DAFTAR PUSTAKA

Abong'o. D.A, Cherotich.S, & Onyatta. J.O. 2022. Seasonal Variation of Major Nutrients and Selected Physicochemical Parameters in Soil from Small Scale Tea Farms Along Sulal River, Bureti Sub County, Kericho County, Kenya. Journal of Science & Technology, 7(9), 102–116. https://doi.org/10.46243/jst.2022.v7.i09.pp102-116

Adji, I.S., Susila, A.D., dan Purnamawati, H. 2024. Pengaruh Kandungan P dan K Tanah terhadap Pertumbuhan dan Hasil Tanaman Tomat (*Lycopersicon esculentum*) pada Tanah Andisol. *Bul. Agrohorti, 12(3): 327-335*. https://doi.org/10.29244/agrob.v12i3.54543

Agamy, R. A., Mohamed, G. F., and Rady, M. M. 2012. Influence of the Application of Fertilizer Type on Growth, Yield, Anatomical Structure and Some Chemical Components of Wheat (*Triticum aestivum* L.) Grown in Newly Reclaimed Soil. *Australian Journal of Basic and Applied Sciences*, 6(3): 561-570

Alloway, B. J. 2008. Soil factors associated with zinc deficiency in crops and humans. Environmental Geochemistry and Health, v.31, n.5, p.537-548. http://dx.doi.org/10.1007/s10653-009-9255-4

Ali, M. M., Yousef, A. F., Yousef, A. F., Li, B., & Chen, F. 2021. Effect of Environmental Factors on Growth and Development of Fruits. *Tropical Plant Biology*, *14*(3), 226–238. https://doi.org/10.1007/S12042-021-09291-6

Almedi, A., and Soelistyono, R. 2019. Pengaruh waktu tanam dan ketinggian tempat terhadap pertumbuhan tanaman tebu (*Saccharum officinarum* L.) (in Bahasa). Jurnal Produksi Tanaman, 6 (10): 2476-2481

Anbarasan, S., and Ramesh, S. 2021. The Role of Plant Roots in Nutrient Uptake and Soil Health. *Plant Science Archives*, 6(1): 05-08. DOI: https://doi.org/10.51470/PSA.2021.6.1.05

Anne, L., Rae, Adriana, P., Martinelli, and Marcelo, C. Dornelas Chapter 2 Anatomy and Morphology

Arabia, T., Manfarizah, M., Syakur, S., & Irawan, B. 2018. Karakteristik Tanah Inceptisol yang Disawahkan di Kecamatan Indrapuri Kabupaten Aceh Besar. Jurnal Floratek, 13(1), 1-10.

Assagaf, S.A. 2017. Pengaruh pemberian pupuk NPK Mutiara terhadap pertumbuhan dan produksi tanaman jagung (*Zea Mayz* L.) di Desa Batu Boy Kec. Namlea Kab. Buru Said. Agrikan, 10(1):72–78.

Atmojo, H. W., Machmudi, Nursandi, F., Puspitasari, A. R. 2024. Pengaruh Pemupukan Anorganik pada Budidaya Tanaman Tebu (*Saccharum officinarum* L.) Varietas PSKA 942 di Pusat Penelitian Perkebunan Gula Indonesia. Indonesian Sugar Research Journal, 4(2):13-23. ISSN: 2775-2100 e-ISSN: 2798-5415

Balafrej, H., Bogusz, D., Triqui, Z. A., Guedira, A., Bendaou, N., Smouni, A., and Fahr, M. 2022. Zinc Hyperaccumulation in Plants: A Review. Plant, 9 (562): 1-22 doi:10.3390/plants9050562

Balemi T, and Negisho, K. 2012. Management of soil phosphorus and plant adaptation mechanisms to phosphorus stress for sustainable crop production: a review. Journal of Soil Science and Plant Nutrition, 12 (3):547-562.

Bhadu, A., Singh, B., Gulshan, T., Kumawat, S. N., Choudhary, R. K., and Farooq, F. 2022. Customized Fertilizer: A Key for Enhanced Crop Production. International Journal of Plant & Soil Science, 34(23): 954-964. Article no.IJPSS.93009

Bhatt, R., Singh, J., Laing, A.M., Meena, R.S., Alsanie, W.F., Gaber, A., Hossain, A. 2021. Potassium and Water-Deficient Conditions Influence the Growth, Yield and Quality of Ratoon Sugarcane (*Saccharum officinarum* L.) in a Semi-Arid Agroecosystem. *Agronomy*, *11*, 2257:1-16. https://doi.org/10.3390/agronomy11112257

Bi, S., Barinelli, V., Sobkowicz, M.J., 2020. Degradable controlled release fertilizer composite prepared via extrusion: fabrication, characterization, and release mechanisms. Polymers 12, 301.

Bonnett, M. 2013. Sustainable development, environmental education, and the significance of being in place. *The curicullum journal*, 24(2):250-271.

Borsuk AM and Brodersen CR. 2019. The spatial distribution of chlorophyll in leaves. Plant Physiology 180: 1406–1417.

Bottcher, A., Cesarino, I., dos Santos, A.B., Vicentini, R., Mayer, J.L.S., Vanholme, R., Morreel, K., Goeminne, G., Moura, J.C.M.S., Nobile, P.M., Carmello-Guerreiro, S.M., dos Anjos, I.A., Creste, S., Boerjan, W., Landell, M.G.dos A., and Mazzafera, P. 2013. Lignification in Sugarcane: Biochemical Characterization, Gene Discovery, and Expression Analysis in Two Genotypes Contrasting for Lignin Content. Plant Physiology, 163: 1539–1557. http://www.plantphysiol.org/cgi/doi/10.1104/pp.113.225250

Budi, S., dan Laliyah, W. N. 2023. Growth and Production Performance of Sugarcane (*Saccharum officinarum* L.) Clon SB 01, SB 04, sb 19, SB 20 in the Village Curahmalang, Jombang Regency. *KONTRIBUSIA*, 6 (1): 134-144.

Calheiros, A. S., Oliveira, M. W., Ferreira, V. M., Barbosa, G. V. S., Santiago, A. D., and Santos Aristides, E. V. 2012. Production of biomass, from sugar and protein in function of sugarcane varieties and phosphorous fertilization. Semina Ciênc. Agrár. 33, 809–817. doi: 10.5433/1679-0359.2012v33n2p809

Cartensen, A., Herdean, A., Schmidt, S. B., Sharma, A., Spetea, C., Pribil, M., Husted, S. 2018. The Impacts of Phosphorus Deficiency on the Photosynthetic Electron Transport Chain. Plant Physiology 177(1): 271-284. https://doi.org/10.1104/pp.17.01624

Castillo-González, J., Ojeda-Barrios, D., Hernández-Rodríguez, A., González-Franco, A.C., Robles-Hernández, L., López-Ochoa, G.R. 2018. Zinc metalloenzymes in plants. Interciencia, 43: 242–248.

