

DAFTAR PUSTAKA

- Achard, F.K., 1786. Chemische Untersuchung des Torfs. *Crell's Chem. Ann*, 2, pp. 391-403.
- Al-Dulaimy, A. F. Z., ALfahdawi, H. E., & Abdulhameed, S. H. 2025. Effect of humic acid Application and CPPU Spraying on Growth and Flowering of Marigold. *Ornamental Horticulture*, 31(1), pp. 1–7. <https://doi.org/10.1590/2447-536x.v31.e312965>
- Asghar, W., & Kataoka, R. 2021. Effect of Co-Application of Trichoderma spp. with Organic Composts on Plant Growth Enhancement, Soil Enzymes and Fungal Community in Soil. *Archives of Microbiology*, 203(7), pp. 4281–4291. <https://doi.org/10.1007/s00203-021-02413-4>
- Ampong, K., Thilakarathna, M. S., & Gorim, L. Y. 2022. Understanding the Role of Humic Acids on Crop Performance and Soil Health. *Frontiers in Agronomy*, 4(1), pp. 1-14. <https://doi.org/10.3389/fagro.2022.848621>
- Baglieri, A., Ioppolo, A., Nègre, M., & Gennari, M. 2007. A Method for Isolating Soil Organic Matter After the Extraction of Humic and Fulvic Acids. *Organic Geochemistry*, 38(1), pp. 140–150. <https://doi.org/10.1016/j.orggeochem.2006.07.007>
- Banik, A., Dash, G. K., Swain, P., Kumar, U., Mukhopadhyay, S. K., & Dangar, T. K. 2019. Application of Rice (*Oryza sativa* L.) Root Endophytic Diazotrophic *Azotobacter* sp. Strain Avi2 (MCC 3432) can Increase Rice Yield Under Green House and Field Condition. *Microbiological Research*, 219, pp. 56–65. <https://doi.org/10.1016/j.micres.2018.11.004>
- Badan Meteorologi Klimatologi dan Geofisika. 2025. *Curah Hujan Bulan Juni 2025*. Website Resmi Stasiun Klimatologi D. I Yogyakarta. <https://staklim-yogya.bmkg.go.id/2025/04/28/prakiraan-curah-hujan-bulan-agustus-2024-2-2/> [Diakses pada 24 Januari 2026].
- Badan Pusat Statistik. 2024. *Produksi Tanaman Hias Menurut Provinsi dan Jenis Tanaman , 2024 — Tabel Statistik*. <https://www.bps.go.id/id/statistics-table/3/TUROUllreE5ZemRHYUcxWFkyaHJNMjU2TWxSTFFUMDkjMw==/produksi-tanaman-hias-menurut-provinsi-dan-jenis-tanaman--2023.html?year=2023> [Diakses pada 24 Januari 2026].

- Badan Standarisasi Instrumen Pertanian. 2023. *Berita BRMP Tanaman Hias—Produksi Benih Krisan BSIP*. Balai Perakitan dan Pengujian Tanaman Hias. <https://tanamanhias.brmp.pertanian.go.id/berita/produksi-benih-krisan-bsip> [Diakses pada 13 Januari 2026].
- Caritá, A. C., Fonseca-Santos, B., Shultz, J. D., Michniak-Kohn, B., Chorilli, M., & Leonardi, G. R. 2020. Vitamin C: One Compound, Several Uses. Advances for Delivery, Efficiency and Stability. *Nanomedicine: Nanotechnology, Biology and Medicine*, 24(1), pp. 1-15. <https://doi.org/10.1016/j.nano.2019.102117>
- Carvalho, S. M. P. 2003. *Effects of Growth Conditions on External Quality of Cut Chrysanthemum; Analysis and Simulation*, Wageningen University. <https://doi.org/10.18174/193310>
- Dalaila, I., Kusrinah, K., & Lianah, L. 2019. Morfologi dan Anatomi *Chrysanthemum morifolium* Ramat. Var. Puspita nusantara dan var. Tirta ayuni serta *Chrysanthemum indicum* L.var. Mustika kaniya. *Al-Hayat: Journal of Biology and Applied Biology*, 2(2), pp. 53–58. <https://doi.org/10.21580/ah.v2i2.4660>
- Daniel, A. I., Fadaka, A. O., Gokul, A., Bakare, O. O., Aina, O., Fisher, S., Burt, A. F., Mavumengwana, V., Keyster, M., & Klein, A. 2022. Biofertilizer: The Future of Food Security and Food Safety. *Microorganisms*, 10(6), pp. 12-20. <https://doi.org/10.3390/microorganisms10061220>
- Demir, H., Sönmez, İ., Uçan, U., & Akgün, İ. H. 2023. Biofertilizers Improve the Plant Growth, Yield, and Mineral Concentration of Lettuce and Broccoli. *Agronomy*, 13(8), pp. 2031. <https://doi.org/10.3390/agronomy13082031>
- Dewi, A. P. 2019. Penetapan Kadar Vitamin C dengan Spektrofotometri UV-Vis pada Berbagai Variasi Buah Tomat. *JOPS (Journal Of Pharmacy and Science)*, 2(1), pp. 9–13. <https://doi.org/10.36341/jops.v2i1.1015>
- Eviati., Sulaeman., Herawaty, L., Anggria, L., Usman., Tantika, H. E., Prihatini, R. & Wuningrum, P. 2023. *Analisis Kimia Tanah, Tanaman Air, dan Pupuk*. Kementerian Pertanian Republik Indonesia. pp. 170–172. ISBN : 978-602-8039-49-9
- Fasciolo, B., Van Brenk, J., Verdonk, J. C., Bakker, E.-J., & Van Mourik, S. 2024.

