DAFTAR PUSTAKA

Abdulrachman, S. 2010. Pengaruh Silikat Terhadap Kekerasan Batang, Produktivitas Padi, Mutu Gabah dan Beras yang Dihasilkan. *Pangan*. 19(3): 257-264

Ahmed, M., F. U. Hassen, U. Qadeer, and M. A. Aslam. 2011. Si Application and Drought Tolerance Mechanism of Sorghum. *African Journal of Agricultural Research*. 6(2): 594–607

Ahmed M, Asif M, and Hassan F. 2014. Augmenting Drought Tolerance in Sorghum by Silicon Nutrition. *Acta Physiol Plant.* 36: 473–483 DOI: 10.1007/s11738-013-1427-2

Aini, N., W. Sumiya, D. Y. Syekhfani1, R. Dyah and A. Setiawan. 2014. Kajian Pertumbuhan, Kandungan Klorofil dan Hasil Beberapa Genotip Tanaman Kedelai (*Glycine max* L.) Pada Kondisi Salinitas. *Prosiding Seminar Nasional Lahan Suboptimal 2014*, Palembang 26-27 September 2014.

Alam, M. Z., T. Stuchbury, R. E. L. Naylor, and M. A. Rashid. 2004. Effect of Salinity on Growth of Some Modern Rice Cultivars. *Journal of Agronomy.* 3(1): 1-8.

Almeida, D. M., M. M. Oliveira and N. J. M. Saibo. 2017. Regulation of Na+ And K+ Homeostasis In Plants: Towards Improved Salt Stress Tolerance In Crop Plants. *Genetics and Molecular Biology*. 40(1): 326-345.

Amirjani, M. R. 2011. Effect of Salinity Stress on Growth, Sugar Content, Pigments and Enzyme Activity of Rice. *International Journal of Botany.* 7(1): 73-81

Amrullah, D. Sopandie, Sugianta, and A. Junaedi. 2014. Peningkatan Produktivitas Tanaman Padi (*Oryza sativa* L.) melalui Pemberian Nano Silika. *PANGAN*. 23(1): 17 - 32

Anugrahtama, P. C., Supriyanta, and Taryono. 2020. Pembentukan Bintil Akar dan Ketahanan Beberapa Aksesi Kacang Hijau (*Vigna Radiata* L.) Pada Kondisi Salin. *Agrinova: Journal of Agriculture Innovation*. 3(1): 1-5

Arif, T. U., P. R. Roy, A. A. M. Sohag, S. Afrin, M. M. Rady, and M. A. Hossain. 2018. Exogenous Calcium Supplementation Improves Salinity Tolerance in BRRI Dhan28; a Salt-Susceptible High-Yielding *Oryza Sativa* Cultivar Md. *J. Crop Sci. Biotech.* 21(4): 383-394 DOI: 10.1007/s12892-018-0098-0

Aybeke, M. 2016. Root Anatomical Plasticity In Response to Salt Stress Under Real and Full-Season Field Conditions and Determination of New Anatomic Selection Characters For Breeding Salt-Resistant Rice (*Oryza sativa* L.). *Trakya University Journal of Natural Sciences*. 17(2): 87-104.

Azmi, Y. 2018. Evaluasi Galur Dihaploid Padi Terhadap Cekaman Salinitas. *Menara Ilmu*. 12(6): 178-185

Badan Penelitian dan Pengembangan Pertanian. 2019. *Inpari 35*. http://www.litbang.pertanian.go.id/varietas/1025/. Diakses 21 Februari 2020

Barberon, M. 2017. The Endodermis As a Checkpoint for Nutrients. *New Phytologist*. 2016(213): 1604-1610

Bates, L. S., R. P. Waldren and I. D. Teare. 1973. Rapid Determination of Free Proline For Water-Stress Studies. *Plant and Soil.* 39(1): 205-207

Byrta, BS , Munnsb R, Burtonc RA, Gillihama M, and Wegea S. 2018. Root Cell Wall Solutions for Crop Plants in Saline Soils. *Plant Science.* 269 (2018): 47–55

