Sungkowo, A & E. Muryani. 2015. Penilaian relatif ekosistem gumuk pasir sebagai kawasan konservasi atau pertambangan di Pantai Selatan Daerah Istimewa Yogyakarta. *Jurnal Lingkungan Kebumian*. 1(1): 35-42.

Atmoko, D. D., Titisari, A. D & A. Idrus. 2018. Geochemical characteristics of limestone of Wonosari-Punung formation, Gunungkidul regency, Yogyakarta, Indonesia. *Indonesian Journal on Geoscience*. 5(2): 179-197. DOI: 10.17014/ijog.5.2.179-197.

Azahra, M. F., Jumadi, J & A. A. Sigit. 2021. The use of small format air photos for mapping land cover changes in Gumuk Pasir Parangtritis core-zone, 2015-2019. *International Journal for Disaster and Development Interface*. 1(1): 1-11. DOI: 10.53824/ijddi.v1i1.1.

Babar, S., Baloch, A., Qasim, M., Wang, J., Wang, X., Abd-Elkader, A. M., El-Desouki, Z., Xia, X & C. Jiang. 2025. Unraveling the synergistic effect of biochar and potassium solubilizing bacteria on potassium availability and rapeseed growth in acidic soil. *Journal of Environmental Management*. 380: 125109. DOI: 10.1016/j.jenvman.2025.125109.

Bande, L. O. S., Hadisutrisno, B., Somowiyarjo, S & B. H. Sunarminto. 2014. Pola agihan dan intensitas penyakit busuk pangkal batang lada di Provinsi Sulawesi Tenggara. *Jurnal Agrotekno*. 4(1): 58-65.

Banamtuan, E., Suwardi, S., Iskandar, I & B. Sumawinata. 2020. Application of solid and liquid organic matter to increase P availability in Inceptisol. *IOP Conference Series: Earth and Environmental Science*. 497(1): 012036. DOI: 10.1088/1755-1315/497/1/012036.

Baquy, M. A. A., Li, J. Y., Nkoh, J. N., Biswash, M. R & R. K. Xu. 2024. Determining critical soil pH for phosphorus uptake efficiency in an acidic Ultisol for maize. Egyptian *Journal of Soil Science.* 64(4): 1525-1536. DOI: 10.21608/ejss.2024.308115.1827.

Bashir, O., Ali, T., Baba, Z. A., Rather, G. H., Bangroo, S. A., Mukhtar, S. D., Naik, N., Mohiuddin, R., Bharati, V & R. A. Bhat. 2021. Soil organic matter and its impact on soil properties and nutrient status. In: Microbiota and biofertilizers, vol 2: ecofriendly tools for reclamation of degraded soil environs. Springer. Cham. pp. 129-159. ISBN: 978-303061010-4. DOI: 10.1007/978-3-030-61010-4_7.

Baum, C., Eichler-Löbermann, B & K. Hrynkiewicz. 2015. Impact of organic amendments on the suppression of Fusarium wilt. In: M. K. Meghvansi, A. Varma (Eds.). Organic amendments and soil suppressiveness in plant disease management. Springer. Cham. pp. 353-362.

Bergemann, M & C. Jakob. 2016. How important is tropospheric humidity for coastal rainfall in the tropics? *Geophysical Research Letters*. 43(11): 5860-5868. DOI: 10.1002/2016GL069255.

Bertsch, P. M & G. W. Thomas. 2015. Potassium status of temperate region soils. In: Potassium in agriculture. American Society of Agronomy. Madison. pp. 129-162. ISBN: 978-089118247-4. DOI: 10.2134/1985.potassium.c7.

Bhaduri, D., Verma, B. C., Saha, S., Roy, T & R. Khanam. 2024. Biochar-based carbon farming: a holistic approach for crop productivity and soil health improvement. In: Biochar production for green economy: agricultural and environmental perspectives. Elsevier. Amsterdam. pp. 75-105. DOI: 10.1016/B978-0-443-15506-2.00004-3.

Bi, S., Li, P., Lv, J., Dong, Q., Luo, X., Guo, L., Wang, Y., Zhang, M., Liu, G & W. Zhang. 2025. The optimized nitrogen rate reduced ammonia emissions from rice paddies in the cold region of Northeast China. *European Journal of Agronomy*. 164: 127444. DOI: 10.1016/j.eja.2024.127444.

Bleichrodt, R., Hefting, M., Kowalchuk, G., Angulo, V., Erktan, A., Kraak, B & J. Dijksterhuis. 2024. Enhancement of soil aggregation and physical properties through fungal amendments under varying moisture conditions. *Environmental Microbiology*. 26(5): e16627. DOI: 10.1111/1462-2920.16627.

Block, E. 2010. Garlic and other alliums: the lore and the science. Royal Society of Chemistry. London. ISBN: 978-1-84973-180-5.

Boettinger, J. L. 2023. Alluvium and alluvial soils. In: Encyclopedia of soils in the environment. 2nd edition. Elsevier. Amsterdam. pp. V4-417–V4-423. ISBN: 978-012822974-3. DOI: 10.1016/B978-0-12-822974-3.00196-8.

Bongiorno, G., Postma, J., Bünemann, E. K., Brussaard, L., de Goede, R. G. M., Mäder, P., Tamm, L & B. Thuerig. 2019. Soil suppressiveness to *Pythium ultimum* in ten European long-term field experiments and its relation with soil parameters. *Soil Biology and Biochemistry*. 133: 174-187. DOI: 10.1016/j.soilbio.2019.03.012.

Bossolani, J. W., Leite, M. F. A., Momesso, L., ten Berge, H., Bloem, J & E. E. Kuramae. 2023. Nitrogen input on organic amendments alters the pattern of soil–microbe-plant co-dependence. *Science of the Total Environment*. 890: 164347. DOI: 10.1016/j.scitotenv.2023.164347.

Bowen, R. E & C. Riley. 2003. Socio-economic indicators and integrated coastal management. *Ocean & Coastal Management*. 46(3-4): 299-312. DOI: 10.1016/S0964-5691(03)00008-5.

BPS. 2016. Kabupaten Bantul dalam angka 2016. BPS Kabupaten Bantul. Bantul.

BPS. 2017. Kabupaten Bantul dalam angka 2017. BPS Kabupaten Bantul. Bantul.

BPS. 2018. Kabupaten Bantul dalam angka 2018. BPS Kabupaten Bantul. Bantul.

BPS. 2019. Kabupaten Bantul dalam angka 2019. BPS Kabupaten Bantul. Bantul.

BPS. 2020. Kabupaten Bantul dalam angka 2020. BPS Kabupaten Bantul. Bantul.

BPS. 2021. Kabupaten Bantul dalam angka 2021. BPS Kabupaten Bantul. Bantul.

BPS. 2022. Kabupaten Bantul dalam angka 2022. BPS Kabupaten Bantul. Bantul.

BPS. 2023. Kabupaten Bantul dalam angka 2023. BPS Kabupaten Bantul. Bantul.

Brady, N. C & R. R. Weil. 2013. Elements of the nature and properties of soils. Pearson Education Limited. London.

Breza-Boruta, B., Kotwica, K & J. Bauza-Kaszewska. 2021. Effect of tillage system and organic matter management interactions on soil chemical properties and biological activity in a spring wheat short-time cultivation. *Energies*. 14(21): 7451. DOI: 10.3390/en14217451.

Brewster, J. L. 1990. Cultural systems and agronomic practices in temperate climates. In: H. D. Rabinowitch, J. L. Brewster (Eds.). Onions and allied crops. Volume 2. CRC Press. Boca Raton. pp. 1-30.

Brown, J. 1997. Survival and dispersal of plant parasites: general concepts. In: J. F. Brown, H. J. Ogle (Eds.). Plant pathogens and plant diseases. Australasian Plant Pathology Society. Armidale. pp. 123-135.

Brown, J., Ogle, H & M. Dale. 1997. Disease management: general concepts. In: J. F. Brown, H. J. Ogle (Eds.). Plant pathogens and plant diseases. University of New England Printing. Armidale. pp. 343-357.

Cai, H., Tao, N & C. Guo. 2020. Systematic investigation of the effects of macro-elements and iron on soybean plant response to Fusarium oxysporum infection. *The Plant Pathology Journal*. 36(5): 398-405. DOI: 10.5423/PPJ.OA.04.2020.0069.

Cano, A., Mitchell-McCallister, D & C. West. 2020. Meta-analysis of crop water use efficiency by irrigation system in the Texas High Plains. *Irrigation Science*. 38(5): 535-546. DOI: 10.1007/s00271-020-00696-x.

Cao, M., Li, Y., Zhang, Y., Yu, D., Uwiragiye, Y., Wang, J., Jing, H., Tang, Q., Qian, Y., Elrys, A. S., Cheng, Y & Z. Cai. 2025. pH threshold in controlling dominant nitrification pathway in acidic soils. *Agriculture, Ecosystems and Environment*. 377: 109278. DOI: 10.1016/j.agee.2024.109278.

Carter, D. L., Mortland, M. M & W. D. Kemper. 2018. Specific surface. In: Methods of soil analysis, part 1: physical and mineralogical methods. Soil Science Society of America. Madison. pp. 413-423. ISBN: 978-089118864-3. DOI: 10.2136/sssabookser5.1.2ed.c16.

Cesarano, G., Bonanomi, G., Zotti, M., Al-Rowaily, S., Abd-ElGawad, A & M. Idbella. 2021. Mixtures of organic amendments and biochar promote beneficial soil microbiota and

affect *Fusarium oxysporum* f. sp. lactucae, *Rhizoctonia solani*, and *Sclerotinia* minor diseases suppression. *Plant Pathology*. 70(9): 2106-2119. DOI: 10.1111/ppa.13514.

Chandran, P., Ray, S., Singh, S., Duraisami, V., Tiwary, P & D. Vasu. 2017. Pedogenic processes and soil–landform relationships for identification of yield-limiting soil properties. *Soil Research*. 55: 273-284. DOI: 10.1071/SR16111.

Chang, P. T & W. M. Lien. 2004. Sodium chloride in nutrient solutions can affect shallot growth and flavor development. *HortScience*. 39(6): 1416-1420.

Chaudhary, P., Bhattacharjee, A., Khatri, S., Dalal, R. C., Kopittke, P. M & S. Sharma. 2024. Delineating the soil physicochemical and microbiological factors conferring disease suppression in organic farms. *Microbiological Research*. 289: 127880. DOI: 10.1016/j.micres.2024.127880.

Chaudhry, A. H., Nayab, S., Hussain, S. B., Ali, M & Z. Pan. 2021. Current understandings on magnesium deficiency and future outlooks for sustainable agriculture. *International Journal of Molecular Sciences*. 22(4): 1819. DOI: 10.3390/ijms22041819.

Chen, D., Wang, Y., Lan, Z., Li, J., Xing, W., Hu, S & Y. Bai. 2015. Biotic community shifts explain the contrasting responses of microbial and root respiration to experimental soil acidification. *Soil Biology and Biochemistry*. 90: 139-147. DOI: 10.1016/j.soilbio.2015.08.009.

Chen, S., Zhang, Q., Zhan, J., Yang, P., Zhou, Y., Chen, Y., Liu, E., Zhong, J & Y. Jiao. 2023. Paleoenvironmental evolution and organic matter accumulation in a hydrocarbon-bearing depression in the East China Sea. *Journal of Marine Science and Engineering*. 11: 2341. DOI: 10.3390/jmse11122341.

Cheng, C., Liu, F., Sun, X., Tian, N., Mensah, R. A., Li, D & Z. Lai. 2019. Identification of Fusarium oxysporum f. sp. cubense tropical race 4 (Foc TR4) responsive miRNAs in banana root. *Scientific Reports*. 9(1): 1-16. DOI: 10.1038/s41598-019-50130-2.

Ch'Ng, H. Y., Ahmed, O. H & N. M. A. Majid. 2016. Improving phosphorus availability, nutrient uptake and dry matter production of Zea mays L. on a tropical acid soil using poultry manure biochar and pineapple leaves compost. *Experimental Agriculture*. 52(3): 447-465. DOI: 10.1017/S0014479715000204.

Christl, I. 2018. Magnesium binding by terrestrial humic acids. *Environmental Chemistry*. 15(6): 317-324. DOI: 10.1071/EN18084.

Chu, R., Zhang, X., Li, Z., Wang, X., Zhang, X., Yang, D & S. Shah. 2024. Antagonistic effect of Bacillus and Pseudomonas combinations against Fusarium oxysporum and their effect on disease resistance and growth promotion in watermelon. *Journal of Applied Microbiology*. 135(4): lxae074. DOI: 10.1093/jambio/lxae074.

Chung, S. W. C & W. W. K. Wong. 2022. Chromatographic analysis of dithiocarbamate residues and their metabolites in foods employed in dietary exposure studies—a review. *Food Additives and Contaminants*. 39(10): 1731-1743. DOI: 10.1080/19440049.2022.2103186.

Ćirić, V., Prekop, N., Šeremešić, S., Vojnov, B., Pejić, B., Radovanović, D & D. Marinković. 2023. The implication of cation exchange capacity (CEC) assessment for soil quality management and improvement. *Agriculture and Forestry*. 69(4): 113-134. DOI: 10.17707/AgricultForest.69.4.08.

Corbett, D., Wall, D. P., Lynch, M. B & P. Tuohy. 2022. The influence of phosphorus application and varying soil pH on soil and herbage properties across a range of grassland soils with impeded drainage. *Journal of Agricultural Science*. 160(6): 516-527. DOI: 10.1017/S0021859622000363.

Costa, A. E. S., da Cunha, F. S., da Cunha Honorato, A., Capucho, A. S., Dias, R. D. C. S., Borel, J. C & F. H. Ishikawa. 2018. Resistance to Fusarium wilt in watermelon accessions inoculated by chlamydospores. *Scientia Horticulturae*. 228: 181-186. DOI: 10.1016/j.scienta.2017.10.007.

Covington, J., Brown, R., Daulton, E., Bending, G., Jones, D., Whelton, H., Chadwick, D., Collins, C & I. Bull. 2022. Nutrient (C, N and P) enrichment induces significant changes in the soil metabolite profile and microbial carbon partitioning. *Soil Biology and Biochemistry*. 172: 108779. DOI: 10.1016/j.soilbio.2022.108779.

Cruz, D. R., Leandro, L. F. S., Mayfield, D. A., Meng, Y & G. P. Munkvold. 2020. Effects of soil conditions on root rot of soybean caused by *Fusarium graminearum*. *Phytopathology*. 110(10): 1693-1703. DOI: 10.1094/PHYTO-02-20-0052-R.