- Quantifying the Impact of Light on Ascorbic Acid Content in Lettuce: A Model Proposal. *Sustainability*, 16(17), pp. 1–13. <https://doi.org/10.3390/su16177470>
- Figiel, S., Rusek, P., Ryszko, U., & Brodowska, M. S. 2025. Microbially Enhanced Biofertilizers: Technologies, Mechanisms of Action, and Agricultural Applications. *Agronomy*, 15(5), pp. 11–91. <https://doi.org/10.3390/agronomy15051191>
- Filho, J. F. D. C. L., Thomason, W. E., Evanylo, G. K., Zhang, X., Strickland, M. S., Chim, B. K., & Diatta, A. A. 2020. The Synergistic Effects of Humic Substances and Biofertilizers on Plant Development and Microbial Activity: A Review. *International Journal of Plant & Soil Science*, 1(1), pp. 56–75. <https://doi.org/10.9734/ijpss/2020/v32i730306>
- Fujii, S., Nishida, K., Akitsu, T. K., Kume, A., & Hanba, Y. T. 2023. Variation in Leaf Mesophyll Anatomy of Fern Species Imposes Significant Effects on Leaf Gas Exchange, Light Capture, and Leaf Hydraulic Conductance. *Photosynthetica*, 61(special issue 2023/1), pp. 225–235. <https://doi.org/10.32615/ps.2023.017>
- Gallie, D. R. 2013. L-Ascorbic Acid: A Multifunctional Molecule Supporting Plant Growth and Development. *Scientifica*, 2013, pp. 1–24. <https://doi.org/10.1155/2013/795964>
- Gama, J. T. D., López-Piñeiro, A., Loures, L., & Nunes, J. R. (2023). Impact of Different Irrigation Methods on the Main Chemical Characteristics of Typical Mediterranean Fluvisols in Portugal. *Agronomy*, 13(8), 2097. <https://doi.org/10.3390/agronomy13082097>
- Gao, L., Lu, Z., Ding, L., Xie, K., Wang, M., Ling, N., & Guo, S. 2020. Anatomically Induced Changes in Rice Leaf Mesophyll Conductance Explain the Variation in Photosynthetic Nitrogen Use Efficiency Under Contrasting Nitrogen Supply. *BMC Plant Biology*, 20(1), pp. 1–12. <https://doi.org/10.1186/s12870-020-02731-7>
- GBIF. 2023. *Chrysanthemum × morifolium* Ramat. Global Biodiversity Information Facility. <https://doi.org/10.15468/39omei> [Diakses 15 Januari 2026].