Chen, W., X. Yao, K. Cai, and J. Chen. 2011. Silicon Alleviates Drought Stress of Rice Plants by Improving Plant Water Status, Photosynthesis and Mineral Nutrient Absorption. *Biol Trace Elem Res*. 142(1): 67–76 DOI: 10.1007/s12011-010-8742-x

Chun, S., M. Paramasivan and M. Chandrasekaran. 2018. Proline Accumulation Influenced by Osmotic Stress in Arbuscular Mycorrhizal Symbiotic Plants. *Frontiers in Microbiology.* 9(10): 1-13.

Colmer T. D. 2003. Aerenchyma and an inducible barrier to radial oxygen loss facilitate root aeration in upland, paddy and deep-water rice (*Oryza sativa* L.). *Annals of Botany*. 91(2): 301–309. DOI: https://doi.org/10.1093/aob/mcf114

Dharmika, I. M. 2016. Pengaruh Dosis dan Waktu Aplikasi Pupuk Silika Terhadap Pertumbuhan, Hasil, dan KomponenHasil Padi Sawah Varietas Ipb 3s. Skripsi. Institut Pertanian Bogor. pp. 14-15.

El, H. S.F. and F. M. Ibrahim. 2015. Calcium: Physiological Function, Deficiency and Absorption. *International Journal ChemTech Research*. 8(12): 196-202

Fitria, A. D., Sudarto, and Djajadi. 2018. Keterkaitan Ketersediaan Unsur Hara Ca, Mg, dan Na Dengan Produksi dan Mutu Tembakau Kemloko di Kabupaten Temanggung, Jawa Tengah. *Jurnal Tanah dan Sumberdaya Lahan*. 5(2): 857-866 e-ISSN:2549-9793

Fleck, A. T., Nye, T., Repenning, C., Stahl, F., Zahn, M., and Schenk, M. K. 2011. Silicon Enhances Suberization and Lignification In Roots of Rice (*Oryza sativa*). *Journal of Experimental Botany*. 62(6): 2001–2011. DOI: https://doi.org/10.1093/jxb/erq392

Fogliatto, S., F. Serra, L. Patrucco, M. Milan and F. Vidotto. 2019. Effect of Different Water Salinity Levels on the Germination of Imazamox-Resistant and Sensitive Weedy Rice and Cultivated Rice. *Agronomy*. 9(658): 1-13 DOI: 10.3390/agronomy9100658

Gong, H. J., D. P. Randall, and T. J. Flowers. 2006 Silicon Deposition In The Root Reduces Sodium Uptake In Rice (*Oryza sativa* L.) seedlings by reducing bypass flow. *Plant, Cell and Environment*. 29: 1970-1979

Hannan, A., M. N. Hoque, L. Hassan and A. H. K. Robin. 2020. Adaptive Mechanisms of Root System of Rice for Withstanding Osmotic Stress. *Recent Advances in Rice Research* DOI: http://dx.doi.org/10.5772/intechopen.93815

Hanas, D. F., E. Kriswiyanti and I. K. Junitha. 2017. Karakter Morfologi Beras Sebagai Pembeda Varietas Padi. *Indonesian Journal of Legal and Forensic Sciences*. 1(4) : 23 - 28

Harborne, J.B. 1987. *Phytochemical Methods: A Guide to Modern Techniques of Plant Analysis.* Second edition. Springer Science & Business Media. New York. pp. 217

Harjanti, R. A., Tohari, S. N. H. Utami. 2014. Pengaruh Takaran Pupuk Nitrogen dan Silika terhadap Pertumbuhan Awal (*Saccharum officinarum* L.) pada Inceptisol. *Vegetalika*. 3(2): 35 - 44

Hose, E., D.T. Clarkson, E. Steudle, L. Schreiber, and W. Hartung. 2001. The Exodermis: A Variable Apoplastic Barrier. *Journal of Experimental Botany*. 52(365): 2245–2264

