

DAFTAR PUSTAKA

- Adelana, A., V. A. Modupe, A. Oke, K. Are, O. Ojo, and O. Adeyolanu. 2022. Soil quality assessment under different long-term rice-based cropping systems in a tropical dry savanna ecology of northern Nigeria. *Acta Ecologica Sinica*, 42: 312-321.
- Arunrat, N., S. Sereenonchai, W. Chaowiwat, C. Wang, and R. Hatano. 2022. Carbon, nitrogen and water footprints of organic rice and conventional rice production over 4 years of cultivation: a case study in the lower north of Thailand. *Agronomy*, 12(380): 1-20.
- Aulakh, M.S., T. S. Khera, J. W. Doran, K. Singh, and B. Singh. 2000. Yields and nitrogen dynamics in a rice-wheat system using green manure and inorganic fertilizer. *Soil Science Society of America Journal*, 64(5): 1867-1876.
- Aziez, A.F. 2019. Kesesuaian berbagai varietas padi sawah pada budidaya organik. *Jurnal Ilmiah Agrinca*, 19(2): 36-46.
- Balai Pengujian Standar Instrumen Tanah dan Pupuk. 2023. Sifat Fisik Tanah dan Metode Analisisnya. Petunjuk Teknis Edisi 2. Balai Penelitian Tanah. Bogor
- Balai Pengujian Standar Instrumen Tanah dan Pupuk. 2023. Analisis Kimia Tanah, Tanaman, Air, dan Pupuk. Petunjuk Teknis Edisi 3. Kementerian Pertanian Republik Indonesia. Bogor.
- Balcazar, I. G. V., E. F. V. Moreno, A. Faz, and J. A. Acosta. 2022. Soil organic carbon dynamics in two rice cultivation systems compared to an agroforestry cultivation system. *Agronomy*, 12(17): 1-15.
- Cai, A., W. Fang, W. Zhang, and M. Xu. 2016. Climate, soil texture, and soil type affect the contributions of fine-fraction-stabilized carbon to total soil organic carbon in different landuses across China. *Journal of Environmental Management*, 172: 2-9.
- Camila, A. N., H. Siswoyo, dan A. P. Hendrawan. 2023. Penentuan tingkat kesuburan tanah pada lahan pertanian di Kelurahan Bandulan Kecamatan Sukun Kota Malang berdasarkan parameter kimia. *Jurnal Sains dan Edukasi Sains*, 6(1): 28-33.
- Canqui, H. B., C. A. Shapiro, C. S. Wortmann, R.A. Drijber, M. Mamo, T. M. Shaver, and R. B. Ferguson. 2013. Soil organic carbon: the value to soil properties. *Journal of Soil and Water Conservation*, 68(5): 129-134.
- Carter, M. R., and E. G. Gregorich. 2008. *Soil Sampling and Methods of Analysis*. Canadian Society of Soil Science. CRC Press.
- Chantigny, M. H. 2003. Dissolved and water-extractable organic matter in soils: a review on the influence of land use and management practices. *Geoderma*, 113: 357-380.
- Conrad, R. 2007. Microbial ecology of methanogens and methanotrophs. *Advances in Agronomy*, 96(7): 1-63
- Conrad, R. 2009. The Global Methane Cycle: Recent advances in understanding the microbial processes involved. *Environmental Microbiology reports*, 1(5): 285-292.
- Darlan, N.H., I. Pradiko, M, A. Yusuf, R. D. P. Pane, dan E. N. Ginting. 2023. Profile of soil properties in several land uses. *International Conference on Sustainable Environment, Agriculture dan Tourism (ICOSEAT)*, 213-221.
- Donggulo, C. V., I. M. Lapanjang, dan U. Made. 2017. Pertumbuhan dan hasil tanaman padi (*Oryza sativa* L.) pada berbagai pola jarak legowo dan jarak tanam. *Jurnal Agroland*, 24(1): 27-35.

- Dubey, S.K. 2005. Microbial ecology of methane emission in rice agroecosystem: a review. *Applied Ecology and Environmental Research*, 3(2): 1-27.
