

DAFTAR PUSTAKA

- Agarwal, S. and Grover, A. 2006. Molecular biology, biotechnology and genomics of flooding-associated low O₂ stress response in plant. *Critical Reviews in Plant Sciences* 25: 1-21.
- Ahmed, F., Rafii, M.Y., Ismail, M.R., Juraimi, A.S., Rahim, H.A., Asfaliza, R. and Latif, M.A. 2013. Waterlogging tolerance of crops: breeding, mechanism of tolerance, molecular approaches, and future prospects. *BioMed Research International*. <http://dx.doi.org/10.1155/2013/963525>.
- Akman, M., Bhikharie, A.V., McLean, E.H., Boonman, A., Visser, E.J.W., Schranz, M.E. and van Tienderen, P.H. 2012. Wait or escape? Contrasting submergence tolerance strategies of *Rorippa amphibia*, *Rorippa sylvestris* and their hybrid. *Annals of Botany* 109: 1263–1275.
- Albacete, A., Ghanem, M.E., Martinez-Andujar, C., Sanchez-Bravo, J., Martinez, V., Lutts, S., Dodd, I.C., Acosta, M. and Perez-Alfocea, F. 2008. Hormonal changes in relation to biomass partitioning and shoot growth impairment in salinized tomato (*Solanum lycopersicum* L.) plants. *Journal of Experimental Botany* 59(15): 4119–4131.
- Albacete, A.A., Martínez-Andújar, C. and Pérez-Alfocea, F. 2014. Hormonal and metabolic regulation of source–sink relations under salinity and drought: From plant survival to crop yield stability. *Biotechnology Advances* 32: 12–30.
- Aloni, R., Aloni, E., Langhans, M. and Ullrich, C. I. 2006. Role of cytokinin and auxin in shaping root architecture: regulating vascular differentiation, lateral root initiation, root apical dominance and root gravitropism. *Annals of botany* 97(5): 883-893.
- Alpert, P., Holzapfel, C. and Benson, J.M. 2002. Hormonal modification of resource sharing in the clonal plant *Fragaria chiloensis*. *Functional Ecology* 16: 191–197.
- Alves, J. D., Zananndrea, I., Deuner, S., de FP Goulart, P., de Souza, K. R. and Santos, M. D. O. 2013. Antioxidative responses and morpho-anatomical adaptations to waterlogging in *Sesbania virgata*. *Trees* 27(3): 717-728.
- Amstrong, W. and Drew, M.C. 2002. Root growth and metabolism under oxygen deficiency. In Waisel, Y., Eshel, A. and Kafkafi, U. (Editors). *Plant Roots: The Hidden Half*. Marcel Dekker, New York & Basel. pp. 729-761.
- Angeles, G., Evert, R. F. And Kozlowski, T. T. 1986. Development of lenticels and adventitious roots in flooded *Ulmus americana* seedlings. *Canadian Journal of Forest Research* 16(3): 585-590.
- Arbona, V., López-Climent, M.F., Pérez-Clemente, R.M. and Gómez-Cadenas, A. 2009. Maintenance of a high photosynthetic performance is linked to flooding tolerance in citrus. *Environmental and Experimental Botany* 66: 135–142.

- Aroca, R., Porcel, R. and Ruiz-Lozano, J.M. 2012. Regulation of root water uptake under abiotic stress conditions. *Journal of Experimental Botany* 63(1): 43-57.
- Arora, A. 2005. Ethylene receptors and molecular mechanism of ethylene sensitivity in plants. *Current Science* 89(8): 1348-1361.
- Arpagaus, S. and Braendle, R. 2000. The significance of α -amylase under anoxia stress in tolerant rhizomes (*Acorus calamus*, L) and non-tolerant tuber (*Solanum tuberosum* L., Var. Desiree). *Journal Experimental Botany* 51(349): 1475-1477.
- Asada, K. 2006. Production and scavenging of reactive oxygen species in chloroplasts and their functions. *Plant physiology* 141(2): 391-396.
- Ashraf, M. A., Ahmad, M. S. A., Ashraf, M., Al-Qurainy, F. and Ashraf, M. Y. 2011. Alleviation of waterlogging stress in upland cotton (*Gossypium hirsutum* L.) by exogenous application of potassium in soil and as a foliar spray. *Crop and Pasture Science* 62(1): 25-38.
- Ashraf, M.A. 2012. Waterlogging stress in plants: A review. *African Journal of Agricultural Research* 7(13): 1976-1981.
- Ayano, M., Kani, T., Kojima, M., Sakakibara, H., Kitaoka, T., Kuroha, T., Angeles-Shim, R.B., Kitano, H., Nagai, K. and Ashikari, M. 2014. Gibberellin biosynthesis and signal transduction is essential for internode elongation in deepwater rice. *Plant, Cell & Environment* 37(10): 2313-2324.
- Ayi, Q., Zeng, B., Liu, J., Li, S., van Bodegom, P. M. and Cornelissen, J. H. 2016. Oxygen absorption by adventitious roots promotes the survival of completely submerged terrestrial plants. *Annals of Botany* 118(4): 675-683.
- Ayre, B.G. 2011. Membrane-transport systems for sucrose in relation to whole-plant carbon partitioning. *Molecular Plant* 4(3): 377-394.
- Bai, T., Yin, R., Li, C., Ma, F., Yue, Z. and Shu, H. 2011. Comparative analysis of endogenous hormones in leaves and roots of two contrasting *Malus* species in response to hypoxia stress. *Journal of Plant Growth Regulation* 30(2): 119-127.
- Bailey-Serres, J. and Chang, R. 2005. Sensing and Signalling in Response to Oxygen Deprivation in Plants and Other Organisms. *Annals of Botany* 96: 507-518.
- Bailey-Serres, J. and Colmer, T. D. 2014. Plant tolerance of flooding stress—recent advances. *Plant, Cell & Environment* 37(10): 2211-2215.
- Bailey-Serres, J. and Voesenek, L.A.C.J. 2008. Flooding Stress: Acclimations and Genetic Diversity. *Annu. Rev. Plant Biol.* 59:313-339.

- Bailey-Serres, J., Lee, S.C. and Brinton, E. 2012. Waterproofing crops: effective flooding survival strategies. *Plant Physiology* 160: 1698–1709.
- Baker, R.F., Leach, K.A., Boyer, N.R, Swyers, M.J., Benitez-Alfonso, Y, Skopelitis, T., Luo, A., Sylvester, A., Jackson, D. and Braun, DM. 2016. Sucrose Transporter ZmSut1 Expression and Localization Uncover New Insights into Sucrose Phloem Loading. *Plant Physiology* 172(3):1876-1898.
- Baranwal, S. and Singh, B. B. 2002. Effect of waterlogging on growth, chlorophylls and saccharides content in maize genotypes. *Indian J. Plant Physiol.* 7(3): 246-251.
- Bashtanova, U. B., Beckett, K. P. and Flowers, T. J. 2009. Physiological approaches to the improvement of chemical control of Japanese knotweed (*Fallopia japonica*). *Weed Science* 57(6): 584-592.
- Batianoff, G. N. and Franks, A. J. 1997. Invasion of sandy beachfronts by ornamental plant species in Queensland. Abstract. *Plant Protection Quarterly* 12(4): 180-186.
- Bianchini, E., Medri, M. E., Pimenta, J. A., Giloni, P. C., Kolb, R. M. and Correa, G. T. 2000. Anatomical alterations in plants of *Chorisia speciosa* A. St.-Hil submitted to flooding. *Interciencia* 25(9): 436-441.
- Bihmidine, S., Hunter III, C.T., Johns, C.E., Koch, K.E. and Braun, D.M. 2013. Regulation of assimilate import into sink organs: update on molecular drivers of sink strength. *Front. Plant Sci.* 4(177): 1-15. doi: 10.3389/fpls.2013. 00177.
- Biswas, S. R., Biswas, P. L., Limon, S. H., Yan, E. R., Xu, M. S. and Khan, M. S. I. 2018. Plant invasion in mangrove forests worldwide. *Forest Ecology and Management* 429: 480-492.
- Blokhina, O. and Fagerstedt, K. V. 2010. Oxidative metabolism, ROS and NO under oxygen deprivation. *Plant Physiology and Biochemistry* 48(5): 359-373.
- Blokhina, O., Virolainen, E. and Fagerstedt, K. V. 2003. Antioxidants, oxidative damage and oxygen deprivation stress: a review. *Annals of Botany* 91(2): 179-194.
- Bloom, A.J., Chapin, F.S. III and Mooney, H.A. 1985. Nutrient limitation in plants – an economic analogy. *Annu. Rev. Ecol. Syst.* 16: 363–392.
- Bramley, H. and Tyerman, S. 2010. Root water transport under waterlogged conditions and the roles of aquaporins. In *Waterlogging signalling and tolerance in plants* (pp. 151-180). Springer, Berlin, Heidelberg.
- Braun, D. M., Wang, L. and Ruan, Y. L. 2014. Understanding and manipulating sucrose phloem loading, unloading, metabolism, and signalling to enhance crop yield and food security. *Journal of Experimental Botany* 65(7): 1713-1735.