Husnain, A. Kasno, and S. Rochayati. 2016. Pengelolaan Hara dan Teknologi Pemupukan Mendukung Swasembada Pangan di Indonesia. *Jurnal Sumberdaya.* 10(1): 25-36

Ikhsanti, A., B. Kurniasih, and D. Indradewa. 2018. Pengaruh Aplikasi Silika terhadap Pertumbuhan dan Hasil Tanaman Padi (*Oryza sativa* L.) pada Kondisi Salin. *Vegetalika*. 7(4): 1-8

ITIS. 2021. *Oryza sativa* L. Diakses pada 15 Mei 2021, dari https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=41976#null

Janislampi, K. W. 2012. Effect of Silicon on Plant Growth and Drought Stress Tolerance. All Graduate Theses and Dissertations. 1360. https://digitalcommons.usu.edu/etd/1360

Javahar, R. P. 2013. *Physiological and Anatomical Implications Of Salinity on Rice as a Semi-Aquatic Species.* Cambridge Scholars Publishing. Newcastle. pp. 14.

Javelle, M., V. Vernoud, P. M. Rogowsky and G. C. Ingram. 2010. Epidermis: The Formation and Functions of a Fundamental Plant Tissue. *New Phytologist*. 2011(189): 17–39

Jayantie, G., A. Yunus, B. Pujiasmanto, and Y. Widiyastuti. 2017. Pertumbuhan dan Kandungan Asam Oleanolat Rumput Mutiara (*Hedyotis corymbosa*) pada Berbagai Dosis Pupuk Kandang Sapi dan Pupuk Organik Cair. *Agrotech Research Journal*. 1(2): 13-18

Junandi, Mukarlina, and R. Linda. 2019. Pengaruh Cekaman Salinitas Garam Nacl Terhadap Pertumbuhan Kacang Tunggak (*Vigna unguiculata* L. Walp) pada Tanah Gambut. *Protobiont*. (8)3: 101 - 105

Junior, L. A. Z., R. L. F. Fontes, J. C. L. Neves, G. H. Korndörfer and V. T. de Ávila. 2010. Rice Grown in Nutrient Solution with Doses of Manganese and Silicon. *Revista Brasileira de Ciência do Solo*. 34(5): 1629-1639

Kafi, M. and Z. Rahimi. 2011. Effect of Salinity And Silicon On Root Characteristics, Growth, Water Status, Proline Content And Ion Accumulation of Purslane (*Portulaca oleracea* L.). *Soil Science and Plant Nutritio.* 57(2): 341-347

Khasanah, R. A. N. and D. Rachmawati. 2020. Peran Silikon dalam Meningkatkan Pertumbuhan dan Kadar Klorofil Padi yang Tercekam Kadmium. *Al-Hayat: Journal of Biology and Applied Biology*. 3(2): 67-74

Koevoets, I. T., Venema, J. H., Elzenga, J. T., & Testerink, C. 2016. Roots Withstanding their Environment: Exploiting Root System Architecture Responses to Abiotic Stress to Improve Crop Tolerance. *Frontiers in Plant Science*. *7*(1335): 1-19. DOI: https://doi.org/10.3389/fpls.2016.01335

Kurniawati, S., N. Khumaida, S. W. Ardie, N. S. Hartati and E. Sudarmonowati. 2014. Pola Akumulasi Prolin dan Poliamin Beberapa Aksesi Tanaman Terung pada Cekaman Kekeringan. *J. Agron. Indonesia*. 42(2) : 136 - 141

Kusumiyati, T. M. Onggo, and F. A. Habibah. 2017. Pengaruh Konsentrasi Larutan Garam NaCl Terhadap Pertumbuhan dan Kualitas Bibit Lima Kultivar Asparagus. *Jurnal Hortikultura*. 27(1): 79-86 DOI: http://dx.doi.org/10.21082/jhort.v27n1.2017.p79-86

Ma'ruf, A. 2016. Respon Beberapa Kultivar Tanaman Pangan Terhadap Salinitas. *Jurnal Penelitian Pertanian BERNAS*. 12(3): 11-19

