

DAFTAR PUSTAKA

- Alwi, M., S. Sabihah, S. Anwar, Suwarno & Achmadi. 2010. Pelindian tanah Belandean Kalimantan Selatan pada beberapa kondisi potensial redok menggunakan sumber air insitu. *J. Tanah dan Iklim*. 32: 83-94.
- Alwi, M. & D. Nazemi. 2013. Pengaruh pengelolaan air dan pemberian pupuk terhadap hasil padi di lahan pasang surut. *Jurnal Tanah dan Iklim*. 37 (2): 111-117.
- Alwi, M. 2014. Prospek lahan pasang surut untuk tanaman padi. In: *Prosiding Seminar Nasional Inovasi Teknologi Pertanian Spesifik Lokasi*. 45-59.
- Anderson, W.C. 1993. *Innovative Site Remediation Technology*. American Academy of Enviromental Engineers. USA.
- Annisa, W & D. Nursyamsi. 2016. Iron dynamics and its relation to soil redox potential and plant growth in acid sulphate soil of south kalimantan, indonesia. *Indonesian Journal of Agricultural Science*. 17 (1): 1-8.
- Annisa, W & H. Subagio. 2016. Analisis profil pengaruh bahan organik terhadap konsentrasi besi ferro dan serapannya di lahan rawa pasang surut. *Informatika Pertanian*. 25 (2): 241 – 248.
- Anwar, K., S. Sabihah, B. Sumawinata, A. Sapei & T. Alihamsyah. 2006. Pengaruh kompos jerami terhadap kualitas tanah, kelarutan Fe^{2+} dan SO_4^{2-} serta produksi padi pada tanah sulfat masam. *Jurnal Tanah dan Iklim*. 24: 29-39.
- Arsyad, DM., B.B. Saidi & Enrizal. 2014. Pengembangan Inovasi pertanian di lahan rawa pasang surut mendukung kedaulatan pangan. *Pengembangan Inovasi Pertanian*. 7 (4): 169-176.
- Ar-Riza, I., M. Alwi & Nurita. 2015. Peningkatan hasil padi di tanah sulfat masam melalui kombinasi perlakuan lindi dan olah tanah. *J. Agron. Indonesia* 43 (2): 105-110.
- Asch F, M Becker & DS Kpongkor. 2005. A quick and efficient screen for resistance to iron toxicity in lowland rice, *J. Plant Nutr. Soil Sci*. 168: 764-773.
- Audebert, A., and K.L. Sahrawat. 2000 Mechanisms for iron toxicity tolerance in lowland rice. *J. Plant Nutr*. 23: 1877–1885.
- Audebert A. 2006. Iron partitioning as a mechanism for iron toxicity tolerance in lowland rice. In: Audebert A. LT Narteh. D Millar. B Beks (Eds). *Iron Toxicity in Rice-Base System in West Africa*. Africa Rice Center (WARDA). 34-46.
- Aung M.S. & H. Masuda. 2020. How does rice defend against excess iron?: physiological and molecular mechanisms. *Frontier in Plant Sci*. 11: 1102
- Balai Penelitian Tanah. 2005. *Petunjuk Analisis Kimia Tanah, Tanaman, Air, Dan Pupuk*. Balai Penelitian Tanah. Bogor.
- Breemen, N.V. & P. Buurman. 2002. *Soil Formation*, 2nd edition. Kluwer Academic Publisher. Dordrecht. USA. 404 p.
- BPS. 2019. *Statistik Indonesia 2019*. Badan Pusat Statistik. Jakarta
- Barker, A. V. & D. J. Pilbeam. 2007. *Handbook of plant nutrition*. Taylor and Francis Group. Boca Raton-London-New York. 613 p.
- Becker, M. & F. Asch. 2005. Iron toxicity in rice condition and management concept. *Journal of Plant Nutrition and Soil Science*. 168: 558-573.

- Cai, M. Z., A. C. Luo, X. Y. Lin & Y. S. Zhang. 2003. Nutrient uptake and partitioning in rice plant under excessive Fe^{2+} stress. J. Zhejiang Univ. (Agric. & Life Sci.). 29 (3): 305-310.
- Chen, S., X. Zhang, G. Zhang, D. Wang & C. Xu. 2012. Grain yield and dry matter accumulation response to enhanced panicle nitrogen application under different planting methods (*Oryza sativa* L.), AJCS 6 (12):1630-1636.
- De Datta, S.K. 1981. Principle and Practice of Rice Production. New York. John Willey and Sons. Singapore. 618 p.
