

DAFTAR PUSTAKA

- Azcon, R., Barea, J.M. 2010. Mycorrhizosphere interactions for legume improvement. In: Khanf M.S., Zaidi A., Musarrat J., editors. *Microbes for legume improvement*. Vienna: Springer: 2010. p. 237–71.
- Badan Pusat Statistika (BPS). 2024. Indikator iklim sleman 2023. <<https://slemankab.bps.go.id/indicator/151/108/1/indikator-iklim-sleman.html> />. Diakses 5 Mei 2024.
- Barea, J.M., Azcon, R., Azcon-Aguilar C. 2005. Interactions between mycorrhizal fungi and bacteria to improve plant nutrient cycling and soil structure. In: Buscot, F., Varma, A., editors. *Microorganisms in soils: roles in genesis and functions*. Berlin, Heidelberg: Springer- Verlag; p. 195–212.
- Basnayake, J., Fukai, S., and Ouk, M. 2006. “Contribution of potential yield, drought tolerance and escape to adaptation of 15 rice varieties in rainfed lowlands in Cambodia,” in *Groundbreaking stuff. (Warragul town, Victoria, Australia: Australian Society of Agronomy Inc, Proceedings of the 13th Australian Agronomy Conference)*. 10–14.
- Begum S., Ahmed A., Omy S.H., Rohman M.M., Amiruzzaman M. 2016. Genetic variability, character association and path analysis in maize (*Zea mays* L.). Bangladesh J Agri Res. 41(1); 173–182.
- Berger, F., Gutjahr, C. 2021. Factors affecting plant responsiveness to arbuscular mycorrhiza. *Plant Biology*. 59; 101994
- Bernier, J., Atlin, G.N., Serraj, R., Kumar, A., Spaner D. 2008. Breeding upland rice for drought resistance. *Journal of the Science Food and Agriculture*. 88; 39–927.
- Bouman, B. A. M., Peng, S., Castañeda, A. R., and Visperas, R. M. 2005. Yield and water use of irrigated tropical aerobic rice systems. *Agric. Water Management*. 74; 87–105.
- Bouman, B. 2007. *Water Management in Irrigated Rice: Coping with Water Scarcity*; Int. Rice Res. Inst.: Metro Manila, PA, USA.
- Brundrett, M.C., Bougher, N., Dells, B., Grove, T., Malajczuk N. 1996. Working with Mycorrhizas in Forestry and Agriculture. Canberra: *Australian Centre for International Agricultural Research*.
- Cameron, D. D., Neal, A. L., van Wees, S. C. M., & Ton, J. 2013. Mycorrhiza-induced resistance: More than the sum of its parts? *Trends in Plant Science*. 18(10); 539–545.
- Cotton, T. E. A. 2018. Arbuscular mycorrhizal fungal communities and global change: An uncertain future. *FEMS Microbiology Ecology*. 94(11).

- Davatgar, N., Neishabouri, M. R., Sepaskhah, A. R., and Soltani, A. 2009. Physiological and morphological responses of rice (*Oryza sativa* L.) to varying water stress management strategies. *Int. J. Plant Prod.* 3; 1735–8043.
- Florian Berger., Caroline Gutjahr. 2021. Factors affecting plant responsiveness to arbuscular mycorrhiza. *Plant Biology*. 59; 101–994.
- Fukai, S., Cooper, M. 1995. Development of drought-resistant cultivars using physiomorphological traits in rice. *Field Crops Res.* 40; 67–86.
- Gowda, V. R., Henry, A., Yamauchi, A., Shashidhar, H., Serraj, R. 2011. Root biology and genetic improvement for drought avoidance in rice. *Field Crop. Res.* 122; 1–13.
- Grace, E. J., Cotsaftis, O., Tester, M., Smith, F. A., Smith, S.E. 2009. Arbuscular mycorrhizal inhibition of growth in barley cannot be attributed to extent of colonization, fungal phosphorus uptake or effects on expression of plant phosphate transporter genes. *New Phytol.* 181; 938–949.
- Gupta, P.C., O'Toole, J.C. 1986. *Upland Rice: A Global Perspective* (Los Banos, Philippines: International Rice Research Institute).
- Hallama, M., Pekrun, C., Lambers, H., Kandeler, E. 2019. Hidden miners—the roles of cover crops and soil microorganisms in phosphorus cycling through agroecosystems. *Plant Soil*. 434; 7–45.
- Harley, J. L., M. S. Smith. 1983. *Mycorrhizal Symbiosis*. Academic Press, Inc. New York.
- Hasanah, B., Purnamaningsih, S.L., 2019. Korelasi dan Sidik Lintas Komponen Hasil dan Hasil Bayam Merah (*Amaranthus tricolor* L.). *Jurnal Produksi Tanaman*. 7; 766–774.
- Hsiao, T. C., Fereres, E., Acevedo, E., and Henderson, D. W. 1976. Water stress and dynamics of growth and yield of crop plants. *Water Plant Life*, 281–305.
- Hussain, M., Farooq, S., Hasan, W., Ul-Allah, S., Tanveer, M., Farooq, M., et al. 2018. Drought stress in sunflower: physiological effects and its management through breeding and agronomic alternatives. *Agric. Water Manag* 201; 152–166.
- Ilag, L., Rosales, A., Elazegvi, F., Mew, T. 1987. Changes in the population of infective endomycorrhizal fungi in a rice based cropping system. *Plant Soil*. 103; 67–73.
- International Rice Research Institute. 1995. “Fragile lives in fragile ecosystems,” in “Fragile lives in fragile ecosystems (Los Banãos, Laguna, Philippines: International Rice Research Institute). Available at: https://www.cabdirect.org/cabdirect/abstract/19986771000_