- BuÈrkle, L., Hibberd, J.M., Quick, W.P., KuÈhn, C., Hirner, B. and Frommer, W.B. 1998. The H⁺-Sucrose Cotransporter NtSUT1 Is Essential for Sugar Export from Tobacco Leaves. *Plant Physiology*, 118: 59-68.
- Burton, A. L., Williams, M., Lynch, J. P. and Brown, K. M. 2012. RootScan: software for high-throughput analysis of root anatomical traits. *Plant and Soil* 357(1-2): 189-203.
- Calvo-Polanco, M., Señorans, J. and Zwiazek, J. J. 2012. Role of adventitious roots in water relations of tamarack (*Larix laricina*) seedlings exposed to flooding. *BMC Plant Biology* 12(99): 1-9
- Cardoso, J. A., Rincón, J., Jiménez, J. D. L. C., Noguera, D. and Rao, I. M. 2013. Morpho-anatomical adaptations to waterlogging by germplasm accessions in a tropical forage grass. *AoB Plants* 5: 1-14
- Cardoso, K. P., Palheta, J. G., de Sousa, J. D., Nascimento, V. R., Nogueira, G. A. D. S., Machado, L. C., Martins, J.T da S., Costa, T.C., Andrade, W.V., de Oliveira Neto, C.F. and dos Santos Filho, B. G. 2017. Physiological and biochemical metabolism in jatoba plants (*Hymenaea courbaril*"L.) affected by water stress and flooding. *Australian Journal of Crop Science* 11(7): 844.
- Caudle, K.L. and Maricle, B.R. 2012. Effects of flooding on photosynthesis, chlorophyll fluorescence, and oxygen stress in plants of varying flooding tolerance. *Transactions of the Kansas Academy of Science* 115(1/2): 5-18.
- Chang, W. W., Huang, L., Shen, M., Webster, C., Burlingame, A. L. and Roberts, J. K. (2000). Patterns of protein synthesis and tolerance of anoxia in root tips of maize seedlings acclimated to a low-oxygen environment, and identification of proteins by mass spectrometry. *Plant Physiology* 122(2): 295-318.
- Chapman, E. J. and Estelle, M. 2009. Cytokinin and auxin intersection in root meristems. *Genome Biology* 10(2): 1-5.
- Chaumont, F. and Tyerman, S. D. 2014. Aquaporins: highly regulated channels controlling plant water relations. *Plant Physiology* 164: 1600–1618
- Chen, H., Qualls, R. G. and Blank, R. R. 2005. Effect of soil flooding on photosynthesis, carbohydrate partitioning and nutrient uptake in the invasive exotic *Lepidium latifolium*. *Aquatic Botany* 82(4): 250-268.
- Chen, H., Qualls, R.G. and Miller, G.C. 2002. Adaptive responses of *Lepidium latifolium* to soil flooding: biomass allocation, adventitious rooting, aerenchyma formation and ethylene production. *Environmental and Experimental Botany* 48: 119–128.
- Chen, X., Visser, E.J.W., de Kroon, H., Pierik, R., Voesenek, L.A.C.J. and Huber, H. 2011. Fitness consequences of natural variation in flooding-induced shoot elongation in *Rumex palustris*. *New Phytologist* 190: 409–420.

- Chen, Y., Zhou, Y., Yin, T.F., Liu, C.X and Luo, F.L. 2013. The Invasive Wetland Plant *Alternanthera philoxeroides* Shows a Higher Tolerance to Waterlogging than Its Native Congener *Alternanthera sessilis*. *PLoS ONE* 8(11): 1-8.
- Chengxu, W., Mingxing, Z., Xuhui, C. and Bo, Q. 2011. Review on allelopathy of exotic invasive plants. *Procedia Engineering* 18: 240 – 246.
- Chengyi, Z., Chi, Y. and Ming, D. 2001. The clonal integration of photosynthates in the rhizomatous half-shrub *Hedysarum laeva*. *Abstract. Acta Ecologica Sinica* 21(12): 1986-1993.
- Choi, D. 2007. Ethylene-induced stem growth of deepwater rice is correlated with expression of gibberellin- and abscisic acid-biosynthetic genes. *Journal of Plant Biology* 50(5): 595–599.
- Chong, K.Y., Tan, T.W. and Corlett, R.T. 2009. A checklist of the total vascular plant flora of Singapore, Native, Naturalised and Cultivated Species. Raffles Museum of Biodiversity Research and Department of Biological Sciences, Faculty of Science, National University of Singapore.
- Choudhury, N. K. and Behera, R. K. 2001. Photoinhibition of photosynthesis: role of carotenoids in photoprotection of chloroplast constituents. *Photosynthetica* 39(4): 481-488.
- Colmer, T.D. and Voesenek, L.A.C.J. 2009. Flooding tolerance: suites of plant traits in variable environments. *Functional Plant Biology* 36: 665–681.
- Colmer, T.D., Winkel, A. and Pedersen, O. 2011. A perspective on underwater photosynthesis in submerged terrestrial wetland plants . *AoB PLANTS* 2011: 1-12. <https://doi.org/10.1093/aobpla/plr030>.
- Cox, M.C.H., Benschop, J.J., Vreeburg, R.A.M., Wagemaker, C.A.M., Moritz, T., Peeters, A.J.M. and Voesenek, A.C.J. 2004. The Roles of Ethylene, Auxin, Abscisic Acid, and Gibberellin in the Hyponastic Growth of Submerged *Rumex palustris* Petioles. *Plant Physiology* 136: 2948–2960.
- Craine, S. I. and Orians, C. M. 2006. Effects of flooding on pitch pine (*Pinus rigida* Mill.) growth and survivorship. *The Journal of the Torrey Botanical Society*, 289-296.
- Da Costa, C. T., De Almeida, M. R., Ruedell, C. M., Schwambach, J., Maraschin, F. D. S. dan Fett-Neto, A. G. 2013. When stress and development go hand in hand: main hormonal controls of adventitious rooting in cuttings. *Frontiers in Plant Science* 4(133):1-19.
- Dai, Z. C., Fu, W., Qi, S. S., Zhai, D. L., Chen, S. C., Wan, L. Y., Huan, P. and Du, D. L. 2016. Different responses of an invasive clonal plant *Wedelia trilobata* and its native congener to gibberellin: implications for biological invasion. *Journal of Chemical Ecology* 42(2): 85-94.
- Dalmolin, A.C., Dalmagro, H.J., Lobo, F.A., Zortea, M., Junior, A., Ortiz, C.E.R. and Vourlitis, G.L. 2012. Effects of flooding and shading on growth and

gas exchange of *Vochysia divergens* Pohl (Vochysiaceae) of invasive species in the Brazilian Pantanal. *Braz. J. Plant Physiol.* 24(2): 75-84.