Cruz, J. M. D. L., Oliveira, A. P. D., Farias, O. R. D., Silva, F. D. A. D., Sousa, V. F. D. O & J. H. D. Silva. 2021. Organic fertilization and forms of application in Allium cepa growth, yield and bulb quality. *Revista Brasileira de Engenharia Agrícola e Ambiental*. 25(10): 670-676. DOI: 10.1590/1807-1929/agriambi.v25n10p670-676.

Cui, H., Mo, C., Chen, P., Lan, R., He, C., Lin, J., Jiang, Z & J. Yang. 2023. Impact of rhizosphere priming on soil organic carbon dynamics: insights from the perspective of carbon fractions. *Applied Soil Ecology*. 189: 104982. DOI: 10.1016/j.apsoil.2023.104982.

Curtis, S. 2019. Means and long-term trends of global coastal zone precipitation. *Scientific Reports*. 9(1): 1-9. DOI: 10.1038/s41598-019-41878-8.

Dang, C., Tian, N., Ren, N., Xie, G., Wang, X., Xing, D., Liu, B., Cai, C., Wang, Q & J. Ding. 2022. Anaerobic microbial manganese oxidation and reduction: a critical review. *The Science of the Total Environment*. 838: 153513. DOI: 10.1016/j.scitotenv.2022.153513.

Davison, E & G. Hardy. 2023. Getting the best from pot trials with soil-borne Oomycetes. *Plant and Soil*. 482(1-2): 1-5. DOI: 10.1007/s11104-022-05705-w.

De Corato, U., Patruno, L., Avella, N., Salimbeni, R., Lacolla, G., Cucci, G & C. Crecchio. 2020. Soil management under tomato-wheat rotation increases the suppressive response against Fusarium wilt and tomato shoot growth by changing the microbial composition and chemical parameters. *Applied Soil Ecology*. 154: 103601. DOI: 10.1016/j.apsoil.2020.103601.

Deng, W., Liu, K., Tian, J., Huang, Q., Ye, H., Lou, Y., Li, Z & M. Cao. 2017. Effects of long-term fertilization on distribution of carbon and nitrogen in different functional soil organic matter fractions in paddy soil. *Acta Pedologica Sinica*. 54(2): 468-479. DOI: 10.11766/trxb201606090205.

Deng, X., Zhang, N., Shen, Z., Zhu, C., Liu, H., Xu, Z., Li, R., Shen, Q & J. F. Salles. 2021. Soil microbiome manipulation triggers direct and possible indirect suppression against Ralstonia solanacearum and *Fusarium oxysporum*. *NPJ Biofilms and Microbiomes*. 7: 42. DOI: 10.1038/s41522-021-00204-9.

Dinas PUP-ESDM Pemda DIY. 2014. Laporan akhir penyusunan kawasan bentang alam gumuk pasir di Kabupaten Bantul. Dinas PUP-ESDM Pemda DIY. Yogyakarta.

Dita, M., Barquero, M., Heck, D., Mizubuti, E. S & C. P. Staver. 2018. Fusarium wilt of banana: current knowledge on epidemiology and research needs toward sustainable disease management. *Frontiers in Plant Science*. 9: 1468. DOI: 10.3389/fpls.2018.01468.

Dixit, S., Shukla, A & D. K. Singh. 2021. Methods for detection and measurement of calcium in plants. In: Calcium transport elements in plants. Elsevier. Amsterdam. pp. 411-426. ISBN: 978-012821792-4. DOI: 10.1016/B978-0-12-821792-4.00007-2.

Dixon, G. R & E. L. Tilston. 2010. Soil-borne pathogens and their interactions with the soil environment. In: Soil microbiology and sustainable crop production. Springer. Dordrecht. pp. 197-271.

Dixon, M. H., Nellore, D., Zaacks, S. C & J. D. Barak. 2024. Time of arrival during plant disease progression and humidity additively influence *Salmonella enterica* colonization of lettuce. *Applied and Environmental Microbiology*. 90(9): e01311-24. DOI: 10.1128/aem.01311-24.

Domínguez, J., Negrín, M. A & C. M. Rodríguez. 2001. Aggregate water-stability, particle size and soil solution properties in conducive and suppressive soils to Fusarium wilt of banana from Canary Islands (Spain). *Soil Biology and Biochemistry*. 33(4-5): 449-455. DOI: 10.1016/S0038-0717(00)00184-X.

Domínguez-Hernández, J. D., Negrín-Medina, M. A & C. M. Rodríguez-Hernández. 2010. Potassium selectivity in transported volcanic soils (Sorribas) under banana cultivation in relation to banana-wilt expression caused by *Fusarium oxysporum* f. sp. cubense. *Communications in Soil Science and Plant Analysis*. 41(14): 1674-1692. DOI: 10.1080/00103624.2010.489133.

Dong, X., Wang, M., Ling, N., Shen, Q & S. Guo. 2016. Effects of iron and boron combinations on the suppression of Fusarium wilt in banana. *Scientific Reports*. 6(1): 1-11. DOI: 10.1038/srep38944.

Dossa, J. S. B., Togbe, E. C., Pernaci, M., Agbossou, E. K & B. C. Ahohuendo. 2019. Effect of environmental factors on pathogenic Fusarium in crops. *International Journal of Biological and Chemical Sciences*. 13(1): 479-491. DOI: 10.4314/ijbcs.v13i1.39.

Dragovich, D., Heckmann, T., Sadeghi, S & S. Najafi. 2021. Sediment connectivity concepts and approaches. *Catena*. 196: 104880. DOI: 10.1016/j.catena.2020.104880.

Dwivedi, B. S., Singh, V. K & M. C. Meena. 2017. Efficient nitrogen management under predominant cropping systems of India. In: The Indian nitrogen assessment: sources of reactive nitrogen, environmental and climate effects, management options, and policies. Elsevier. Amsterdam. pp. 95-115. ISBN: 978-012811904-4. DOI: 10.1016/B978-0-12-811836-8.00007-0.

Ebenebe, A. C. 1980. Onion twister disease caused by *Glomerella cingulata* in Northern Nigeria. *Plant Disease*. 64: 1030-1032.

Egli, M & A. Mirabella. 2021. The origin and formation of clay minerals in alpine soils. In: Hydrogeology, chemical weathering, and soil formation. Wiley. Hoboken. pp. 121-137. ISBN: 978-111956395-2. DOI: 10.1002/9781119563952.ch6.

El Hassni, M., J'Aiti, F., Dihazi, A., Ait Barka, E., Daayf, F & I. El Hadrami. 2004. Enhancement of defence responses against Bayoud disease by treatment of date palm seedlings with an hypoaggressive *Fusarium oxysporum* isolate. *Journal of Phytopathology*. 152(3): 182-189. DOI: 10.1111/j.1439-0434.2004.00824.x.

Elad, Y & I. Pertot. 2014. Climate change impacts on plant pathogens and plant diseases. *Journal of Crop Improvement*. 28(1): 99-139. DOI: 10.1080/15427528.2014.865412.

Ertiftik, H & M. Zengin. 2017. Response of maize for grain to potassium and magnesium fertilizers in soils with high lime contents. Journal of Plant Nutrition. 40(1): 93-103. DOI: 10.1080/01904167.2016.1201493.

Ezziyyani, M., Hamdache, A., Asraoui, M., Requena, M. E., Egea-Gilabert, C & J. A. Fernández. 2019. Effect of climate change on growth, development and pathogenicity of phytopathogenic telluric fungi. *Advances in Intelligent Systems and Computing*. 915: 13-21. DOI: 10.1007/978-3-030-11878-5_2.

Fadhilah, S., Wiyono, S & M. Surahman. 2014. Pengembangan teknik deteksi Fusarium patogen pada umbi benih bawang merah (*Allium ascalonicum*) di laboratorium. *Jurnal Hortikultura*. 24(2): 171-178.

Fakhruddin, M., Poniman, A & H. Malikusworo. 2010. Dinamika pemanfaatan lahan bentang alam gumuk pasir pantai Parangtritis, Kabupaten Bantul. *Geomatika*. 16(2): 43-60.

Fan, J., Feng, H., Wang, H., Liao, Z., Quan, H., Cheng, M., Xiang, Y., Wang, N., Wang, X & F. Zhang. 2022. Yield and water productivity of crops, vegetables and fruits under subsurface drip irrigation: a global meta-analysis. *Agricultural Water Management*. 269: 107645. DOI: 10.1016/j.agwat.2022.107645.

Fang, X. L., Xu, S. Y & Z. B. Nan. 2024. Induced formation method and germination characteristics of chlamydospores by *Fusarium oxysporum* f. sp. medicaginis. *Acta Prataculturae Sinica*. 33(7): 130-141. DOI: 10.11686/cyxb2023316.

FAOSTAT. 2018. Food and Agriculture Organization Corporate Statistical Database. http://www.fao.org/faostat/en/#data/QC/visualize. (diakses Oktober 30, 2020).

Fatima, U & M. Senthil-Kumar. 2017. Tissue water status and bacterial pathogen infection: how they are correlated? In: Plant tolerance to individual and concurrent stresses. Springer. New Delhi. pp. 165-178. ISBN: 978-813223706-8. DOI: 10.1007/978-81-322-3706-8_11.

Felde, V., Roosch, S., Peth, S & D. Uteau. 2020. Effect of soil organic carbon loss on the stability and structure of microaggregates: first insights from an organic carbon depletion field trial in a loess soil. EGUsphere. 2020: 17358. DOI: 10.5194/egusphere-egu2020-17358.

Feng, F., Du, F., Li, Q., Zhang, L., Yu, X & X. Wang. 2025. Understanding the ternary interaction of crop plants, fungal pathogens, and rhizobacteria in response to global warming. *Microbiological Research*. 282: 128113. DOI: 10.1016/j.micres.2025.128113.

Ferreira da Silva, A. M & M. S. Yalin. 2017. Fluvial processes. 2nd edition. CRC Press. Boca Raton. ISBN: 978-135179626-2. DOI: 10.4324/9781315206189.

Findura, P., Jobbágy, J & F. Janík. 2014. Effect of irrigation machines on soil compaction. *Research in Agricultural Engineering*. 60(1): 1-8. DOI: 10.17221/26/2013-RAE.

Frene, J. P., Pandey, B. K & G. Castrillo. 2024. Under pressure: elucidating soil compaction and its effect on soil functions. *Plant and Soil*. 502(1-2): 267-278. DOI: 10.1007/s11104-024-06573-2.

Fritsch, R. M & N. Friesen. 2002. Evolution, domestication and taxonomy. In: H. D. Rabinowitch, L. Currah (Eds.). Allium crop science: recent advances. CABI Publishing. Wallingford. pp. 5-30. DOI: 10.1079/9780851995106.0005.

Gärber, U., Grosch, R., Goßmann, M & C. Büttner. 2012. Occurrence and detection of Fusarium oxysporum and F. proliferatum on sown and planted onions. *Gesunde Pflanzen*. 64(1): 1-10. DOI: 10.1007/s10343-011-0265-7.

Garnier, J., Billen, G., Tournebize, J., Barré, P., Mary, B & F. Baudin. 2022. Storage or loss of soil active carbon in cropland soils: the effect of agricultural practices and hydrology. *Geoderma*. 407: 115538. DOI: 10.1016/j.geoderma.2021.115538.

Gheorghe, B. A., Stelica, C., Relu, Z. C & O. Maria. 2015. The biological growth parameters of the *Fusarium oxysporum* f. sp. glycines fungus. *Romanian Biotechnological Letters*. 20: 10921-10928.

Gilbert, H. J., Knox, J. P & A. B. Boraston. 2013. Advances in understanding the molecular basis of plant cell wall polysaccharide recognition by carbohydrate-binding modules. *Current Opinion in Structural Biology*. 23: 669-677. DOI: 10.1016/j.sbi.2013.05.005.

Gill, J. S., Hunt, S., Sivasithamparam, K & K. R. J. Smettem. 2004. Root growth altered by compaction of a sandy loam soil affects severity of rhizoctonia root rot of wheat seedlings. *Australian Journal of Experimental Agriculture*. 44(6): 595-599. DOI: 10.1071/EA02093.

González, H., González, A., Rodríguez, G., León, M & M. Betancourt. 2021. Vigor en plantas de plátano (Musa AAB cv. hartón) y su relación con características físicas, químicas y biológicas del suelo. *Agronomía Costarricense*. 45(1): 115-124.

Gordon, T. R. 2017. *Fusarium oxysporum* and the fusarium wilt syndrome. Annual Review of *Phytopathology*. 55: 23-39. DOI: 10.1146/annurev-phyto-080615-095919.

Gosme, M & P. Lucas. 2009. Combining experimentation and modelling to estimate primary and secondary infections of take-all disease of wheat. *Soil Biology and Biochemistry*. 41(7): 1523-1530. DOI: 10.1016/j.soilbio.2009.04.012.

Govindasamy, P., Muthusamy, S. K., Bagavathiannan, M., Mowrer, J., Jagannadham, P. T. K., Maity, A., Halli, H. M., Sujayananad, G. K., Vadivel, R., Das, T. K., Raj, R & V. Pooniya. 2023. Nitrogen use efficiency—a key to enhance crop productivity under a changing climate. *Frontiers in Plant Science*. 14: 1121073. DOI: 10.3389/fpls.2023.1121073.

Graças, J. P., Jamet, E & J. E. Lima. 2022. Advances towards understanding the responses of root cells to acidic stress. *Plant Physiology and Biochemistry*. 191: 89-98. DOI: 10.1016/j.plaphy.2022.09.022.

Greenland, D. 2019. Coastal climate. In: C. W. Finkl, C. Makowski (Eds.). Encyclopedia of coastal science. 2nd edition. Springer. Switzerland. pp. 432-437. ISBN: 978-3-319-93805-9.

Grzebisz, W. 2021. Site-specific nutrient management. *Agronomy*. 11(4): 752. DOI: 10.3390/agronomy11040752.

Gullino, M. L & A. Garibaldi. 2018. Environment modification for disease management. In: R. J. McGovern, W. H. Elmer (Eds.). Handbook of florists' crops diseases. Springer. Switzerland. pp. 119-136.

Guo, X., Lv, Q., Shi, Y., Li, M., Zhang, Q., Gao, P., Zhang, X., Wang, S., Wu, W & Q. Meng. 2022. Application of biochar and organic fertilizer to saline-alkali soil in the Yellow River Delta: effects on soil water, salinity, nutrients, and maize yield. *Soil Use and Management*. 38: 1679-1692. DOI: 10.1111/sum.12829.

Hadiwiyono, Kumala, S & S. H. Poromarto. 2020. Yields losses caused by basal plate rot (Fusarium oxysporum f. sp. cepae) in some shallot varieties. *Journal of Sustainable Agriculture*. 35(2): 250-257. DOI: 10.20961/carakatani.v35i2.26916.

