

DAFTAR PUSTAKA

- Badan Informasi Geospasial. (2017). Data Lahan Baku Sawah Kabupaten Solok.
- Badan Meteorologi Klimatologi dan Geofisika. (2023) Data Curah Hujan Kecamatan Gunung Talang dari tahun 2014 – 2022.
- Badan Pusat Statistik. (2015). Data Produktivitas Padi Sawah Kabupaten Solok.
- Balai Penelitian Tanah. (2010). *Mengenal Silika sebagai Unsur Hara*. Warta Penelitian dan Pengembangan Pangan, 32 (3): 19-20.
- Balai Penelitian Tanah. (2011). *Sumber Hara Silika untuk Pertanian*. Warta Penelitian dan Pengembangan Pangan, 33 (3): 12-13.
- Casman, K.G., S. Peng, and A. Dobermann. (1997). *Nutritional physiology of the rice plants and productivity declined of irrigated rice systems in the tropics*. Soil Sci Plant Nutr. 43:1101-1106.
- Damanik, M.M.B.D., B.E. Hasibuan., Fauzi., Sarifuddin., H. Hanum. (2011). Kesuburan Tanah dan Pemupukan.USU Press. Medan.
- Darmawan, Kyuma, K., Saleh, A., Subagjo, H., Masunaga, T., & Wakatsuki, T. (2006). *Effect of long-term intensive rice cultivation on the available silica content of sawah soils: Java Island, Indonesia*. Soil Science and Plant Nutrition, 52(6), 745-753.
- Departemen Pertanian. (2004). *Tanah Sawah dan Teknologi Pengelolaan*. Puslitbangtanak (Pusat Penelitian dan Pengembangan Tanah dan Agroklimat). Bogor. 326 hal.
- Dobermann, A. and Fairhurst, T. (2000) Rice: Nutrient Disorders & Nutrient Management. Handbook Series, Potash & Phosphate Institute (PPI), Potash & Phosphate Institute of Canada (PPIC) and International Rice Research Institute (IRRI).
- Dobermann, A., P.C. Sta Cruz, and K.G. Casman. (1996a). *Fertilizer inputs, nutrient balance and soil nutrient-supplying power in intensive, irrigated rice system*. I. Potassium uptake and K balance. Nutr. Cycl. Agroecosys. 46:1-10.
- Dobermann, A., K.G. Casman, P.C. Sta Cruz, M.A. Advianto, and M.F. Pampolino. (1996b). *Fertilizer inputs, nutrient balance and soil nutrient-supplying power in intensive, irrigated rice system*. II. Phosphorus. Nutr. Cycl. Agroecosys. 46:111-125.

- Elisa AA, Ninomiya S, Shamshuddin J, Roslan I. (2016). Alleviating aluminum toxicity in an acid sulfate soil from Peninsular Malaysia by calcium silicate application. *Solid Earth*. 7: 367-374.
- Epstein E. (1994). *The anomaly of silicon in plant biology*. Proceedings of the National Academy of Sciences of the United States of America. 91: 11-17.
- Hakim, N., Nyakpa, M.Y., Lubis, A.M., Nugroho, S.G., Saul, M.N., Diha, M.A., Hong, G.B., dan Bailey, (1986). Dasar-Dasar Ilmu Tanah. Universitas Lampung. Bandar Lampung. 488 hal.
- Hamzah, A. (1992). Sifat dan Pengolahan Tanah Tropika. Terjemahan Properties and management of soil in tropic. 2st. by Sancez. P. A. John Wiley & Sons, Inc. North Carolina University 1976. Penerbit ITB, Bandung. 315 hal.
- Hardjowigeno, S. (2003). *Ilmu Tanah*. Akademika Presindo. Jakarta. 286 hlm.
- Hardjowigeno, S. dan M. L. Rayes. (2005). *Tanah Sawah : Karakteristik, Kondisi, dan Permasalahan Tanah Sawah di Indonesia*. Bayumedia Publishing. Malang.
- Haynes RJ. (2014). *A contemporary overview of silicon availability in agricultural soils*. Journal of Plant Nutrition and Soil Science. 177(6): 831–844.
- Hiradate S. (2012). *Utilization and research of silicon in recent agriculture. 2. Dissolution of silicic acid from soils and soil minerals*. Journal of the Science of Soil and Manure Japan. 83: 455-461.
- Husnain, Rochayati, S., Adamy, I. (2008). Pengelolaan Hara Silika pada Tanah Pertanian di Indonesia [Riset Puslitbangtanak]. Pusat Penelitian dan Pengembangan Tanah dan Agroklimat). Bogor. 237-246 hal.
- Ilham, D. J. (2016). *Kajian Kesuburan Tanah Sawah Pada Sentra Pertanaman Padi Di Kecamatan Gunung Talang Kabupaten Solok*. Universitas Andalas.
- Jamulya dan Haryono. E. (2000). *Kajian Tingkat Pelapukan Batuan Menurut Toposekuen Di Daerah Aliran Sungai Tangsi Kabupaten Magelang*. Majalah Geografi Indonesia Vol. 14 No. 1 Hal. 13-23.
- Jin-Shi LIN; Xue-Zheng SHI; Xi-Xi LU; Dong-Sheng YU; Hong-Jie WANG; Yong-Cun ZHAO; Wei-Xia SUN (2009). *Storage and Spatial Variation of Phosphorus in Paddy Soils of China*. 19(6), 0–798.
- Karmila, M. (2017). *Hubungan Kandungan Fosfor (P) Dan Silika (Si) Air Irigasi Terhadap Kandungan Fosfor (P) Dan Silika (Si) Tanah Sawah Di Daerah Tangkapan Air Batang Sumani*. Universitas Andalas