- Damanik, R. I., Maziah, M., Ismail, M. R., Ahmad, S., & Zain, A. M. (2010). Responses of the antioxidative enzymes in Malaysian rice (*Oryza sativa* L.) cultivars under submergence condition. *Acta Physiologiae Plantarum* 32(4): 739-747.
- Dambreville, A., Lauri, P. E., Normand, F. and Guédon, Y. 2015. Analysing growth and development of plants jointly using developmental growth stages. *Annals of Botany* 115(1): 93-105.
- Das, K.K., Sarkar, R.K. and Ismail, A.M. 2005. Elongation ability and non-structural carbohydrate levels in relation to submergence tolerance in rice. *Plant Science* 168: 131–136.
- Dat, J.F., Capelli, N., Folzer, H., Bourgeade, P. and Badot, P.M. 2004. Sensing and signalling during plant flooding. *Plant Physiology and Biochemistry* 42: 273–282.
- Davies, C.E., Moss, D. and Hill, M.O. 2004. Eunis habitat classification revised 2004. (<http://eunis.eea.eu.int/index.jsp>). Diakses tanggal 25 November 2014.
- Dayan, J., Voronin, N., Gong, F., Sun, T. P., Hedden, P., Fromm, H. and Aloni, R. 2012. Leaf-induced gibberellin signaling is essential for internode elongation, cambial activity, and fiber differentiation in tobacco stems. *The Plant Cell* 24(1): 66-79.
- De Kroon, H., Huber, H., Stuefer, J. F. and Van Groenendael, J. M. 2005. A modular concept of phenotypic plasticity in plants. *New Phytologist* 166(1): 73-82.
- de Oliveira, V. C. and Joly, C. A. 2010. Flooding tolerance of *Calophyllum brasiliense* Camb.(Clusiaceae): morphological, physiological and growth responses. *Trees* 24(1): 185-193.
- de Sousa, C.A.F. and Sodek, L. 2002. The metabolic response of plants to oxygen deficiency. *Braz. J. Plant Physiol.* 14(2):83-94.
- de Souza, T.C., de Castro, E.M., Pereira, F.J., Parentoni, S.N. and Magalhães, P.C. 2009. Morpho-anatomical characterization of root in recurrent selection cycles for flood tolerance of maize (*Zea mays* L.). *Plant Soil Enviro.* 55(11): 504-510.
- Demura, T. and Ye, Z. H. 2010. Regulation of plant biomass production. *Current Opinion in Plant Biology* 13(3): 298-303.
- Deng, Z.M., Chen, X., Xie, Y.H., Pan, Y., Li, F., Hou, Z.Y., Li, X. and Xie, Y.J. 2013. Plasticity of the clonal growth in wetland sedge *Carex brevicuspis* along a small scale elevation gradient in dongting lake wetlands, China. *Ann. Bot. Fennici* 50: 151-159.

- Depuydt, S. and Hardtke, C.S. 2011. Hormone signalling crosstalk in plant growth regulation. *Current Biology* 22(9): 365-373.
- Dingkuhn, M., Luquet, D., Clément-Vidal, A., Tambour, L., Kim, H. K. and Song, Y. H. 2007. Is plant growth driven by sink regulation? Implications for crop models, phenotyping approaches and ideotypes. *Frontis* 155-168.
- Domagalska, M. A. and Leyser, O. 2011. Signal integration in the control of shoot branching. *Nature Reviews Molecular Cell Biology* 12(4): 211-221.
- Drew, C.D., He, C.J. and Morgan, P.W. 2000. Programmed cell death and aerenchyma formation in roots. *Trends in Plant Science* 5(3): 123-127.
- Du, J., Wang, N., Alpert, P., Yu, M.J., Yu, F.H. and Dong, M. 2010. Clonal integration increases performance of ramets of the fern *Diplazium glaucum* in an evergreen forest in southeastern China. *Flora* 205: 399–403.
- Du, K., Xu, L., Wu, H., Tu, B. dan Zeng, B. 2012. Ecophysiological and morphological adaption to soil flooding of two poplar clones differing in flood tolerance. *Flora* 207: 96-106.
- Duchoslavová, J. and Jansa, J. 2018. The direction of carbon and nitrogen fluxes between ramets in *Agrostis stolonifera* changes during ontogeny under simulated competition for light. *Journal of Experimental Botany* 69(8): 2149-2158.
- Durand, M., Mainson, D., Porcheron, B., Maurousset, L., Lemoine, R. and Pourtau, N. 2018. Carbon source–sink relationship in *Arabidopsis thaliana*: the role of sucrose transporters. *Planta* 247(3): 587-611.
- Durand, M., Porcheron, B., Hennion, N., Maurousset, L., Lemoine, R. and Pourtau, N. 2016. Water deficit enhances C export to the roots in *A. thaliana* plants with contribution of sucrose transporters in both shoot and roots. *Plant Physiology* 170: 1460-1479.
- Durbak, A., Yao, H. and McSteen, P. 2012. Hormone signaling in plant development. *Current Opinion in Plant Biology* 15:92–96.
- Eckert, C.G. 1999. Clonal Plant Research: Proliferation. Integration, but not much evolution. *American Journal of Botany* 86(11): 1649–1654.
- Else, M. A., Coupland, D., Dutton, L. and Jackson, M. B. 2001. Decreased root hydraulic conductivity reduces leaf water potential, initiates stomatal closure and slows leaf expansion in flooded plants of castor oil (*Ricinus communis*) despite diminished delivery of ABA from the roots to shoots in xylem sap. *Physiologia Plantarum* 111(1): 46-54.
- Else, M.A., Janowiak, F., Atkinson, C.J. and Jackson, M.B. 2009. Root signals and stomatal closure in relation to photosynthesis, chlorophyll a fluorescence and adventitious rooting of flooded tomato plants. *Annals of Botany* 103: 313–323.