Hafiz, S. D., Hamdani, A. H., Muljana, B & M. A. Jambak. 2023. Effect of diagenetic events on limestone reservoir quality: case study of Parigi formation, Northwest Java basin. *BIO Web of Conferences*. 73: 04009. DOI: 10.1051/bioconf/20237304009.

Han, T., Li, D., Liu, K., Huang, J., Zhang, L., Liu, S., Shah, A., Liu, L., Feng, G & H. Zhang. 2023. Soil potassium regulation by initial K level and acidification degree when subjected to liming: a meta-analysis and long-term field experiment. *Catena*. 232: 107408. DOI: 10.1016/j.catena.2023.107408.

Hardham, A. J. 2001. Cell biology of fungal infection of plants. In: R. J. Howard, N. A. R. Gow (Eds.). The mycota: biology of the fungal cell. Volume VIII. Springer. Dordrecht. pp. 91-124.

Hasnat, A. 2019. Prediction of compaction parameters of soil using support vector regression. *Current Trends in Civil & Structural Engineering*. 4(1): 580. DOI: 10.33552/ctcse.2019.04.000580.

He, D., Dong, Z & B. Zhu. 2024. Competitive adsorption of exchangeable Al^{3+} on the surface of lignosulfonate contributes to reducing soil acidification while improving soil fertility: findings from a density functional theory calculation. *Environmental Technology & Innovation.* 35: 103716. DOI: 10.1016/j.eti.2024.103716.

Hesp, P. A. 2008. Coastal dunes in the tropics and temperate regions: location, formation, morphology and vegetation processes. In: M. L. Martínez, N. P. Psuty (Eds.). Coastal dunes. Springer. Berlin. pp. 29-52. DOI: 10.1007/978-3-540-74002-5_3.

Hesp, P. A & I. J. Walker. 2013. Coastal dunes. In: J. Shroder, N. Lancaster, D. J. Sherman, A. C. W. Baas (Eds.). Treatise on geomorphology: aeolian geomorphology. Volume 11. Academic Press. San Diego. pp. 328-355. DOI: 10.1016/B978-0-12-374739-6.00310-9.

Hess, L. J. T., Hinckley, E. S., Robertson, G. P & P. A. Matson. 2020. Rainfall intensification increases nitrate leaching from tilled but not no-till cropping systems in the U.S. Midwest. *Agriculture, Ecosystems and Environment*. 290: 106747. DOI: 10.1016/j.agee.2019.106747.

Hibar, K., Daami-Remadi, M., Jabnoun-Khiareddine, H & M. E. Mahjoub. 2006. Temperature effect on mycelial growth and on disease incidence of Fusarium oxysporum f. sp. radicis-lycopersici. *Plant Pathology Journal*. 5(2): 233-238.

Hidayati, N., Rosawanti, P & N. Karyani. 2019. Perlakuan trichoderma koningii dan biourine terhadap pengendalian penyakit moler (*Fusarium oxysporum*), pertumbuhan dan hasil

tanaman bawang merah (*Allium ascalonicum* L.) di tanah mineral. *Jurnal Agribisnis Perikanan*. 12(1): 83-92. DOI: 10.29239/j.agrikan.12.1.83-92.

Hou, H., Liu, Y., Lan, X., Liu, X., Ji, J & Z. Lv. 2024. Multifaceted ability of organic fertilizers to improve crop productivity and abiotic stress tolerance: review and perspectives. *Agronomy*. 14(6): 1141. DOI: 10.3390/agronomy14061141.

Hsu, S. A. 1988. Coastal meteorology. Academic Press. California. ISBN: 0-12-357955-4.

Hualpa-Ramirez, E., Carrasco-Lozano, E. C., Madrid-Espinoza, J., Tejos, R., Ruiz-Lara, S., Stange, C & L. Norambuena. 2024. Stress salinity in plants: new strategies to cope with in the foreseeable scenario. *Plant Physiology and Biochemistry*. 208: 108507. DOI: 10.1016/j.plaphy.2024.108507.

Huang, J., Pang, Y., Zhang, F., Huang, Q., Zhang, M., Tang, S., Fu, H & P. Li. 2019. Suppression of Fusarium wilt of banana by combining acid soil ameliorant with biofertilizer made from Bacillus velezensis H-6. *European Journal of Plant Pathology*. 154(3): 585-596. DOI: 10.1007/s10658-019-01683-5.

Huang, L., Liu, D., Chen, Z., Lin, Q., Liu, Q., Zhang, J., Zhong, S & G. Yin. 2018. Effect of calcium silicate-biological humus fertilizer composite on uptake of Cd by shallots from contaminated agricultural soil. *Huanjing Kexue*. 39(6): 2927-2935. DOI: 10.13227/j.hjkx.201709178.

Huang, Q., Qin, X., Cheng, R., Li, T & P. Liu. 2019. Research progress of sulfuric acid rain participating in the dissolution of carbonate rocks. *Carsologica Sinica*. 38(2): 149-156. DOI: 10.11932/karst20190201.

Hui, X., Zhao, H., Zhang, H., Wang, W., Wang, J & H. Yan. 2023. Specific power or droplet shear stress: which is the primary cause of soil erosion under low-pressure sprinklers. *Agricultural Water Management*. 286: 108376. DOI: 10.1016/j.agwat.2023.108376.

Ikeda, H., Kinoshita, T., Yamamoto, T & A. Yamasaki. 2019. Sowing time and temperature influence bulb development in spring-sown onion (*Allium cepa* L.). *Scientia Horticulturae*. 244: 242-248.

Inoue, I., Namiki, F & T. Tsuge. 2002. Plant colonization by the vascular wilt fungus *Fusarium oxysporum* requires FOW1, a gene encoding a mitochondrial protein. *The Plant Cell*. 14: 1869-1883.

Ishak, L & P. H. Brown. 2018. Changes in microbial community as affected by soil compaction and organic matter amendment. International Journal on Advanced Science, *Engineering and Information Technology*. 8(6): 2349-2354. DOI: 10.18517/ijaseit.8.6.7609.

Ishfaq, M., Wang, Y., Yan, M., Wang, Z., Wu, L., Li, C & X. Li. 2022. Physiological essence of magnesium in plants and its widespread deficiency in the farming system of China. *Frontiers in Plant Science*. 13: 802274. DOI: 10.3389/fpls.2022.802274.

Ishlah, M., Kusmiyati, F & B. Kristanto. 2022. Pengaruh Trichoderma harzianum dan nano silika terhadap penyakit moler dan produksi bawang merah. *Agrotechnology Research Journal*. 6(2): 135-142. DOI: 10.20961/agrotechresj.v6i2.65179.

Isniah, U. S & Widodo. 2015. Eksplorasi Fusarium nonpatogen untuk pengendalian penyakit busuk pangkal pada bawang merah. *Jurnal Fitopatologi Indonesia*. 11(1): 14-22. DOI: 10.14692/jfi.13.1.14.

Ivanić, M., Durn, G., Škapin, S. D & I. Sondi. 2020. Size-related mineralogical and surface physicochemical properties of the mineral particles from the recent sediments of the Eastern Adriatic Sea. *Chemosphere*. 249: 126531. DOI: 10.1016/j.chemosphere.2020.126531.

Jalali, M., Saeedi Lotf, M & F. Ranjbar. 2020. Changes in some chemical properties of saline-sodic soils over time as affected by organic residues: an incubation study. *Polish Journal of Soil Science*. 53(1): 1-20. DOI: 10.17951/pjss/2020.53.1.1.

Jasnić, S., Vidić, M., Bagi, F & V. Đorđević. 2005. Pathogenicity of Fusarium species in soybean. *Zbornik Matice srpske za prirodne nauke*. 109: 113-121.

Jensipershiya, S., Sendhilvel, V., Geethalakshmi, V., Manoranjitham, S. K., Malathi, P & M. Siva. 2025. Valourizing agricultural farm waste with bioinoculants for plant growth promotion and disease management. *Plant Science Today*. 12(2): 8068. DOI: 10.14719/pst.8068.

Ji, J., Lü, Z., Liu, S., Hou, H., Liu, Y., Liu, X., Li, X & X. Lan. 2024. Long-term application of chemical fertilizers induces soil acidification and soil exchangeable base cation loss on paddy in Southern China. *Scientia Agricultura Sinica*. 57(13): 2599-2611. DOI: 10.3864/j.issn.0578-1752.2024.13.008.

Jiang, L., Pettitt, T. R., Buenfeld, N & S. R. Smith. 2022. A critical review of the physiological, ecological, physical and chemical factors influencing the microbial degradation of concrete by fungi. *Building and Environment*. 213: 108925. DOI: 10.1016/j.buildenv.2022.108925.

Jindo, K., Audette, Y., Olivares, F. L., Canellas, L. P., Smith, D. S & R. Paul Voroney. 2023. Biotic and abiotic effects of soil organic matter on the phytoavailable phosphorus in soils: a review. *Chemical and Biological Technologies in Agriculture*. 10(1): 29. DOI: 10.1186/s40538-023-00401-y.

Jing, J & S. Wang. 2023. Research progress on the regulation mechanism of intracellular calcium homeostasis in horticultural plants. Zhiwu Shengli Xuebao/Plant Physiology Journal. 59(1): 13-20. DOI: 10.13592/j.cnki.ppj.300109.

Johan, P. D., Ahmed, O. H., Omar, L & N. A. Hasbullah. 2021. Phosphorus transformation in soils following co-application of charcoal and wood ash. *Agronomy*. 11(10): 2010. DOI: 10.3390/agronomy11102010.

Johnson, R., Vishwakarma, K., Hossen, M. S., Kumar, V., Shackira, A. M., Puthur, J. T., Abdi, G., Sarraf, M & M. Hasanuzzaman. 2022. Potassium in plants: growth regulation, signaling, and environmental stress tolerance. *Plant Physiology and Biochemistry*. 172: 56-69. DOI: 10.1016/j.plaphy.2022.01.001.

Karsanina, M., Abrosimov, K., Romanenko, K., Gerke, K., Yudina, A & D. Fomin. 2023. Soil pore structure dynamics under steady-state wetting-drying cycle. *Geoderma*. 432: 116401. DOI: 10.1016/j.geoderma.2023.116401.

Kartini, L., Bayu, M & M. Yuliartini. 2023. Effect of type of organic fertilizer and dosage of KNO_3 on the growth and results of shallot plant (*Allium ascalonicum* L.). *SEAS (Sustainable Environment Agricultural Science)*. 7(2): 123-129. DOI: 10.22225/seas.7.2.7906.123-129.

Kashyap, A., Saikia, S., Ahmed, S. S & M. Sarma. 2023. Phosphorus and plant immunity. In: Plant phosphorus nutrition. CRC Press. Boca Raton. pp. 98-109. ISBN: 978-100096304-5. DOI: 10.1201/9781003440079-7.

Katan, J. 2017. Diseases caused by soilborne pathogens: biology, management and challenges. *Journal of Plant Pathology*. 99(2): 305-315. DOI: 10.4454/jpp.v99i2.3862.

Kementan. 2017. Atlas: peta potensi pengembangan kawasan cabai dan bawang merah skala 1:250.000. Sekretariat Jenderal Kementerian Pertanian. Jakarta.

Khalsa, S. D. S., Hart, S. C & P. H. Brown. 2022. Nutrient dynamics from surface-applied organic matter amendments on no-till orchard soil. *Soil Use and Management*. 38(1): 649-662. DOI: 10.1111/sum.12744.

Kim, N. H., Jacob, P & J. L. Dangl. 2022. Con-Ca^{2+}-tenating plant immune responses via calcium-permeable cation channels. *New Phytologist*. 234(3): 813-818. DOI: 10.1111/nph.18044.

Kim, S., Jeon, I., Nam, K & H. Chung. 2023. Use of clay and organic matter contents to predict soil pH vulnerability in response to acid or alkali spills. *Heliyon*. 9: e17044. DOI: 10.1016/j.heliyon.2023.e17044.

Kittrick, J. A., Fanning, D. S & L. R. Hossner. 2015. Acid sulfate weathering. Soil Science Society of America. Madison. ISBN: 978-089118905-3. DOI: 10.2136/sssaspecpub10.

Kjerve, B. 1994. Coastal lagoons. In: B. Kjerve (Eds.). Coastal lagoon processes—Elsevier oceanography series. Volume 60. Elsevier. Amsterdam. pp. 1-8.

Komy, M., Saleh, A., Ibrahim, Y., Gao, X., Almasrahi, A., Sharafaddin, A & Y. Hamad. 2023. First report of basal rot of onion caused by *Fusarium oxysporum* f. sp. cepae in Saudi Arabia. *Plant Disease*. 107: PDIS-02-23-0333-PDN. DOI: 10.1094/PDIS-02-23-0333-PDN.

Korlina, E., Rosliani, R & I. Sulastrini. 2023. The use of biological agents in controlling diseases of shallots for TSS production. *IOP Conference Series: Earth and Environmental Science*. 1230(1): 012098. DOI: 10.1088/1755-1315/1230/1/012098.

Koswara, E. 2007. Teknik pengujian daya hasil beberapa varietas bawang merah di lahan pasang surut Sumatera Selatan. *Buletin Teknik Pertanian*. 12(1): 1-3.

Kumar, D., Randhawa, M., Brar, S., Toor, A., Dhaliwal, S., Walia, S., Kaur, G., Dubey, S., Khambalkar, P & Y. Shivey. 2024. Enhanced organic carbon triggers transformations of macronutrients, micronutrients, and secondary plant nutrients and their dynamics in the soil under different cropping systems-a review. *Journal of Soil Science and Plant Nutrition*. DOI: 10.1007/s42729-024-01907-6.

Kunito, T., Isomura, I., Sumi, H., Park, H., Toda, H., Otsuka, S., Nagaoka, K., Saeki, K & K. Senoo. 2016. Aluminum and acidity suppress microbial activity and biomass in acidic forest soils. *Soil Biology and Biochemistry*. 97: 23-30. DOI: 10.1016/j.soilbio.2016.02.019.

Kuruppu, P.U. 1999. First Report of Fusarium oxysporum causing a leaf twisting disease on Allium cepa var. ascalonicum in Sri Lanka. *Plant Disease*. 83(7): 695. DOI: 10.1094/PDIS.1999.83.7.695C.

Łachacz, A & D. Załuski. 2023. The usefulness of the Munsell colour indices for identification of drained soils with various content of organic matter. *Journal of Soils and Sediments*. 23: 4017-4031. DOI: 10.1007/s11368-023-03604-w.