Castro, S.G.Q., Magalhaes, P.S.G., Franco, H.C.J., Mutton, M.A. 2018. Harvesting Systems, Soil Cultivation, and Nitrogen Rate Associated with Sugarcane Yield. BioEnergy Research,11:583–591. https://doi.org/10.1007/s12155-018-9917-0

Castro-Nava, Sergio & Delgado Martínez, Rafael & Manuel, García-Girón. 2020. Heat Tolerance in Sugarcane: Optimum Temperature and Phenological Stage to Determination of Thermotolerance as Selection Criteria. Journal of Agricultural Science. 12. 135-135. 10.5539/jas.v12n8p135.

Chairuman, N., Batubara, S., Aryati, V., Siagian, D. R. 2023. Enhancing the maize growth and production by applying the phosphorus and potassium nutrients in inceptisol of Langkat Regency. IOP Conference Series: Earth and Environment. doi:10.1088/1755-1315/1172/1/012042

Chandrakar, K., Verma, S. K., Kesari, R., and Dubey, S. 2018. Assessment of macronutrients and soil fertility status of an Inceptisol: A review. International Journal of Chemical Studies, 6(4): 3216-3222.

Chang, W., Chen, H., Jiao, G., Dou, Y., Liu, L., Qu, C., Li, J., Lu, K. 2022. Biomolecular Strategies for Vascular Bundle Development to Improve Crop Yield. Biomolecules, 12, 1772: 1-14. https://doi.org/10.3390/biom12121772

Cherubin, M.R., Lisboa, I.P., Silva, A.G.B., Varanda, L.L., Bordonal, R.O., Carvalho, J.L.N., Otto, R., Pavinato, P.S., Soltangheisi, A., Cerri, C.E.P. 2019. Sugarcane straw removal: Implications to soil fertility and fertilizer demand in Brazil. BioEnerg Res.,12:888-900. https://doi.org/10.1007/s12155-019-10021-w

Chen, J., Liu, L., Wang, Z., Zhang, Y., Sun, H., Song, S., Bai, Z., Lu, Z., Li, C. 2020. Nitrogen Fertilization Increases Root Growth and Coordinates the Root–Shoot Relationship in Cotton. Front. Plant Sci., Volume 11 https://doi.org/10.3389/fpls.2020.00880

Chen, Z., Wang, L., Cardoso, J. A., Zhu, S., Liu, G., Rao, I. M., Lin, Y. 2023. Improving phosphorus acquisition efficiency through modification of root growth responses to phosphate starvation in legumes. Front Plant Sci., Vol 14. https://doi.org/10.3389/fpls.2023.1094157

Cochrane, T. T., and Cochrane, T. A. 2009. The vital role of potassium in the osmotic mechanism of stomata aperture modulation and its link with potassium deficiency. Plant Signal Behav, 4(3): 240–243. doi: 10.4161/psb.4.3.7955

Costa, ARFC, MM Rolim, EM Bonfim-Silva, DES Neto, ERM Pedrosa dan EFF Silva. 2016. Accumulation of nitrogen, phosphorus and potassium in sugarcane cultivated under various types of water management and nitrogen doses. Australia. J. Plant Sci., 10: 362–369.

Cursi, D.E., Hoffmann, H.P., Barbosa, G.V.S., Bressiani, J.A., Gazaffi, R., Chapola, R.G., Fernandes Junior, A.R., Balsalobre, T.W.A., Diniz, C.A., Santos, J.M. 2022. History and Current Status of Sugarcane Breeding, Germplasm Development and Molecular Genetics in Brazil. Sugar Tech, 24: 112–133.

van Dillewijn, C., 1952. Botany of Sugarcane. Chronica Botanics Co., Waltham, MA, 371 pp.

Damanik, M.M.B., E.H. Bachtiar., Fauzi., Sarifuddin dan H. Hamidah. 2011. Kesuburan Tanah dan Pemupukan. USU Press, Medan.

Diana, N. E., Supriyadi., & Djumali. 2016. Pertumbuhan, Produktivitas, dan Rendemen Pertanaman Tebu Pertama (*Plant Cane*) Pada Berbagai Paket Pemupukan. *Jurnal Ilmu Pertanian Indonesia*, 21(3), 159-166. https://doi.org/10.18343/jipi.21.3.159

Dingre, S.K., and Gorantiwar, S.D. 2021. Soil Moisture BasedDeficit Irrigation Management for Sugarcane (Saccharum officinarum L.) in Semiarid Environment. Agricultural Water Management, volume 245, 106549, ISSN 0378-3774, https://doi.org/10.1016/j.agwat.2020.106549.

Elephant, D. E., Miles, N., & Muchaonyerwa, P. 2023. Effect of Potassium Application Rates on Sugarcane Yield in Soils with Different Non-Exchangeable Potassium Reserves and Fixation Capacity. Agronomy, 13(8), 1969. https://doi.org/10.3390/agronomy13081969

Eviati, Sulaeman, L., Herawaty, L., Anggria, Usman, H.E., Tantika, R., Prihatini, P., Wuningrum. 2023. Analisis Kimia Tanah, Tanaman, Air, dan Pupuk. Petunjuk Teknis Edisi 3. Balai Pengujian Standar Instrumen Tanah dan Pupuk (BPSI Tanah dan Pupuk), Badan Standardisasi Instrumen Pertanian, Kementerian Pertanian. Bogor.

FAO, 2022. Key facts of the economic dimension of the Statistical Yearbook of World Food and Agriculture 2022.

Fathin, S. L., Purbajanti, E. D., dan Fuskhah, E. 2019. Pertumbuhan dan hasil Kailan (Brassica oleracea var. Alboglabra) pada berbagai dosis pupuk kambing dan frekuensi pemupukan Nitrogen. Jurnal Pertanian Tropik, 6 (3):438-448.