IIRRI (International Rice Research Institute). 1980. Descriptors for (*Oryza sativa* L). Manila, Philippines.

Jongdee, B., Fukai, S., Cooper, M. 2002. Leaf water potential and osmotic adjustment as physiological traits to improve drought tolerance in rice. *Field Crops Res.* 76; 153–63.

Kabirun, S., J. Widada. 1995. Response of soybean grown on acid soil to inoculation of vesicular-arbuscular mycorrhizal fungi. *Biotrop Spec.* 56; 131–137. Biology and Biotechnology of Mycorrhizae.

Kamoshita A, Babu RC, Boopathi NM, Fukai S. 2008. Phenotypic and genotypic analysis of drought- resistance traits for development of rice cultivars adapted to rainfed environments. *Field Crops Res.* 109; 1–23.

Khush, G. 2003. Productivity improvements in rice. *Nutr Rev.* 61; 6–114.

Kim, Y., Chung, Y. S., Lee, E., Tripathi, P., Heo, S., and Kim, K. H. 2020. Root response to drought stress in rice (*Oryza sativa* L.). *Int. J. Mol. Sci.* 21; 13–15.

Kumar, R., Sarawgi, A. K., Ramos, C., Amarante, S. T., Ismail, A. M., and Wade, L. J. 2006. Partitioning of dry matter during drought stress in rainfed lowland rice. *Field Crops Res.* 96; 455–465.

Lendenmann, M., Thonar, C., Barnard, R. L., Salmon, Y., Werner, R.A., Frossard, E., Jansa, J., Harrison, M. J. 2011. Symbiont identity matters: carbon and phosphorus fluxes between *Sorghum bicolor* and different arbuscular mycorrhizal fungi. *Journal of Tropical Mycorrhiza.* 21; 689-702.

Lynch, J. P. 2007. Roots of the Second Green Revolution. *Aust. J. Bot.* 55; 493–512.

Lynch, J. 1995. Root Architecture and Plant Productivity. *Plant Physiol.* 109; 7–13.

Lyu, J., Li, B., He, W., Zhang, S., Gou, Z., Zhang, J., Meng, L., Li, X., Tao, D., Huang, W. 2014. A genomic perspective on the important genetic mechanisms of upland adaptation of rice. *BMC Plant Biology.* 14; 160.

Lyu, J., Huang, L., Zhang, S., Zhang, Y., He, W., Zeng, P., Zeng, Y., Huang, G., Zhang, J., Ning, M., Bao, Y., Zhao, S., Fu, Q., Wade, L.J., Chen, H., Wang, W., Hu, F., 2020. Neo-functionalization of a Teosinte branched 1 homologue mediates adaptations of upland rice. *Nat. Commun.* 11(1); 725.

Maclea, J., Dawe, D., Hardy, B., Hettel, G. 2002. Rice almanac. 3rd ed. Wallingford, Oxon: CABI Publishing.

Makarim, A. K., dan E. Suhartatik. 2009. Morfologi dan Fisiologi Tanaman Padi. Balai Besar Penelitian Tanaman Padi.

Makarim, A. K., E. Suhartatik., dan A. Kartohardjono. 2007. Silikon: hara penting pada sistem produksi padi. *Iptek Tanaman Pangan* 2 (2); 195–210.