- Grammenou, A., Thalassinou, G., Petropoulos, S. A., & Antoniadis. 2025. Cadmium and Zinc Sorption and Desorption in Soil: The Impact of Humic-Fulvic Acids, *Bacillus* sp., Insect Frass, and Soil Aging. *Environmental Science and Pollution Research*, 32(1), pp. 17856–17867. <https://doi.org/10.1007/s11356-025-36699-4>
- Hindersah, R., Aini, R. A. P., Setiawati, M. R., Simarmata, T., Indrawibawa, D., & Akutsu, M. 2023. Boosting Strawberry Yield and Fruit Sweetness with Humic Substances and Biofertilizer in Soilless Cocopeat-based Culture. *Jurnal Ilmiah Pertanian*, 2(3), pp. 247-257. <https://doi.org/10.31849/jip.v20i3.13242>
- Hiremath, V. M., Jain, R., Jain, N., Arora, A., Swaroop, K., Singh, M. K., Kumar, P., & Kumar, G. 2018. Quantification of Total Endogenous Ascorbic Acid from *Chrysanthemum* (*Chrysanthemum × morifolium*) Cultivars and Its Association with Postharvest Life. *The Indian Journal of Agricultural Sciences*, 88(9), pp. 1429–1433. <https://doi.org/10.56093/ijas.v88i9.83506>
- Indrajati, S. B., Saputro, L. D., & Yuniar, A. R. 2023. *Panduan Teknis Budidaya Krisan Potong* (1st ed.). Pertanian Press, Bogor.
- Indriyati, S. M., Andayani, Y., & Sunarwidhi, A. L. 2023. Penetapan Kadar Vitamin C pada Daun Kelor (*Moringa oleifera* L.) dan Bayam Hijau (*Amaranthus gangeticus* L.) dengan Metode Spektrofotometri UV-Vis. *Sasambo Journal of Pharmacy*, 4(1), pp. 1–7. <https://doi.org/10.29303/sjp.v4i1.190>
- Jindo, K., Audette, Y., Higashikawa, F. S., Silva, C. A., Akashi, K., Mastrolonardo, G., Sánchez-Monedero, M. A., & Mondini, C. 2020. Role of Biochar in Promoting Circular Economy in the Agriculture Sector. Part 1: A Review of the Biochar Roles in Soil N, P and K Cycles. *Chemical and Biological Technologies in Agriculture*, 7(15), pp. 1–12. <https://doi.org/10.1186/s40538-020-00182-8>
- Kumar, S., Diksha, Sindhu, S. S., & Kumar, R. 2022. Biofertilizers: An Ecofriendly Technology for Nutrient Recycling and Environmental Sustainability. *Current Research in Microbial Sciences*, 3(1), pp. 1–26. <https://doi.org/10.1016/j.crmicr.2021.100094>
- Kurniasih, D., Mayang, R. B., Rahmawati, I., Wegadara, M., Yanda, R. P.,

- Hernawan, A., Wibawa, W. A., & Putra, R. W. 2025. Krisan Potong. In *Katalog Hortikultura Tanaman Hias* (pp. 43–59). Pusat Perakitan dan Modernisasi Pertanian Hortikultura, Badan Perakitan dan Modernisasi Pertanian, Kementrian Pertanian.
- Lestari, N. I., & Siswanti, D. U. 2024. Physiological and Anatomical Responses of Red onion (*Allium cepa* L.) to Drought Stress after Biofertilizer Application. *Jurnal Biodjati*, 9(2), pp. 359–372. <https://doi.org/10.15575/biodjati.v9i2.38613>
- Likabu, N. L. M., Azis, M. A., & Arsyad, S. 2025. Kadar Hara Nitrogen (N-Total) dengan Perlakuan Pupuk Organik dan Korelasinya Terhadap Pertumbuhan pada Hasil Tanaman Kacang Tanah (*Arachis hypogaea* L). *Jurnal Agroteknologi Fakultas Pertanian*, 14(1), pp. 15–22. ISSN 2252-3774
- Lisdiyanti, M., Sarifuddin, & Guchi, H. 2018. Pengaruh Pemberian Bahan Humat dan Pupuk SP-36 untuk Meningkatkan Ketersediaan Fosfor pada Tanah Ultisol. *Jurnal Pertanian Tropik*, 5(2), pp. 192–198. <https://doi.org/10.32734/jpt.v5i2.2991>
- Listyawati, S. 1994. Pengaruh Radiasi Sinar Gama CO 60 Terhadap Aktivitas Nitrat Reduktase dan Struktur Anatomi *Brassica campestris* Linn. Fakultas Biologi UGM. Yogyakarta.
- Lu, C., Yuan, C., Zhu, T., & Wang, Y. 2021. Effect of Humic Acid on the Single-Stage Nitrogen Removal Using Anammox and Partial Nitritation (SNAP) Process: Performance and Bacterial Communities. *Journal of Environmental Chemical Engineering*, 9(6), pp. 1-9. <https://doi.org/10.1016/j.jece.2021.106680>
- Mahmud, A. A., Upadhyay, S. K., Srivastava, A. K., & Bhojiya, A. A. 2021. Biofertilizers: A Nexus between Soil Fertility and Crop Productivity under Abiotic Stress. *Current Research in Environmental Sustainability*, 3(1), pp. 1–14. <https://doi.org/10.1016/j.crsust.2021.100063>
- Marchyshyn, S., Polonets, O., & Harnyk, M. 2020. Study of the Morphological and Anatomic Signs of the Flowers of the *Chrysanthemum Hortorum* Bailey Sort Pectoral (Pharmacognostic Analysis). *ScienceRise: Pharmaceutical Science*, 4(26), pp. 47–53. <https://doi.org/10.15587/2519->