- Felix, I., Rismaneswati, S. A. Lias. 2022. Karakterisasi lahan sawah bukaan baru hasil konversi lahan hutan di Desa Kalosi Kecamatan Towuti Kabupaten Luwu Timur. *Journal Ecoolum*, 9(1): 69-89.
- Fu, Y., Y. Lu, J. Heitman, and T. Ren. 2021. Root influences on soil bulk density measurements with thermo-time domain reflectometry. *Geoderma*, 403: 1-4.
- Gattinger, A., A. Muller, M. Haeni, C. Skinner, A. Fliessbach, N. Buchmann, P. Mader, M. Stolze, P. Smith, N. E. H. Scialabba, and U. Niggli. 2012. Enhanced top soil carbon stocks under organic farming. *PNAS*, 109(44): 18226-18231.
- Georgiou, K., R. B. Jackson, O. Vinduskova, R. Z. Abramoff, A. Ahlstrom, W. Feng, J. W. Harden, A. F. A. Pellegrini, H. W. Polley, J. L. Soong, W. J. Riley, and M. S. Torn. 2022. Global stocks and capacity of mineral-associated soil organic carbon. *Nature Communications*, 13(1): 1-12.
- Grigg, A. R. C., L. K. Thomas, K. Schulz, K. A. Rothwell, R. Kaegi, and R. Kretzschmar. 2022. Ferrihydrite transformations in flooded paddy soils: rates, pathways, and product spatial distributions. *Environmental Sciences: Processes and Impacts*, 24: 1867-1882.
- Guo, Z., J. Han, Y. Xu, Y. Lu, C. Shi, L. Ge, T. Cao, and J. Li. 2019. The mineralization characteristics of organic carbon and particle composition analysis in reconstructed soil with different proportions of soft rock and sand. *PeerJ*, 1-21.
- Gunawan, I., R. D. H. Rambe, dan Nurhayati. 2023. Respon produksi tanaman padi (*Oryza sativa* L) terhadap pengaruh lama perendaman dan kedalaman tanam benih. *Agriland Jurnal Ilmu Pertanian*, 11(3):179-188.
- Hairiah, K., A. Ekadinata, R. R. Sari, dan S. Rahayu. 2011. Pengukuran Cadangan Karbon: dari tingkat lahan ke bentang lahan. *Petunjuk Praktis, Edisi Kedua*. World Agroforestry Centre (ICRAF), Bogor, Indonesia.
- Hairmansis, S. A., P. Sasmita, dan Y. Nugraha. 2020. Hubungan fenologi pertumbuhan tanaman padi dengan hasil gabah, umur panen, biomasa, dan pengaruh pemupukan. *Penelitian Pertanian Tanaman Pangan*, 4(2): 63-71.
- Hambali, A., dan I. Lubis. 2015. Evaluasi produktivitas beberapa varietas padi. *Bul. Agrohorti*, 3(2): 137-145.
- Handayani, S., dan Karnilawati. 2018. Karakterisasi dan klasifikasi tanah ultisol di Kecamatan Indrajaya Kabupaten Pidie. *Jurnal Ilmiah Pertanian*, 14(2): 52-59.
- Hasnuri, F., M. Achmad, dan Samsuar. 2019. Kebutuhan air tanaman padi (*Oryza sativa*) sawah tadah hujan berdasarkan jadwal tanam hasil musyawarah tani dan katam di Kecamatan Maniangpajo Kabupaten Waji. *Jurnal Agritechno*, 12(2): 102-109.
- Henderson, B., J. Lankoski, E. Flynn, A. Sykes, F. Payen, and M. MacLeod. 2022. Soil carbon sequestration by agriculture: policy options. 1-40.
- Hu, J., H. Li, X. Wu, R. Su, J. Zhao, S. Lin, Y. Wang, Y. Jiang, Y. Wu, J. Kang, and R. Hu. 2024. Iron forms regulate methane production and oxidation potentials in paddy soils. *Science of the Total Environment*, 957: 1-11.