- Kawaguchi, K. and K. Kyuma. (1977). Paddy Soils in Tropical Asia, Their Material Nature and Fertility. University Press of Hawaii, Honolulu.
- Kumar S.D. (2014). *Role of micronutrient in Rice Cultivation and Management Strategy in Organic Agriculture*. Agricultural Sciences Vol.5: 765-769.
- Lakitan, B. (2002). Dasar Dasar Klimatologi . PT. Raja Grafindo Persada. Jakarta.
- Ma JF, Takahashi E. (1991). *Availability of Rice Straw Si to Rice Plants*. Soil Sci. Plant Nutr.37:111-116.
- Makarim, A. K, U. S. Nugroho dan U. G. Kartasasmita. 2000. *Teknologi Produksi Padi Sawah*. Pusat Penelitian dan Pengembangan Tanaman Pangan. Bogor.
- Makarim AK, Suhartatik E, Kartohardjono A. (2007). *Silikon : hara penting pada sistem produksi padi*. Iptek tanaman Pangan. 2(2) : 195 - 204.
- Matichenkov VV., Calvert DV. (2002). *Silicon as a beneficial element for sugarcane*. Journal American Society of Sugarcane Technologists. 22: 21-30.
- Meharg, C., & Meharg, A. A. (2015). *Silicon, the silver bullet for mitigating biotic and abiotic stress, and improving grain quality, in rice?* Environmental and Experimental Botany. 120: 8-17.
- Novizan. (2002). *Petunjuk Pemupukan yang Efektif*. Jakarta: Agromedia Pustaka.
- Nugroho, B. (2009). *Peningkatan Produksi Padi Gogo dengan Aplikasi Silikat dan Fosfor serta Inokulasi Fungi Mikoriza Arbuskular Pada Ultisol*. IPB Press. Bogor. 111 hlm.
- Patra PK, dan Neue HU. (2010). *Dynamics of water soluble silica and silicon nutrition of rice in relation to changes in iron and phosphorus in soil solution due to soil drying and reflooding*. Archives of Agronomy and Soil Science. 56(6): 605-622.
- Prasetyo, B. H. dan D. Setyorini. (2008). Karakteristik tanah sawah dari endapan aluvial dan pengelolaannya. J. Sumberdaya Lahan 2 (1):1-14.
- Prasetyo, B.H.S. Adiningsih, K. Subagtono, dan Simanungkalit. (2004). *Mineralogi, Kimia, Fisika dan Biologi Tanah Sawah*. Buku : Tanah Sawah. 35-100.
- Pulz AL, Crusciol CAC, Lemos LB, Soratto R P. (2008). *Influência de silicato e calcário na nutrição, produtividade e qualidade de batata sob deficiência hídrica*. Revista Brasileira de Ciênciado Solo. 32(4): 1651–1659.