- Doberman A & Fairhurst T. 2000. Rice Nutrition Disorder and Nutrient Management. International Rice Research Institute and Potash dan Phosphate Institute of Canada.
- Dorlodot, S., S. Lutts, and P. Bertin. 2005. Effect of ferrous iron toxicity on the growth and mineral competition of and interspecific rice. J. Plant Nutr. 28 (1): 1-20.
- Fageria, N.K., A.B. Santos, M.P. Barbosa Filho & C.M. Guimarães. 2008. Iron Toxicity in Lowland Rice. Journal of Plant Nutrition, 31(9): 1676–1697.
- Fahmi, A., B. Radjagukguk & B. H. Purwanto. 2011. The leaching of iron and loss of phosphate in acid sulphate soil due to rice straw and phosphate fertilizer application. J Trop Soils, 17 (1): 19-24.
- Fahmi, A & I. Khairullah. 2018. Ameliorasi Tanah Sulfat Masam untuk Budidaya Padi. Badan Penelitian dan Pengembangan Pertanian. Jakarta.
- Gao, P., G. Zheng, Y.H. Wu & P. Liu. 2014. Effect of exogenous potassium on photosynthesis and antioxidant enzymes of rice under iron toxicity. Russ. J. Plant Physiol. 61: 47-52.
- Hanum, C. 2008. Teknik Budidaya Tanaman Jilid 2. Departemen Pendidikan Nasional. Jakarta. 423 p.
- Haryono, M. Noor, H. Syahbuddin & M. Sarwani. 2013. Lahan Rawa Lumbung Pangan Masa Depan Indonesia. Badan Litbang Pertanian. Jakarta.
- Havlin, J.L., J.D. Beaton, S.L. Tisdale & W.L. Nelson. 1999. Soil Fertility and Fertilizers. Prentice-Hall, Inc. Simon & Schuster/A Viacom Company. Upper Saddle River, New Jersey. 499 p.
- Herviyanti, Teguh Budi Prasetyo, Fachri Ahmad & Amrizal Saidi. 2013. Humic acid and water management to decrease ferro (Fe^{2+}) solution and increase productivity of established new rice field. J Trop Soils. 17 (1): 9-17.
- Imanudin, M.S. & E. Armanto. 2012. Effect of water management improvement on soil nutrient content, iron and aluminum solubility at tidal low land area. APCBEE Procedia, 4: 253 – 258.
- IRRI. 2001. Morphology Of The Rice Plant. Rice Production Training Modules. Int. Ric Res Inst. Los Banos, The Philippines. 28 p.
- Jumberi, A., A. Fahmi, and A. Susilawati. 2007. Potensi pengelolaan jerami dan penggunaan varietas unggul adaptif sebagai komponen teknologi peningkatan produktivitas tanah sulfat masam. In: Prosiding Seminar Nasional Sumber Daya Lahan Pertanian. Bogor, 14 – 15 September 2006. Buku III. Balai Besar Sumberdaya Lahan Pertanian. Badan Litbang Pertanian. 305-314.

- Khairullah I, D. Indradewa, P. Yudono & A. Maas. 2011. Pertumbuhan dan hasil tiga varietas padi pada perlakuan kompos jerami dan purun tikus (*Eleocharis Dulcis*) di tanah sulfat masam yang berpotensi keracunan besi. *Agroscientiae* 18 (2): 108-115.
- Khairullah, I., L. Indrayati, A. Hairani & A. Susilawati. 2011. Pengaturan waktu tanam dan tata air untuk mengendalikan keracunan besi pada tanaman padi di lahan rawa pasang surut sulfat masam potensial tipe B. *Jurnal Tanah Dan Iklim*, Edisi Khusus Rawa. 13–24.
- Khairullah, I. & M. Noor. 2018. Upaya peningkatan produktivitas padi melalui pemupukan di lahan pasang surut sulfat masam. *Jurnal Pertanian Agros*. 20 (2): 123-133
- Kim, S.A. & M.L. Guerinot. 2007. Mining iron: iron uptake and transport in plants. *FEBS Letters*. 581: 2273-2280.
- Li, H., X. Yang & A. Luo. 2001. Ameliorating effect of potassium on iron toxicity in hybrid rice. *J. Plant Nutr.* 24 (12): 1849-1860.
- Li, G., H.J. Kronzucker & W. Shi. 2016. The Response of the Root Apex in Plant Adaptation to Iron Heterogeneity in Soil. *Frontier in Plant Science*. 7 (344): 1–7.