Lal, D., Singh, A., Nandni, S., Pandey, S., Kumari, S., Sharma, N., Dev, D., Jha, R & A. Shankar. 2024. Fusarium wilt pandemic: current understanding and molecular perspectives. *Functional & Integrative Genomics*. 24(2): 41. DOI: 10.1007/s10142-024-01319-w.

Leandro, L. F. S., Munkvold, G. P & D. R. Cruz. 2019. Effects of temperature and pH on Fusarium oxysporum and soybean seedling disease. *Plant Disease*. 104(3): 727-735. DOI: 10.1094/PDIS-11-18-1952-RE.

Lee, H. B & N. Magan. 2010. The influence of environmental factors on growth and interactions between *Embellisia allii* and *Fusarium oxysporum* f. sp. cepae isolated from garlic. *Iternational Journal of Food Microbiology*. 138: 238--242. DOI: 10.1016/j.ijfoodmicro.2010.01.019

Leoni, C., de Vres, M., ter Braak, C. J., van Bruggen, A. H & W. A. Rossing. 2013. Fusarium oxysporum f. sp. cepae dynamics: in-plant multiplication and crop sequence simulations. *European journal of plant pathology*. 137(3): 545-561. DOI: 10.1007/s10658-013-0268-6.

Leslie, J. F., Zeller, K. A., Lamprecht, S. C., Rheeder, J. P & W. F. Marasas. 2005. Toxicity, pathogenicity, and genetic differentiation of five species of Fusarium from sorghum and millet. *Phytopathology*. 95(3): 275-283.

Lestiyani, A. 2015. Identifikasi, patogenisitas dan variabilitas penyebab penyakit moler pada bawang merah. Tesis. Universitas Gadjah Mada. Yogyakarta.

Lestiyani, A., Wibowo, A., Subandiyah, S., Gambley, C., Ito, S & S. Harper. 2016. Identification of Fusarium spp., the causal agent of twisted disease of shallot. *Acta Horticulturae*. 1128: 155-160. DOI: 10.17660/ActaHortic.2016.1128.22.

Li, D., Liu, D., Zhang, B., Yang, M., Li, W., Shi, X., Chen, X & Y. Zhang. 2018. Movement and leaching of magnesium fertilizers in three types of magnesium-deficient soils in South China relative to fertilizer type. *Acta Pedologica Sinica*. 55(6): 1513-1524. DOI: 10.11766/trxb201802130616.

Li, N., Wang, C., Li, X & M. Liu. 2019. Effects of earthworms and arbuscular mycorrhizal fungi on preventing Fusarium oxysporum infection in the strawberry plant. *Plant and Soil*. 443(1-2): 139-153. DOI: 10.1007/s11104-019-04224-5.

Li, P., Jiang, D., Wang, S., Zhang, X., Zhang, Y., Zheng, Y., Yang, J & Q. Zhou. 2025. Effect of biogas slurry on the nutrient cycling and micro-organisms community in two types of soil. *BioResources*. 20(1): 1755-1770. DOI: 10.15376/biores.20.1.1755-1770.

Li, Q., Li, A., Yu, X., Dai, T., Peng, Y., Yuan, D., Zhao, B., Tao, Q., Wang, C., Li, B., Gao, X & Y. Li. 2020. Soil acidification of the soil profile across Chengdu Plain of China from the 1980s to 2010s. *Science of the Total Environment*. 698: 134320. DOI: 10.1016/j.scitotenv.2019.134320.

Li, Q., Wu, D., Li, S., Wang, C., Gao, X., Li, Y & B. Li. 2019. Spatial variability of soil bulk density and its controlling factors in an agricultural intensive area of Chengdu Plain,

Southwest China. *Journal of Integrative Agriculture*. 18(2): 290-300. DOI: 10.1016/S2095-3119(18)61930-6.

Li, W., Pu, Y., Shan, M., Chen, Z & Y. Liu. 2020. Determination of dithiocarbamates pesticide residues in edible fungi by gas chromatography-mass spectrometry with solvent absorption. *Chinese Journal of Food Hygiene*. 32(2): 145-149. DOI: 10.13590/j.cjfh.2020.02.007.

Li, Y., Chi, D., Sun, Y., Wang, X., Tan, M., Guan, Y., Wu, Q & H. Zhou. 2024. Synthesis of struvite-enriched slow-release fertilizer using magnesium-modified biochar: desorption and leaching mechanisms. *Science of the Total Environment*. 926: 172172. DOI: 10.1016/j.scitotenv.2024.172172.

Lin, T. Y., Hisbaron, D. R & A. Retnowati. 2019. Parangtritis coastal area: an overview upon conservation and development plan towards pseudo-urban coastal management. *IOP Conference Series: Earth and Environmental Science*. 256(1): 012031. DOI: 10.1088/1755-1315/256/1/01203.

Littrell, J., Ownley, B & D. Butler. 2024. Unraveling the interplay: soil biogeochemical factors shaping the efficacy of anaerobic soil disinfestation in suppressing Fusarium root rot of strawberry. *Phytopathology*. 114(8): 1765-1779. DOI: 10.1094/PHYTO-09-23-0323-R.

Liu, H., Gao, X., Fan, W & X. Fu. 2025. Optimizing carbon and nitrogen metabolism in plants: from fundamental principles to practical applications. *Journal of Integrative Plant Biology*. 67(6): 1447-1466. DOI: 10.1111/jipb.13919.

Liu, H., Zheng, Y., Zhang, Z., Li, S., Feng, S., Zhang, Y., Luo, Y., Wang, H & W. Zhao. 2022. Soil gleization as indicated by redox potential and mineral magnetism and indirect sedimentary evidence in a catchment in SW China. *SSRN Electronic Journal*. DOI: 10.2139/ssrn.4223136.

Liu, J., Liang, J., Bravo, A. G., Wei, S., Yang, C., Wang, D & T. Jiang. 2021. Anaerobic and aerobic biodegradation of soil-extracted dissolved organic matter from the water-level-fluctuation zone of the Three Gorges Reservoir region, China. *Science of the Total Environment.* 764: 142857. DOI: 10.1016/j.scitotenv.2020.142857.

Liu, M., Jiang, N., Liu, J., Wang, X., Sun, F., Li, G., Petropoulos, E., Wu, M & Z. Li. 2022. Humic substances suppress Fusarium oxysporum by regulating soil microbial community in the rhizosphere of cucumber (*Cucumis sativus* L.). *Applied Soil Ecology.* 176: 104389. DOI: 10.1016/j.apsoil.2022.104389.

Liu, S., Tao, C., Li, C., Shen, Z., Li, K & Q. Shen. 2019. Effects of irrigating disinfectant water on the banana plant growth and the number of cultivable microorganisms. *Journal of Nanjing Agricultural University*. 42(6): 1049-1058. DOI: 10.7685/jnau.201809023.

Liu, Z., Jiang, Y., He, R., Wu, J., Zhang, X., Huang, K & Y. Wu. 2024. Adsorption retention of spiramycin in agricultural calcareous loess soils: assessing the impact of influential factors and mechanisms. *Water, Air, and Soil Pollution*. 235(8): 491. DOI: 10.1007/s11270-024-07312-0.

Lockwood, J. 1977. Fungistasis in soils. *Biological Reviews*. 52(1): 1-43.

Long, Z., Sun, G., Wen, L., Luo, Z., Sun, M., Li, W., Cheng, K., Shi, L., Li, C & H. Tang. 2024. Long-term organic manure retarding soil acidity in the double-cropping rice

field of Southern China. *Communications in Soil Science and Plant Analysis*. 55: 1420-1429. DOI: 10.1080/00103624.2024.2306243.

López-Berges, M. S., Rispail, N., Prados-Rosales, R. C & A. Di Pietro, A. 2010. A nitrogen re- sponse pathway regulates virulence in plant pathogenic fungi: role of TOR and the bZIP protein MeaB. *Plant Signaling & Behavior Plant*. 5(12): 1623--1625.

Loures, L., Gama, J., Nunes, J. R & A. Lopez-Piñeiro. 2017. Assessing the sodium exchange capacity in rainfed and irrigated soils in the Mediterranean basin using GIS. *Sustainability.* 9(3): 405. DOI: 10.3390/su9030405.

Lu, N., Gupta, S., Mirus, B., Bickel, S., Or, D., Leshchinsky, B & P. Lehmann. 2021. Clays are not created equal: how clay mineral type affects soil parameterization. *Geophysical Research Letters*. 48: e2021GL095311. DOI: 10.1029/2021GL095311.

Lu, Z., Degryse, F., Wu, J., Huang, C., Yu, Y., Mclaughlin, M. J & F. Zhang. 2024. Slow- and fast-release magnesium-fortified macronutrient fertilizers improve plant growth with lower Mg leaching loss. *Journal of Soils and Sediments*. 24(4): 1507-1515. DOI: 10.1007/s11368-024-03752-7.

Luo, W., Pietravalle, S., Parnell, S., van den Bosch, F., Gottwald, T. R., Irey, M. S & S. R. Parker. 2012. An improved regulatory sampling method for mapping and representing plant disease from a limited number of samples. *Epidemics*. 4(2): 68-77. DOI: 10.1016/j.epidem.2012.02.001.

Maciel, A. P. A. C., Medeiros, G., Machado, A. D. S., Pilatti, M. C., dos Reis, R. R & S. C. Sampaio. 2024. The impact of 9 years of swine wastewater application on the mineral and organic quality of soil in various agricultural crops. *Water*. 16(10): 1412. DOI: 10.3390/w16101412.

Malawani, M. N. 2014. Karakteristik deflasi dan dampaknya terhadap pariwisata di kawasan Parangtritis. Skripsi. Universitas Gadjah Mada. Yogyakarta.

Malawani, M. N., Mardiatno, D & Sunarto. 2019. Sand transport characterization on the foredune area of Parangtritis, Indonesia. *E3S Web of Conferences*. 76: 04007. DOI: 10.1051/e3sconf/20197604007.

Mandeel, Q. A. 2007. Modeling competition for infection sites on roots by nonpathogenic strains of Fusarium oxysporum. *Mycopathologia*. 163(1): 9-20.

Manii, J., Al-Turaihi, A & J. Al-Zubaydi. 2023. Engineering and minerological characteristics of sand dunes of Babylon Governorate, Iraq. *Iraqi Geological Journal*. 56(1E): 19ms. DOI: 10.46717/igj.56.1e.19ms-2023-5-29.

Martini, T., Hadisutrisno, B & W. Suwito. 2023. Persistence patterns and intensity of leaf rust disease in chrysanthemum production systems. *E3S Web of Conferences*. 425: 01002. DOI: 10.1051/e3sconf/202342501002.

Massfeller, A & H. Storm. 2024. Field observation adn verbal exchange as different peer effect in farmers' technology adoption decisions. *Agricultural Economics*. 55(5): 739-757. DOI: 10.1111/agec.12847.

Matelionienė, N., Supronienė, S., Shamshitov, A., Zavtrikovienė, E., Janavičienė, S & G. Kadžienė. 2022. Weeds in cereal crop rotations may host Fusarium species that cause fusarium head blight and grain weight losses in wheat. *Agronomy*. 12(11): 2741. DOI: 10.3390/agronomy12112741.

Maude, R. B. 2006. Onion diseases. In: B. M. Cooke, D. G. Jones, B. Kaye (Eds.). The epidemiology of plant diseases. Volume 2. Springer. Dordrecht. pp. 491-513.

Mawandha, H., Tirtalistyani, R., Karyadi, J., Ismail, M., Yudhistira, D & N. Noviyanti. 2022. Modeling of sandy soil compaction and water holding capacity due to biogas slurry ameliorant. *IOP Conference Series: Earth and Environmental Science*. 1005(1): 012007. DOI: 10.1088/1755-1315/1005/1/012007.

McCarty, G., Li, X., Cambardella, C & D. Karlen. 2018. Topographic metric predictions of soil redistribution and organic carbon in Iowa cropland fields. *Catena*. 160: 222-232. DOI: 10.1016/j.catena.2017.09.026.

Mcfadden, H. G., Wilson, I. W., Chapple, R. M & C. Dowd. 2006. Fusarium wilt (*Fusarium oxysporum* f. sp. vasinfectum) genes expressed during infection of cotton (*Gossypium hirsutum*). *Molecular Plant Pathology*. 7(2): 87-101. DOI: 10.1111/j.1364-3703.2006.00327.x.

Meena, R. S., Singh, A. K., Jatav, S. S., Rai, S., Pradhan, G., Kumar, S., Mina, K. K & M. K. Jhariya. 2023. Significance of soil organic carbon for regenerative agriculture and ecosystem services. In: Biodiversity and bioeconomy: status quo, challenges, and opportunities. Elsevier. Amsterdam. pp. 217-240. ISBN: 978-032395482-2. DOI: 10.1016/B978-0-323-95482-2.00010-9.

Mena, R. S., Stoorvogel, J. & J. A. Sandoval. 2021. The role of soil types on the relation between individual soil properties and Fusarium wilt expression in 'Gros Michel' bananas. *Research Square*. 4-11. DOI: 10.21203/rs.3.rs-264937/v.

Menšík, L., Hlisnikovský, L., Pospíšilová, Ľ., Hruška, M., Pokorný, E & V. Voltr. 2021. The soil organic matter in connection with soil properties and soil inputs. *Agronomy*. 11: 779. DOI: 10.3390/agronomy11040779.

Misra, V., Mall, A. K & M. I. Ansari. 2021. Physiological and molecular responses to salinity due to excessive Na^+ in plants. In: Harsh environment and plant resilience: molecular and functional aspects. Springer. Cham. pp. 291-303. ISBN: 978-030065912-7. DOI: 10.1007/978-3-030-65912-7_11.

Mohammadian, M., Lashkaripour, G. R., Moghaddas, N. H & M. Ghafoori. 2021. An investigation on karst development in gypsum and limestone (case study; Zagros folded zone, southwest of Iran). *Carbonates and Evaporites*. 36(3): 45. DOI: 10.1007/s13146-021-00702-z.

Molnár, Z., Solomon, W., Mutum, L & T. Janda. 2023. Understanding the mechanisms of Fe deficiency in the rhizosphere to promote plant resilience. *Plants*. 12(10): 1945. DOI: 10.3390/plants12101945.

Moutassem, D., Belabid, L., Bellik, Y., Rouag, N., Ziouche, S & F. Baali. 2018. Effect of soil nutrient and biota dynamics on wilt disease severity in chickpea. *Pakistan Journal of Phytopathology.* 30(2): 121-133. DOI: 10.33866/phytopathol.030.02.0469.