- Elzenga, J.T.M. and Veen, H.V. 2010. Waterlogging and plant nutrient uptake. In Mancuso, S and Shabala, S. (Editors), *Waterlogging Signalling and Tolerance in Plants*. Springer Verlag Berlin Heidelberg. Germany.
- Englberger, K. 2009. Invasive weeds of Pohnpei: A guide for identification and public awareness. Kolonia, Federated States of Micronesia: Conservation Society of Pohnpei. 29 pp.
- Evans, D. E. 2004. Aerenchyma formation. *New Phytologist* 161(1): 35-49.
- Fageria, N. K., Carvalho, G. D., Santos, A. B., Ferreira, E. P. B. and Knupp, A. M. 2011. Chemistry of lowland rice soils and nutrient availability. *Communications in Soil Science and Plant Analysis* 42(16): 1913-1933.
- Fagerstedt, K.V., Blokhina, O.B., Pucciariello, C. and Perata, P. 2013. Flooding tolerance mechanisms in roots. In Eshel, A. and Beeckman, T. (Eds.). *Plant Roots: The Hidden Half*, Fourth Edition. CRC Press. London.
- Fenollosa, E., Roach, D. A. and Munné-Bosch, S. 2016. Death and plasticity in clones influence invasion success. *Trends in Plant Science* 21(7): 551-553.
- Ferner, E., Rennenberg, H. and Kreuzwieser, J. 2012. Effect of flooding on C metabolism of flood-tolerant (*Quercus robur*) and non-tolerant (*Fagus sylvatica*) tree species. *Tree physiology* 32(2): 135-145.
- Ferreira, C. S., Piedade, M. T. F., Franco, A. C., Gonçalves, J. F. C. and Junk, W. J. 2009. Adaptive strategies to tolerate prolonged flooding in seedlings of floodplain and upland populations of *Himatanthus sucuuba*, a Central Amazon tree. *Aquatic Botany* 90(3): 246-252.
- Flores-Borges, D. N., Mastroberti, A. A. and Bona, C. 2016. Ontogeny and distribution of cell-wall glycans during aerenchyma formation in roots of *Pistia stratiotes* (Araceae). *Botanical Journal of the Linnean Society* 180(3): 401-412.
- Fosberg, F.R. and Sachet, M.H. 1980. *Systematic Studies of Micronesian Plants*. Smithsonian Institution Press. City of Washington.
- Fraire-Velázquez, S. and Balderas-Hernández, V.E. 2013. Abiotic stress in plants and metabolic responses. In Vahdati, K. and Leslie, C. (Eds.). *Abiotic Stress—Plant Responses and Applications in Agriculture*. In Tech. Croatia.
- Fuentes, R.G., Baltazar, A.M., Johnson, D.E., Merca, F.E. and Ismail, A.M. 2010. Morphological and physiological responses of lowland purple nutsedge (*Cyperus rotundus* L.) to flooding. *AoB PLANTS* 2010: 1-13. doi:10.1093/aobpla/plq010.
- Fukao, T. and Bailey-Serres, J. 2004. Plant responses to hypoxia – is survival a balancing act?. *TRENDS in Plant Science* 9(9): 449-456.
- Fukao, T. and Bailey-Serres, J. 2008. Submergence tolerance conferred by Sub1A is mediated by SLR1 and SLRL1 restriction of gibberellin responses in

rice. *Proceedings of the National Academy of Sciences* 105(43): 16814-16819.

- Gaspar, T., Franck, T., Bisbis, B., Kevers, C., Jouve, L., Hausman, J.F. and Dommes, J. 2002. Concepts in plant stress physiology. Application to plant tissue cultures. *Plant Growth Regulation* 37: 263–285.
- Gaspar, T.H., Kevers, C., Faivre-Rampant, O., Crevecœur, M., Penel, C.A., Greppin, H. and Dommes, J. 2003. Changing concepts in plant hormone action. *In Vitro Cell. Dev. Biol.—Plant* 39: 85–106.
- Gilman, E.F. 2011. *Wedelia trilobata*. Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida.
- Glenz, C., Schlaepfer, R., Iorgulescu, I. dan Kienast, F., 2006. Review: Flooding tolerance of Central European tree and shrub species. *Forest Ecology and Management* 235 : 1–13.
- Glover, R., Drenovsky, R.E., Futrell, C.J. and Grewell, B.J. 2015. Clonal integration in *Ludwigia hexapetala* under different light regimes. *Aquatic Botany* 122: 40–46.
- Gong, X., Liu, M., Zhang, L., Ruan, Y., Ding, R., Ji, Y., Zhang, N., Zhang, S., Farmer, J. and Wang C 2015. Arabidopsis AtSUC2 and AtSUC4, encoding sucrose transporters, are required for abiotic stress tolerance in an ABA-dependent pathway. *Physiology Plantarum* 153(1): 119-136.
- Gottwald, J. R., Krysan, P. J., Young, J. C., Evert, R. F. and Sussman, M. R. 2000. Genetic evidence for the in planta role of phloem-specific plasma membrane sucrose transporters. *Proceedings of the National Academy of Sciences* 97(25): 13979-13984.
- Grandjean, O., Vernoux, T., Laufs, P., Belcram, K., Mizukami, Y. and Traas, J. 2004. In vivo analysis of cell division, cell growth, and differentiation at the shoot apical meristem in Arabidopsis. *The Plant Cell* 16(1): 74-87.
- Greenway, H., Armstrong, W. and Colmer, T.D. 2006. Conditions leading to high CO₂ (>5 kPa) in waterlogged–flooded soils and possible effects on root growth and metabolism. *Annals of Botany* 98: 9–32.
- Griffiths, C. A., Paul, M. J. and Foyer, C. H. 2016. Metabolite transport and associated sugar signalling systems underpinning source/sink interactions. *Biochimica et Biophysica Acta(BBA) Bioenergetics* 1857(10): 1715-1725.
- Grineva, G.M., Bragina, T.V. and Platonov, A.V. 2000. Ethylene-Induced Activation of Hydrolytic Enzymes in Adventitious Maize Roots under the Conditions of Advancing Flooding. *Doklady Botanical Sciences* 374(3): 393-396.
- Gunawardena, A. H., Pearce, D. M., Jackson, M. B., Hawes, C. R. and Evans, D. E. 2001. Characterisation of programmed cell death during aerenchyma formation induced by ethylene or hypoxia in roots of maize (*Zea mays* L.). *Planta* 212(2): 205-214.

- Guo, Y., Zhu, C., Gan, L., Ng, D. and Xia, K. 2014. Ethylene is involved in the complete-submergence induced increase in root iron and manganese plaques in *Oryza sativa*. Accepted. *Plant Growth Regul.* DOI 10.1007/s10725-014-9996-7.
- Gursoy, M., Balkan, A. and Ulukan, H. 2012. Ecophysiological responses to stresses in plants: a general approach. *Pakistan Journal of Biological Sciences* 15(11): 506-516.
- Gururani, M. A., Venkatesh, J. and Tran, L. S. P. 2015. Regulation of photosynthesis during abiotic stress-induced photoinhibition. *Molecular Plant* 8(9): 1304-1320.
- Hasanuzzaman, M., Al Mahmud, J., Nahar, K., Anee, T. I., Inafuku, M., Oku, H. and Fujita, M. 2017. Responses, Adaptation, and ROS Metabolism in Plants Exposed to Waterlogging Stress. In *Reactive Oxygen Species and Antioxidant Systems in Plants: Role and Regulation under Abiotic Stress* (pp. 257-281). Springer, Singapore.
- Hattori, Y., Nagai, K. and Ashikari, M. 2011. Rice growth adapting to deepwater. *Current Opinion in Plant Biology* 14(1): 100-105.
- Hattori, Y., Nagai, K., Furukawa, S., Song, X. J., Kawano, R., Sakakibara, H., Wu, J., Matsumoto, T., Yoshimura, A., Kitano, H., Matsuoka, M., Mori, H. and Ashikari, M. 2009. The ethylene response factors SNORKEL1 and SNORKEL2 allow rice to adapt to deep water. *Nature* 460: 1026–1030.
- Havaux, M. 2013. Carotenoid oxidation products as stress signals in plants. *The Plant Journal* 79(4): 597-606.
- He, D., Mathiason, K. and Fennell, A. 2012. Auxin and cytokinin related gene expression during active shoot growth and latent bud paradormancy in *Vitis riparia* grapevine. *Journal of Plant Physiology* 169(6): 643-648.
- Herben, T. 2004. Physiological integration affects growth form and competitive ability in clonal plants. *Evolutionary Ecology* 18: 493–520.
- Herrera, A. 2013. Responses to flooding of plant water relations and leaf gas exchange in tropical tolerant trees of a black-water wetland. *Front. Plant Sci.* 4:106. doi: 10.3389/fpls.2013.00106.
- Herrera, A., Escala, M. and Rengifo, E. 2009. Leaf anatomy changes related to physiological adaptations to flooding in Amazonian tree species. *Brazilian Journal of Plant Physiology* 21(4): 301-308.
- Herzog, M. Dan Pedersen, O. 2014. Partial versus complete submergence: snorkelling aids root aeration in *Rumex palustris* but not in *R. acetosa*. *Plant, Cell and Environment* 37(10):2381-90.
- Hingane, A.J., Saxena, K.B., Patil, S.B., Sultana, R., Srikanth, S., Mallikarjuna, N., Vijaykumar, R. and Sameer Kumar, C.V. 2015. Mechanism of water-logging tolerance in pigeonpea. *Indian J. Genet.* 75(2): 208-214.