Firdaus, G.M., dan Sudiarso. 2018. Pengaruh Pemberian Agens Hayati dan Pupuk Anorganik terhadap Pertumbuhan Vegetatif Tanaman Tebu (*Saccharum officinarum*). *Jurnal Produksi Tanaman, 6(7): 1404 – 1411*. ISSN: 2527-8452

Foth, H, D. 1994. Dasar-Dasar Ilmu Tanah Jilid Ke Enam. Jakarta: Erlangga

Francioso, A., Conrado, A. B., Mosca, L., and Fontana, M. 2020. Chemistry and Biochemistry of Sulfur Natural Compounds: Key Intermediates of Metabolism and Redox Biology. Oxid Med Cell Longlev, 2020:1-27. doi: 10.1155/2020/8294158

Gao, L., Lu, Z., Ding, L., Xie, K., Wang, M., Ling, N., and Guo, S. 2020. Anatomically induced changes in rice leaf mesophyll conductance explain the variation in photosynthetic nitrogen use efficiency under contrasting nitrogen supply. *MC Plant Biology,* 20(527):1-12. https://doi.org/10.1186/s12870-020-02731-7

Gohain, B. P., Rose, T. J., Liu, L., Barkla, B. J., Raymond, C. A., King, G. J. 2019. Remobilization and fate of sulphur in mustard. Ann Bot. 16;124(3):471–480. https://doi.org/10.1093/aob/mcz101

Gopalasundaram, P., Bhaskaran, A., Rakkiyappan, P. 2012. Integrated Nutrient Management in Sugarcane. Sugar Tech, 14, 3–20.

Gurski, B.C., de Souza, J.L.M., Gerstemberger, E., and de Oliveira, R.A. Water requirements and restrictions to sugarcane in cane plants and ratoon cane cycles in Southern Brazil. Acta Agronomica, 69(2): 135-143. doi: https://doi.org/10.15446/acag.v69n2.60246

Halbac-Cotoara-Zamfir, R., Farias-Ramirez, A. J., de Miranda, J. H., Moreno-Pizan, M. A., Duarte, S. N., Paredes-Trejo, F. J., Salvati, L., Halbac-Cotoara-Zamfir, C. 2018. Simulation of Subsurface Drainage in the Sugarcane Crop under Different Spacing and Drain Depths. Land, MDPI Journal.

Hamida. R., Djumali, Heliyanto, B., Abdurrachman, Adikadarsih, S., dan Murianingrum, M. 2022. Yield and growth performance of potential sugarcane (*Saccharum officinarum* L.) hybrid clones. *IOP Conference Series: Earth and Environmental Science* 974. https://doi.org/10.1088/17551315/9

Hardjowigeno, S., 2003. Ilmu Tanah. Penerbit Akademika Pressindo. Jakarta.

Havlin, J.L., J.D. Beaton, S.L. Tisdale, W.L. Nelson. 1999. Soil Fertility and Fertilizer. An Introduction to Nutrient Management. New Jersey (US): Pearson Prentice Hall.

Havlin, J.L., Beaton, J.D., Tisdale, S.L. and Nelson, W.L. 2014. Soil Fertility and Fertilizers. An Introduction to Nutrient Management. New Jersey: 6th Edition, Prentice Hall, Upper Saddle River

Heldt, H.W., and Piechulla, B. 2011. *Phloem transport distributes photoassimilates to the various sites of consumption and storage* (pp. 337–348). https://doi.org/10.1016/B978-0-12-384986-1.00013-2

Herawati and Syafruddin. 2024. Determination of potassium fertilizer requirement for maize hybrid in inceptisol soil. *AIP Conf. Proc.* 6 February 2024; 2957 (1): 040023. https://doi.org/10.1063/5.0184194

Hidayat, N., Nuraisyah, A., Salim, A., dan Setyoko, U. 2024. Pengaruh Sinergitas Mikroba Terhadap Pertumbuhan Vegetatif Tanaman Tebu (*Saccharum Offichinarum*. L) di Kebun Rambahn Wetan 1 PG Pradjekan Bondowoso. *Jagad Tani: Jurnal Ilmu Pertanian, 1(2):* 73-82. pISSN: 3046-7535 | eISSN: 3046-5842 Jagad Tani: https://journal.aksarakita.id/index.php/jt/

Ho, Q.T., Berghuijs, H.N.C., Watt´e, R., Verboven, P., Herremans, E., Yin, X., Retta, M.A., Aernouts, B., Saeys, W., Helfen, L. 2016. Three-dimensional microscale modelling of CO2 transport and light propagation in tomato leaves enlightens photosynthesis. Plant, Cell & Environment 39: 50–61.

Hu, W., Lu, Z., Meng, F., Li, X., Cong, R., Ren, T., Sharkey, T. D., & Lu, J. (2020). The reduction in leaf area precedes that in photosynthesis under potassium deficiency: the importance of leaf anatomy. *The New phytologist*, *227*(6), 1749–1763. https://doi.org/10.1111/nph.16644

Hu, Y., Yang, L., Gao, C., Liao, D., Long, L., Qiu, J. 2022. A comparative study on the leaf anatomical structure of Camellia oleifera in a low-hot valley area in Guizhou Province, China. PloS ONE 17(1): e0262509. https://doi.org/10.1371/journal.pone.0262509

Islam, M. and Ali, S. 2009. Effect of integrated application of sulphur and phosphorus on nitrogen fixation and nutrient uptake by Chickpea (*Cicer arietinum* L.). Agrociencia, 43(8).

Jana, S., Dhar, A., Dey, S., Garai, S. and Sarkar, S. 2024. Customized Fertilizer: An Overview and Contribution in Sustainable Crop Nutrition. Vigyan Varta 5(2): 145-151.

Jayadi, M., Juita, N., & Wulansari, H. 2023. Analisis Fosfor Tanah pada Lahan Sawah Irigasi dan Sawah Tadah Hujan di Kecamatan Duampanua Kabupaten Pinrang. Jurnal Ecosolum,11(2):191-207. DOI: 10.20956/ecosolum.v11i2.24460

Johnson, R. M., and Richard, Jr. E. P. 2005. Sugarcane yield, sugarcane quality, and soil variability in Louisiana. Agronomy Journal, 97: 760–771.

Juliati, S. 2008. Pengaruh Pemberian Zn dan P terhadap Pertumbuhan Bibit Jeruk Varietas *Japanese citroen* pada Tanah Inceptisol. *J. Hort.* 18(4):409-419.

Kandhro, M.N., Mangrio, N., Soomro, A.A., Z-H. Shah, G.S. Mangrio, N. Mari, Z.A. Abbasi and S.P. Tunio. 2021. Impact of NPK fertilization on growth and yield of sugarcane (*Saccharum officinarum* L.) under different planting methods. Pakistan Journal of Agricultural Research, 34(2): 346-355.

Kamble, S.A., and Kharate, M.S. 2019. Estimation of Dry Matter of Sugarcane (*Saccharum Officinarum* Linn.) crop by Ecological Method in Loamy Soil at Aurangabad. *International Journal of Applied Environmental Sciences*, 4(2): 211-216.