- Puslitbang Geologi. (1996). Peta geologi bersistem Indonesia lembar Padang (0714) Sumatera skala 1:250.000. Pusat Penelitian dan Pengembangan Geologi. Bandung.
- Rykson, S. dan Sudadi, U. (2001). *Tanah Sawah* (Bahan Kuliah). Institut Pertanian Bogor (IPB). Bogor. 105 hal.
- Sanchez, P.A. (1993). Sifat dan Pengelolaan Tanah Tropika Jilid 2. Terjemahan Amir Hamzah dari properties and management of soil in the tropic ITB. Bandung. 273 hal.
- Sasminto, R. A., Alexander T., dan J. Bambang R. W. (2013). Analisis Spasial Penentuan Iklim Menurut Klasifikasi Scmidt- Ferguson dan Oldeman di Kabupaten Ponorogo. *Jurnal Sumberdaya Alam dan Lingkungan*. Universitas Brawijaya: Malang. 6 hlm.
- Schaller, J., Wu, B., Amelung, W. Hu, Z., Stein, M., Lehndorff, E., Obst, M. (2022). Silicon as a potential limiting factor for phosphorus availability in paddy soils. *Sci Rep* 12, 16329.
- Schmidt, F.H., and Ferguson, J.H.A. (1951). Rainfall Type Based on Wet and Dry Period Ratio for Indonesia With Westren New Gurinea. Djawatan Meteorologi dan Geofisika. Jakarta.
- Sofyan, Ritung., Wahyunto., Agus, F., dan Hidayat, H. (2007). *Evaluasi Kesesuaian Lahan Dengan Contoh Peta Arahan Penggunaan Lahan Kabupaten Aceh Barat*. Balai Penelitian Tanah dan World Agroforestry Center. 39 hal.
- Sommer M, Kaczorek D, Kuzyakov Y, Breuer J. 2006. *Silicon pools and fluxes in soils and landscapes - A review*. Journal of Plant Nutrition and Soil Science. 169(3): 310-329.
- Sposito G. (2008). *The Chemistry of Soils* (2nd ed.), p. 329. Oxford University Press, New York, USA.
- Sumida H. (1992). *Silicon supplying capacity of paddy soils and characteristics of silicon uptake by rice plants in cool regions in Japan*. Bulletin Tohoku Agric. 851-46.
- Sumida H. (2002). *Plant Available Silicon in Paddy Soil*. National Agricultural Research Center for Tohoku Region Omagari. Second Silicon in Agriculture Conference. Tsuruoka, Yamagata. Japan. 21: 43-49.
- Taher, A. (1993). *Pemanfaatan Timbunan Fosfat di Lahan Sawah*. Pros. Simposium Penel. Tan. Pangan III. Kinetja Penel. Tan. Pangan Buku III. Pusat Penel. Tan. Pangan, Bogor

Tan. K. H. (1998). Dasar-dasar Ilmu Tanah. Gadjah Mada University Press. Yogyakarta.

Toan, Nguyen-Sy. Hanh, D.H., Phuong, N. T. D., Thuy, P. T., Dong, P. D., Gia, N. T., Tam., L. D., Thu, T. T. N., Thanh, D. T. V., Khoo, K. S., & Show, P. L. (2022). Effects of burning rice straw residue on-field on soil organic carbon pools: Environment-friendly approach from a conventional rice paddy in central Viet Nam. *Chemosphere* 294 133596.

Tommy, A., Mukhlis & Hidayat. B. (2014). Karakteristik Biologi Dan Kimia Tanah Sawah Akibat Pembakaran Jerami. *Jurnall Online Agroekoteknologi Vol.2*, No.2 : 851 – 864.

Vasanthi, N., Saleena, L. M., & Raj, S. A. S. (2014). *Silicon in crop production and crop protection -A review*. Agricultural Reviews, 35(1), 14.

Winarso, S. (2005). Kesuburan Tanah. Gava Media. Yogyakarta.

Yanai J, Taniguchi H, Nakao A. (2016). *Evaluation of available silicon content and its determining factors of agricultural soils in Japan*. Soil Science and Plant Nutrition. 62(5-6): 511-518.

Yoshida, S. (1981). *Fundamentals of rice crop science*. International Rice Research Institute. Loas Banos, Laguna, Philippines. 269 p.

Yuan, Quan; Hernández, Marcela; Dumont, Marc G.; Rui, Junpeng; Fernández Scavino, Ana; Conrad, Ralf (2018). *Soil bacterial community mediates the effect of plant material on methanogenic decomposition of soil organic matter*. *Soil Biology and Biochemistry*, 116(), 99–109.

Yukamgo, E., dan N. W. Yuwono. (2007). *Peran Silikon sebagai Unsur Bermanfaat pada Tanaman Tebu*. Jurnal Ilmu Tanah dan Lingkungan Vol. 7 (2), Hal: 103-116.