- Ho, L. C. 1988. Metabolism and compartmentation of imported sugars in sink organs in relation to sink strength. *Annual Review of Plant Physiology and Plant Molecular Biology* 39(1): 355-378.
- Hodge, A., Berta, G., Doussan, C., Merchan, F. and Crespi, M. 2009. Plant root growth, architecture and function. *Plant and soil* 321(1-2): 153-187.
- Holzmueller, E.J. and Jose, S. 2009. Invasive plant conundrum: What makes the aliens so successful?. *Journal of Tropical Agriculture* 47 (1-2) : 18-29.
- Horchani, S., R'bia, O. and Aschi-Smiti, S. 2011. Oxygen sensing and plant acclimation to soil flooding. *International Journal of Agriculture Research*. 11 pp.
- Hossain, Md. K. and Uddin, S.N. 2011. Mechanisms of waterlogging tolerance in wheat: morphological and metabolic adaptations under hypoxia or anoxia. *Australian Journal of Crops Science* 5(9): 1094-1101.
- Hua, J., Han, L., Wang, Z., Gu, C. dan Yin, Y. 2017. Morpho-anatomical and photosynthetic responses of *Taxodium hybrid*'Zhongshanshan'406 to prolonged flooding. *Flora* 231: 29-37.
- Huang, Q., Shen, Y., Li, X., Zhang, G., Huang, D. and Fan, Z. 2015. Regeneration capacity of the small clonal fragments of the invasive *Mikania micrantha* HBK.: effects of the stolon thickness, internode length and presence of leaves. *Weed Biology and Management* 15(2): 70-77.
- Huang, Y. L. and Kao, W. Y. 2016. Comparisons of growth, biomass allocation, and morphology of an invasive and two non-invasive varieties of *Bidens pilosa* in Taiwan. *Taiwania* 61(4): 288-294.
- Hui, Z. and Shuangtao, W. 2012. Impacts of *Wedelia trilobata* Invasion on Plant Biodiversity and Inhibitory Effects of Its Root Extract on Test Plants. *Abstact. Acta Agriculturae Boreali-Occidentalis Sinica* 21(8): 38-44.
- Hutchings, M.J. and John, E.A. 2004. The effects of environmental heterogeneity on root growth and root/shoot partitioning. *Annals of Botany* 94: 1-8.
- Ibraheem, O., Dealtry, G., Roux, S. and Bradley, G. 2011. The Effect of Drought and Salinity on the Expressional Levels of Sucrose Transporters in Rice (*Oryza sativa*'Nipponbare) Cultivar Plants. *Plant Omics* 4(2): 68-74
- Insausti, P., Grimoldi, A.A., Chaneton, E.J. and Vasellati, V. 2001. Flooding induces a suite of adaptive plastic responses in the grass *Paspalum dilatatum*. *New Phytologist* 152: 291-299.
- ISSG, 2014. *Sphagneticola trilobata* (herb). (<http://www.issg.org/database/species/ecology.asp?si=44>). Diakses tanggal 24 November 2014.
- Iqbal, N., Nazar, R., Iqbal, M., Khan, R., Masood, A. and Khan, N.A. 2011. Role of gibberellins in regulation of source-sink relations under optimal and limiting environmental conditions. *Current Science* 100(7): 998-1007.

- Irfan, M., Hayat, S., Hayat, Q., Afroz, S. and Ahmad, A. 2010. Physiological and biochemical changes in plants under waterlogging. *Protoplasma* 241(1-4): 3-17.
- Ishizaki, K. 2015. Development of schizogenous intercellular spaces in plants. *Frontiers in plant science*, 6, 497.
- Islam, M.A, and Macdonald, S.E. 2004. Ecophysiological adaptations of black spruce (*Picea mariana*) and tamarack (*Larix laricina*) seedlings to flooding. *Trees* 18:35-42.
- Iwanaga, F. and Yamamoto, F. 2008. Effects of flooding depth on growth, morphology and photosynthesis in *Alnus japonica* species. *New Forests* 35(1): 1-14.
- Jackson, M. B. 1985. Ethylene and responses of plants to soil waterlogging and submergence. *Annual Review of Plant Physiology* 36(1): 145-174.
- Jackson, M. B. and Ram, P. C. 2003. Physiological and molecular basis of susceptibility and tolerance of rice plants to complete submergence. *Annals of Botany* 91(2): 227-241.
- Jackson, M. B., Fenning, T. M., Drew, M. C. and Saker, L. R. 1985. Stimulation of ethylene production and gas-space (aerenchyma) formation in adventitious roots of *Zea mays* L. by small partial pressures of oxygen. *Planta* 165(4): 486-492.
- Jackson, M.B. 2002. Long-distance signaling from roots to shoots assessed: the flooding story. *Journal of Experimental Botany* 53(367): 175-181.
- Jajic, I., Sarna, T. and Strzalka, K. 2015. Senescence, stress, and reactive oxygen species. *Plants* 4(3): 393-411.
- Jespersen, D., Yu, J. and Huang, B. 2015. Metabolite responses to exogenous application of nitrogen, cytokinin, and ethylene inhibitors in relation to heat-induced senescence in creeping bentgrass. *PloS One* 10(3): 1-19
- Jia, W., Zhang, L., Wu, D., Liu, S., Gong, X., Cui, Z., Cui, N., Cao, H., Rao, L. and Wang, C. 2015. Sucrose transporter AtSUC9 mediated by a low sucrose level is involved in Arabidopsis abiotic stress resistance by regulating sucrose distribution and ABA accumulation. *Plant and Cell Physiology* 56(8): 1574-1587.
- Jiang, Z., Song, X. F., Zhou, Z. Q., Wang, L. K., Li, J. W., Deng, X. Y. and Fan, H. Y. 2010. Aerenchyma formation: programmed cell death in adventitious roots of winter wheat (*Triticum aestivum*) under waterlogging. *Functional Plant Biology* 37(8): 748-755.
- Jitsuyama, Y. 2017. Hypoxia-Responsive Root Hydraulic Conductivity Influences Soybean Cultivar-Specific Waterlogging Tolerance. *American Journal of Plant Sciences* 8(04): 770.