Khan, F., Siddique, A. B., Shabala, S., Zhou, M., Zhao, C. 2023. Phosphorus Plays Key Roles in Regulating Plants' Physiological Responses to Abiotic Stresses. Plants (Basel), 12(5): 1-29. doi: 10.3390/plants12152861

Khan, Q., Qin, Y., Guo, D-J., Zeng, X-P., Chen, J-Y., Huang, Y-Y., Ta, Q-K., Yang, L-T., Song, X. P., Xing, Y-X., and Li, Y-R. 2022. Morphological, agronomical, physiological and molecular characterization of a high sugar mutant of sugarcane in comparison to mother variety. PloS ONE 17(3): e0264990. https://doi.org/10.1371/journal.pone.0264990

Khan, S. U., Khan, R. U., Ullah, I., Mehmood, S., Muhammad, A., and Ullah, M. 2013. Morpho-Anatomical Study of Selected Plants of District Bannu, Khyber Pakhtunkhwa, Pakistan. J. Weed Sci. Res., 19(4) 447-464.

Kim, H., Jang, J., Seomun, S., Yoon, Y. and Jang, G. 2022. Division of cortical cells is regulated by auxin in Arabidopsis roots. Front. Plant Sci. 13:953225. https://doi.org/10.3389/fpls.2022.953225

Kim, J., Yoo, G., Kim, D., Ding, W., Kang, H. 2017. Combined application of biochar and slow-release fertilizer reduces methane emission but enhances rice yield by different mechanisms. Appl. Soil Ecol. 117–118, 57–62. https://doi.org/10.1016/j.apsoil.2017.05.006

Kolahi, M., Tabandeh, M. R., Majd, A., Jonoubi, P., Hashemitabar, M. 2018. Comparative Survey of Lignification in Aerial Organs during Development of Sugarcane (*Saccharum officinarum* L.). Universal Journal of Plant Science 6(1): 7-14. DOI: 10.13189/ujps.2018.060102

Kusumawati, A., Hanudin, E., Purwanto, B.H., dan Nurudin, M. 2022. Respon Kadar Hara Tanaman Tebu di Tiga Ordo Akibat Budidaya Monokultur Tebu. *JIPI*, 24(1): 39-48. DOI: https://doi.org/10.31186/jipi.24.1.39-48

Lamberti-Raverot, B., & Puijalon, S. 2012. Nutrient enrichment affects the mechanical resistance of aquatic plants. *Journal of experimental botany*, *63*(17), 6115–6123. https://doi.org/10.1093/jxb/ers268

Li, L.; Tong, Y.; Lu, J.; Li, Y.; Liu, X.; Cheng, R. Morphology, Photosynthetic Traits, and Nutritional Quality of Lettuce Plants as Affected by Green Light Substituting Proportion of Blue and Red Light. Front. Plant Sci. 2021, 12, 627311

Li, Q., Gao, Y., and Yang, A. 2020. Sulfur Homeostasis in Plants. Int. J. Mol. Sci, 21(23): 8926. doi: 10.3390/ijms21238926

Legaz, M.M., Ana, F., Blanca, P., Dolores, De Armas, Roberto, R., Carlos, S., María-TeresaV., and Carlos. 2006. Ultrastructural alterations of sugarcane leaves caused by common sugarcane pathogens. Belgian Journal of Botany. 139. 14-26. 10.2307/20794591.

Lingle, S. E., Viator, R. P., Johnson, R. M., Tew, T. L., Boykin, D. L. 2009. Recurrent Selection for Sucrose Content has Altered Growth and Sugar Accumulation in Sugarcane. Field Crops Research 113: 306–311. doi:10.1016/j.fcr.2009.06.015

Lisboa, I. P., Chaerubin, M. R., Limac, R. P., Cerri, C. C., Satiro, L. S., Wienhold, B. J., Schmer, M. R., Jind, V. L., Cerri, C. E. P. 2018. Sugarcane straw removal effects on plant growth and stalk yield. Industrial Crops & Products 111: 794–806. https://doi.org/10.1016/j.indcrop.2017.11.049

Lisowska, A., Filipek-Mazur, B., Kalisz, A., Gorczyca, O., and Kowalczyk, A. 2023. Changes in Soil Sulfate Sulfur Content as an Effect of Fertilizer Granules Containing Elemental Sulfur, Halloysite and Phosphate Rock. Agronomy, 13, 1410. https://doi.org/10.3390/agronomy13051410

Liu, D. 2021. Root developmental responses to phosphorus nutrition. J. Integr. Plant Biol. 63: 1065–1090. https://doi.org/10.1111/jipb.13090

Liu, Y., Beer, L. L., and Whitman, W. B., 2012. Minireview: Sulfur metabolism in archaea reveals novel processes. Enviromental Micro

Lofton, J., and Tubaña, B. 2015. Effect of nitrogen rates and application time on sugarcane yield and quality. J. Plant Nutr., 38, 161–176.

Lovera, L. H., de Souza, Z. M., Esteban, D. A. A., de Oliveira, I. N., Farhate, C. V. V., de Souza., Lima, E., and Panosso, A. R. 2021. Sugarcane root system: Variation over three cycles under different soil tillage systems and cover crops. Soil and Tillage Research 208 104866.

Luo, L., Zhang, Y., Xu, G. 2020. How does nitrogen shape plant architecture?. J Exp Bot., 71(15): 4415–4427. doi: 10.1093/jxb/eraa187

Majeed, A., Rashid, I., Niaz, A.,., Sameen, A., Al-Huqail, A. A., and Manzer H. Siddiqui, M. H. 2022. Balanced Use of Zn, Cu, Fe, and B Improves the Yield and Sucrose Contents of Sugarcane Juice Cultivated in Sandy Clay Loam Soil. Agronomy 12 (696): 1-11. https://doi.org/10.3390/agronomy12030696

Manuhuttu, A. P., Rehatta, H., dan Kailola, J.J.G. 2014. Pengaruh Konsentrasi Pupuk Hayati Bioboost terhadap Peningkatan Produksi Tanaman Selada (*Lactuca Sativa*. L). *Agrologia*, 3(1): 18-27. doi:10.30598/a.v3i1.256.

Manzoor, M.; Khan, M.Z.;Ahmad, S.; Alqahtani, M.D.; Shabaan, M.; Sarwar, S.; Hameed, M.A.; Zulfiqar, U.; Hussain, S.; Ali, M.F.; Ahmad, M.; Haider, F.U. 2023. Optimizing Sugarcane Growth, Yield, and Quality in Different Ecological Zones and Irrigation Sources Amidst Environmental Stressors. Plants 2023, 12 (20), 3526. https://doi.org/10.3390/plants12203526.