- Maftu'ah, E. & A. Susilawati. 2018. Bioleaching untuk meningkatkan produktivitas lahan sulfat masam aktual untuk tanaman padi. *Berita Biologi*. 13 (3): 253-264
- Mahender, A., B.P.M. Swamy, A. Anandan & J. Ali. 2019. Tolerance of iron-deficient and -toxic soil conditions in rice. *Plants* 8 (31): 1–34.
- Majerus, V., P. Bertin & S. Lutts. 2007a. Effects of iron toxicity on osmotic potential, osmolytes and Polyamines concentrations in the African rice (*Oryza glaberrima* Steud). *Plant Science*. 173: 96-105.
- Majerus, V., P. Bertin, V. Swenden, A. Fortemps, S. Lobreaux & S. Lutts. 2007b. Organ-dependent responses of the African rice to short-term iron toxicity: ferritin regulation and antioxidative responses. *Biol. Planta*. 51: 303–331.
- Makarim, A. K & E. Suhartatik. 2009. Morgologi dan Fisologi Tanaman Padi. *Jurnal Balai Besar Penelitian Tanaman Padi*. 295-330.
- Marschner, P. 2012. *Mineral Nutrition of Higher Plants Third Edition*. Elsevier Academic Press. Amsterdam. 651 p.
- Mashud, N. 2007. Stomata dan khlorofil dalam hubungannya dengan produksi kelapa. *Buletin Palma*. 31: 52-59.
- Mehraban P, Zadeh A.A. & Sadeghipour H.R. 2008. Iron toxicity in rice (*Oryza sativa* L) under different potassium nutrition. *Asian J. of Plant Sci*. 7 (3): 251-259.
- Meloto, M., W. Underwood & S.Y. He. 2008. Role of stomata in plant innate immunity and foliar bacterial diseases. *Annu Rev Phytopathol*. 46: 101–122.
- Muhrizal, S., M. Lande, & W. Andriesse. 1993. Farmers' experiences in using acid sulphate soils: some examples from tidal swampland of southern Kalimantan, Indonesia. *In: Dent, D.L., M.E.F. Van Mensvoort (Eds). Selected Papers of the Hoi Chi Minh City Symposium on Acid Sulphate Soil*, International Institute for Land Reclamation and Improvement, Wageningen, The Netherlands. ILRI Publ. 53: 113-122.

- Muhrizal, S., J. Shamshuddin, Fauziah, & M.A.H. Husni. 2006. Changes in iron-poor acid sulphate soil upon submergence. *Geoderma*. 131: 110-122.
- Noor, M., A. Maas & T. Notohadikusumo. 2008. Pengaruh pengeringan dan pembasahan terhadap sifat kimia tanah sulfat masam Kalimantan. *J. Tanah dan Iklim*. 27: 33-44.
- Noor A., I.Lubis, M. Ghulamahdi, M. A. Chozin, K. Anwar, & D. Wirnas. 2012. Pengaruh konsentrasi besi dalam larutan hara terhadap gejala keracunan besi dan pertumbuhan tanaman padi. *J. Agronomi Indonesia*. 15 (2): 91-98.
- Noor, M. & A. Rahman. 2015. Biodiversitas dan kearifan lokal dalam budidaya tanaman pangan mendukung kedaulatan pangan: Kasus di lahan rawa pasang surut. *Pros Sem Nas Masy Biodiv Indon*. 1 (8): 1861-1867.
- Nozoe, T, Y. Fukuta, R. Agrisiti, R. Rodriguez & S. Yanagihara. 2008. Characteristics of iron tolerance rice lines developed at IRRI under field condition. *JARQ*. 42: 187-192.
- Nursyamsi, D, S. Raihan, M. Noor, K. Anwar, M.Alwi, E. Maftuah, I. Khairullah, et al. 2014. Pedoman Umum Pengelolaan Lahan Sulfat Masam Untuk Pertanian Berkelanjutan. Jakarta: Badan Penelitian dan Pengembangan Pertanian.
- Onaga, G., R. Edema & G. Asea. 2013. Tolerance of rice germplasm to iron toxicity stress and the relationship between tolerance, Fe^{2+} , P and K content in the leaves and roots. *Archives of Agronomy and Soil Science* 59 (2): 213–29.
- Peng, X. X. & M. Yamauchi. 1995. Ethylene production in rice bronzing leaves induced by ferrous iron. *Plant Soil*. 149: 227-234.
- Pereira, E.G., M.A. Oliva, L. Rosado-Souza, G.C. Mendes, D.S. Colares, C.H. Stopato & A.M. Almeida. 2013. Iron excess affects rice photosynthesis through stomatal and non-stomatal limitations. *Plant Sci*. 201-202:81-92.