- Huang, J., W. Liu, S. Yang, L. Yang, Z. Peng, M. Deng, S. Xu, B. Zhang, J. Ahirwal, and L. Liu. 2021. Plant carbon inputs through shoot, root, and mycorrhizal pathways affect soil organic carbon turnover differently. *Soil Biology and Biochemistry*, 160: 1-8.
- Huang, Q., M. Chen, T. Zhang, F. Zhang, and J. Zhang. 2024. Analysis of low-carbon rice farming behavior and its influencing factors in farmers under the distributed

- cognition perspective-empirical study based on 2,173 farmers in Jiangxi Province. *Sustainable Food Systems*, 1-13.
- Hussain S., A. Khaliq, B. Ali, H.A. Hussain, T. Qadir, and S. Hussain S. 2019. Temperature extremes: impact on rice growth and development. In *Plant Abiotic Stress Tolerance*. 153-171.
- Intergovernmental Panel on Climate Change (IPCC). 2006. *Guidelines for National Greenhouse Gas Inventories, Volume 4: Agriculture, Forestry and Other Land Use (AFOLU)*. Geneva, Switzerland.
- Intergovernmental Panel on Climate Change (IPCC). 2019. *Climate Change and Land: An IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. Geneva, Switzerland.
- Intergovernmental Panel on Climate Change (IPCC). 2022. *AR6 climate change 2022: mitigation of climate change*. Cambridge. Cambridge University Press.
- Islam, S. F., J. W. V. Groenigen, L. S. Jensen, B. O. Sander, A. D. Neergaard. 2018. The effective mitigation of greenhouse gas emissions from rice paddies without compromising yield by early-season drainage. *Science of the Total Environment*, 612: 1329-1339.
- Isnawan, B. H., N. Kurwasit, G. Supangkat, dan S. Ediyono. 2017. Kajian macam pengairan dan varietas lokal pada pertumbuhan dan hasil padi (*Oryza sativa* L.) metode SRI (System of Rice Intensification). *Saintis*, 9(2): 181-192.
- Jimenez, J. C, and Pedersen, O. 2023. Mitigation of greenhouse gas emissions from rice via manipulation of key root traits. *Rice*, 16 (24): 1-10.
- Karishma, B., and S. H. Prasad. 2015. A comparative study on soil quality of conventional vs. organic farming. *International Journal of Advance Research in Science and Engineering*, 4(2): 384-392.
- Kementerian Lingkungan Hidup dan Kehutanan. 2022. *Status Hutan dan Kehutanan Indonesia 2022*. Jakarta, KLHK.
- Kimura, M., J. Murase, and Y. Lu. 2004. Carbon cycling in rice field ecosystems in the context of input, decomposition and translocation of organic materials and the fates of their end products (CO₂ and CH₄). *Soil Biologi & Biochemistry*, 36: 1399-1416.
- Kindler, R., J. Siemens, K. Kaiser, D. C. Walmsley, C. Bernhofers, N. Buchmann, P. Cellier, W. Eugster, G. Gleixner, T. Grunwalds, A. Heim, A. Ibrom, S. K. Jones, M. Jones, S. Lehuger, B. Loubet, R. Mckenzie, E. Moors, B. Osborne, K. Pilegaars, C. Rebmans, M. Sauders, M. W. I. Schmidt, M. Schruppf, J. Seyfferth, U. Skibas, J. F. Soussana, M. A. Sutton, C. Tefs, B. Vowinckel, M. J. Zeeman, and M. Kaupenjohann. 2011. Dissolved carbon leaching from soil is a crucial component of the net ecosystem carbon balance. *Global Change Biologi*, 17: 1167-1185.
- Komatsuzaki, M., dan M. F. Syuaib. 2010. Comparison of the farming system and carbon sequestration between conventional and organic rice production in West Java, Indonesia. *Sustainability*, 2: 833-843.
- Korav, S., D. B. Yadav, A. Yadav, G.A. Rajanna, J. Parshad, S. Tallapragada, H. O. Elansay, and E. A. Mahmoud. 2024. Rice residue management alternatives in rice-wheat cropping system: impact on wheat productivity, soil organic carbon, water and microbial dynamic. *Scientific Reports*, 14(1822): 1-16.