Munkholm, L., Jensen, J., Peltre, C., Christensen, B., Watts, C & P. Schjønning. 2019. Relating soil C and organic matter fractions to soil structural stability. *Geoderma*. 337: 834-843. DOI: 10.1016/j.geoderma.2018.10.034.

Musyoki, M. K., Cadisch, G., Zimmermann, J., Wainwright, H., Beed, F & B. Rasche. 2016. Soil properties, seasonality and crop growth stage exert a stronger effect on

rhizosphere prokaryotes than the fungal biocontrol agent *Fusarium oxysporum* f.sp. strigae. *Applied Soil Ecology*. 105: 126-136. DOI: 10.1016/j.apsoil.2016.03.021.

Mutai, J. C., Medvecky, B., Vanek, S. J., Gikonyo, E. W., Ojiem, J. O & S. J. Fonte. 2025. Long-term organic matter inputs enhance soil health and reduce soil-borne pathogen pressure in maize-bean rotations in Kenya. *Agriculture, Ecosystems and Environment*. 380: 109402. DOI: 10.1016/j.agee.2024.109402.

Nawaz, H., Ali, M. A., Atif, R. M., Nawaz, A & A. Abbas. 2021. Incidence of fusarium wilt in major tomato growing areas of punjab. *Pakistan Journal of Agricultural Sciences*. 58(4): 1205-1213. DOI: 10.21162/PAKJAS/21.937.

Niaz, S., Wehr, J. B., Dalal, R. C., Kopittke, P. M & N. W. Menzies. 2023. Wetting and drying cycles, organic amendments, and gypsum play a key role in structure formation and stability of sodic Vertisols. *SOIL*. 9(1): 141-154. DOI: 10.5194/soil-9-141-2023.

Niggli, U., Sonnevelt, M & S. Kummer. 2023. Pathways to advance agroecology for a successful transformation to sustainable food systems. In: Science and innovations for food systems transformation. Springer. Cham. pp. 335-357. DOI: 10.1007/978-3-031-15703-5_18.

Nikolov, N & K. F. Zeller. 2024. Roles of Earth's albedo variations and top-of-the-atmosphere energy imbalance in recent warming: new insights from satellite and surface observations. *Geomatics*. 4(3): 311-341. DOI: 10.3390/geomatics4030017.

Ntinyari, W., Giweta, M., Mutegi, J., Masso, C & J. P. Gweyi-Onyango. 2022. Managing agricultural nitrogen losses in crop production and mitigation of climate change effects. In: Agriculture, livestock production and aquaculture: advances for smallholder farming systems. Volume 1. Springer. Cham. pp. 21-41. ISBN: 978-030093258-9. DOI: 10.1007/978-3-030-93258-9_2.

Nyman, A., Boman, A., Johnson, A., Dopson, M & M. E. Åström. 2024. Easily mobilized metals and acidity in acid sulfate soils across the Swedish coastal plains. *European Journal of Soil Science*. 75(6): e70013. DOI: 10.1111/ejss.70013.

Obi, J. C., Udoh, I. B., Ugwuegbu, V. I & P. A. Chinkere. 2020.Slope process and pedogenesis of coastal plain sands. *Journal of Agriculture, Forestry and Fisheries*. 19(1-2): 1-6.

Okungbowa, F. I & H. O. Shittu. 2012. Fusarium wilts: an overview. *Environmental Research Journal.* 6(2): 83-102.

Okungbowa, F. I & H. O. Shittu. 2014. Fusarium wilts: an overview. In: Trends in environmental science. Nova Science Publishers. New York. pp. 83-104. ISBN: 978-162948863-9.

Otten, W., Filipe, J. A. N & C. A. Gilligan. 2004. An empirical method to estimate the effect of soil on the rate for transmission of damping-off disease. *New Phytologist*. 162(1): 231-238. DOI: 10.1111/j.1469-8137.2004.01011.x.

Pabar, S. A., Kotroczó, Z., Takács, T & B. Biró. 2024. Evaluating the efficacy of selected plant growth-promoting microorganisms in optimizing plant growth and soil health in diverse soil types. *Agriculture*. 14(9): 1586. DOI: 10.3390/agriculture14091586.

Padang, I. S & Y. P. Rahardjo. 2020. The effect of sprinkler irrigation system on shallot growth and yields in dry land of Sigi district. *IOP Conference Series: Earth and Environmental Science*. 472(1): 012030. DOI: 10.1088/1755-1315/472/1/012030.

Pakpahan, T. E., Hidayatullah, T & E. Mardiana. 2020. Aplikasi biochar dan pupuk kandang terhadap budidaya bawang merah di tanah inceptisol kebun percobaan Politeknik Pembangunan Pertanian Medan. *Agrica Ekstensia*. 14(1): 53-58.

Pal, D. K., Wani, S. P & K. L. Sahrawat. 2012. Vertisols of tropical Indian environments: pedology and edaphology. *Geoderma*. 189: 28-49. DOI: 10.1016/j.geoderma.2012.04.021.

Palojärvi, A., Kellock, M., Parikka, P., Jauhiainen, L & L. Alakukku. 2020. Tillage system and crop sequence affect soil disease suppressiveness and carbon status in boreal climate. *Frontiers in Microbiology*. 11: 534786. DOI: 10.3389/fmicb.2020.534786.

Panday, D & N. V. Nkongolo. 2021. No tillage improved soil pore space indices under cover crop and crop rotation. *Soil Systems*. 5(3): 38. DOI: 10.3390/soilsystems5030038.

Paramisparam, P., Ahmed, O. H., Omar, L., Ch'ng, H. Y., Maru, A & P. D. Johan. 2021. Amending potassic fertilizer with charcoal and sago (*Metroxylon sagu*) bark ash to improve potassium availability in a tropical acid soil. *Agronomy*. 11(11): 2222. DOI: 10.3390/agronomy11112222.

Partoyo. 2005. Analisis indeks kualitas tanah pertanian di lahan pasir Pantai Samas Yogyakarta. *Ilmu Pertanian*. 12(2): 140-151.

Pastrana, A. M., Watson, D. C & T. R. Gordon. 2019. Transmission of Fusarium oxysporum f. sp. fragariae through stolons in strawberry plants. *Plant Disease*. 103(6): 1249-1251. DOI: 10.1094/PDIS-08-18-1353-RE.

Pegg, K. G., Coates, L. M., O'Neill, W. T & D. W. Turner. 2019. The epidemiology of Fusarium wilt of banana. *Frontiers in Plant Science*. 10: 1395. DOI: 10.3389/fpls.2019.01395.

Pempee, Singh, M., Prajapati, S & P. Kumari. 2020. Effect of different temperature, pH and relative humidity on the growth of *Fusarium oxysporum* f. sp. Cicero causing chickpea wilt. *International journal of current microbiology and applied sciences*. 9(9): 1381-1388.

Peng, H. X., Sivasithamparam, K & D. W. Turner. 1999. Chlamydospore germination and Fusarium wilt of banana plantlets in suppressive and conducive soils are affected by physical and chemical factors. *Soil Biology & Biochemistry*. 31(10): 1363-1374. DOI: 10.1016/S0038-0717 (99)00045-0.

Petti, M., Bosa, S & S. Pascolo. 2018. Lagoon sediment dynamics: A coupled model to study a medium-term silting of tidal channels. *Water*. 10(5): 569. DOI: 10.3390/w10050569.

Petukhov, D. V., Izmest'ev, E. S., Sazanov, A. V., Zaitsev, M. A & E. V. Tovstik. 2022. The use of amino acids and their chelate complexes with trace elements in plant nutrition (review). *Theoretical and Applied Ecology*. 1: 167-174. DOI: 10.25750/1995-4301-2022-1-167-174.

Pfordt, A., Schiwek, S., Rathgeb, A., Rodemann, C., Bollmann, N., Buchholz, M., Karlovsky, P & von Tiedemann, A. 2020. Occurrence, pathogenicity, and mycotoxin production of Fusarium temperatum in relation to other Fusarium species on maize in Germany. *Pathogens*. 9(11): 864. DOI: 10.3390/pathogens9110864.

Phansawan, B., Prapamontol, T., Chantara, S., Mangklabruks, A., Santasup, C & P. Thavonyutikarn. 2014. Determination of dithiocarbamate fungicide residue in cucumber, ginger, and pepper and health risk assessment. *Advances in Environmental Biology.* 8(15): 45-50.

Phillips, J. 2022. Geomorphology of the fluvial--estuarine transition zone, lower Neuse River, North Carolina. *Earth Surface Processes and Landforms*. 47: 2044-2061. DOI: 10.1002/esp.5362.

Pi, G., Chen, X., Liao, Z., Wang, L., Zhong, X & X. Mao. 2016. Effect of organic carbon on carbon and nitrogen metabolism and the growth of water spanich as affected by soil nitrogen levels. *Acta Pedologica Sinica*. 53(3): 746-756. DOI: 10.11766/trxb201509060378.

Ploetz, R. C. 2006. Panama disease, an old nemesis rears its ugly head: part 2, the cavendish era and beyond. *Plant Health Progress.* 7(1): 36-55.

Poromarto, S. H & S. A. Indriani. 2021. Trichoderma and Bacillus as combined biocontrol agent of moler disease on shallots. In: International Seminar on Promoting Local Resources for Sustainable Agriculture and Development (ISPLRSAD 2020). Atlantis Press. Paris. pp. 92-95.

Pramono, H. 2007. Fisiografi Parangtritis dan sekitarnya. *Geomedia*. 5(1): 65-78.

Previdi, M & B. G. Liepert. 2012. The vertical distribution of climate forcings and feedbacks from the surface to top of atmosphere. *Climate Dynamics*. 39(3): 941-951. DOI: 10.1007/s00382-011-1233-8.

Puissant, J., Jones, B., Goodall, T., Mang, D., Blaud, A., Gweon, H. S., Malik, A., Jones, D. L., Clark, I. M., Hirsch, P. R & R. Griffiths. 2019. The pH optimum of soil exoenzymes adapt to long term changes in soil pH. *Soil Biology and Biochemistry*. 138: 107601. DOI: 10.1016/j.soilbio.2019.107601.

Puizina, J. 2013. Shallots in Coartica -- genetics, morphology and nomenclature. Acta Botanica *Croatica.* 72(2): 387-398. DOI: 10.2478/botcro-2013-0016.

Pupin, B., Freddi, O. S & E. Nahas. 2009. Microbial alterations of the soil influenced by induced compaction. Revista Brasileira de Ciência do Solo. 33(5): 1207-1213. DOI: 10.1590/s0100-06832009000500014.

Putri, F. W. 2008. Potensi airtanah di Desa Parangtritis Kecamatan Kretek Kabupaten Bantul. Tesis. Universitas Gadjah Mada. Yogyakarta.

Pye, K. 1983. Coastal dunes. *Progress in Physical Geography*. 7(4): 531-557. DOI: 10.1177/030913338300700403.

Qodri, M. F & R. A. Sopamena. 2023. Mineralogical and geochemical characterization of the Wonosari formation limestone at Gunungkidul Indonesia as preliminary investigation of Portland cement raw material. *IOP Conference Series: Earth and Environmental Science.* 1151(1): 012026. DOI: 10.1088/1755-1315/1151/1/012026.

Rabinowitch, H. D., & R. Kamenetsky. 2002. Florogenesis. In: H. D. Rabinowitch, L. Currah (Eds.). Allium crop science: recent advances. CABI Publishing. Wallingford. pp. 31-58. DOI: 10.1079/9780851995106.0005.

Rahayu, E & N. Berlian. 2004. Bawang merah. Penebar Swadaya. Depok. ISBN: 979-489-253-X.

Rahardjo, W., Sukandarrumidi & H. M. D. Rosidi. 1995. Peta geologi bersistem Jawa lembar Yogyakarta 1408-2 & 1407-5 skala 1:100.000. Edisi 2. Pusat Penelitian dan Pengembangan Geologi, Direktorat Geologi, Departemen Pertambangan Republik Indonesia. Bandung.

Rahman, M. Z., Ahmad, K., Siddiqui, Y., Saad, N., Hun, T. G., Hata, E. M., Rashed, O., Hossain, M. I & A. B. Kutawa. 2021. First Report of Fusarium Wilt Disease on Watermelon Caused by *Fusarium oxysporum* f. sp. niveum in Malaysia. *Plant Disease*. 105(12): 4169. DOI: 10.1094/PDIS-04-21-0780-PDN.

Rana, A., Sahgal, M & B. N. Johri. 2017. Fusarium oxysporum: genomics, diversity and plant--host interaction. In: T. Satyanarayana, S. K. Deshmukh, B. N. Johri (Eds.). Developments in fungal biology and applied mycology. Springer. Singapore. pp. 159-100. DOI: 10.1007/978-981-10-4768-8.

Rejekiningrum, P & B. Kartiwa. 2017. Pengembangan sistem irigasi pompa tenaga surya hemat air dan energi untuk antisipasi perubahan iklim di Kabupaten Bantul, Daerah Istimewa Yogyakarta. *Jurnal Tanah dan Iklim*. 41(2): 159-171.

Resti, Z., Darnetty, Khairul, U., Liswarni, Y., Siregar, S. L. K & F. N. Tores. 2024. Distribution and level of damage by basal stem rot disease (*Fusarium oxysporum* f sp. cepae) on shallots in West Sumatera. *BIO Web of Conferences*. 99: 04004. DOI: 10.1051/bioconf/20249904004.

Robert, C & J. P. Kennett. 1994. Antarctic subtropical humid episode at the Paleocene-Eocene boundary: Clay-mineral evidence. *Geology*. 22(3): 211-214. DOI: 10.1130/0091-7613(1994)022<0211:ASHEAT>2.3.CO;2.

Rodríguez-Molina, M. C. 2003. Vascular colonisation patterns in susceptible and resistant tomato cultivars inoculated with *Fusarium oxysporum* f.sp. lycopersici races 0 and 1. *Plant Pathology*. 52: 199-203.

Ruehlmann, J. 2020. Soil particle density as affected by soil texture and soil organic matter: 1. Partitioning of SOM in conceptional fractions and derivation of a variable SOC to SOM conversion factor. *Geoderma*. 375: 114542. DOI: 10.1016/j.geoderma.2020.114542.

Ruhyaman, R., Djaya, L., Ilahiyyat, I & H. Hermawan. 2020. Ability of Trichoderma harzianum in carbon fiber and silica nano particles formulation to control Fusarium oxysporum in vitro. *IOP Conference Series: Earth and Environmental Science*. 458(1): 012016. DOI: 10.1088/1755-1315/458/1/012016.

Rukmana, R. 2005. Bertanam sayuran di pekarangan. Aksi Agraris Kanasius. Yogyakarta.