- Mangoendidjojo, W. 2003. Dasar-dasar Pemuliaan Tanaman. Kanisiun. Yogyakarta.
- Marschner H., Dell B. 1994. Nutrient uptake in mycorrhizal symbiosis. *Plant Soil*. 159; 89–102.
- Mishra, S. S., Behera, P. K., and Panda, D. 2019. Genotypic variability for drought tolerance-related morpho-physiological traits among indigenous rice landraces of jeypore tract of odisha, India. *J. Crop Improv.* 33; 254–278.
- Mishra, S. S., Panda, D. 2017. Leaf traits and antioxidant defense for drought tolerance during early growth stage in some popular traditional rice landraces from koraput, India. *Rice Sci.* 24; 207–217.
- Mortazavian, S.M.M., Azizi-Nia, S. 2014. Nonparametric stability analysis in multi-environment trial of canola. *Turk. J. Field Crops*. 19; 108–117.
- Nouri, E., Breuillin-Sessoms, F., Feller, U., Reinhardt, D. 2014. Phosphorus and nitrogen regulate arbuscular mycorrhizal symbiosis in *Petunia hybrida*. *PLoS ONE*. 9; e90841.
- OECD. 2016. Revised Consensus Document on Compositional Consideration for New Varieties of Rice (*Oryza sativa*): Key Food and Feed Nutrient, Anti-nutrients and Other Constituents. *Series on the Safety of Novel Foods and Feeds*. No. 28. OECD Publishing, Paris.
- Oehl, F., Laczko, E., Bogenrieder, A., Stahr, K., Bösch, R., van der Heijden, M., & Sieverding, E. 2010. Soil type and land use intensity determine the composition of arbuscular mycorrhizal fungal communities. *Soil Biology and Biochemistry*. 4; 724–738.
- Ogunbayo, S. A., Ojo, D.K., Sanni, K.A., Akinwale, M.G., Toulou, B., Gregorio, G.B. 2014. Genetic variation and heritability of yield and related traits in promising rice genotypes (*Oryza sativa* L.). *J. Plant Breed Crop Sci.* 6(11); 153-159.
- Palanog, A. D., Swamy, B. M., Shamsudin, N. A. A., Dixit, S., Hernandez, J. E., Boromeo, T. H., Cruz, P. C. S., Kumar, A. 2014. Grain yield QTLs with consistent-effect under reproductive-stage drought stress in rice. *Field Crop. Res.* 161; 46–54.
- Panda, D., Mishra, S. S., and Behera, P. K. 2021. Drought tolerance in rice: focus on recent mechanisms and approaches. *Rice Sci.* 28 (2); 119–132.
- Rahman, M. T., Islam, M. T., and Islam, M. O. 2002. Effect of water stress at different growth stages on yield and yield contributing characters of transplanted aman rice. *Pak. J. Biol. Sci.* 5; 169–172.
- Rakotoarivelo, Njaramanana, N. M., Rahetlah, V. B., Trap, J, Autfray, P. 2022. Field arbuscular mycorrhizal inoculation increased plant performance without

phosphorus fertilizer supply of four promoted upland rice varieties in Madagascar. *Experimental Agriculture*. 58; e57.

- Rhodes L.H., Gerdemann JW. 1980. Nutrient translocation in vesicular-arbuscular mycorrhizae. In: Cook CB, Pappas PW, Rudolph ED (eds) Cellular interactions in symbiosis and parasitism. Ohio State University Press, Columbus, pp 173–195.
- Robert, L. A. 2017. Mycorrhizae in the Landscape. <https://ag.arizona.edu/yavapai/anr/hort/byg/archive/mycorrhizaeinthelandscape2017.html>. Last Update: September 5, 2017.
- Rosadi, F. N. 2013. Studi Morfologi dan Fisiologi Padi (*Oryza sativa* L.) Toleran Kekeringan. Bogor: Tesis. Agronomi dan Hortikultura Institut Pertanian Bogor.
- Ruiz-Sanchez, M., Aroca, R., Munoz, Y., Polon, R., Ruiz-Lozano J.M. 2010. The arbuscular mycorrhizal symbiosis enhances the photosynthetic efficiency and the antioxidative response of rice plants subjected to drought stress. *Journal Plant Physiology*. 167; 9–862.
- Salisbury, F.B., Ross, C. W. 1995. Fisiologi Tumbuhan. Institut Teknologi Bandung. Bandung. 241 hlm.
- Serraj, R., Krishnamurthy, L., Kashiwagi, J., Kumar, J., Chandra, S., Crouch, J. 2004. Variation in root traits of chickpea (*Cicer arietinum* L.) grown under terminal drought. *Field Crop. Res.* 88; 115–127.
- Shi, G., Liu, Y., Johnson, N. C., Olsson, P. A., Mao, L., Cheng, G. 2014. Interactive influence of light intensity and soil fertility on root-associated arbuscular mycorrhizal fungi. *Plant Soil*. 378; 173–188.
- Siddique, K. H. M., Belford, R. K., & Tennant, D. 1990. Root-shoot ratios of old and modern, tall and semidwarf wheats in a mediterranean environment. *Plant and Soil*. 121(1); 89–98.
- Sieverding, E. 1991. Vesicular Arbuscular Mycorrhiza Management in Tropical Agrosystems. Deutsche Gesellschaft fur Technische Zusammenarbeit. Germany.
- Simanungkalit, R.D.M. 2006. Pupuk Organik dan Pupuk Hayati. Balai Besar Litbang Sumberdaya Lahan Pertanian Badan Penelitian dan Pengembangan Pertanian. Jawa Barat.
- Smith, F. A., Grace, E. J., & Smith, S. E. 2009. More than a carbon economy: Nutrient trade and ecological sustainability in facultative arbuscular mycorrhizal symbioses. *New Phytologist*. 182(2); 347–358.
- Smith, S.E., Jakobsen, I., Grønlund, M., Smith, F.A. 2011. Roles of arbuscular mycorrhizas in plant phosphorus nutrition: Interactions between pathways of phosphorus uptake in arbuscular mycorrhizal roots have important implications