Machado, R. M. A and R. P. Serralheiro. 2017. Soil Salinity: Effect on Vegetable Crop Growth. Management Practices to Prevent and Mitigate Soil Salinization. *Horticulturae.* 3(30): 1-9

Maghsoudi, K., Y. Emam, and M. Pessarakli. 2016. Effect of Silicon On Photosynthetic Gas Exchange, Photosynthetic Pigments, Cell Membrane Stability And Relative Water Content of Different Wheat Cultivars Under Drought Stress Conditions. *Journal of Plant Nutrition*. 39(7): 1001-1015 DOI: 10.1080/01904167.2015.1109108

Mahdieh, M., N. Habibollahi, M. R. Amirjani, M. H. Abnosi, and M. Ghorbanpour. 2015. Exogenous Silicon Nutrition Ameliorates Salt-Induced Stress by Improving Growth And Efficiency of PSII in *Oryza sativa* L. cultivars. *J. Soil Sci. Plant Nutr*. 15(4): 1050-1060

Makarim, A. K., E. Suhartatik and A. Kartohardjono. 2007. Silikon: Hara Penting pada Sistem Produksi Padi. *Iptek Tanaman Pangan.* 2(2):195-204

Meena, M. L., Dotaniya, V. Coumar, S. Rajendiran, Ajay, S. Kundu, and A. S, Rao. 2014. A Case for Silicon Fertilization to Improve Crop Yields in Tropical Soils V. D. *Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci.* 84(3): 505–518 DOI: 10.1007/s40011-013-0270-y

Mudgal, V., A. Madaan, and A. Mudgal. 2010. Biochemical Mechanisms of Salt Tolerance in Plants: A Review. *International Journal of Botany.* 6(2): 136-143

Muharam, A. Jannah, and Y. S. Rahayu. 2011. Upaya – Upaya Peningkatan Hasil Tanaman Padi (*Oryza sativa* L.) Varietas Inpari 1 Melalui Penggunaan Kombinasi Pupuk Hayati, Bahan Organik dan Pupuk Anorganik. *Solusi*. 9(19): 6-20

Munns, R. and Tester, M. 2008. Mechanism of Salinity Tolerance. *Plant Biol.* 59(1):651-81

Murillo-Amador, B., S. Yamada, T. Yamaguchi, E. Rueda-Puente, N. A´ vila-Serrano, J. L. Garcı´a-Herna´ndez, R. Lo´pez-Aguilar, E. Troyo-Die´guez, and A. Nieto-Garibay. 2007. Influence of Calcium Silicate on Growth, Physiological Parameters and Mineral Nutrition in Two Legume Species Under Salt Stress. *J. Agronomy & Crop Science.* 193(6): 413-421 DOI:10.1111/j.1439-037X.2007.00273.x

Muttaqien, M. I., and D. Rahmawati. 2019.Karakter Kualitatif Dan Kuantitatif Beberapa Varietas Padi (*Oryza sativa* L.) Terhadap Cekaman Salinitas (NaCl). *Agriprima.* 3(1): 51-60.

Mulyani, A., D. Nursyamsi, and M. Syakir. 2017. Strategi Pemanfaatan Sumberdaya Lahan untuk Pencapaian Swasembada Beras Berkelanjutan. *Jurnal Sumberdaya Lahan.* 11(1): 11-22

Namyslov J, Bauriedlová Z, Janoušková J, Soukup A, and Tylová E. 2020. Exodermis and Endodermis Respond to Nutrient Deficiency in Nutrient-Specific and Localized Manner. *Plants*. 9(201): 1-16. DOI: https://doi.org/10.3390/plants9020201

Nicotra, A., N. Babicka, and M. Westoby. 2002. Seedling Root Anatomy and Morphology: An Examination of Ecological Differentiation With Rainfall Using Phylogenetically Independent Contrasts. *Oecologia.* 130(1): 136–145 DOI: 10.1007/s004420100788