Rumschlag, S. L., Roth, S. A., McMahon, T. A., Rohr, J. R & D. J. Civitello. 2022. Variability in environmental persistence but not per capita transmission rates of the amphibian chytrid fungus leads to differences in host infection prevalence. *Journal of Animal Ecology*. 91(1): 170-181. DOI: 10.1111/1365-2656.13612.

Sahara, D., Chanifah & Suwandi. 2018. introduksi teknologi usahatani bawang merah untuk meningkatkan produksi di Kabupaten Demak Jawa Tengah. *Jurnal Pengkajian dan Pengembangan Teknologi Pertanian*. 21(2): 85-100.

Sakane, K., Akiyama, M., Jogaiah, S., Ito, S & K. Sasaki. 2024. Pathogenicity chromosome of *Fusarium oxysporum* f. sp. cepae. *Fungal Genetics and Biology*. 170: 103860. DOI: 10.1016/j.fgb.2023.103860.

Salunkhe, V. N., Gedam, P., Pradhan, A., Gaikwad, B., Kale, R & S. Gawande. 2022. Concurrent waterlogging and anthracnose-twister disease in rainy-season onions (Allium cepa): impact and management. *Frontiers in Microbiology*. 13: 1063472. DOI: 10.3389/fmicb.2022.1063472.

Saman, P., Thanyasiriwat, T., Somtrakoon, K., Kawicha, P., Thaporn, S., Nitayaros, J., Sangdee, A & K. Sangdee. 2023. Evaluation of soil Streptomyces spp. for the biological control of Fusarium wilt disease and growth promotion in tomato and banana. *The Plant Pathology Journal*. 39(2): 108-122. DOI: 10.5423/PPJ.OA.08.2022.0124.

Sanogo, S & J. Zhang. 2016. Resistance sources, resistance screening techniques and disease management for Fusarium wilt in cotton. *Euphytica*. 207(2): 255-271. DOI: 10.1007/s10681-015-1532-y.

Santosa, L. W. 2010. Pengaruh genesis bentuklahan terhadap hidrostratigrafi akuifer dan hidrogeokimia dalam evolusi airtanah bebas. Disertasi. Universitas Gadjah Mada. Yogyakarta.

Santosa. L. W. 2016. Keistimewaan Yogyakarta dari sudut pandang geomorfologi. Gadjah Mada University Press. Yogyakarta.

Santosa, L. W & T. N. Adji. 2018. Karakteristik akuifer dan potensi airtanah graben Bantul. Gadjah Mada University Press. Yogyakarta.

Saputro, G. B., Marschiavelli, M. I. Y., Ibrahim, F & E. Maulana. 2017. Identification of typology related to the coastal line changes in Bantul. *IOP Conf. Series: Earth and Environmental Science*. 54: 012099. DOI: 10.108/1755-1315/54/1/012099.

Sarjono. S. Y. 2007. Penentuan kandungan unsur makro pada lahan pasir Pantai Samas Bantul dengan metode analisis aktivasi neutron (AAN). Prosiding PPI -- PDIPTN.

Sartohadi, J. 2011. Soil geomorphological approach for natural hazard mapping: a case study at Yogyakarta Province. In: M. Anda, R. Shofiyati, K. Nugroho, Y. Sulaeman, M. H. Suwanda (Eds.). Proceeding Of International Workshop on Globalsoilmap.net Oceania Node. Bogor. 143-156.

Schwartz, H. F & S. K. Mohan. 2007. Compendium of onion and garlic diseases and pests. APS Press. St. Paul. ISBN: 978-0-89054-500-3.

Scott, J. C., Gordon, T. R., Shaw, D. V & S. T. Koike. 2010. Effect of temperature on severity of fusarium wilt of lettuce caused by *Fusarium oxysporum* f. sp. lactucae. *Plant Disease*. 94(1): 13-17. DOI: 10.1094/PDIS-94-1-0013.

Segura, R. A., Stoorvogel, J. J & J. A. Sandoval. 2021. The effect of soil properties on the relation between soil management and Fusarium wilt expression in Gros Michel bananas. *Plant and Soil*. 1-12. DOI: 10.1007/s11104-021-05192-5.

Seibert, S. L., Degenhardt, J., Ahrens, J., Reckhardt, A., Schwalfenberg, K & H. Waska, H. 2020. Investigating the land--sea transition zone. In: S. Jungblut, V. Liebich, M. Bode-Dalby (Eds.). YOUMARES 9-The Oceans: Our Research, Our Future: Proceedings

of The 2018 Conference for Young MaArine Researcher in Oldenburg, Germany. Oldenburg. pp. 225-242. DOI: 10.1007/978-3-030-20389-4.

Seo, Y & Y. H. Kim. 2017. Potential reasons for prevalence of Fusarium wilt in Oriental Melon in Korea. *The Plant Pathology Journal*. 33(3): 249-263. DOI: 10.5423/PPJ.OA.02.2017.0026.

Setiani, F. R., Suparmini & Sugiharyanto. 2013. Kesesuaian penggunaan lahan dan produktivitas usahatani melon pada dataran bekas laguna di Desa Parangtritis, Kecamatan Kretek Kabupaten Bantul. *Geomedia*. 11(1): 65-76.

Sharma, A., Gokdemir, F. S., Patanjali, G & F. Eyidogan. 2025. Climate change and soil ecosystems: impacts on microbial communities, pathogen dynamics, and agricultural sustainability. In: Microorganisms for sustainability. Volume 56. Springer. Singapore. pp. 175-195. ISSN: 25121898. DOI: 10.1007/978-981-96-3748-5_8.

Sharma, M., Sengupta, A., Ghosh, R., Agarwal, G., Tarafdar, A., Nagavardhini, A., Pande, S & R. K. Varshney. 2016. Genome wide transcriptome profiling of *Fusarium oxysporum* f sp. ciceris conidial germination reveals new insights into infection-related genes. *Scientific Reports*. 6: 37353. DOI: 10.1038/srep37353.

Shen, Z., Mauz, B., Sandoval, L., Törnqvist, T., Chamberlain, E & A. Nijhuis. 2015. Episodic overbank deposition as a dominant mechanism of floodplain and delta-plain aggradation. *Geology*. 43: 875-878. DOI: 10.1130/G36847.1.

Shi, J., Lv, J., Peng, Y., Yao, Y., Wei, X & X. Wang. 2024. Mechanisms controlling the stability and sequestration of mineral associated organic carbon upon erosion and deposition. *Catena.* 242: 108119. DOI: 10.1016/j.catena.2024.108119.

Shi, R. Y., Liu, Z. D., Li, Y., Jiang, T., Xu, M., Li, J. Y & R. K. Xu. 2019. Mechanisms for increasing soil resistance to acidification by long-term manure application. Soil and Tillage Research. 185: 77-84. DOI: 10.1016/j.still.2018.09.004.

Shirkot, C., Chauhan, A., Guleria, S & A. Walia. 2016. Molecular characterization of alkaline protease of *Bacillus amyloliquefaciens* SP1 involved in biocontrol of *Fusarium oxysporum*. *International Journal of Food Microbiology*. 232: 134-143. DOI: 10.1016/j.ijfoodmicro.2016.05.030.

Sholikin, A. R & D. Haryono. 2019. Studi perubahan curah hujan terhadap produktivitas tanaman bawang merah (*Allium ascalonicum* L.) di beberapa sentra produksi. *Jurnal Produksi Tanaman*. 7(9): 1587-1594.

Silva, G., Da Costa Dantas, D., Menezes, S., Morais, J., De Andrade, L., Rolim, M., De O. Cutrim, W & Ê. Silva. 2022. Nutritional status, Na^+ and Cl^- concentrations, and yield of sugarcane irrigated with brackish waters. *Revista Brasileira de Engenharia Agrícola e Ambiental*. 26(11): 863-874. DOI: 10.1590/1807-1929/agriambi.v26n11p863-874.

Simon, L., Langin, T., Nowak, B & G. Marliac. 2024. Perennial soil characteristics are the main factor driving in vitro inhibition of the wheat fungal pathogen Fusarium graminearum in a French case study. *Soil Use and Management*. 40(1): e12998. DOI: 10.1111/sum.12998.

Singh, A. 2020. Coastal agriculture and future challenges. In: A. Singh, R. L. S. Fernando, N. P. Haran. Development In Coastal Zones and Disaster Management. Springer Nature Singapore. Singapore. pp. 61-86. DOI: 10.1007/978-981-15-4294-7.

Sintayehu, A., Fininsa, C., Ahmed, S & P. K. Sakhuja. 2011. Evaluations of shallot genotypes for resistance against fusarium basal rot (*Fusarium oxysporum* f. sp. cepae) disease. *Crop Protection*. 30(9): 1210-1215. DOI: 10.1016/j.cropro.2011.04.011.

Soinne, H., Keskinen, R., Tähtikarhu, M., Kuva, J & J. Hyväluoma. 2023. Effects of organic carbon and clay contents on structure-related properties of arable soils with high clay content. *European Journal of Soil Science*. 74(5): e13424. DOI: 10.1111/ejss.13424.

Soliman, N., Sabry, S., Su, Y., Abdelkhalek, A., Abdullah, A., Al-Askar, A., El-Sharouny, E & G. Abo-Zaid. 2023. Evaluation of bio-friendly formulations from siderophore-producing fluorescent Pseudomonas as biocontrol agents for the management of soil-borne fungi, Fusarium oxysporum and Rhizoctonia solani. *Agriculture*. 13(7): 1418. DOI: 10.3390/agriculture13071418.

Solly, E. F., Weber, V., Zimmermann, S., Walthert, L., Hagedorn, F & M. W. I. Schmidt. 2020. A critical evaluation of the relationship between the effective cation exchange capacity and soil organic carbon content in Swiss forest soils. *Frontiers in Forests and Global Change*. 3: 98. DOI: 10.3389/ffgc.2020.00098.

Somavilla, A., Caner, L., da Silva, I. C. B., Rheinheimer, D. D. S & A. Chabbi. 2022. Phosphorus stock depletion and soil C:N:P stoichiometry under annual crop rotations and grassland management systems over 13 years. *Frontiers in Soil Science*. 2: 863122. DOI: 10.3389/fsoil.2022.863122.

Soto-Suárez, M., Gómez-Correa, J., Carrascal-Pérez, F., Dita, M., Olivares, B., González-Ulloa, A., Betancourt-Vásquez, M., Yacomelo-Hernández, M., Florez-Cordero, E., Rodríguez-Yzquierdo, G & R. I. León-Pacheco. 2023. Soil predisposing factors to *Fusarium oxysporum* f.sp. cubense tropical race 4 on banana crops of La Guajira, Colombia. *Agronomy*. 13(10): 2588. DOI: 10.3390/agronomy13102588.

Speight, J. G. 2020. Thermodynamics of water. In: J. G. Speight (Eds.). Natural Water Remediation: Chemistry and Technology. Butterworth-Heinemann. Oxford. pp. 131-163. DOI: 10.1016/B978-0-12-803810-9.00004-8.

Sriyono. 2018. Geologi & geomorfologi Indonesia. Cetakan II. Penerbit Ombak. Yogyakarta.

Steinkellner, S., Mammerler, R & H. Vierheilig. 2008. Germination of *Fusarium oxysporum* in root exudates from tomato plants challenged with different *Fusarium oxysporum* strains. *European Journal of Plant Pathology*. 122: 395-401.

Stone, A. G., Scheuerell, S. J & M. D. Darby MD. 2004. Suppression of soilborne diseases. In: F. Magdoff, R. R. Weil (Eds.). Field agricultural systems: organic matter management, cover cropping, and other cultural practices', soil organic matter in sustainable agriculture. CRC Press. New York.

Stouthamer, A. H., van't Riet, J & L. F. Oltmann. 2018. Respiration with nitrate as acceptor. In: Diversity of bacterial respiratory systems. CRC Press. Boca Raton. pp. 245-303. DOI: 10.1201/9781351071505.

Strand, L., Mulder, J., Múnera-Echeverri, J., Zivanovic, V., Cornelissen, G & V. Martinsen. 2018. Cation exchange capacity of biochar: an urgent method modification. *The*

Science of the Total Environment. 642: 190-197. DOI: 10.1016/j.scitotenv.2018.06.017.

Streminska, M. A., Van Der Wurff, A. W. G., Runia, W. T., Thoden, T. C., Termorshuizen, A. J & A. Van Der Putten. 2014. Changes in bacterial and fungal abundance in the soil during the process of anaerobic soil disinfestation. *Acta Horticulturae*. 1041: 61-68. DOI: 10.17660/ActaHortic.2014.1041.9.

Strock, J & N. Fausey. 2023. Drainage, soil water storage, buffering and filtering. In: Encyclopedia of soils in the environment. 2nd edition. Elsevier. Amsterdam. pp. V3-257--V3-265. ISBN: 978-012822974-3. DOI: 10.1016/B978-0-12-822974-3.00215-9.

Sufardi, S., Arabia, T., Khairullah, K & I. Apriani. 2021. Particle size distribution and clay minerals in dryland soils of Aceh Besar, Indonesia. IOP Conference Series: *Earth and Environmental Science*. 922(1): 012013. DOI: 10.1088/1755-1315/922/1/012013.

Sugiharyanto., Sumunar, D. R. S & N. Khotimah. 2012. Aplikasi interpretasi citra landsat untuk mendeteksi karakteristik material fluvio marine di Kecamatan Kretek dan Sanden Kabupaten Bantul. In: Sutiyono, A. Wiyarsi, P. Rahmawaty, D. R. S. Sumunar (Eds.). Prosiding Seminar Nasional: dalam Rangka Dies Natalis ke-48 Universitas Negeri Yogyakarta. Yogyakarta. 509-524. ISBN: 978-979-562-024-2.

Sulaiman, N. S., Othman, N. M. I., Abdullah, F. A., Zamri, N. N. A., Bismi, N. S & A. A. Z. Sahar. 2024. Review on the impacts of biochar and soil organic matter (SOM) habitation toward the soil physico-chemical properties conjugating with maize (*Zea mays*) growth performance. *Journal of Tropical Resources and Sustainable Science*. 12(1): 28-35. DOI: 10.47253/jtrss.v12i1.1362.

Sumarni, N & A. Hidayat. 2005. Budidaya bawang merah. Balai Penelitian Tanaman Sayuran. Bandung. ISBN: 979-8304-49-7.

Sumarni, N & T. A. Sutiarso. 1998. Pengaruh waktu tanam dan ukuran umbi bibit terhadap pertumbuhan, produksi dan biaya produksi biji bawang merah. *Jurnal Hortikultura*. 8(2): 1085-1094.

Sumarni, N., Rosliani, R., Basuki, R. S. & Y. Hilman. 2013. Respons tanaman bawang merah terhadap pemupukan fosfat pada beberapa tingkat kesuburan lahan (status P-tanah). *Jurnal Hortikultura*. 22(2): 130--138.