- Ponnamperuma. 1977. Behavior of minor elements in paddy soils. IRRI Res. Paper Series. 15p.
- Prasetyo, T.B., Ruhaimah, S.A. Wardhana. 2006. Pengaruh pengelolaan air terhadap konsentrasi besi (Fe) Pada sawah bukaan baru. *J. Solum*. 3 (1): 8 –18
- Reddy, K.R. & R.D. DeLaune. 2008. *The Biogeochemistry of Wetlands ; Science and applications*. CRC Press. New York, USA. 779 p.
- Reyt, G., S. Boudouf, J Boucherez & J. Briat. 2015. Iron- and ferritin-dependent reactive oxygen species distribution : impact on arabidopsis root system architecture. *Molecular Plant* 8: 439–53.
- Sahrawat, K. L. 2000. Elemental composition of the rice plant as affected by iron toxicity under field condition. *Commun. Soil Sci. Plant Anal*. 31(17/18): 2819–2827.
- Sahrawat, K.L. 2004. Iron Toxicity in wetland rice and the roel of other nutriens. *J. of Plant Nutriton*. 27:147-1504.
- Shamshuddin, J., M. Syarwani, S. Fauziah & I. Van Ranst. 2004. A Laboratory study on pyrite oxidation in acid sulphate soils. *Soil. Sci. Plant Anal*. 35 (1&2). 117–129.
- Saikia, T & K.K. Baruah. 2012. Iron toxicity tolerance in rice (*Oryza sativa*) and its association with anti-oxidative enzyme activity. *Journal of Crop Science*. 3 (3): 90–94.

- Shamshuddin, J., A.A. Elisa, M.A.R.S. Zhazana & I.C. Auziah. 2013. Rice defense mechanisms against the presence of excess amount of Al^{3+} and Fe^{2+} in the water rice defense mechanisms against the presence of excess amount of Al^{3+} and Fe^{2+} in the water. *Australian Journal of Crop Science*. 7 (3): 314–20.
- Silveira, V.C., A.P. De Oliveira, Ra.A. Sperotto, L.S. Espindola, J.F. Dias, J.B. Cunha, and J.P. Fett. 2007. Influence of iron on mineral status of two rice (*Oryza sativa* L.) cultivars. *Braz. J. Plant Physiol.* 108 (2): 127–39.
- Sonbai, J.H.H., D. Prajitno & A. Syukur. 2013. Pertumbuhan dan hasil jagung pada berbagai pemberian pupuk nitrogen di lahan kering regosol. *Ilmu Pertanian*. 16 (1): 77-89.
- Soil Survey Staff. 2010. *Keys to Soil Taxonomy*. 11th ed. Washington, D.C: United States Department of Agriculture-Natural Resources Conservation Service.
- Siregar H. 1987. *Budidaya Tanaman Padi di Indonesia*. Sastra Hudaya. Jakarta. 319 p.
- Singh R, S. Chaurasia, D. Gupta, A. Mishra & P. Soni. *Journal of Enviromental Science, Computer Science and Engineering & Technology*. 3: 1228-1234.
- Stein, R.J., G.L. Duarte, M.G. Spohr, S.I.G. Lopes & J.P. Fett. 2009. Distinct physiological responses of two rice cultivars subjected to iron toxicity under field conditions. *Annals of Applied Biology*. 154: 269–77.
- Subandi, 2013. Peran dan pengelolaan hara kalium untuk produksi pangan di indonesia. *pengembangan inovasi pertanian*. 6 (1): 1-10.
- Subowo, P.S. Ratmini, Purnamayani & Yustisia. 2013. Pengaruh ameliorasi tanah rawa pasang surut untuk meningkatkan produksi padi sawah dan kandungan besi dalam beras. *Jurnal Tanah dan Iklim*. 37 (1): 19-24.
- Sulaiman, A.A., Y. Sulaeman & Y. Minasny. 2019. A Framework for the development of wetland for agricultural use in indonesia. *Resources*. 8 (34): 1-16
- Suriadikarta, D.A. & D. Setyorini. 2006. Teknologi pengelolaan lahan sulfat masam. hlm. 117-150. *In: D.A. Suriadikarta, U. Kurnia, Mamat H.S., W. Hartatik, dan D. Setyorini (Ed.). Karakteristik dan Pengelolaan Lahan Rawa*. Balai Besar Penelitian dan Pengembangan Sumberdaya Lahan Pertanian, Bogor.