- Kumalasari, S. W., J. Syamsiyah, dan Sumarno. 2011. Studi beberapa sifat fisika dan kimia tanah pada berbagai komposisi tegakan tanaman di Sub DAS Solo Hulu. *Jurnal Ilmiah Ilmu tanah dan Agroklimatologi*, 8(2): 119-124.
- Kusuma, Y. R., dan I. Yanti. 2021. Pengaruh kadar air dalam tanah terhadap kadar C-organik dan keasaman (pH) tanah. *IJCR-Indonesian Journal of Chemical Research*, 6(2): 92-97.
- Lei, X., Y. Shen, J. Zhao, J. Huang, H. Wang, Y. Yu, and C. Xiao. 2023. Root exudates mediate the processes of soil organic carbon input and efflux. *Plants (Basel)*, 12(3): 630.
- Le Mer, J., and P. Roger. 2001. Production, oxidation, emission and consumption of methane by soils. *Eur. J. Soil Biol*, 37: 25-50.
- Lestari, P., Reflinur, D. D. Handoko, dan Mastur. 2018. Keragaman genetik varietas padi *japonica* dan *indica* berdasarkan marka DNA terkait mutu rasa. *Scripta Biologica*, 5(1): 21-25.
- Linguist, B., K. J. van Groenigen, M. A. Adviento-Borbe, C. Pittelkow, and C. van Kessel. 2012. An agronomic assessment of greenhouse gas emissions from major cereal crops. *Global Change Biology*, 18: 194-209.
- Liu, Y., T. Ge, K.J.V. Groenigen, Y. Yang, P. Wang, K. Cheng, Z. Zhu, J. Wang, Y. Li, G. Guggenberger, J. Sardans, J. Penuelas, J. Wu, and Y. Kuzyakov. 2021. Rice paddy soils are a quantitatively important carbon store according to a global synthesis. *Communications Earth & Environment*, 2(154): 1-9.
- Liu, Q., X. Sun, W. Wu, Z. Liu, G. Fang, and P. Yang. 2022. Agroecosystem services: a review of concepts, indicators, assessment methods and future research perspectives. *Ecological Indicators*, 142: 1-12.
- Ma, X., F. Li, Q. Zhang, X. Wang, H. Guo, J. Xie, X. Zhu, N. U. Khan, Z. Zhang, J. Li, Z. Li, and H. Zhang. 2020. Genetic architecture to cause dynamic change in tiller and panicle numbers revealed by genome-wide association study and transcriptome profile in rice. *The Plant Journal*, 104: 1603-1616.
- Mihelic, R., S. Pintaric, K. Eler, and M. Suhadolc. 2024. Effects of transitioning from conventional to organic farming on soil organic carbon and microbial community: a comparison of long-term non-inversion minimum tillage and conventional tillage. *Biology and Fertility of Soils*, 60: 341-355.
- Mujiono, B., R. D. Mulyaningsih, dan Arisyahidin. 2024. Prespektif inventasi terkait Analisa kandungan bahan organik tanah terhadap produktivitas padi dan penetapan lahan pertanian pangan berkelanjutan (LP2B) Kabupaten Kediri. *Jurnal Agribisnis*, 24(2): 276-286.
- Nasa. 2025. Power Data Access Viewer (Prediction of Worldwide Energy Resources). Nasa Langley Research Center.
- Ngidi, A., H. Shimelis, V. Chaplot, K. Shamuyarira, and S. Figlan. 2024. Biomass allocation and carbon storage in the major cereal crops: a meta-analysis. *Crop Science*. 64:2064-2080.
- Nirmagustina, D. E., C. U. Wirawati, dan Wienarto. 2021. Karakteristik fisik dan kimia beras coklat germinasi 3 jenis varietas padi (mentik susu, ciherang, pandan wangi). *Jurnal Gipas*, 5(2): 63-78.
- Ozlu, E., F.J. Arriaga, S. Bilen, G. Gozukara, and E. Babur. 2022. Carbon footprint management by agricultural practices. *Biologi (Basel)*. 11(10): 1453.