Summerell, B. A., Salleh, B., & J. F. Leslie. 2003. A utilitarian approach to Fusarium identification. *Plant Disease*. 87:117--128. DOI: 10.1094/PDIS.2003.87.2.117.

Sun, G. Q., Jusup, M., Jin, Z., Wang, Y & Z. Wang. 2016. Pattern transitions in spatial epidemics: mechanisms and emergent properties. *Physics of Life Reviews*. 19: 43-73. DOI: 10.1016/j.plrev.2016.08.002.

Supartha, I. W., Kesumadewi, A.A.I., Susila, I. W., Sarjana, I. D. G. R & N. W. Suniti. 2018. Teknologi pengelolaan terpadu hama dan penyakit penting tanaman bawang merah di Kabupaten Gianyar. Swasta Nulus. Denpasar. ISBN: 978-602-5742-43-9.

Supyani, S. H., Poromarto, Supriyadi & Hadiwiyono. 2021. Moler disease of shallot in the last three years at Brebes Central Java: the intensity and resulting yields losses is increasing. *IOP Conf. Series: Earth and Environmental Science*. 810(1): 1-8. DOI: 10.1088/1755-1315/810/1/012004.

Susanti, A. A. & B. Waryanto. 2017. Outlook tanaman pangan dan hortikultura. Pusat Data dan Sistem Informasi Pertanian Sekretariat Jenderal Kementerian Pertanian. Jakarta.

Susanti, D., Mulyadi & S. Wiyatiningsih. 2016. Karakterisasi isolat-isolat *Fusarium oxysporum* f.sp. cepae. penyebab penyakit moler pada bawang merah dari daerah Nganjuk dan Probolinggo. *Plumula*. 5(2): 153-160.

Sutardi. 2017. Kajian minus one test dan kesuburan lahan pasir untuk budidaya tanaman bawang merah. *Jurnal Pengkajian dan Pengembangan Teknologi Pertanian*. 20(1): 25-34.

Swamy, K. R. M., & R. V. Gowda. 2006. Leek and shallot. In: K. V. Peter (Eds.). Handbook of herbs and spices. Volume 3. CRC Press. Boca Raton. pp. 365-389. DOI: 10.1533/9781845691717.3.365

Takhtajan, A. 2009. Flowering plants. Springer. Dordrecht. DOI: 10. 1007/978-1-4020-9609-9.

Tao, N., Guo, C & H. Cai. 2020. Systematic investigation of the effects of macro-elements and iron on soybean plant response to *Fusarium oxysporum* infection. *The Plant Pathology Journal*. 36(5): 398-405. DOI: 10.5423/PPJ.OA.04.2020.0069.

Taylor, A., Jackson, A., Clarkson, J., Harrison, R., Vágány, V & A. Rainoni. 2016. Identification of pathogenicity-related genes in *Fusarium oxysporum* f. sp. cepae. *Molecular Plant Pathology*. 17(7): 1032-1047. DOI: 10.1111/mpp.12346.

Tefera, W., Elias, E., Seifu, W., Gebresamuel, G & G. Feyisa. 2023. Characterization and mapping of soil-landscape for site-specific soil management in Ayiba watershed, Northern Highlands of Ethiopia. *Applied and Environmental Soil Science*. 2023: 8899956. DOI: 10.1155/2023/8899956.

Teixeira, L., Nomura, E., Damatto, E., Vieira, H., Staver, C & M. Dita. 2022. Effectiveness of soil management practices on Fusarium wilt of banana in the Ribeira Valley, Brazil. *Tropical Plant Pathology*. 47(3): 411-420.

Teng, C., Song, T., Qu, J., Bai, X., Liang, J., Yu, S., Jin, Y & L. Dong. 2017. Characterization of siderophore produced by Pseudomonas syringae BAF.1 and its inhibitory effects on spore germination and mycelium morphology of *Fusarium oxysporum*. *Journal of Microbiology*. 55(11): 877-884. DOI: 10.1007/s12275-017-7191-z.

Teshika, J. D., Zakariyyah, A. M., Toorabally, Z., Zengin, G., Regansamy, K. R. R., Pandian, S. K., & F. M. Mahomoodally. 2018. Traditional and modern uses of onion bulb (Allium cepa L.): a systematic review. *Critical Reviews in Food Science and Nutrition.* 59(1), 39-70. DOI: 10.1080/10408398.2018.1499074.

Thapa, A., Hasan, M. R & A. H. Kabir. 2025. Transcriptional reprogramming and microbiome dynamics in garden pea exposed to high pH stress during vegetative stage. *Planta*. 261(4): 83. DOI: 10.1007/s00425-025-04656-7.

Thrane, U. 1999. Fusarium. In: R. K. Robinson, C. A. Batt, P. D. Patel (Eds.). Encyclopedia of food microbiology. Academic Press. United Kingdom. pp. 901-906. DOI: 10.1006/rwfm.1999.0725.

Tondok, E. T. 2001. Twisting disease caused by Fusarium oxysporum on shallot (Allium cepa L. var. agregatum G. Don.) in Indonesia. Dissertation. University of Göttingen. Jerman.

Trabelsi, R., Sellami, H., Gharbi, Y., Krid, S., Cheffi, M., Kammoun, S., Dammak, M., Mseddi, A., Gdoura, R & M. A. Triki. 2017. Morphological and molecular characterization of Fusarium spp. associated with olive trees dieback in Tunisia. *3 Biotech*. 7(1): pp. 1-9. DOI: 10.1007/s13205-016-0587-3.

Triana, K. 2014. Zonasi bahaya jatuhan batuan di sepanjang jalan utama Desa Parangtritis-Desa Giricahyo Provinsi DIY. Tesis. Universitas Gadjah Mada. Yogyakarta.

Truskavetskiy, R., Zubkovskaya, V., Khyzhniak, I & N. Palamar. 2021. Specificity of processes in hydromorphic soils. In: Soils under stress: more work for soil science in Ukraine. Springer. Cham. pp. 69-78. ISBN: 978-030068394-8. DOI: 10.1007/978-3-030-68394-8_7.

Turco, R. F. 2015. Soil microorganisms and their requirements. In: Bioremediation of contaminated soils. American Society of Agronomy. Madison. pp. 15-32. ISBN: 978-089118229-0. DOI: 10.2134/agronmonogr37.c2.

Turner, B & E. Laliberté. 2015. Soil development and nutrient availability along a 2 million-year coastal dune chronosequence under species-rich Mediterranean shrubland in Southwestern Australia. *Ecosystems*. 18: 287-309. DOI: 10.1007/s10021-014-9830-0.

Tyagi, S & R. Paudel. 2014. Effect of different pH on the growth and sporulation of *Fusarium oxysporum*: the causal organism of wilt disease of tomato. *International Journal of Basic and Applied Biology*. 2(1): 103-106.

Udiarto, B, K., Setiawari, W & E. Suryaningsih. 2005. Pengenalan hama dan penyakit pada tanaman bawang merah dan pengendaliannya. Balai Penelitian Tanaman Sayuran. Bandung. ISBN: 979-8304-48-9.

Ullah, S., Mostert, D., Serfontein, K & A. Viljoen. 2021. The survival and treatment of *Fusarium oxysporum* f. sp. cubense in water. *Journal of Fungi*. 7(10): 796. DOI: 10.3390/jof7100796.

Vacante, V & C. P. Bonsignore. 2012. Implementation of IPM in citriculture. In: V. Vacante, U. Gerson (Eds.). Integrated control of citrus pests in the Mediterranean region. 1st edition. Academic Press. London. pp. 28-52.

Vakalounakis, D. J & J. Chalkias. 2004. Survival of Fusarium oxysporum f. sp. Radicis-cucumerinum in soil. *Crop Protection*. 23: 871--873.

Valenciano, M., Silva, C., Sánchez-Monedero, M., Melo, L., Spokas, K., Trugilho, P & R. Domingues. 2020. Enhancing cation exchange capacity of weathered soils using biochar: feedstock, pyrolysis conditions and addition rate. Agronomy. 10(6): 824. DOI: 10.3390/agronomy10060824.

Van den Akker, J. J. H., ten Damme, L., Lamandé, M & T. Keller. 2023. Compaction. In: Encyclopedia of soils in the environment. 2nd edition. Elsevier. Amsterdam. pp. V5-85--V5-99. ISBN: 978-012822974-3. DOI: 10.1016/B978-0-12-822974-3.00225-1.

Vargas, C. C. E & M. C. D. Torres. 2022. Effect of mineral organic amendments on nitrogen leaching in two inceptisols. *Acta Agronomica*. 70(4): 73962. DOI: 10.15446/acag.v70n4.73962.

Velásquez, A. C., Castroverde, C. D. M & S. Y. He. 2018. Plant--pathogen warfare under changing climate conditions. *Current Biology*. 28(10): 619-634. DOI: 10.1016/j.cub.2018.03.054

Vermeiren, C., Kerckhof, P., Reheul, D & E. Smolders. 2022. Increasing soil organic carbon content can enhance the long-term availability of phosphorus in agricultural soils. *European Journal of Soil Science*. 73(1): e13191. DOI: 10.1111/ejss.13191.

Verrecchia, É & L. Trombino. 2021. Pedogenic features. In: A visual atlas for soil micromorphologists. Springer. Cham. pp. 45-98. DOI: 10.1007/978-3-030-67806-7_4.

Verstappen, H. Th. 1957. Short note on the dunes near Parangtritis (Java). *Tijd Kon Nederl Aard Gen*. 74:1--6.

Vieira, J. B., Rocha, L. S., Silva, H. S. A & F. F. Laranjeira. 2022. Survival mechanisms of Fusarium oxysporum f. sp. passiflorae are affected by application of cabbage and cassava debris. *Revista Caatinga*. 35(3): 586-594. DOI: 10.1590/1983-21252022v35n309rc.

Vishwakarma, P. K., Chander, S & P. K. Nimbolkar. 2024. Efficient water management tactics for mitigating fruit crop diseases. Applied Fruit Science. 66(3): 1034. DOI: 10.1007/s10341-024-01034-7.

Wahyunto., Hikmatullah., Suryani, E., Tafakresnanto, C., Ritung, S., Mulyani, A., Sukarman., Nugroho, K., Sulaeman, Y., Apriyana, Y., Suciantini., Pramudia, A., Suparto., Subandiono, R. E., Sutriadi, T & D. Nursyamsi. 2016. Petunjuk teknis pedoman penilaian kesesuaian lahan untuk komoditas pertanian startegies tingkat semi detail skala 1:50.000. Badan Penelitian dan Pengembangan Pertanian Kementrian Pertanian. Bogor. pp. 1-29.

Waikhom, P., Jain, R & S. Tegar. 2019. Pathogen adaptation to temperature with density dependent host mortality and climate change. *Modeling Earth Systems and Environment*. 5(4): 1613-1625. DOI: 10.1007/s40808-018-0561-7.

Wallach, R., Mao, X & Z. Xu. 2025. Understanding evaporation from salinized soils in Xinjiang: impact of sodium adsorption ratio, salt type, and concentrations. *Soil Science Society of America Journal*. 89(1): saj2.20796. DOI: 10.1002/saj2.20796.

Walter, S., Nicholson, P & F. M. Dooha. 2009. Action and reaction of host and pathogen during Fusarium head blight disease. New Phytologist. 185: 54--66.

Wang, B., Sun, M., Yang, J., Shen, Z., Ou, Y., Fu, L., Zhao, Y., Li, R., Ruan, Y & Q. Shen. 2022. Inducing banana Fusarium wilt disease suppression through soil microbiome reshaping by pineapple-banana rotation combined with biofertilizer application. *SOIL*. 8(1): 17-29.

Wang, J., Liang, X., Ju, H., Wang, H., Ji, H., Qiu, X & C. Wang. 2023. Synergistic effect on soil health from combined application of biogas slurry and biochar. *Chemosphere*. 337: 140228. DOI: 10.1016/j.chemosphere.2023.140228.

Wang, J. T., Shen, J. P., Zhang, L. M., Singh, B. K., Delgado-Baquerizo, M., Hu, H. W., Cao, P., Zhu, Y. G & J. Z. He. 2021. Generalist taxa shape fungal community structure in cropping ecosystems. *Frontiers in Microbiology*. 12: 678290. DOI: 10.3389/fmicb.2021.678290.

Wang, J., Zhang, Q., Gui, Y & X. Qin. 2021. Influence of organic matter content on engineering properties of clays. Advances in Civil Engineering. 2021: 6654121. DOI: 10.1155/2021/6654121.

Wang, M., Sun, Y., Gu, Z., Wang, R., Sun, G., Zhu, C., Guo, S & Q. Shen. 2016. Nitrate protects cucumber plants against Fusarium oxysporum by regulating citrate exudation. *Plant and Cell Physiology*. 57(9): 2001-2012. DOI: 10.1093/pcp/pcw124.

Wang, M., Sun, Y., Sun, G., Liu, X., Zhai, L., Shen, Q & S. Guo. 2015. Water balance altered in cucumber plants infected with *Fusarium oxysporum* f. sp. cucumerinum. *Scientific Reports*. 5: 7722. DOI: 10.1038/srep07722.

Wang, Q., Li, S., Li, J & D. Huang. 2024. The utilization and roles of nitrogen in plants. *Forests*. 15(7): 1191. DOI: 10.3390/f15071191.

Wanjiru, W. M., Kang, Z. S & H. Buchenauer. 2002. Importance of cell wall degrading enzymes produced by Fusarium graminearum during infection of wheat heads. *European Journal of Plant Pathology*. 108(8): 803-810. DOI: 10.1023/A:1020847216155.

Webb, K., Brenner, T & B. J. Jacobsen. 2015. Temperature effects on the interactions of sugar beet with Fusarium yellows caused by *Fusarium oxysporum* f. sp. Betae. Canadian *Journal of Plant Pathology*. 37(3): 353-362. DOI: 10.1080/07060661.2015.1071283.

Wei, C., Zhong, S., Han, Z., Li, J & P. Gao. 2022. The relative contributions of soil hydrophilicity and raindrop impact to soil aggregate breakdown for a series of textured soils. *International Soil and Water Conservation Research*. 10(2): 172-180. DOI: 10.1016/j.iswcr.2021.11.002.

Welch, S. A., Goldsmith, S. T & A. E. Carey. 2015. Impact of trace mineral phases on the total solute flux from andesitic volcanics. *Applied Geochemistry*. 63: 527-539. DOI: 10.1016/j.apgeochem.2015.03.015.