Novianti, V., D. Indradewa, Maryani, D. Rachmawati. 2020. Selection of Local Swamp Rice Cultivars from Kalimantan (Indonesia) Tolerant to Iron Stress During Vegetative Stage. *BIODIVERSITAS.* 21(12): 5650-5661 DOI: 10.13057/biodiv/d211210

Parida, A., A. B. Das, and P. Das. 2002. NaCI Stress Causes Changes in Photosynthetic Pigments, Proteins, and Other Metabolic Components in the Leaves of a True Mangrove, *Bruguiera parviflora*, in Hydroponic Cultures. *Journal of Plant Biology*. 45(1): 28-36

Patil, A. A., A.G. Durgude, A.L. Pharande, A.D. Kadlag and C.A. Nimbalkar. 2017. Effect of Calcium Silicate As A Silicon Source On Growth and Yield of Rice Plants. *International Journal of Chemical Studies.* 5(6): 545-549

Pei, Z. F., D. F. Ming, D. Liu, G. L. Wan, X. X. Geng, H. J. Gong, and W. J. Zhou. 2010. Silicon Improves the Tolerance to Water-Deficit Stress Induced by Polyethylene Glycol in Wheat (*Triticum aestivum* L.) Seedlings. *J Plant Growth Regul*. 29(1): 106–115 DOI: 10.1007/s00344-009-9120-9

Phule, A. S., Barbadikar, K. M., Madhav, M. S., Subrahmanyam, D., Senguttuvel, P., Babu, M., and Kumar, P. A. 2019. Studies On Root Anatomy, Morphology and Physiology of Rice Grown Under Aerobic and Anaerobic Conditions. *Physiology And Molecular Biology of Plants : An International Journal of Functional Plant Biology*. 25(1): 197–205 DOI: https://doi.org/10.1007/s12298-018-0599-z

Polash, M. A. S., A. Sakil, T. Ul Arif, and A. Hossain. 2018. Effect of Salinity On Osmolytes and Relative Water Content of Selected Rice Genotypes. *The Journal of the Society for Tropical Plant Research*. 5(2): 227-232.

Qin, J., W. Y. Dong, K. N. He, Y. Yu, G. D. Tan, L. Han, M. Dong, Y. Y. Zhang, D. Zhang, A. Z. Li, and Z. L. Wang. 2010. NaCl Salinity-Induced Changes In Water Status, Ion Contents and Photosynthetic Properties of *Shepherdia argentea* (Pursh) Nutt. Seedlings. *Plant Soil Environ*. 56(7): 325–332

Rustikawati, M. Simarmata, E. Turmudi and Catur Herison. 2014. Penentuan Kadar Garam Kultur Hara untuk Seleksi Toleransi Salinitas pada Padi Lokal Bengkulu. *Akta Agrosia*. 17(2): 101-107.

Rad, H. E., F. Aref, M. Khaledian, M. Rezaei, E. Amiri, and O. Y. Falakdehy. 2011. The Effects of Salinity at Different Growth Stage On Rice Yield. International Congress on Irrigation and Drainage

Rad, H. E., F. Aref and M. Rezaei. 2012. Response of Rice to Different Salinity Levels during Different Growth Stages. *Research Journal of Applied Sciences, Engineering and Technology.* 4(17): 3040-3047

Rahman A, Nahar K, Hasanuzzaman M, and Fujita M. 2016. Calcium Supplementation Improves Na+ /K+ Ratio, Antioxidant Defense and Glyoxalase Systems In Salt-Stressed Rice Seedlings. *Front Plant Sci*. 7(709): 1-16

Ramayani, B., Mohammad, and A. Lollie. 2012. Pengaruh Salinitas Terhadap Pertumbuhan dan Biomassa Semai dan Kandungan Lipida Pohon Non-Sekresi (*Ceriops tagal). Jurnal Agroteknologi*. 1(1): 1-11