[4852.2020.210828](https://doi.org/10.24252/bio.v12i2.57317)

- Mardiana, D. U., & Siswanti, D. U. 2025. Biofertilizers Improve Growth Rate, Nitrate Reductase Activity, and Productivity of Shallot (*Allium cepa* L.) under Drought Stress. *Biogenesis: Jurnal Ilmiah Biologi*, 12(2), pp. 28–39. <https://doi.org/10.24252/bio.v12i2.57317>
- Mastur, Syafaruddin, & Syakir, M. 2016. Peran dan Pengelolaan Hara Nitrogen pada Tanaman Tebu Untuk Peningkatan Produktivitas Tebu. *Perspektif*, 14(2), pp. 73–86. <https://doi.org/10.21082/p.v14n2.2015.73-86>
- McConnell, C. A., Kaye, J. P., & Kemanian, A. R. 2020. Reviews and Syntheses: Ironing Out Wrinkles in the Soil Phosphorus Cycling Paradigm. *Biogeosciences*, 17(21), pp. 5309–5333. <https://doi.org/10.5194/bg-17-5309-2020>
- Mindari, W., Sassongko, P. E., & Syekhfani. 2022. *Asam Humat Sebagai Amelioran dan Pupuk* (3rd ed.). UPN Veteran Jawa Timur, Surabaya.
- Mufarikha, L., Herlina, N., & Widaryanto, E. 2014. Respon Dua Kultivar Tanaman Krisan (*Chrysanthemum morifolium*) pada Berbagai Lama Penambahan Cahaya Buatan. *Jurnal Produksi Tanaman*, 2(1), pp. 10–16.
- Nabi, F., Sarfaraz, A., Kama, R., Kanwal, R., & Li, H. 2025. Structure-Based Function of Humic Acid in Abiotic Stress Alleviation in Plants: A Review. *Plants*, 14(13), pp. 1–20. <https://doi.org/10.3390/plants14131916>
- Nardi, S., Schiavon, M., & Francioso, O. 2021. Chemical Structure and Biological Activity of Humic Substances Define Their Role as Plant Growth Promoters. *Molecules*, 26(8), pp. 22–56. <https://doi.org/10.3390/molecules26082256>
- Omer, R. M., Hewait, H. M., Mady, E., Yousif, S. K. M., Gashash, E. A., Randhir, R., Ashmawi, A. E., El-Taher, A. M., Al-Harbi, N. A., & Randhir, T. O. 2023. Chemical, Anatomical, and Productivity Responses of Cowpea (*Vigna unguiculata* L.) to Integrated Biofertilizer Applications with PGPR, Cyanobacteria, and Yeast. *Sustainability*, 15(9), pp. 75–99. <https://doi.org/10.3390/su15097599>
- Paciolla, C., Fortunato, S., Dipierro, N., Paradiso, A., De Leonardis, S., Mastropasqua, L., & De Pinto, M. C. 2019. Vitamin C in Plants: From