Mastur, Syafaruddin, dan Syakir, M. 2015. Peran dan Pengelolaan Hara Nitrogen pada Tanaman Tebu Untuk Peningkatan Produktivitas Tebu. Perspektif, 14(2):73-86. ISSN: 1412-8004

Marlina, Neni, Aminah, Raden Iin Siti, dan Setel, Lusdi Ramlan. 2015. Aplikasi pupuk kandang kotoran ayam pada tanaman kacang tanah (*Arachis hypogeae* L.). Biosaintifika: Journal of Biology & Biology Education, 7(2).

Martin JP, Abbott EV, Hughes CG. 1961. Sugar-cane diseases of the world. Vol. 1. Sugar-cane diseases of the world Vol 1.

Marzec, M., Melzer, M., and Szarejko, I. 2013. Asymmetric growth of root epidermal cells is related to the differentiation of root hair cells in *Hordeum vulgare* (L.). Journal of Experimental Botany, 64(16): 5145–5155. doi:10.1093/jxb/erT200

Mattiello, E. M., Ruiz, H. A., Neves, J. C., Ventrella, M. C., & Araújo, W. L. 2015. Zinc deficiency affects physiological and anatomical characteristics in maize leaves. *Journal of plant physiology*, *183*, 138–143. https://doi.org/10.1016/j.jplph.2015.05.014

Matsuoka, S., and Stolf, R. 2012. Sugarcane Tillering and Ratooning: Key Factors For a Profitable Cropping. Nova Science Publishers, Inc.

McCray, J. M. 2022. Potassium Fertilizer Recommendations for Sugarcane on Florida Mineral Soils. SS-AGR-468, Gainesville: University of Florida Institute of Food and Agricultural Sciences. https://doi.org/10.32473/edis-SC110-2022

Medina, N.H., Branco, M.L.T., da Silveira, M.A.G., Santos, R.B.B. 2013. Dynamic distribution of potassium in sugarcane. J Environ Radioact, 126:172–5. https://doi.org/10.1016/j.jenvrad.2013.08.004.

Mehmood, M. Z., Afzal, O., Ahmed, M., Qadir, G., Kheir, A. M. S., Aslam, M. A., Din, A. M. U., Khan, I., Hassan, M. J., Meraj, T. A., Raza, M. A., Ahmad, S. 2021. Can sulphur improve the nutrient uptake, partitioning, and seed yield of sesame?. Arabian Journal of Geosciences, 14(865): 1-15. https://doi.org/10.1007/s12517-021-07229-6

Mengel, K., & Kirkby, E. A. 2001. Principles of Plant Nutrition. Springer.

Miyashima, S. and Nakajima, K. 2011. The root endodermis a hub of developmental signals and nutrient flow. Plant Signaling & Behavior, 6(12): 1954-1958.

Moraes, E.R., Mageste, J.G., Lana, R.M.Q., Torres, J.L.R., Domingues, L.A.S., Lemes, E.M., Lima, L.C. 2019. Sugarcane Root Development and Yield Under Different Soil Tillage Practices. Rev Bras Cienc Solo, 43:e0180090. https://doi.org/10.1590/18069657rbcs20180090

Moreira, D.R., and Cardoso, V.J. 1997. Effect of Soil Moisture Content and The Irrigation Frequencyon Sugarcane Germination. Brazilian Agricultural Research Corporation.

Moreno-Lora, A., and Delgado, A. 2020. Factors determining Zn availability and uptake by plants in soils developed under Mediterranean climate. Geoderma, 376: 1-9. 114509. https://doi.org/10.1016/j.geoderma.2020.114509

Mualif, M.S., dan Kusumawati, A. 2021. Dampak Sifat Kimia Tanah Terhadap Produktivitas Tebu (Saccharum officinarum L.) Di Kulon Progo, Yogyakarta. *JPP,* 2(2): 66-72. ISSN 2549-144X http://ojs.polteklpp.ac.id/index.php/JPP/index

Mulyani, N.S., Suryadi, M.E., Dwinginsih, S., dan Haryanto. 2001. Dinamika Hara Nitrogen pada Tanah Sawah. Jurnal Tanah Dan Iklim, No.19. ISSN 1410-7244.

Mulyanti, D.R. 2019. Technical efficiency and Income Level of Sugarcane Farming in Pati Regency. J Agro Ekon. 37(2):95–112.

Muratore, C., Espen, L., Prinsi, B. 2021. Nitrogen Uptake in Plants: The Plasma Membrane Root Transport Systems from a Physiological and Proteomic Perspective. Plants (Basel), 10(4): 681. doi: 10.3390/plants10040681

Muslim, R. Q., Kricella, P., Pratamaningsih, M. M., Purwanto, S., Suryani, E., & Ritung, S. 2020. Characteristics of Inceptisols derived from basaltic andesite from several locations in volcanic landform. Sains Tanah, 17(2), 115–121. https://doi.org/10.20961/STJSSA.V17I2.38221

Muttaqin, L., Kastono, D., & Sulistyono, W. 2016. Pengaruh Jarak Tanam terhadap Pertumbuhan Awal Lima Klon Tebu (*Saccharum oficinarum* L.) Asal Bibit Mata Tunas Tunggal di Lahan Kering Alfisol Effect of Intra-Row Spacing on Early Growth of Bud Chip Seedlings of Five Sugarcane (*Saccharum officinarum* L). Vegetalika, 5(2), 49–61.

Mu, X., and Chen, Y. 2021. The physiological response of photosynthesis to nitrogen deficiency. *Plant Physiology and Biochemistry*, 158. 76-82. https://doi.org/10.1016/j.plaphy.2020.11.019

Narayan, O. P., Kumar, P., Yadav, B., Dua, M., and Johri, A. K. 2022. Sulfur nutrition and its role in plant growth and development. Plant signaling & Behavior, 18(1): 1-11. https://doi.org/10.1080/15592324.2022.2030082

Narulita, A. F., R. A. Widodo, dan M. R. Afany, M. 2023. Pengaruh pemberian pupuk bokashi dan zeolit sebagai bahan pembenah tanah terhadap ketersediaan nitrogen tanah Regosol. Jurnal Tanah dan Sumberdaya Lahan. 10(2): 245-253.

Nawaz, J., Hussain, M., Jabbar, A., Nadeem, G. A., Sajid, M., Subtain, M., & Shabbir, I. 2013. Seed Priming A Technique. International Journal of Agriculture and Crop Sciences, 6(20): 1373–1381.

Nurcahyo, Y., Hidayat, N., Perdana, R. S. 2018. Pemodelan Sistem Pakar untuk Identifikasi Hama Penyakit Tanaman Tebu dengan MetodeDempster-Shafer.