- Panjaitan, E., D. Indradewa, E. Martono, dan J. Sartohadi. 2015. Sebuah dilema pertanian organik terkait emisi metan. *Jurnal Manusia dan Lingkungan*, 22(1): 66-72.

- Peng, X., X. Yan, H. Zhou, Y. Z. Zhang, and H. Sun. 2015. Assessing the contributions of sesquioxides and soil organic matter to aggregation in an ultisol under long term fertilization. *Soil and Tillage Research*, 146: 89-98.
- Perie, C., and R. Ouimet. 2008. Organic carbon, organic matter and bulk density relationships in Boreal Forest Soils. *Canadian Journal of Soil Science*, 88: 315-325.
- Pramasani, E. M., dan R. Soelistyono. 2018. Dampak perubahan iklim terhadap perubahan musim tanam padi (*Oryza sativa* L.) di Kabupaten Malang. *PLANTROPICA Journal of Agricultural Science*, 3(2): 85-93.
- Pramono, A., T.A. Adriany, and H.I. Susilawati. 2019. Mitigation scenario for reducing greenhouse gas emission from rice field by water management and rice cultivars. *Journal Tropical Soils*. 25(2): 53-60.
- Pranata, M., dan B. Kurniasih. 2019. Pengaruh pemberian pupuk kompos jerami terhadap pertumbuhan dan hasil padi (*Oryza sativa* L.) pada kondisi salin. *Vegetalika*, 8(2): 95-107.
- Reganold, J. P., and J. M. Wachter. 2016. Organic agriculture in the twenty-first century. *Nature Plants*, 2(15221): 1-8.
- Rejekiningrum, P., Y. Apriyana, Sutardi, W. Estiningtyas, H. Sosiawan, H. L. Susilawati, A. Hervani, and A. D. Alifia. 2022. Optimising water management in drylands to increase crop productivity and anticipate climate change in Indonesia. *Sustainability*, 14 (11672): 1-24.
- Saha, S., D. Chatterjee, C. K. Swain, and A. K. Nayak. 2018. Methane emission from wetland rice ariculture-bio geochemistry and environmental controls in projected changing environment. In *Advances in Crop Environment Interaction*. 51-85.
- Sardiana, I. K., I. M. Adnyana, I. B. P. Manuaba, I.G.A.M.S. Agung. 2014. Soil organic carbon, labile carbon and organic carbon storage under organic and conventional systems of Chinese Cabbage in Baturiti, Bali Indonesia. *Journal of Biology, Agriculture and Healthcare*, 4(12): 63-71.
- Sari, W., dan Y. M. Yasin. 2018. Respon pertumbuhan bibit padi pandanwangi (*Oryza sativa* L. Aromatic) terhadap lama perendaman dan konsentrasi rizobakteria pemacu pertumbuhan tanaman (RPPT). *Agroscience*, 8(2): 146-159.
- Sarvestani, Z. T., H. Pirdashti, S. A. M. M. Sanavy, and H. Ballouchi. 2008. Study of water stress effects in different growth stages on yield and yield components of different rice (*Oryza sativa* L.) cultivars. *Pakistan Journal of Biological Sciences*. 11(100): 1303-1309.
- Saunois, M., A. R. Stavert, and B. Poulter. 2019. The global methane budget 2000-2017. *Earth System Science Data*. 12(3): 1561-1623.
- Sembiring, J., dan J. A. Mendes. 2022. Populasi wereng batang coklat (*Nilaparvata lugens*) dan wereng hijau (*Nephotettix virescens*) pada tanaman padi varietas inpara 2 di Kampung Bokem Kabupaten Merauke Papua. *Sainmatika*, 19(20): 201-207.
- Setiawati, M. R., Y. Silfani, N. N. Kamaluddin, dan T. Simarmata. 2020. Aplikasi pupuk urea pupuk hayati penambat nitrogen dan amelioran untuk meningkatkan ph, c-organik, populasi bakteri penambat nitrogen dan hasil jagung pada inceptisols. *Soilrens*, 18(2): 1-10.