Werban, U., Khosravichenar, A., Suchodoletz, H., Hein, M., Schultz, J., Veit, U., Ballasus, H., Ettel, P., Ulrich, M., Werther, L., Tinapp, C., Zielhofer, C & M. Pohle. 2021. The fluvial architecture of buried floodplain sediments of the Weiße Elster River (Germany) revealed by a novel method combination of drill cores with two-dimensional and spatially resolved geophysical measurements. *Earth Surface Processes and Landforms*. 47: 955-976. DOI: 10.1002/esp.5296.

Wibowo, H & A. Kasno. 2021. Soil organic carbon and total nitrogen dynamics in paddy soils on the Java Island, Indonesia. *IOP Conference Series: Earth and Environmental Science.* 648(1): 012192. DOI: 10.1088/1755-1315/648/1/012192.

Wibowo, S. 2009. Budidaya bawang: bawang putih, bawang merah, bawang bombay. Penebar Swadaya. Depok.

Widodo., Kondo, N., Kobayashi, K & A. Ogoshi. 2008. Vegetative compatibility groups within *Fusarium oxysporum* f. sp. cepae in Hokkaido-Japan. *Microbiology Indonesia*. 2(1): 39-43. DOI: 10.5454/mi.2.1.8.

Widodo, K.H & D. Rembulan. 2010. Basic supply chain bawang merah (Allium ascalonicum L) di Kabupaten Bantul Daerah Istimewa Yogyakarta dari perspektif sistem dinamis. INASEA. 11(2): 87-95.

Wilis, R., Farida, N., Djafar, T & E. Ernawati. 2025. Growth and yield response of shallot plants to the administering of rice husk biochar and manure. *ROCE: Jurnal Pertanian Terapan*. 2(1): 75-82. DOI: 10.71275/roce.v2i1.75.

Wilmoth, J., Tang, Y., Meile, C., Ginn, B & A. Thompson. 2017. Rapid iron reduction rates are stimulated by high-amplitude redox fluctuations in a tropical forest soil. *Environmental Science & Technology*. 51(6): 3250-3259. DOI: 10.1021/acs.est.6b05709.

Wiyatiningsih, S. 2002. Etiologi penyakit moler pada bawang merah. Tesis. Universitas Gadjah Mada. Yogyakarta.

Wiyatiningsih, S. 2011. Populasi Fusarium oxysporum f. sp. cepae, itensitas penyakit moler, dan hasil umbi bawang merah di tiga daerah sentra produksi. UPN University Press. Surabaya. ISBN: 978-602-9188-29-5.

Wiyatiningsih, S., Wibowo, A & E. T. Prasetyo. 2009. Keparahan penyakit moler pada enam kultivar bawang merah karena infeksi Fusarium oxysporum f.sp. cepae di tiga daerah sentra produksi. In: Seminar Nasional 'Akselerasi Pengembangan Teknologi Pertanian dalam Mendukung Revitalisasi Pertanian'. UPN "Veteran" Jawa Timur. Surabaya.

Woldetsadik, K., Gertsson, U & J. Ascard. 2004. Response of shallots to moisture stresses in Ethiopia. In: J. D. McCreight, E. J. Ryder (Eds.). Proc. XXVI International Horticultural Congress -- Advances in Vegetable Breeding. Leuven. 347-351.

Wright, P. J., Frampton, R. A., Anderson, C., Searle, B & D. Hedderley. 2021. Factors associated with suppression of Fusarium basal rot of onion in New Zealand soils: literature review and greenhouse experiments. *New Zealand Journal of Crop and Horticultural Science*. 1-19. DOI: 10.1080/01140671.2021.1970583.

Wu, L., Yang, P., Li, S., Fan, J., Cheng, M., Qian, L & H. Wang. 2023. Review on drip irrigation: impact on crop yield, quality, and water productivity in China. *Water*. 15(9): 1733. DOI: 10.3390/w15091733.

Wu, Q., Zhu, X., Zhao, X & R. Shen. 2020. Potassium affects cadmium resistance in Arabidopsis through facilitating root cell wall Cd retention in a nitric oxide dependent manner. *Environmental and Experimental Botany*. 178: 104175. DOI: 10.1016/j.envexpbot.2020.104175.

Wu, W., Zhu, S., Chen, Q., Lin, Y., Tian, J & C. Liang. 2019. Cell wall proteins play critical roles in plant adaptation to phosphorus deficiency. *International Journal of Molecular Sciences*. 20(21): 5259. DOI: 10.3390/ijms20215259.

Xiao, J., Qin, M., Ling, G & X. Li. 2020. Advances in studies on the resistance of plant cell walls to harmful metals and salt. *Guangdong Agricultural Sciences*. 47(9): 73-80. DOI: 10.16768/j.issn.1004-874X.2020.09.010.

Xu, D., Ros, G. H., Zhu, Q., Zhang, F & W. de Vries. 2025. Spatial optimization of manure and fertilizer application strategies to minimize nutrient surpluses and acidification rates in croplands of a typical Chinese county. *Journal of Cleaner Production.* 503: 145401. DOI: 10.1016/j.jclepro.2025.145401.

Xuan, K., Li, X., Yu, X., Jiang, Y., Ji, J., Jia, R., Wang, C & J. Liu. 2022. Effects of different organic amendments on soil pore structure acquired by three-dimensional investigation. *European Journal of Soil Science*. 73(4): e13264. DOI: 10.1111/ejss.13264.

Yadav, S.L., Ahir, R.R., Rathore, B.S & S. M. Yadav. 2014. Effect of temperature, relative humidity and pH on mycelial growth and sporulation of *Fusarium oxysporum* causing basal rot of onion (*Allium cepa* L.). *Environment and Ecology*. 32(3A): 1190-1193.

Yakub, E., Agarry, S. E., Omoruwou, F & C. N. Owabor. 2020. Comparative study of the batch adsorption kinetics and mass transfer in phenol-sand and phenol-clay adsorption systems. Particulate Science and Technology. 38(7): 801-811. DOI: 10.1080/02726351.2019.1616862.

Yakovleva, L. V., Danilov, D. A & E. A. Nikolaeva. 2020. Effect of mineral and organic fertilizers on potassium leaching in sandy loam soils. *IOP Conference Series: Materials Science and Engineering*. 828(1): 012032. DOI: 10.1088/1757-899X/828/1/012032.

Yan, H & B. Nelson. 2022. Effects of soil type, temperature, and moisture on development of Fusarium root rot of soybean by *Fusarium solani* (FSSC 11) and *Fusarium tricinctum*. *Plant Disease*. 106(11): 2974-2983. DOI: 10.1094/PDIS-12-21-2738-RE.

Yang, K., Wang, H., Luo, L., Zhu, S., Huang, H., Yang, M., Yang, Z., He, X & W. Duan. 2023. Effects of different soil moisture on the growth, quality, and root rot disease of organic *Panax notoginseng* cultivated under pine forests. *Journal of Environmental Management*. 330: 117069. DOI: 10.1016/j.jenvman.2022.117069.

Yang, G. R., Hao, X., Li, C. L., Wang, Z. L & Y. M. Li. 2012. Effects of intensive agricultural production on farmland soil carbon and nitrogen contents and their $\delta^{13}C$ and $\delta^{15}N$ isotope abundances. *Chinese Journal of Applied Ecology*. 23(3): 751-757.

Yang, L., Han, W., Yi, Y., Li, S., Wu, Y & B. Tan. 2024. Effects of nutrient accumulation and microbial community changes on tomato Fusarium wilt disease. *Plant Disease*. 108(4): 782-790.

Yao, J., Huang, P., Chen, H & D. Yu. 2021. Fusarium oxysporum is the pathogen responsible for stem rot of the succulent plant Echeveria 'Perle von Nürnberg' and observation of the infection process. *European Journal of Plant Pathology*. 159(3): 555-568. DOI: 10.1007/s10658-020-02186-4.

Yao, Y., Wang, Z., Zhao, Z., Shao, M., Wei, X & W. Kong. 2023. Distribution of soil physical and hydraulic properties between erosion and deposition topographies in five small catchments from north to south on the Loess Plateau of China. *Catena.* 221: 106891. DOI: 10.1016/j.catena.2022.106891.

Ye, Y., Xiao, S., Liu, S., Zhang, W., Zhao, J., Chen, H., Guggenberger, G & K. Wang. 2020. Tillage induces rapid loss of organic carbon in large macroaggregates of calcareous soils. *Soil and Tillage Research*. 199: 104549. DOI: 10.1016/j.still.2019.104549.

Yu, Y., Odindo, A. O., Xue, L & L. Yang. 2016. Influences of biochar addition on vegetable soil nitrogen balance and pH buffering capacity. *IOP Conference Series: Earth and Environmental Science*. 41(1): 012029. DOI: 10.1088/1755-1315/41/1/012029.

Zahra, N., Hafeez, M. B., Al Shukaily, M., Al-Sadi, A. M., Siddique, K. H. M & A. Wahid. 2023. Influence of abiotic stresses on disease infestation in plants. *Physiological and Molecular Plant Pathology*. 126: 102125. DOI: 10.1016/j.pmpp.2023.102125.

Zamaniah, L. N., Handayani, T & R. Saraswati. 2018. Prosiding Seminar Nasional Pendidikan Geografi FKIP UMP. pp. 173-183.

Zawawi, M. A. M., Muhammad, M., Latif, N. S. A., Naher, L & M. F. Jusoh. 2023. Statistical analysis between soil properties and Fusarium wilt disease in banana. *Universal Journal of Agricultural Research*. 11(1): 166-173. DOI: 10.13189/ujar.2023.110116.

Zhang, J., 2014. Coastal saline soil rehabilitation and utilization based on forestry approaches in China. Springer. Berlin. DOI: 10.1007/978-3-642-39915-2.

Zhang, K., Xu, X., Bai, Y & X. Wang. 2022. Modeling the sediment transport capacity on non-erodible frozen soil slope of overland flow. *Catena*. 211: 106102. DOI: 10.1016/j.catena.2022.106102.

Zhang, M., Zhang, F., Li, P., Huang, J., Huang, Q., Pang, Y., Fu, H & S. Tang. 2019. Suppression of Fusarium wilt of banana by combining acid soil ameliorant with biofertilizer made from Bacillus velezensis H-6. *European Journal of Plant Pathology*. 154(3): 585-596. DOI: 10.1007/s10658-019-01683-5.

Zhang, Y., Ye, C., Su, Y., Peng, W., Lu, R., Liu, Y., Huang, H., He, X., Yang, M & S. Zhu. 2022. Soil acidification caused by excessive application of nitrogen fertilizer aggravates soil-borne diseases: evidence from literature review and field trials. *Agriculture, Ecosystems and Environment*. 340: 108176. DOI: 10.1016/j.agee.2022.108176.

Zhao, T., Xu, S & F. Hao. 2023. Differential adsorption of clay minerals: implications for organic matter enrichment. *Earth-Science Reviews*. 246: 104598. DOI: 10.1016/j.earscirev.2023.104598.

Zhao, Y., Chen, Y., Dai, H., Cui, J., Wang, L & H. Zhang. 2021. Effects of organic amendments on the improvement of soil nutrients and crop yield in sandy soils during a 4-year field experiment in Huang-Huai-Hai Plain, Northern China. *Agronomy*. 11(1): 157. DOI: 10.3390/agronomy11010157.

Zheng, W., Zhao, X., Xie, Q., Huang, Q., Zhang, C., Zhai, H., Xu, L., Lu, G., Shim, W & Z. Wang. 2012. A conserved homeobox transcription factor Htf1 is required for phialide development and conidiogenesis in Fusarium species. *PLoS One*. 7(9): e45432. DOI: 10.1371/journal.pone.0045432.

Zhou, J., Wang, M., Sun, Y., Gu, Z., Wang, R., Saydin, A., Shen, Q & Guo, S. 2017. Nitrate increased cucumber tolerance to Fusarium wilt by regulating fungal toxin production and distribution. *Toxins*. 9(3): 100-120. DOI: 10.3390/toxins9030100.

Zhou, Q., Wang, H., Liang, Y., Tian, Z., Zhao, W & Y. Cui. 2020. Apply biochar to ameliorate soda saline-alkali land, improve soil function and increase corn nutrient availability in the Songnen Plain. *The Science of the Total Environment*. 722: 137428. DOI: 10.1016/j.scitotenv.2020.137428.

Zhou, W., Lyu, T. F., Yang, Z. P., Sun, H., Yang, L. J., Chen, Y & W. J. Ren. 2016. Research advances on regulating soil nitrogen loss by the type of nitrogen fertilizer and its application strategy. *Chinese Journal of Applied Ecology*. 27(9): 3051-3058. DOI: 10.13287/j.1001-9332.201609.022.

Zhou, X., Li, C., Liu, L., Zhao, J., Zhang, J., Cai, Z & X. Huang. 2019. Control of Fusarium wilt of lisianthus by reassembling the microbial community in infested soil through reductive soil disinfestation. *Microbiological Research*. 220: 1-11. DOI: 10.1016/j.micres.2018.12.001.

Zhou, X., Xu, M., Wang, B., Cai, Z & G. Colinet. 2018. Changes of soil phosphorus fractionation according to pH in red soils of China: an incubation experiment. *Communications in Soil Science and Plant Analysis*. 49(7): 791-802. DOI: 10.1080/00103624.2018.1435676.

Zhu, M., Feng, Q., Qin, Y., Cao, J., Zhang, M., Liu, W., Deo, R. C., Zhang, C., Li, R & B. Li. 2019. The role of topography in shaping the spatial patterns of soil organic carbon. *Catena*. 176: 296-305. DOI: 10.1016/j.catena.2019.01.029.

Zhu, X., Miao, P., Qin, J., Li, W., Wang, L., Chen, Z & J. Zhou. 2023. Spatio-temporal variations of nitrate pollution of groundwater in the intensive agricultural region: hotspots and driving forces. *Journal of Hydrology*. 623: 129864. DOI: 10.1016/j.jhydrol.2023.129864.

Zhu, Z., Zhang, H., Tian, H., Chai, G., Muhammad, R., Wang, Q., Liang, B & X. Wu. 2025. Comprehensive analysis of the effects on photosynthesis and energy balance in tomato leaves under magnesium deficiency. *Plant Physiology and Biochemistry*. 222: 109671. DOI: 10.1016/j.plaphy.2025.109671.

Zhuang, P., Huang, R., Li, Z., Cui, X., Mao, P., Li, Y., Fan, Y., Sun, S & Y. Li. 2021. Phytoremediation of cadmium contaminated soils by Amaranthus hypochondriacus L.: the effects of soil properties highlighting cation exchange capacity. *Chemosphere*. 283: 131067. DOI: 10.1016/j.chemosphere.2021.131067.