- Functions to Biofortification. *Antioxidants*, 8(11), pp. 1–26.
<https://doi.org/10.3390/antiox8110519>
- Pagalla, D. B., & Jannah, M. 2023. Pengukuran Aktivitas Nitrat Reduktase (ANR) Pada Tanaman Poaceae Secara In vivo. *Jurnal Ilmiah Biologi UMA (JIBIOMA)*, 5(1), pp. 40–46. <https://doi.org/10.31289/jibioma.v5i1.1681>
- Palupi, D. R., & Siswanti, D. U. 2023. Response of Root Anatomy and Vitamin C Content of *Brassica juncea* L. on Biofertilizer Application in a Saline Environment. *Biogenesis: Jurnal Ilmiah Biologi*, 11(2), pp. 183-190.
<https://doi.org/10.24252/bio.v11i2.36522>
- Patti, P. S., Kaya, E., & Silahooy, C. 2018. Analisis Status Nitrogen Tanah Dalam Kaitannya Dengan Serapan N Oleh Tanaman Padi Sawah Di Desa Waimital, Kecamatan Kairatu, Kabupaten Seram Bagian Barat. *Agrologia*, 2(1), pp. 51-58. <https://doi.org/10.30598/a.v2i1.278>
- Pradewa, C. J., Sumarsono, S., & Kusmiyati, F. 2012. Karakteristik Fisiologi Rumput Benggala (*Panicum Maximum*) pada Tanah Salin yang Diperbaiki. *Animal Agriculture Journal*, 1(2), pp. 278 285.
- Pratiwi, R. A., & Senna, A. B. 2020. *Budidaya Bunga Krisan*. Balai Pengkajian Teknologi Pertanian Papua Barat.
<https://repository.pertanian.go.id/handle/123456789/9050>
- Qomariah, U. K. N. 2019. Aktivitas Nitrat Reduktase *Capsicum annum* L. Secara In Vivo dengan Spektrofotometri. *Exact Papers in Compilation (EPiC)*, 1(2), pp. 95–100. <https://doi.org/10.32764/epic.v1i2.128>
- Rathor, P., Upadhyay, P., Ullah, A., Gorim, L. Y., & Thilakarathna, M. S. 2024. Humic acid improves wheat growth by modulating auxin and cytokinin biosynthesis pathways. *AoB PLANTS*, 16(2), pp. 1–15.
<https://doi.org/10.1093/aobpla/plae018>
- Ratmadanti, F. R., & Maryani, M. M. 2017. Root Anatomy and Growth of *Capsicum frutescens* L. on Verticulture with Different Watering Supply. *Journal of Tropical Biodiversity and Biotechnology*, 2(1), 1-9.
<https://doi.org/10.22146/jtbb.22258>
- Rimpika, Jain, S., Rathod, M., Banjare, R., Nidhi, N., Sood, A., Shilpa, & Sharma, R. 2023. Physiological Aspects of Flowering, Fruit Setting, Fruit

- Development and Fruit Drop, Regulation and their Manipulation: A Review. *International Journal of Environment and Climate Change*, 13(12), pp. 205–224. <https://doi.org/10.9734/ijecc/2023/v13i123677>
- Rindyastuti, R., & Hapsari, L. 2017. Adaptasi Ekofisiologi Terhadap Iklim Tropis Kering: Studi Anatomi Daun Sepuluh Jenis Tumbuhan Berkayu. *Jurnal Biologi Indonesia*, 13(1), pp. 1–15. <https://doi.org/10.47349/jbi/13012017/1>
- Rohman, F., Wachjar, A., Santosa, E., & Abdoellah, S. 2019. Humic Acid and Biofertilizer Applications Enhanced Pod and Cocoa Bean Production during the Dry Season at Kaliwining Plantation, Jember, East Java, Indonesia. *Journal of Tropical Crop Science*, 6(03), pp. 153–163. <https://doi.org/10.29244/jtcs.6.03.153-163>
- Sathee, L., R, S., Barman, D., Adavi, S. B., Jha, S. K., & Chinnusamy, V. 2025. Nitrogen at the Crossroads of Light: Integration of Light Signalling and Plant Nitrogen Metabolism. *Journal of Experimental Botany*, 76(3), pp. 803–818. <https://doi.org/10.1093/jxb/erae437>
- Schütz, L., Gattinger, A., Meier, M., Müller, A., Boller, T., Mäder, P., & Mathimaran, N. 2018. Improving Crop Yield and Nutrient Use Efficiency via Biofertilization—A Global Meta-analysis. *Frontiers in Plant Science*, 8(1), pp. 1–13. <https://doi.org/10.3389/fpls.2017.02204>
- Setiawati, M. R., Fatimah, E. E., Herdiyantoro, D., Sandrawati, A., Umiyati, U., & Suryatmana, P. 2023. Pengaruh Pupuk Hayati Berbasis Azolla terhadap Nitrogen Tanah, Nitrogen Tanaman, Populasi *Azotobacter*, dan Hasil Tanaman Mentimun Pada Inceptisol Jatiningor. *Soilrens*, 20(2), pp. 95–102. <https://doi.org/10.24198/soilrens.v20i2.45271>
- Setiawati, T., Ayalla, A., & Witri, A. 2019. Induksi Kalus Krisan (*Chrysanthemum morifolium* Ramat.) dengan Penambahan Berbagai Kombinasi Zat Pengatur Tumbuh (ZPT). *Jurnal EduMatSains*, 3(2), pp. 119–132.
- Setijono, N. H., Serafinah, S., & Aris Soewondo, I. 2017. *Mikroteknik Dasar*. Universitas Brawijaya Press. Pp. 91-132. https://books.google.com/books/about/Mikroteknik_Dasar.html?hl=id&id=RxRTDwAAQBAJ