Reezi, S., M. Babalar and S. Kalantari. 2009. Silicon Alleviates Salt Stress, Decreases Malondialdehyde Content and Affects Petal Color of Saltstressed Cut Rose (*Rosa xhybrida* L.) 'Hot Lady'. *African Journal Of Biotechnology*. 8(8): 1502-1508

Rembang, J. H. W., A. W. Rauf, and J. O.M. Sondakh. 2018. Karakter Morfologi Padi Sawah Lokal di Lahan Petani Sulawesi Utara. *Bul. Plasma Nutfah.* 24(1):1–8

Sahebi, M., M. M. Hanafi, A. S. N. Akmar, M. Y. Rafii, P. Azizi, F. F. Tengoua, J. Nurul M. Azwa, and M. Shabanimofrad. 2015. Importance of Silicon and Mechanisms of Biosilica Formation in Plants. *BioMed Research International*. 1(1): 1-16 DOI: http://dx.doi.org/10.115. 205/2015/396010

Saito, S., T. Niki and D. K. Gladish. 2020. Evaluation of Metaxylem Vessel Histogenesis and the Occurrence of Vessel Collapse during Early Development in Primary Roots of *Zea mays* ssp. mexicana: A Result of Premature Programmed Cell Death. *Plants*. 9(374): 1-12 DOI:10.3390/plants9030374

Sarto, M. V. M., M. C. Lana, L. Rampim, J. S. Rosset, J. R. W. Sarto, and D. Bassegio. 2019. Effects of Calcium and Magnesium Silicate On The Absorption of Silicon and Nutrients In Wheat. *Semina: Ciencias Agrarias*. 40(1): 67-80

Salsinha, Y. C. F., Maryani, D. Indradewa, Y. A. Purwestri, and D. Rachmawati. 2020. Morphological And Anatomical Characteristics of Indonesian Rice Roots From East Nusa Tenggara Contribute to Drought Tolerance. *Asian J. Agric. Biol.* Online First. DOI:https://doi.org/10.35495/ajab.2020.05.304

Santoso, T. J., A. Apriana, A. Sisharmini, and K. R. Trijatmiko. 2012. Respon Padi Transgenik Cv. Nipponbare Generasi T1 Yang Mengandung Gen *Oryza sativa* Dehydration-Response Element Binding 1a (Osdreb1a) Terhadap Cekaman Salinitas. *Berita Biologi.* 11(2): 241-252

Senguttuvel, P., C. Vijayalakshmi, K. Thiyagarajan, R. Sritharan, S. Geetha, J.R. KannanBapu and B.C. Viraktamath. 2013. Differential Response of Rice

Seedlings to Salt Stress In Relation to Antioxidant Enzyme Activity and Membrane Stability Index. *Archives of Agronomy and Soil Science*. 59(10): 1359-1371 DOI: 10.1080/03650340.2012.724170

Shabala, S. 2012. *Plant Stress Physiology.* CAB International. London. pp. 69

Shah, S. H., R. Houborg and M. F. McCabe. 2017. Response of Chlorophyll, Carotenoid and SPAD-502 Measurement to Salinity and Nutrient Stress in Wheat (*Triticum aestivum* L.). *Agronomy*. 7(61): 1-20

Shao Y, Cheng Y, Pang H, Chang M, He F, Wang M, Davis DJ, Zhang S, Betz O, Fleck C, Dai T, Madahhosseini S, Wilkop T, Jernstedt J and Drakakaki G. 2021. Investigation of Salt Tolerance Mechanisms Across a Root Developmental Gradient in Almond Rootstocks. *Front. Plant Sci*. 11(2005): 1-16 DOI: 10.3389/fpls.2020.595055

Siam, H. S., M. R. A. El-Moez, S. S. Holah and S. T. A. Zeid. 2018. Effect of Silicon Addition to Different Fertilizer On Yield of Rice (*Oryza sativa* L.) plants I-Macro Nutrients by Different Rice Parts. *Middle East Journal Applied Science*. 8(1): 177-190

Singh, A., M. K. Sharma and R. S. Sengar. 2017. Osmolytes: Proline Metabolism In Plants as Sensors of Abiotic Stress. *Journal of Applied and Natural Science.* 9 (4): 2079 -2092

Smit, A. L., A.G. Bengough, C. Engels, M. van Noordwijk, S. Pellerin, and S.C. van de Geijn. 2013. *Root Methods: A Handbook.* Springer Science & Business Media. Berlin. pp. 49.