- Josekutty, P.C., Wakuk, E.E. and Joseph, M.J. 2002. Invasive/Weedy Angiosperms in Kosrae, Federated States of Micronesia. *Micronesica Suppl.* 6: 61–65.
- Joshi, R. and Kumar, P. 2012. Lysigenous aerenchyma formation involves non-apoptotic programmed cell death in rice (*Oryza sativa* L.) roots. *Physiology and Molecular Biology of Plants* 18(1): 1-9.
- Jouhet, J., Maréchal, E. and Block, M. A. 2007. Glycerolipid transfer for the building of membranes in plant cells. *Progress in Lipid Research* 46(1): 37-55.
- Kato, Y., Collard, B. C., Septiningsih, E. M. and Ismail, A. M. 2014. Physiological analyses of traits associated with tolerance of long-term partial submergence in rice. *AoB PLANTS* 6: 1-11 plu058; doi:10.1093/aobpla/plu058
- Kawano, N., Ito, O. and Sakagami, J.I. 2009. Morphological and physiological responses of rice seedlings to complete submergence (flash flooding). *Annals of Botany* 103: 161–169.
- Kawase, M. 1974. Role of ethylene in induction of flooding damage in sunflower. *Physiologia Plantarum* 31(1): 29-38.
- Kebrom, T., Chandler, P., Swain, S., King, R., Richards, R. and Spielmeyer, W. 2012. Inhibition of tiller bud outgrowth in the tin mutant of wheat is associated with precocious internode development. *Plant Physiology* 160(1):308-318
- Kelen, M., Demiralay, E.C., Sen, S. and Ozkan, G. 2004. Separation of abscisic acid, indole-3-acetic acid, gibberellic acid in 99 R (*Vitis berlandieri* x *Vitis rupestris*) and Rose Oil (*Rosa damascena* Mill.) by Reversed Phase Liquid Chromatography. *Turk J Chem* 28: 603-610.
- Kemball, W.D. and Marshall, C. 1995. Clonal integration between parent and branch stolons in white clover: a developmental study. *New Phytol.* 129: 513-521.
- Kercher, S.M. and Zedler, J.B. 2004. Flood tolerance in wetland angiosperms: a comparison of invasive and noninvasive species. *Aquatic Botany* 80: 89–102.
- Khanna-Chopra, R. 2012. Leaf senescence and abiotic stresses share reactive oxygen species-mediated chloroplast degradation. *Protoplasma* 249(3): 469-481.
- Kim, Y.-H., Hwang, S.-J., Waqas, M., Khan, A. L., Lee, J.-H., Lee, J.-D, Nguyen H.T. and Lee, I.-J. 2015. Comparative analysis of endogenous hormones level in two soybean (*Glycine max* L.) lines differing in waterlogging tolerance. *Front. Plant Sci* 6(714): 1-13.

- Kiba, T., Takei, K., Kojima, M., and Sakakibara, H. 2013. Side-chain modification of cytokinins controls shoot growth in *Arabidopsis*. *Developmental Cell* 27(4): 452-461.
- Koch, K. 2004. Sucrose metabolism: regulatory mechanisms and pivotal roles in sugar sensing and plant development. *Current Opinion in Plant biology* 7(3): 235-246.
- Kogawara, S., Yamanoshita, T., Norisada, M., Masumori, M. and Kojima, K. 2006. Photosynthesis and photoassimilate transport during root hypoxia in *Melaleuca cajuputi*. *Tree Physiology* 26: 1413–1423.
- Kopsell, D. A., Kopsell, D. E. and Curran-Celentano, J. 2005. Carotenoid and chlorophyll pigments in sweet basil grown in the field and greenhouse. *HortScience* 40(4): 1119-1119.
- Koyama, T. 2014. The roles of ethylene and transcription factors in the regulation of onset of leaf senescence. *Frontiers in plant science* 5(560): 1-8
- Kozłowski, T. T. 2002. Physiological-ecological impacts of flooding on riparian forest ecosystems. *Wetlands* 22(3): 550-561.
- Kreuzwieser, J. and Rennenberg, H. 2014. Review molecular and physiological responses of trees to waterlogging stress. *Plant, Cell & Environment* 37: 2245-2259.
- Kuderová, A., Urbánková, I., Válková, M., Malbeck, J., Brzobohatý, B., Nemethova, D., and Hejátko, J. 2008. Effects of conditional IPT-dependent cytokinin overproduction on root architecture of *Arabidopsis* seedlings. *Plant and Cell Physiology* 49(4): 570-582.
- Kühn, C., Hajirezaei, M-R, Fernie, A.R., Roessner-Tunali, U., Czechowski, T., Hirner, B. and Frommer, W.B. 2003. The Sucrose Transporter StSUT1 Localizes to Sieve Elements in Potato Tuber Phloem and Influences Tuber Physiology and Development. *Plant Physiology* 131(1): 102-113.
- Kulkarni, S.S and Chavan, P.D. 2013. Study of Some Aspects of Anaerobic Metabolism in Roots of Finger Millet and Rice Plants Subjected to Waterlogging Stress. *International Journal of Botany* 9(2):80-85.
- Kumar, P., Pal, M., Joshi, R. dan Sairam, R.K., 2013. Yield, growth and physiological responses of mung bean [*Vigna radiata* (L.) Wilczek] genotypes to waterlogging at vegetative stage. *Physiol Mol Biol Plants* 19(2): 209–220.
- Kumar, P.P. 2013. Plant hormones and their intricate signaling networks: unraveling the nexus. *Plant Cell Rep* 32: 731–732.
- Kumutha, D., Sairam, R.K., Ezhilmathi, K., Chinnusamy, V. and Meena, R.C. 2008. Effect of waterlogging on carbohydrate metabolism in pigeon pea (*Cajanus cajan* L.): Upregulation of sucrose synthase and alcohol dehydrogenase. *Plant Science* 175: 706–716.

- Kuo-Huang, L. L. and Hung, L. F. 1995. The Formation of Lenticels on the Branches of *Ficus microcarpa* L. f. *Taiwania* 40(2): 139-150.
- Kuroha, T., Nagai, K., Gamuyao, R., Wang, D. R., Furuta, T., Nakamori, M., Kitaoka, T., Adachi, K., Minami, A., Mori, Y., et al. 2018. Ethylene-gibberellin signaling underlies adaptation of rice to periodic flooding. *Science* 361(6398): 181-186.
- Kyozuka, J. 2007. Control of shoot and root meristem function by cytokinin. *Current Opinion in Plant Biology* 10(5): 442-446.
- Lambers, H., Chapin III, F.S. and Pons, T.H. 2008. Plant Physiological Ecology (Second edition). Springer. New York.
- Larson, K. D., Schaffer, B. and Davies, F. S. 1993. Floodwater oxygen content, ethylene production and lenticel hypertrophy in flooded mango (*Mangifera indica* L.) trees. *Journal of Experimental Botany* 44(3): 665-671.
- Lavenus, J., Goh, T., Roberts, I., Guyomarc'h, S., Lucas, M., De Smet, I., Fukaki, H., Beeckman, T., Bennett, M. and Laplace L. 2013. Lateral root development in Arabidopsis: fifty shades of auxin. *Trends in Plant Science* 18(8): 450-458.
- Lechuga-Lago, Y., Sixto-Ruiz, M., Roiloa, S. R. and González, L. 2016. Clonal integration facilitates the colonization of drought environments by plant invaders. *AoB PLANTS* 8: 1-11
- Lemoine, R., La Camera, S., Atanassova, R., Dédaldéchamp, F., Allario, T., Pourtau, N., Bonnemain, J.L., Laloi, M., Coutos-Thévenot, P., Maurousset, L., Faucher, M., Girousse, C., Lemonnier, P., Parrilla, J. and Durand, M. 2013. Source-to-sink transport of sugar and regulation by environmental factors. *Frontiers in Plant Science* 4(272): 1-21
- Le-Provost, G., Lesur, I., Lalanne, C., Da-Silva, C., Labadie, K., Aury, J.M., Leple, J.C. and Plomion, C., 2016. Implication of the suberin pathway in adaptation to waterlogging and hypertrophied lenticels formation in pedunculate oak (*Quercus robur* L.). *Tree Physiology* 00: 1–13 doi:10.1093/treephys/tpw056.
- Lev-Yadun, S. , 2011., Bark. In: Encyclopedia of Life Sciences (ELS). John Wiley & Sons, Ltd: Chichester.
 DOI: 10.1002/9780470015902.a0002078.pub2
- Li, Q., Liu, X., Yue, M., Tang, W.T. and Meng, Q.C. 2011. Response of physiological integration in *Trifolium repens* to heterogeneity of UV-B radiation. *Flora* 206: 712–719.
- Liao, C.T. and Lin, C.H. 2001. Physiological adaptation of crop plants to flooding stress. *Proc. Natl. Sci. Counc.* 25(3): 148-157.
- Liebrechts, W. 2001. Report on the eradication of the invasive weed pest *Wedelia trilobata* from Niue. Pest Management in the Pacific Programme.