- Seufert, V., and N. Ramankutty. 2017. Many Shades of Gray- The context-dependent performance of organic agriculture. *Science Advances*, 3:1-14.

- Siringoringo, H. H. 2014. Peranan penting pengelolaan penyerapan karbon dalam tanah. *Jurnal Analisis Kebijakan Kehutanan*, 11(2): 175-192.
- Slameto, D. E. Fahrudin, dan M. W. Saputra. 2024. Effect of fertilizer composition and different varieties on yield, methane and nitrous oxide emission from rice field in East Java Indonesia. *Frontiers in Agronomy*, 1-11.
- Song, B., S. Niu, and S. Wan. 2016. Precipitation regulates plant gas exchange and its long-term response to climate change in a temperate grassland. *Journal of Plant Ecology*, 9(5): 531-541.
- Supriyadi, M. K. Pratiwi, S. Minardi, and N. L. Prastiyarningsih. 2020. Carbon organic content under organic and conventional paddy field and its effect on biological activities (a case study in Pati Regency, Indonesia). *Caraka Tani: Journal of Sustainable Agriculture*. 35(1): 108-116.
- Suud, H. M., M. F. Syuaib, dan I. W. Astika. 2015. Pengembangan model pendugaan kadar hara tanah melalui pengukuran daya hantar listrik tanah. *Jurnal Keteknik Pertanian*, 3(2): 105-112.
- Suwarto, A. Riyanto, dan R. Pramesthi. 2015. Indeks panen dan sistem perakaran sepuluh galur padi tipe baru pada kondisi lahan aerob dan anaerob. *Jurnal Pertanian*, 771-782.
- Syachroni, S. H. 2019. Kajian beberapa sifat kimia tanah pada tanah sawah di berbagai lokasi di Kota Palembang. *SYLVA Jurnal Ilmu-Ilmu Kehutanan*, 8(2): 60-65.
- Syahrul, A. R. Thaha, dan M. R. C. Toana. 2021. Analisis beberapa sifat kimia tanah pada berbagai tipe penggunaan lahan di Desa Tolai Barat, Kecamatan Torue, Kabupaten Parigi Moutong. *Jurnal Agrotekbis*, 9(5): 1287- 1297.
- Syamsiyah, K. N., dan K. S. Wicaksono. 2023. Evaluasi retensi hara pada lahan padi di Kabupaten Pamekasan. *Jurnal Tanah dan Sumberdaya Lahan*, 10(1): 175-184.
- Tangketasik, A., N. M. Wikarniti, N. N. Soniari, dan I. W. Narka. 2012. Kadar bahan organik tanah pada tanah sawah dan tegalan di Bali serta hubungannya dengan tekstur tanah. *AGROTROP*, 2(2): 101-107.
- Tuck, S. L., C. Winqvist, F. Mota, and J. Ahnstrom. 2014. Land-use intensity and the effect of organic farming on biodiversity: a hierarchical meta-analysis. *Journal of Applied Ecology*, 51: 746-755.
- Wahyuningrum, A., A. Zamzami, dan H. Augusta. 2022. Pengaruh bobot 1000 butir terhadap *field emergence*, pertumbuhan dan produksi pada beberapa varietas padi (*Oryza sativa* L.). *Bul. Agrohorti*, 10(3): 321-330.
- Waldo, N. B., B. K. Hunt, E. C. Fadely, J. J Moran, R. B. Neumann. 2019. Plant root exudates increase methane emissions through direct and indirect pathways. *Biogeochemistry*, 1-22.
- Waruwu, I., dan S. Buulolo. 2024. Pengaruh *bulk density* dan total *porosity* terhadap pengelolaan lahan untuk produksi tanaman pangan. *Jurnal Ilmu Pertanian dan Perikanan*, 1(1): 99-104.
- Watabene, T., L.H. Man, D.M. Vien, V. T. Khang, N.N. Ha, T. B. Linh, and O. Ito. 2009. Effects of continuous rice straw compost application on rice yield and soil properties in the Mekong Delta. *Soil Science and Plant Nutrition*, 55:754-763.