Jurnal Pengembangan Teknologi Informasi dan Ilmu Komputer, 2(3): 1187-1193. http://j-ptiik.ub.ac.id

Nurmala, T., Septian, F.I., Wahyudin, A., Wicaksono, F.Y. 2023. Effect of NPK fertilizer dose and GA3 concentration on growth, yield, and yield quality of Coix lacryma-jobi L. var. ma-yuen from ratoons. Jurnal Kultivasi Vol. 22(1): 101-107.

Oliveira, C.L.B.d., Cassimiro, J.B., Lira, M.V.d.S., Boni, A.d.S., Donato, N.d.L., Reis, R.d.A., Jr., Heinrichs, R. 2022. Sugarcane Ratoon Yield and Soil Phosphorus Availability in Response to Enhanced Efficiency Phosphate Fertilizer. Agronomy, 12, 2817. https://doi.org/10.3390/agronomy12112817

Pathak, S. K., Singh, P., Singh, M. M., and Sharma, B. L. 2019. Impact of temperature and humidity on sugar recovery in Uttar Pradesh. Sugar Tech. 21: 176-181.

Peng, J., Tang, J., Xie, S., Wang, Y., Liao, J., Chen, C., Sun, C., Mao, J., Zhou, Q., & Niu, S. (2024). Evidence for the acclimation of ecosystem photosynthesis to soil moisture. Nature communications, 15(1), 9795. https://doi.org/10.1038/s41467-024-54156-7

Petricka, J. J., Winter, C. M., and Benfey, P. N. 2012. Control of Arabidopsis root development. Annu. Rev. Plant Biol. 63, 563–590. https://doi.org/10.1146/annurev-arplant-042811-105501

Prasetya, B., S. Kurniawan, dan M. Febrianingsih. 2009. (*Brassica juncea* L.) pada Entisol. Jurnal Agritek 17 (5): 1022-1029.

Pratamaningsih, M. M., dan Mulyani, A. 2021. Characteristics and Land Potential for Sugarcane Development in Blitar Regency, East Java Province. IOP Conf. Ser.: Earth Environ. Sci. 648 012007. doi:10.1088/1755-1315/648/1/012007

Pusat Penelitian Tanah dan Agroklimat. 2000. Sumber Daya Lahan Indonesia Dan Pengelolaannya. Badan Penelitian Dan Pengembangan Pertanian Departemen Pertanian. Bogor.

Rahmayuni, E., Anwar, S., Nugroho, B. & Indriyati, L. T. (2023a). Characteristics of soil chemical properties associated with Inceptisols in various land use in Jasinga, Bogor. J.Trop Soils, 28(3), 89–97. DOI: https://doi.org/10.5400/jts. 2023.v28i3.89-97.

Rajamuddin, U. A., dan Sanusi, I. 2014. Karakteristik Morfologi dan Klasifikasi Tanah Inceptisol pada beberapa Sistem Lahan di Kabupaten Jeneponto Sulawesi Selatan. Agroland 21 (2): 81-8.

Rambwawasvika, H. and Mutatu, W. 2020. Zinc in Sugarcane Production: Factors Influencing its Uptake and Management Options for Alleviating Deficiencies. Proc S Afr Sug Technol Ass, 95 : 111-128.

Razaq, M., Zhang, P., Shen, H-L., Salahuddin. 2017. Influence of nitrogen and phosphorous on the growth and root morphology of Acer mono. PLoS One, 12(2): e0171321. doi: 10.1371/journal.pone.0171321

Riajaya, P. D., Kadarwati, F. T., Hariyono, B., Subiyakto, S., & Cholid, M. 2024. The distribution of rainfall in areas suitable for sugarcane farming in Blitar Regency, East Java. 1377, 012012. https://doi.org/10.1088/1755-1315/1377/1/012012

Rianditya, O.D. 2022. Pengaruh Pemberian Pupuk Fosfor Terhadap Pertumbuhan Vegetatif Tanaman Tebu Var. Bululawang Hasil Mutasi. *Berkala Ilmiah PERTANIAN, 5(1).* DOI: https://doi.org/10.19184/bip.v5i1.29677

Recena, R., García-López, A. M., & Delgado, A. 2021. Zinc Uptake by Plants as Affected by Fertilization with Zn Sulfate, Phosphorus Availability, and Soil Properties. *Agronomy*, *11*(2), 390. https://doi.org/10.3390/agronomy11020390

Rukmana, H.R. 2015. Untung Selangit dari Agribisnis Tebu. Yogyakarta: Andi. Edisi I

Sanches, G. M., Magalhães, P. S. G., Kolln, O. T., Otto, R., Rodrigues Jr, F., Cardoso, T. F., Chagas, M. F., and Franco, H. C. J. 2021. Agronomic, economic, and environmental assessment of site-specific fertilizer management of Brazilian sugarcane fields. Geoderma Regional (24): 1-11.

Santoso, B.B., dan Hariyadi. 2008. Metode Pengukuran Luas Daun Jarak Pagar (*Jatropa curcas* L.). Jurnal Ilmu-Ilmu Pertanian. 8 (1): 17-22.

Sarkar, S., Das, D. K., Singh, A., Laik, R., Singh, S. K., van Es, H. M., Krishnan, K., Singh, A. K., Das, A., Singh, U., Elansary, H. O., & Mahmoud, E. A. 2024. Seasonal variations in soil characteristics control microbial respiration and carbon use under tree plantations in the middle gangetic region. Heliyon, 10(16), e35593. https://doi.org/10.1016/j.heliyon.2024.e35593

Shabala, S. 2003. Regulation of Potassium Transport in Leaves: from Molecular to Tissue Level. Ann Bot, 92(5): 627–634. doi: 10.1093/aob/mcg191

Sharma, R. K., Cox, M. S., Oglesby, C., Dhillon, J. S. 2024. Revisiting the role of sulfur in crop production: A narrative review. Journal of Agriculture and Food Research, 15: 1-17. https://doi.org/10.1016/j.jafr.2024.101013

Shao Q, Wang H, Guo H, Zhou A, Huang Y, Sun Y and Li M, 2014. Effects of Shade Treatments on Photosinthetic Characteristics Chloroplast Ultrastructure and Physiology of Anoectochylus roxburgii. PloS one, 9(2),p.e85996.