- Sharma, N., Radha, Kumar, M., Kumari, N., Puri, S., Rais, N., Natta, S., Dhupal, S., Navamaniraj, N., Chandran, D., Mohankumar, P., Muthukumar, M., Senapathy, M., Deshmukh, V., Damale, R. D., Anitha, T., Balamurugan, V., Sathish, G., & Lorenzo, J. M. 2023. RETRACTED: Phytochemicals, Therapeutic Benefits and Applications of Chrysanthemum Flower: A Review. *Heliyon*, 9(10), pp. 1-14. <https://doi.org/10.1016/j.heliyon.2023.e20232>
- Shi, X.-F., Chu, J.-Z., Zhang, Y.-F., Liu, C.-Q., & Yao, X.-Q. 2017. Nutritional and Active Ingredients of Medicinal Chrysanthemum Flower Heads Affected by Different Drying Methods. *Industrial Crops and Products*, 104(1) pp. 45–51. <https://doi.org/10.1016/j.indcrop.2017.04.021>
- Siswanti, D. U. 2015. Pertanian Organik Terpadu di Desa Wukirsari, Sleman, Yogyakarta Sebagai Usaha Pemulihan Kesuburan Lahan Terimbas Erupsi Merapi 2010 dan Pencapaian Desa Mandiri Sejahtera. *Jurnal Pengabdian kepada Masyarakat (Indonesian Journal of Community Engagement)*, 1(1), pp. 62-78. <https://doi.org/10.22146/jpkm.16954>
- Siswanti, D. U., & Rachmawati, D. 2011. Plant Response and Nitrate Reductase Activity in vivo on Rice (*Oryza sativa* L.) Cultivars IR-64 to Biofertilizer Application And Drought. *Proceeding ICBS Faculty of Biology, Universitas Gadjah Mada*, 1(1), pp. 1–5.
- Siswanti, D. U., & Riesty, O. S. 2021. Effects of Biofertilizer and Manure Application on Growth Rate and Chlorophyll Content of Spinach (*Amaranthus tricolor* L.) Under Salinity Stress Condition. *BIO Web of Conferences*, 33(1), pp. 1-9. <https://doi.org/10.1051/bioconf/20213305003>
- Siswanti, D. U., & Umah, N. 2021. Effect of Biofertilizer and Salinity on Growth and Chlorophyll Content of *Amaranthus tricolor* L. *IOP Conference Series: Earth and Environmental Science*, 662(1), pp. 1–10. <https://doi.org/10.1088/1755-1315/662/1/012019>
- Statistik Daerah Kabupaten Gunungkidul. 2012. *Statistik Daerah Kabupaten Gunungkidul*. Badan Pusat Statistik Kabupaten Gunungkidul.
- Stefan, L., Hartmann, M., Engbersen, N., Six, J., & Schöb, C. 2021. Positive Effects of Crop Diversity on Productivity Driven by Changes in Soil Microbial