- Wihardjaka, A. 2015. Mitigasi emisi gas metana melalui pengelolaan lahan sawah. *Jurnal Litbang Pertanian*, 34(3): 95-104.
- Wulandari, N. 2020. Pengaruh pupuk kimia terhadap kualitas tanah dan produksi padi. *Jurnal Sumber daya Alam*, 30(1): 33-42.

- Xie, Y., L. Zhou, J. Dai, J. Chen, X. Yang, X. Wang, Z. Wang, and L. Feng. 2022. Effect of the C/N ratio on the microbial community and lignocellulose degradation, during branch waste composting. *Bioprocess and Biosystems Engineering*, 45: 1163-1174.
- Xu, Z., and D. C. W. Tsang. 2024. Mineral-mediated stability of organic carbon in soil and relevant interaction mechanisms. *Eco-Environment and Health*. 59-76.
- Xu, H., A. Mustafa, Q. Saeed, G. Jiang, N. Sun, K. Liu, J. Kucerik, X. Yang, and M. Xu. 2025. Combined application of chemical and organic fertilizers enhances soil organic carbon sequestration and crop productivity by improving carbon stability and management index in a rice-rice cropping system. *Chemical and Biological Technologies in Agriculture*, 12(1): 1-14.
- Xuan, T. D., T. T. N. Minh, R. Rayee, N. D. Dong, and N. X. Chien. 2025. Advances in mitigating methane emissions from rice cultivation: past present, and future strategies. *Environmental Science and Pollution Research*, 32: 20232-20247
- Yadav, S., Kumar, R., Chandra, M. S., Singh, S., Yadav, R. B., & Kumar, M. (2020). Soil organic carbon sequestration and carbon pools in rice based cropping systems in Indo Gangetic Plains: An overview. *International Research Journal of. Pure and Applied Chemistry*, 21(24), 122–136.
- Yuda, A. P., I. W. Tika, dan I. G. N. A. Aviantara. 2017. Studi kasus tentang pengolahan tanah dengan bajak singkal dan rotary terhadap sifat fisik tanah pada budidaya tanaman padi sawah. *Jurnal Biosistem dan Teknik Pertanian*, 5(1).
- Yunianti, I. F., H. Yulianingrum, dan M. Ariani. 2020. Pengaruh pemberian variasi bahan organik terhadap peningkatan produksi padi dan penurunan emisi metana (CH₄) di lahan sawah tadah hujan. *Ecolab*, 14(2): 79-90.
- Zhai, P., R. Cheng, Z. Gong, J. Huang, X. Yang, X. Zhang, and X. Zhao. 2025. Plant biomass allocation-regulated nitrogen and phosphorus addition effects on ecosystem carbon fluxes of a lucerne (*Medicago sativa ssp. sativa*) plantation in the Loess Plateau. *Plants*, 14 (561): 1-18.
- Zhang, P., J. He, X. Hong, W. Zhang, C. Qin, B. Pang, Y. Li, and Y. Liu. 2018. Carbon sources/sink analysis of land use changes in China based on data envelopment analysis. *Journal of Cleaner Production*, 204: 702-711.
- Zhao, T., H. Kubota, and G. H. Ramirez. 2024. Contrasting soil organic carbon concentrations and Mass storage between conventional farming and organic farming: a meta-analysis. *Sustainability*, 16 (11260): 1-11.
- Zhao, Z.B., J.Z. He, S. Geisen, L.L.Han, J.T. Wang, J.P. Shen, W.X. Wei. Y.T. Fang, P.P. Li, and L.M. Zhang. 2019. Protist communities are more sensitive to nitrogen fertilization than other microorganisms in Diverse Agriculture. *Microbiome*, 7(33):1-16.
- Zhuang, G.C., 2014. Methylophilic methanogenesis and potential methylated substrates in Marine Sediment. Universitas Bremen, Bremen, Germany.
- Zhu, Z., T. Ge, M. Xiao, H. Yuan, T. Wang, S. Liu, C. T. Atere, J. Wu, and Y. Kuzyakov. 2017. Belowground carbon allocation and dynamics under rice cultivation depend on soil organic matter content. *Plant Soil*, 410: 247-258.