Sopandie, D. 2013. *Fisiologi Adaptasi Tanaman Terhadap Cekaman Abiotik Pada Agroekosistem Tropika.* Bogor. PT Penerbit IPB Press. pp. 72.

Soylemezoglua, G., K. Demira, and A. Inalb. 2009. Effect of Silicon On Antioxidant and Stomatal Response of Two Grapevine (*Vitis vinifera* L.) Rootstocks Grown In Boron Toxic, Saline and Boron Toxic-Saline Soil. *Scientia Horticulturae.* 123(2): 240-246

Sparks, D. L. 2011. *Advances in Agronomy.* Amsterdam. Elsevier Science. pp. 275

Sugiyanta, I. M. Dharmika, dan D. S. Mulyani. 2018. Pemberian Pupuk Silika Cair untuk Meningkatkan Pertumbuhan, Hasil, dan Toleransi Kekeringan Padi Sawah. *Jurnal Agronomi Indonesia*. 46(2): 153-160 DOI: https://dx.doi.org/10.24831/jai.v46i2.21117

Suhartini, T., and T. Z. P. Harjosudarmo. 2017. Toleransi Plasma Nutfah Padi Lokal Terhadap Salinitas (Tolerance of Local Rice Germplasm to Salinity). *Buletin Plasma Nutfah*. 23(1): 51–58

Susilawati, A., D. Nursyamsi, and M. Syakirsu. 2016. Optimalisasi Penggunaan Lahan Rawa Pasang Surut Mendukung Swsembada Pangan Nasional Optimization Usage of Tidal Swamp Land to Support National Food Self-Sufficiency. *Jurnal Sumberdaya Lahan.* 10(1): 51-64

Sutikno, 2018. *Practical guidience: plant microtechnics (BIO 30603)*. Faculty of Biology-Universitas Gadjah Mada. Yogyakarta.

Suharta, N. 2010. Karakteristik dan Permasalahan Tanah Marginal dari Batuan Sedimen Masam di Kalimantan. *Jurnal Litbang Pertanian*. 29(4): 139-146

Suriya-arunroj, D., N. Supapoj, T. Toojindab and A. Vanavichitb. 2004. Relative Leaf Water Content As An Efficient Method For Evaluating Rice Cultivars For Tolerance to Salt Stress. *ScienceAsia*. 30(4): 411-415

Swapna, S. and S. Shylaraj. 2017. Screening for Osmotic Stress Responses in Rice Varietis Under Drought Condition. *Rice Science*. 24(5): 253-263.

Taibi, K., F. Taïbi, L. A. Abderrahim, A. Ennajah, M. Belkhodja, and J. M. Mulet . 2016. Effect of Salt Stress On Growth, Chlorophyll Content, Lipid Peroxidation and Antioxidant Defence Systems In *Phaseolus vulgaris* L. *South African Journal of Botany*. 105(2016): 306-312 DOI: https://doi.org/10.1016/j.sajb.2016.03.011

Tando, E. 2018. Review: Upaya Efisiensi dan Peningkatan Ketersediaan Nitrogen Dalam Tanah Serta Serapan Nitrogen Pada Tanaman Padi Sawah (*Oryza sativa* L.). *Buana Sains*. 18(2): 171 – 180

Theerakulpisut, P., B. Sumonthip, K. Kanlaya. 2005. Genetic Diversity, Salinity Tolerance and Physiological Responses to NaCl of Six Rice (*Oryza sativa* L.) Cultivars. *Asian Journal of Plant Sciences*. 4(6): 562-573 DOI: 10.3923/ajps.2005.562.573

Thor, K. 2019. Calcium—Nutrient and Messenger. *Front. Plant Sci*. 10(440): 1-7 DOI: 10.3389/fpls.2019.00440