- Lin, H.F., Alpert, P. and Yu, F.H. 2012. Effects of fragment size and water depth on performance of stem on the invasive, amphibious, clonal plant *Ipomoea aquatica* fragments. *Aquatic Botany* 99: 34–40.
- Lin, J. F. and Wu, S. H. 2004. Molecular events in senescing Arabidopsis leaves. *The Plant Journal* 39(4): 612-628.
- Liu, F., Liu, J. and Dong, M. 2016. Ecological consequences of clonal integration in plants. *Frontiers in Plant Science* 7(770): 1-11
- Liu, J., Dong, M., Miao, S.L., Li, Z.Y., Song, M.H. and Wang, R.Q. 2006. Invasive alien plants in China: role of clonality and geographical origin. *Biological Invasions* 8:1461–1470.
- Liu, J., He, W.M., Zhang, S.M., Liu, F.H., Dong, M. and Wang, R.Q. 2008. Effects of clonal integration on photosynthesis of the invasive clonal plant *Alternanthera philoxeroides*. *Photosynthetica* 46 (2): 299-302.
- Liu, Z., Cheng, R., Xiao, W., Guo, Q. and Wang, N. 2014. Effect of Off-Season Flooding on Growth, Photosynthesis, Carbohydrate Partitioning, and Nutrient Uptake in *Distylium chinense*. *PLoS One* 9(9): 1-9.
- Lledo, M. D., Crespo, M. B. and Amo-Marco, J. B. 1995. The role of cytokinins and ethylene inhibitors on lenticel hypertrophy generation and ethylene production in in vitro cultures of *Populus euphratica* Olivier. *Israel Journal of Plant Sciences* 43(4): 339-345.
- Lorbiecke, R. and Sauter, M. 1999. Adventitious root growth and cell-cycle induction in deepwater rice. *Plant Physiol.* 119: 21–30.
- Lowe ,S., Browne, M., Boudjelas, S. and De Poorter, M. 2004. 100 of the World's Worst Invasive Alien Species A selection from the Global Invasive Species Database. The Invasive Species Specialist Group (ISSG). (<http://www.issg.org/booklet.pdf>). Diakses tanggal 1 Desember 2014.
- Ludewig, F. and Flügg, U.I. 2013. Role of metabolite transporters in source-sink carbon allocation. *Front. Plant Sci.* 4(23) 1-6.
- Luo, F.L., Chen, Y., Huang, L., Wang, A. and Zhang, M.X. 2014. Shifting effects of physiological integration on performance of a clonal plant during submergence and de-submergence. *Annals of Botany* 113(7): 1265-1274.
- Macanawai, A.R. 2013. Impact of *Sphagneticola trilobata* on plant diversity in soils in South-East Viti Levu, Fiji. *Journal of Life Sciences* 7(6): 635-642.
- Macek, P., Rejmánková, E. and Houdková, K. 2006. The effect of long-term submergence on functional properties of *Eleocharis cellulosa* Torr. *Aquatic Botany* 84(3): 251-258.
- Mai C. D., Phung N. T. P., To H. T. M., Gonin Mathieu, Hoang G. T., Nguyen K. L., Do V. N., Courtois B. and Gantet, P. 2014. Genes controlling root development in rice. *Rice* 7(1): 30.

- Mano, Y. and Omori, F. 2013. Relationship between constitutive root aerenchyma formation and flooding tolerance in *Zea nicaraguensis*. *Plant and Soil* 370(1-2): 447-460.
- Manzur, M.E. Grimoldi, A.A., Insausti, P. and Striker, G.G. 2009. Escape from water or remain quiescent? *Lotus tenuis* changes its strategy depending on depth of submergence. *Annals of Botany* 104: 1163–1169.
- Marcelis, L.F.M. 1996. Sink strength as a determinant of dry matter partitioning in the whole plant. *J. Exp. Bot.* 47: 1281-1291.
- Mason, M. G., Ross, J. J., Babst, B. A., Wienclaw, B. N. and Beveridge, C. A. 2014. Sugar demand, not auxin, is the initial regulator of apical dominance. *Proceedings of the National Academy of Sciences* 111(16): 6092-6097.
- Mateos-Naranjo, E., Redondo-Gomez, S., Silva, J., Santos, R. and Figueroa, M.E. 2007. Effect of Prolonged Flooding on the Invader *Spartina densiflora* Brong. *J. Aquat. Plant Manage* 45: 121-123.
- Mauchamp, A., Blanch, S., and Grillas, P. 2001. Effects of submergence on the growth of *Phragmites australis* seedlings. *Aquatic Botany* 69(2-4): 147-164.
- Mauchamp, A. and Methy, M. 2004. Submergence-induced damage of photosynthetic apparatus in *Phragmites australis*. *Environmental and Experimental Botany* 51: 227–235.
- Maurel, C., Simonneau, T. and Sutka, M. 2010. The significance of roots as hydraulic rheostats. *Journal of Experimental Botany* 61(12): 3191-3198.
- Maurer, D.A. and Zedler, J.B. 2002. Differential invasion of a wetland grass explained by tests of nutrients and light availability on establishment and clonal growth. *Oecologia* 131: 279–288.
- McELROY, J. S. and Kopsell, D. A. 2009. Physiological role of carotenoids and other antioxidants in plants and application to turfgrass stress management. *New Zealand Journal of Crop and Horticultural Science* 37(4): 327-333.
- Milne, R.J., Byrt, C.S., Patrick, J.W. and Grof, C.P.L. 2013. Are sucrose transporter expression profiles linked with patterns of biomass partitioning in *Sorghum* phenotypes? *Front Plant Sci* 4(223): 1-12.
- Mishra, S. K., Patro, L., Mohapatra, P. K. and Biswal, B. 2008. Response of senescing rice leaves to flooding stress. *Photosynthetica* 46(2): 315.
- Mollard, F.P.O., Striker, G.G., Ploschuk, E.L., Vega, A.S. and Insausti, P. 2008. Flooding tolerance of *Paspalum dilatatum* (Poaceae: Paniceae) from upland and lowland positions in a natural grassland. *Flora* 203: 548–556.