Shukla, S. P., Jaiswal, V. P., Sharma, L., Gaur, A., Tiwari, R., & Srivastava, A. K. 2022. Growth Analysis in Sugarcane Ratoon Crop as Influenced by Potassium Nutrition in Subtropical India. *Communications in Soil Science and Plant Analysis*, *54*(1), 83–95. https://doi.org/10.1080/00103624.2022.2109665

Silva, M. d. A., Germino, G. H., de Holanda, L. A., Oliveira, L. C., Santos, H. L., & Sartori, M. M. P. 2022. Sugarcane Productivity as a Function of Zinc Dose and Application Method. *Agriculture*, *12*(11), 1843. https://doi.org/10.3390/agriculture12111843

Singh. A.K., M. Lal, and S.N. Singh. 2011. Agronomic performance of new sugarcane genotypes under different planting geometries and N levels. Indian Journal of Sugarcane Technology 26(1):6-9.

Siregar, Budiman. 2017. Analisa Kadar C-organik dan Perbandingan C/n Tanah di Lahan Tambak Kelurahan Sicanang Kecamatan Medan Belawan. Jurnal Warta Dharmawangsa, no. 53, SSN: 1829 – 7463.

Smith, D. M., Inman-Bamber, N.G., Thorburn, P.J. 2005. Growth and Function of The Sugarcane Root System. Field Crops Research 92, 169-183. doi:10.1016/j.fcr.2005.01.017

Soares, A. de A.V.L., Prado R. de M., Caione, G., Rodrigues, M., Pavinato, P.S., and Campos, C.N.S. 2021. Phosphorus Dynamics in Sugarcane Fertilized with Filter Cake and Mineral Phosphate Sources. Front. Soil Sci. 1:719651. doi: 10.3389/fsoil.2021.719651

Soltangheisi, A., Withers, P. J. A., Pavinato, P. S., Chaerubin, M. R., Rossetto, R., Do Carmo, J. B., da Rocha, G. C., Martinelli, L. A. 2019. Improving Phosphorus Sustainability of Sugarcane Production in Brazil. GCB Bioenergy, 11:1444–1455.

Soomro, A.F., S. Tunio, M.I.Keerio, I. Rajper, Q. Chachar, and M.Y. Arain. 2014. Effect of Inorganic NPK Fertilizers under Different Proportions on Growth, Yield and Juice Quality of Sugarcane (Saccharum officinarum L.). Pure Applied of Biology. 3 (1): 10-18. http://dx.doi.org/10.19045/bspab.2014.31002.

Sorin, C., Leport, L., Cambert, M., Bouchereau, A., Mariette, F., Musse, M. 2016. Nitrogen deficiency impacts on leaf cell and tissue structure with consequences

for senescence associated processes in Brassica napus. Bot Stud, 57: 11. doi: 10.1186/s40529-016-0125-y

Souza, L.A., and Tavares, R. 2021. Nitrogen and Stem Development: A Puzzle Still to Be Solved. Front Plant Sci, 12: 630587. doi: 10.3389/fpls.2021.630587

Sowiński, P., Bilska, A., Barańska, K., Fronk, J. and Kobus, P., 2007. Plasmodesmata density in vascular bundles in leaves of C4 grasses grown at different light conditions in respect to photosynthesis and photosynthate export efficiency. Environmental and experimental botany, 61(1), pp.74-84.

Srivastava, A.K., and Rai, M.K. 2012. A Review: Sugarcane production: Impact of climate change and its mitigation. Biodiversitas, 13(4): 214-227. DOI: 10.13057/biodiv/d130408.

Stranack, R.A. and Miles, N. 2011 Nitrogen Nutrition of Sugarcane on an Alluvial Soil on the Kwazulu-Natal North Coast: Effects on Yield and Leaf Nutrient Concentrations, Proc. S. Afr. Sug. Technol. Ass., pp. 198–209.

Supriyadi, Diana, N. E., dan Djumali. 2018. Pertumbuhan dan Produksi Tebu (Saccharum officinarum L.) pada Berbagai Paket Pemupukan di Lahan Kering Berpasir. Berita Biologi, 17(2): 147-165. DOI:10.14203/beritabiologi.v17i2.2287.

Sustr, M., Soukup, A., & Tylova, E. 2019. Potassium in Root Growth and Development. *Plants (Basel, Switzerland)*, *8*(10), 435. https://doi.org/10.3390/plants8100435

Syakir, M. 2018. Iklim Pertanian Indonesia. Edisi 1. IAARD Press. Jakarta.

Taiz, L., Zeiger, E., Moller, I.M., Murphy, A. 2017. Fisiologia e Desenvolvimento Vegetal, 6th ed.; Artmed: Prague, Czech Republic, ISBN 978-1-60535-255-8.

Tarigan, A.P., Supriadi, dan Lubis, A. 2018. Perubahan Beberapa Sifat Kimia Tanah Inceptisol dan Pertumbuhan Tanaman Jagung (Zea mays L.) Akibat Pemberian Kompos Kulit Durian dan Pupuk SP-36. Jurnal Pertanian Tropik, 5(3): 309-317. E-ISSN NO :2356- 4725. https://jurnal.usu.ac.id/index.php/Tropik.

Tsonev, T. and Cebola Lidon, F.J., 2012. Zinc in plants-an overview. Emirates Journal of Food & Agriculture (EJFA), 24(4).

Tyagi, V.K., Sharma, S., and Bhardwaj, S.B. 2013. Pattern of association among cane yield, sugar yield and their components in sugarcane (*Saccharum officinarum* L.). *J. Agric. Res*. 50:29-38.

Vandana, P., Singh, D., Srivastava, S., dan Guru, G.D.R. 2020. Effect of climate change on sugarcane crop: A review. Journal of Pharmacognosy and Phytochemistry, SP6: 255-261

Veneklaas, E. J. 2022. Phosphorus resorption and tissue longevity of roots and leaves – importance for phosphorus use efficiency and ecosystem phosphorus cycles. Plant Soil, 476:627–637. https://doi.org/10.1007/s11104-022-05522-1

Verma, K.K., Song, X-P., Zeng, Y., Li, D-M., Guo, D-J., Rajput, V.D., Chen, G-L., Barakhov, A., Minkina, T.M., Li, Y-R. 2020. Characteristics of Leaf Stomata and Their Relationship with Photosynthesis in Saccharum officinarum Under Drought and Silicon Application. ACS Omega 2020, 5, 24145−24153. https://dx.doi.org/10.1021/acsomega.0c03820

Wally, R.G., dan Seme, D. 2022. Efektivitas Pertumbuhan Bibit Tebu Lokal (*Saccharum officinarum* L.) Dengan Pucuk Metode Chip Dan Responsnya Terhadap Aplikasi Pupuk Nitrogen. *Jurnal Ekonomi dan Bisnis*, 14(2): 104-112. DOI : https://doi.org/10.55049/jeb.v14i1.125

Wang, J., Nayak, S., Koch, K., and Ming, R. 2013. Carbon Partitioning in Sugarcane (Saccharum species). Frontier in Plant Science, 4(201): 1-6.