Thorne, S. J., E. Susan, Hartley and F. J. M. Maathuis. 2020. Is Silicon a *Panacea* for Alleviating Drought and Salt Stress in Crops?. *Frontiers in Plant Science*. 11(1221): 1-16

Triadiati, A. A. Pratama, and S. Abdulrachman. 2012.Pertumbuhan dan Efisiensi Penggunaan Nitrogen pada Padi (*Oryza sativa* L.) dengan Pemberian Pupuk Urea yang Berbeda. *Buletin Anatomi dan Fisiologi.* 20(2): 1-14.

Tufaila, M., S. Alam, and S. Leomo. 2014. *Strategi Pengelolaan Tanah Marginal : Ikhtiar Mewujudkan Pertanian Yang Berkelanjutan*. Kendari. Unhalu Press. pp. 3

Vos, A., B. Bruning, G. Straten, R. Oosterbaan, J. Rozema, and P. van Bodegom. 2016. *Crop salt tolerance under controlled field conditions in The Netherlands, based on trials conducted by Salt Farm Texel.* Tested on Texel. Amsterdam. pp. 6

White, P. J., and M. R. Broadley. 2003. Calcium in plants. *Ann Bot*. 92(4):487-511 DOI: 10.1093/aob/mcg164

Widyaswari, R. 2020. Uji Ketahanan Beberapa Varietas Tanaman Padi (*Oryza sativa* L.) terhadap Infeksi Jamur Patogen *Rhizoctonia solani* Khun. Skripsi. Universitas Brawijaya. pp. 5-6

Yamika, W. D. S., N. Aini and A. Setiawan. 2016. Penentuan Batas Toleransi Salinitas Beberapa Tanaman (Tomat, Mentimun, Bawang Merah dan Cabai Besar) pada Cekaman Salinitas. *Seminar Nasional Pembangunan Pertanian*. hal. 36

Yang, Chaodong, Zhang, Xia, Li, Junkai, Bao, Manzhu, Dejiang, Seago, and James. 2014. Anatomy and Histochemistry of Roots and Shoots in Wild Rice (*Zizania latifolia* Griseb). *Journal of Botany.* 20(14): 1-9. DOI: 10.1155/2014/181727.

Yeo, A. R., S. A. Flowers, G. Rao, K. Welfare, N. Senanayake and T. J. Flowers. 1999. Silicon Reduces Sodium Uptake in Rice (*Oryza Sativa* L.) In Saline Conditions and This Is Accounted for by A Reduction in The Transpirational Bypass Flow. *Plant, Cell and Environment*. 22(5): 559–565

Yin, L., S. Wang, J. Li., K. Tanaka and M. Oka. 2013. Application of Silicon Improves Salt Tolerance Through Ameliorating Osmotic and Ionic Stresses In the Seedling of *Sorghum bicolor*. *Acta Physiol Plant* 35(1):3099-3107.

Yoshida, S., D. A. Forno, J. H. Cock, and K. H. Gomez. 1976. *Laboratory Manual for Physiological Studies of Rice*. Third edition. The International Rice Research Institute. Manila. pp. 62

Yunita, R., N. Khumaida, D. Sopandie and I. Mariska. 2017. Analisis Cekaman Salinitas terhadap Padi Mutan pada Kondisi In Vitro Analysis of Stress Saline Mutant Rice at In Vitro Condition. *Penelitian Pertanian Tanaman Pangan.* 2(1): 25-34

Zargar, S. M., R. Mahajan, J. A. Bhat, M. Nazir, and R. Deshmukh. 2019. Role of Silicon In Plant Stress Tolerance: Opportunities To Achieve A Sustainable Cropping System. *Biotech*. 9(73): 1-16

Zhu, Y., and H. Gong. 2014. Beneficial Effects of Silicon On Salt and Drought Tolerance In Plants. *Agronomy for Sustainable Development*. 34(2): 455–472 DOI: 10.1007/s13593-013-0194-1