- Suriadikarta, D.A. 2005. Pengelolaan lahan sulfat masam untuk usaha pertanian. *jurnal litbang pertanian*. 24(1): 36-45
- Suriani, M., M. Mahbub & Rodinah. 2020. Pengaruh kompos jerami padi terhadap kelarutan Ferro (Fe^{2+}) dan pH tanah serta pertumbuhan tanaman padi Ciherang di tanah sulfat masam. *Agoekotek View*. 3(1): 55-61.
- Susilawati, A. & A. Fahmi. 2013. Dinamika besi pada tanah sulfat masam yang ditanami padi. *jurnal sumberdaya lahan*. 7 (2): 67-75.
- Susilawati, A. & D. Nursyamsi. 2013. Residu jerami padi untuk meningkatkan produktivitas tanah sulfat masam berkelanjutan. *Jurnal Sumberdaya Lahan*. 7 (1): 27-37.
- Suswanto, T., J. Shamshuddin, S.R.S. Omar & P. Mat. 2007. Effects of lime and fertiliser application in combination with water management on rice (*Oryza sativa*) Cultivated on an Acid Sulfate Soil. *Malaysian Journal of Soil Science*. 11: 1–16.
- Taiz, L. & E. Zeiger. 2002. *Plant Physiology (Third Edition)*. Sinauer Associates, Inc., Publisher. Sunderland. 675 p

- Unoki, S., T. Sitaresmi, H. Ehara & Y. Nugraha. 2020. Potassium fertilizer under iron toxicity stress of ex-situ conditions and its effect to Fe content in the rice grain. potassium fertilizer under iron toxicity. 4 (2): 81-88.
- Wahyunto, Hikmatullah, E. Suryani, C. Tafakresnanto, S. Ritung, A. Mulyani, Sukarman, K. Nugroho, Y. Sulaeman, Y. Apriyana, Suciantini, A. Pramudia, Suparto, R.E. Subandiono, T. Sutriadi, D. Nursyamsi. 2016. Petunjuk Teknis Pedoman Penilaian Kesesuaian Lahan untuk Komoditas Pertanian Strategis Tingkat Semi Detail Skala 1:50.000. Balai Besar Penelitian dan Pengembangan Sumberdaya Lahan Pertanian, Badan Penelitian dan Pengembangan Pertanian, Bogor. 37 p.
- Wan, J. L., H. Q. Zhar, J. M. Wan & H. Ikehashi. 2002. Detection and analysis of QTLs for ferrous iron toxicity tolerance in rice (*Oryza sativa* L). Rice Genetics Newsletter. 19: 56-59.
- Wang, H., Y. Inukai & A. Yamaguchi. 2006. Root development and nutrient uptake. Critical Reviews in Plant Sciences. 25 (3): 279–301.
- Widjaja-Adhi, I. P. G, D. A. Suriadikarta, M. T. Sutriadi, I. G. M. Subiksa & I. W. Suastika. 2000. pengelolaan, pemanfaatan, dan pengembangan lahan rawa. In A. Adimihardja, L.I. Amien, F. Agus, and D. Jaenuddin (Eds). Sumberdaya Lahan Indonesia Dan Pengelolaannya. Pusat Penelitian Tanah dan Agroklimat. Bogor. 127–64.
- Wignyosukarto. 2013. Leaching and flushing of acidity in the reclamation of acid sulphate soil, Kalimantan, Indonesia. Irrig. and Drain. 62 (1): 75–81.
- Wu, L., M.Y. Shhadi, G. Gregorio, E. Matthus, M. Becker & M. Frei. 2014. Genetic and physiological analysis of tolerance to acute iron toxicity in rice. Rice. 7 (8): 1–12.
- Yoshida, S. 1981. Fundamentals of rice crop science. Int. Rice Res. Inst., Los Banos, The Philippines.
- Zhang, Z.C., Zhang, S.F., Yang, J.C., Zhang, J.H. 2008. Yield, grainquality and water use efficiency of rice under non-floodedmulching cultivation. Field Crops Research. 108: 71-81.
- Zhang, L., G. Li, M. Wang, D. Di, L. Sun, H.J. Kronzucker & W. Shi. 2018. Excess iron stress reduces root tip zone growth through nitric oxide-mediated repression of potassium homeostasis in Arabidopsis. New Phytologist. 1–16.
- Zhang, Y., G.H. Zheng, P. Liu, J.M. Song, G.D. Xu & M.Z. Cai. 2011. Morphological and physiological responses of root tip cells to Fe²⁺ toxicity in rice. Acta Physiol Plant. 33:
- Zhang, Z., C. Xiao, O. Adeyeye, X. Liang, W. Yang & X. Liang. 2020. Source and mobilization mechanism of iron , manganese and arsenic in groundwater. Water. 12 (534): 1–17.