Wang, M., Zheng, Q., Shen, Q., Guo, S. 2013. The critical role of potassium in plant stress response. Inter. J. Mol. Sci., 14: 7370–7390.

Wang, S., Guan, K., Wang, Z., Ainsworth, E.A., Zheng, T. 2021. Unique contributions of chlorophyll and nitrogen to predict crop photosynthetic capacity from leaf spectroscopy. Journal of Experimental Botany, 72 (2):341–354.

Wang, W., Li, C., Wang, K., Tang, L., Ndiluau, P.F., and Cao, Y. 2022. Sugarcane stem node detection and localization for cutting using deep learning. Front. Plant Sci. 13(1089961.): 1-13. doi:10.3389/fpls.2022.1089961

Weil, R.R. and Brady, N.C. 2017 The Nature and Properties of Soils. New York: 15th Edition, Pearson.

White, P. J. 2012. *Long-distance Transport in the Xylem and Phloem* (pp. 49–70). Academic Press. https://doi.org/10.1016/B978-0-12-384905-2.00003-0

Wu, Q., Zhou, W., Chen, D., Cai, A., Ao, J., and Huang, Z. 2020. Optimizing Soil and Fertilizer Phosphorus Management According to the Yield Response and Phosphorus Use Efficiency of Sugarcane in Southern China. Journal of Soil Science and Plant Nutrition. https://doi.org/10.1007/s42729-020-00236-8

Xu, F., Chu, C., and Xu, Z. 2020. Effects of different fertilizer formulas on the growth of loquat rootstocks and stem lignification. Sci Rep., 10: 1033. doi: 10.1038/s41598-019-57270-5

Xu, F., Wang, Z., Lu, G., Zeng, R., and Que, Y. 2021. Sugarcane Ratooning Ability: Research Status, Shortcomings, and Prospects. Biology, 10 (1052):1-13. https://doi.org/10.3390/biology10101052

Xu, X., Du, X., Wang, F., Sha, J., Chen, Q., Tian, G., Zhu, Z., Ge, S., and Jiang, Y., 2020. Effects of Potassium Levels on Plant Growth, Accumulation and Distribution of Carbon, and Nitrate Metabolism in Apple Dwarf Rootstock Seedlings. Front Plant Sci., volume 11. https://doi.org/10.3389/fpls.2020.00904

Yadav, B., Jogawat, A., Lal, S. K., Lakra, N., Mehta, S., Shabek, N., and Narayan, O. P. 2021. Plant mineral transport systems and the potential for crop improvement. Planta, 253:45. doi:10.1007/s00425-020-03551-7

Yan, B., Liu, H., He, F., Deng, G., Zheng, S., Cui, Z., Zhou, S., Dai, Y., Wang, X., Qin, S., Li, G., Li, L., & Li, B. 2024. Analysis and Testing of Pre-Cut Sugarcane Seed Stalk Sawing Performance Parameters. *Agriculture*, *14*(6), 953. https://doi.org/10.3390/agriculture14060953

Yang, J. T., Schneider, H. M., Brown, K. M., Lynch, J. P. 2019. Genotypic variation and nitrogen stress effects on root anatomy in maize are node specific. J Exp Bot., 70(19):5311-5325. doi: 10.1093/jxb/erz293

Yang, Z., Lu, C., & Zhang, Q. 2003. *Effects of potassium on sugar accumulation in sugarcane*. Field Crops Research, 83(3), 241–247.

Ye, J. Y., Tian, W. H., & Jin, C. W. 2022. Nitrogen in plants: from nutrition to the modulation of abiotic stress adaptation. *Stress Biology*, *2*(1). https://doi.org/10.1007/s44154-021-00030-1

Yusuf, M.T., Jamhari, J., Irham, I. 2020. Technical Efficiency of State-Owned Sugarcane Production in East Java. Agro Ekon. 31(1). doi:10.22146/ae.50004.

Zaheer, I. E., Ali, S., Saleem, M. H., Ali, M., Riaz, M., Javed, S., et al. 2020. Interactive role of zinc and iron lysine on spinacia oleracea l. growth, photosynthesis and antioxidant capacity irrigated with tannery wastewater. Physiol. Mol. Biol. Plants 26 (12): 2435–2452. doi:10.1007/s12298-020-00912-0

Zan, F., Zhang, Y., Wu, Z., Zhao, J., Wu, C., Zhao, Y., Chen, X., Zhao, L., Qin, W., Yao, L. 2020. Genetic analysis of agronomic traits in elite sugarcane (Saccharum spp.) germplasm. PLoS ONE, 16, e0253363.

Zeng, X. P., Zhu, K., Lu, J. M., Jiang, Y., Yang, L. T., Xing, Y. X., Li, Y.R. 2020. Long-Term Effects of Different Nitrogen Levels on Growth, Yield, and Quality in Sugarcane. Agronomy, 10 (353): 1-23. doi:10.3390/agronomy10030353

Zhang, L., Copini, P., Weemstra, M., Sterck, F. 2016. Functional ratios among leaf, xylem and phloem areas in branches change with shade tolerance, but not with local light conditions, across temperate tree species. New Phytologist, 209: 1566–1575 doi: 10.1111/nph.13731

Zhang, Y., Umeda, M., and Kakimoto, T. 2022. Review: Pericycle cell division competence underlies various developmental programs. Plant Biotechnology 39: 29–36. DOI: 10.5511/plantbiotechnology.21.1202a

Zhang, Y.M., Yang, L.T., Li, X., Li, Y.R. 2015. Effects of different nitrogen levels on key enzymes of nitrogen metabolism and contents of related active substances for three sugarcane varieties. J. South. Agric., 35, 556–563.

Zhanmu, O., Yang, X., Gong, H., Li, X. 2020. Paraffin-embedding for large volume bio-tissue. Nature, Scientific Reports, 10(12639):1-8. https://doi.org/10.1038/s41598-020-68876-5

Zivcak M, Brestic M, Balatova Z, Drevenakova P, Olsovska K, Kalaji HM, et al. Photosynthetic electron transport and specific photoprotective responses in wheat leaves under drought stress. Photosynthesis Research 2013; 117(1): 529–546. https://doi.org/10.1007/s11120-013-9885-3

Zuch, D. T., Doyle, S. M., Majda, M., Smith, R. S., Robert, S., and Torii, K. U. 2022. Review: Cell Biology of The Leaf Epidermis: Fate Specification, Morphogenesis, and Coordination. The Plant Cell, 34:209-227.