- for understanding and manipulating plant phosphorus acquisition. *Plant Physiol.* 156; 1050–1057.
- Smith, S. E., Smith, F. A. 2011. Roles of arbuscular mycorrhizas in plant nutrition and growth: new paradigms from cellular to ecosystem scales. *Annu. Rev. Plant Biology.* 62; 227–250.
- Sofiari, E., Kirana, R. 2009. Analisis pola segregasi dan distribusi beberapa karakter cabai. *J. Hortikultura.* 19(3); 255-263.
- Suardi. 2002. Perakaran Padi Dalam Hubungannya Dengan Toleransi Tanaman Terhadap Kekeringan Dan Hasil. *Jurnal Litbang Pertanian*, 21(3); 105.
- Suhartatik. 2008. Morfologi dan Fisiologi Tanaman Padi. <http://www.google.com/url.litbang.deptan.go.id%spesial%padi2009>. Diakses 28 Maret 2022.
- Thirkell, T.J., Pastok, D., Field, K.J. 2020. Carbon for nutrient exchange between arbuscular mycorrhizal fungi and wheat varies according to cultivar and changes in atmospheric carbon dioxide concentration. *Glob Chang Biol.* 26(3); 1725-1738.
- Uga, Y., Okuno, K., Yano, M. 2011. Dro1, a major QTL involved in deep rooting of rice under upland field conditions. *J. Exp. Bot.* 62; 2485–2494.
- Vallino, M., Greppi, D., Novero, M., Bonfante. P., Lupotto, E. 2009. Rice root colonisation by mycorrhizal and endophytic fungi in aerobic soil. *Annals of Applied Biology.* 154; 195–204.
- Venuprasad, R., Lafitte, H. R., and Atlin, G. N. 2007. Response to direct selection for grain yield under drought stress in rice. *Crop Sci.* 47; 285–293.
- Wang, H. 2006. Yamauchi, A. Growth and function of roots under abiotic stress soils. In *Plant-Environmental Interactions*, 3rd ed., Huang, B., Ed., CRC Press: New York, NY, USA, pp. 271–320.
- Winata, N. A., Basunanda, P., dan Supriyanta. 2014. Tanggapan dua puluh lima kultivar padi (*Oryza sativa* L.) terhadap infeksi cendawan mikoriza arbuskular. *Jurnal Vegetalika.* 3(3); 38–48.
- Xia, H., Zhen, X., Chen, L., Gao, H., Yang, H., Long, P., Rong, J., Lu, B., Li, J., and Luo, L. 2014. Genetic differentiation revealed by selective loci of drought responding EST-SSRs between upland and lowland rice in China. *PLoS One.* 9; 106–352.
- Yan, W, Rajcan, I. 2002. Biplot analysis of test sites and trait relations of Soybean in Ontario. *Crop Sci.* 42.
- Yan, W., Hunt, L.A., Sheng, Q., Szlavniks, Z. 2000. Cultivar Evaluation and Mega-Environment Investigation Based on the GGE Biplot. *Crop Sci.* 40; 597–605.

- Yang, H., Zhang, Q., Dai, Y., Liu, Q., Tang, J., Bian, X., Chen, X. 2015. Effects of arbuscular mycorrhizal fungi on plant growth depend on root system: a meta-analysis. *Plant Soil*. 389; 361–374.
- Zhu, R., Wu, F., Zhou, S., Hu, T., Huang, J., and Gao, Y. 2020. Cumulative effects of drought–flood abrupt alternation on the photosynthetic characteristics of rice. *Environ. Exp. Bot*. 169; 1–14.
- Zhu, Y. G., Smith., S. E., Barrit, A. R., Smith, F. A. 2001. Phosphorus (P) efficiencies and mycorrhizal responsiveness of old and modern wheat cultivars. *Plant and Soil*. 237; 25–249.