- Composition. *Frontiers in Microbiology*, 12(1), pp. 1–16.
<https://doi.org/10.3389/fmicb.2021.660749>
- Stevenson, F.J. 1982. Humus Chemistry Genesis, Composition, Reactions. John Wiley & Sons, New York. *References—Scientific Research Publishing*.
<https://www.scirp.org/reference/referencespapers?referenceid=1856191>
[Diakses 18 Januari 2026].
- Stolarz, M., & Hanaka, A. 2025. Glutamate and Its Role in the Metabolism of Plants and Animals. *Processes*, 13(7), pp. 1–19.
<https://doi.org/10.3390/pr13072084>
- Sudiarti, D. 2017. The Effectiveness of Biofertilizer on Plant. *Jurnal Sain Health*, 1(2), pp. 46–55.
- Suharja, & Sutarno. 2009. Biomass, Chlorophyll and Nitrogen Content of Leaves of Two Chili Pepper Varieties (*Capsicum annum*) in Different Fertilization Treatments. *Nusantara Bioscience*, 1(1), pp. 9–16.
- Sulistiyani, M., Huda, N., Prasetyo, R. & Alauhdin, M. 2023. Calibration of Microplate Uv-Vis Spectrophotometer for Quality Assurance Testing of Vitamin C Using Calibration Curve Method. *Indonesian Journal of Chemical Science*, 12(2), pp. 204-211.
- Suryono, E. 2016. Analisis Nitrat Reduktase Secara “In Vivo” Pada Tanaman Jagung, Kacang Hijau, Tebu, Uwi Dan Cabai. *Integrated Lab Journal*. 4(1), pp. 1-8.
- Suwardi, & Wijaya, H. 2013. Peningkatan Produksi Tanaman Pangan dengan Bahan Aktif Asam Humat dengan Zeolit sebagai Pembawa. *Jurnal Ilmu Pertanian Indonesia*, 18(2), pp. 79–84.
- Syamrusdianti, F., & Sitawati. 2019. Pembungaan Kembali Tanaman Krisan Pot (*Chrysanthemum* sp.) dengan Pengaturan Fotoperiodisme dan Konsentrasi Paklobutrazol. *Jurnal Produksi Tanaman*, 7(2), 339–345.
- Triharto, S., Musa, L., & Sitanggang, G. 2014. Survei dan Pemetaan Unsur Hara N, P, K, dan pH Tanah pada Lahan Sawah Tadah Hujan di Desa Durian, Kecamatan Pantai Labu. *Jurnal Online Agroteknologi*, 2(3), pp. 1195–1204.
<https://doi.org/10.32734/jaet.v2i3.7535>
- Vessey, J. K. 2003. Plant Growth Promoting Rhizobacteria as Biofertilizers. *Plant*

and Soil, 255(1), pp. 571-586..

Wagi, S., & Ahmed, A. 2019. *Bacillus* spp.: Potent Microfactories of Bacterial IAA.

PeerJ, 7(1), pp. 1-14. <https://doi.org/10.7717/peerj.7258>

Xiong, Q., Wang, S., Lu, X., Xu, Y., Zhang, L., Chen, X., Xu, G., Tian, D., Zhang, L., Jing, J., & Ye, X. 2023. The Effective Combination of Humic Acid Phosphate Fertilizer Regulating the Form Transformation of Phosphorus and the Chemical and Microbial Mechanism of Its Phosphorus Availability.

Agronomy, 13(6), pp. 1-17. <https://doi.org/10.3390/agronomy13061581>

Yuan, Y., Tang, C., Jin, Y., Cheng, K., & Yang, F. 2023. Contribution of Exogenous Humic Substances to Phosphorus Availability in Soil-Plant Ecosystem: A Review. *Critical Reviews in Environmental Science and Technology*,

53(10), pp. 1085–1102.

<https://doi.org/10.1080/10643389.2022.2120317>

Zaky, E., El-Ziat, R. A., Farag, H. M., & El-Sayed, I. M. 2023. Influence of Gibberellic Acid and Methionine on Growth, Flowering Quality, Leaf Anatomical Structure and Genetic Diversity of *Chrysanthemum morifolium* Ramat Plant. *Emirates Journal of Food and Agriculture*, 35(9), pp. 813–825. <https://doi.org/10.9755/ejfa.2023.3144>

Zayed, O., Hewedy, O. A., Abdelmoteleb, A., Ali, M., Youssef, M. S., Roumia, A. F., Seymour, D., & Yuan, Z.-C. 2023. Nitrogen Journey in Plants: From Uptake to Metabolism, Stress Response, and Microbe Interaction. *Biomolecules*, 13(10), pp. 1–32. <https://doi.org/10.3390/biom13101443>