- Mommer, L. and Visser, E. J. 2005. Underwater photosynthesis in flooded terrestrial plants: a matter of leaf plasticity. *Annals of Botany* 96(4): 581-589.
- Mommer, L., Lenssen, J. P., Huber, H., Visser, E. J. and De Kroon, H. 2006. Ecophysiological determinants of plant performance under flooding: a comparative study of seven plant families. *Journal of Ecology* 94(6): 1117-1129.
- Mommer, L., Pons, T. L. and Visser, E. J. 2005. Photosynthetic consequences of phenotypic plasticity in response to submergence: *Rumex palustris* as a case study. *Journal of Experimental Botany* 57(2): 283-290.
- Mommer, L., Wolters-Arts, M., Andersen, C., Visser, E. J. and Pedersen, O. 2007. Submergence-induced leaf acclimation in terrestrial species varying in flooding tolerance. *New Phytologist* 176(2): 337-345.
- Müller, D., Waldie, T., Miyawaki, K., To, J. P., Melnyk, C. W., Kieber, J. J., Kakimoto, T. and Leyser, O. 2015. Cytokinin is required for escape but not release from auxin mediated apical dominance. *The Plant Journal* 82(5): 874-886.
- Muniappan, R., Cruz, J. and Bamba, J. 2002. Invasive plants and their control in Micronesia. *Micronesica Suppl.* 6: 85–92.
- Murray, J. A., Jones, A., Godin, C. and Traas, J. 2012. Systems analysis of shoot apical meristem growth and development: integrating hormonal and mechanical signaling. *The Plant Cell* 24: 3907–3919.
- Nagai, K., Kondo, Y., Kitaoka, T., Noda, T., Kuroha, T., Angeles-Shim, R. B., Yasui, H., Yoshimura, A. and Ashikari, M. 2014. QTL analysis of internode elongation in response to gibberellin in deepwater rice. *AoB Plants* 6: 1-12
- Nakano, H., Makino, A. and Mae, T. 1997. The effect of elevated partial pressures of CO₂ on the relationship between photosynthetic capacity and N content in rice leaves. *Plant Physiology* 115(1): 191-198.
- Nakurte, I., Keisa, A. and Rostoks, N. 2012. Development and validation of a reversed-phase liquid chromatography method for the simultaneous determination of indole-3-acetic acid, indole-3-pyruvic acid, and abscisic acid in barley (*Hordeum vulgare* L.). *Journal of Analytical Methods in Chemistry* 2012: 1-6.
- Natural Resources Conservation Service (NRCS). 2011. Creeping ox-eye (*Sphagneticola trilobata*). *PIA West Invasive Species Fact Sheet*. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_036606.pdf. Diakses Tanggal 15 September 2018.
- Nayanakantha, N.M.C., 2007. Alien invansive plants and their potential threat to biodiversity in rubber plantations. *Bulletin of the Rubber Research Institute of Sri Lanka* 48: 61-66.

- Negi, S., Sukumar, P., Liu, X., Cohen, J. D. and Muday, G. K. 2010. Genetic dissection of the role of ethylene in regulating auxin-dependent lateral and adventitious root formation in tomato. *The Plant Journal* 61(1): 3-15.
- Nguyen, Q. A., Luan, S., Wi, S. G., Bae, H., Lee, D. S. and Bae, H. J. 2016. Pronounced phenotypic changes in transgenic tobacco plants overexpressing sucrose synthase may reveal a novel sugar signaling pathway. *Frontiers in Plant Science* 6(1216): 1-15
- Ni, G.Y., Zhao, P., Huang, Q.Q., Hou, Y.P., Zhou, C.M., Cao, Q.P. and Pen, S.L. 2012. Exploring the novel weapons hypothesis with invasive plant species in China. *Allelopathy Journal* 29 (2): 199-214.
- Nishiuchi, S., Yamauchi, T., Takahashi, H., Kotula, L. and Nakazono, M. 2012. Mechanisms for coping with submergence and waterlogging in rice. *Rice* 5(1): 2.
- Niu, S., Li, Z., Yuan, H., Fang, P., Chen, X. and Li, W. 2013. Proper gibberellin localization in vascular tissue is required to regulate adventitious root development in tobacco. *Journal of Experimental Botany* 64(11): 3411-3424.
- Noiraud, N., Delrot, S. and Lemoine, R. 2000. The sucrose transporter of celery. Identification and expression during salt stress. *Plant Physiology* 122(4): 1447-1456.
- Oborny, B., Mony, C. and Heben, T. 2012. From virtual plants to real communities: A review of modeling clonal growth. *Ecological Modelling* 234: 3–19.
- Oliveira, A. S. D., Ferreira, C. S., Graciano-Ribeiro, D. And Franco, A. C. 2015. Anatomical and morphological modifications in response to flooding by six Cerrado tree species. *Acta Botanica Brasilica* 29(4): 478-488.
- Olivella, C., Biel, C., Vendrell, M. and Save, R. 2000. Hormonal and Physiological Responses of *Gerbera jamesonii* to Flooding Stress. *Hortscience* 35(2): 222–225.
- Ortbauer, M. 2013. Abiotic stress adaptation: protein folding stability and dynamics. In Vahdati, K. and Leslie, C. (Eds.). Abiotic stress–plant responses and applications in agriculture. In Tech. Croatia.
- Osorio, S. Ruan, Y.L and Fernie, A.R. 2014. An update on source-to-sink carbon partitioning in tomato. *Functional Plant Ecology* 5: 1-11.
- Panda, D. and Sarkar, R.K. 2012. Leaf photosynthetic activity and antioxidant defense associated with Sub1 QTL in rice subjected to submergence and subsequent re-aeration. *Rice Science* 19(2): 108-116.
- Panda, D. and Sarkar, R.K. 2014. Mechanism associated with nonstructural carbohydrate accumulation in submergence tolerant rice (*Oryza sativa* L.) cultivars. *Journal of Plant Interactions* 9(1): 62-68.

- Parelle, J., Brendel, O., Bodenes, C., Berveiller, D., Dizengremel, C., Jolivet, Y. and Dreyer, E. 2006. Differences in morphological and physiological responses to water-logging between two sympatric oak species (*Quercus petraea* [Matt.] Liebl., *Quercus robur* L.). *Ann. For. Sci.* 63: 849–859.
- Parelle, J., Zapater, M., SCOTTI-SAINTAGNE, C. A. R. O. L. I. N. E., Kremer, A., Jolivet, Y., Dreyer, E. and Brendel, O. 2007. Quantitative trait loci of tolerance to waterlogging in a European oak (*Quercus robur* L.): physiological relevance and temporal effect patterns. *Plant, Cell & Environment* 30(4): 422-434.
- Parent, C., Capelli, N., Berger, A., Crevecoeur, M. and Dat, J.F. 2008. An Overview Plant Responses to Soil Waterlogging. *Plant Stress* 2(1): 20-27.
- Parolin, P., 2009. Submerged in darkness: adaptations to prolonged submergence by woody species of the Amazonian floodplains. *Annals of Botany* 103: 359–376.
- Peleg, Z. and Blumwald, 2011. Hormone balance and abiotic stress tolerance in crop plants. *Current Opinion in Plant Biology* 14:290–295.
- Peng, Y., Zhou, Z., Tong, R., Hu, X. and Du, K. 2017. Anatomy and ultrastructure adaptations to soil flooding of two full-sib poplar clones differing in flood-tolerance. *Flora* 233: 90-98.
- Peres, L.P., Majerowicz, N. and Kerbaui, E.G. 2001. Dry matter partitioning differences between shoots and roots in two contrasting genotypes of orchids and their relationship with endogenous levels of auxins, cytokinins and abscisic acid. *R. Bras. Fisiol. Veg* 13(2): 185-195.
- Pérez-Alfocea, F., Albacete, A., Ghanem, M.E. and Dodd, I.C. 2010. Hormonal regulation of source–sink relations to maintain crop productivity under salinity: a case study of root-to-shoot signalling in tomato. *Functional Plant Biology* 37(7): 592–603.
- Pezeshki, S. R. and DeLaune, R. D. 2012. Soil oxidation-reduction in wetlands and its impact on plant functioning. *Biology* 1(2): 196-221.
- Phukan, U. J., Mishra, S. and Shukla, R. K. 2016. Waterlogging and submergence stress: affects and acclimation. *Critical Reviews in Biotechnology* 36(5): 956-966.
- Phukan, U.J, Mishra, S., Timbre, K., Luqman, S. dan Shukla, R.K. 2014. *Mentha arvensis* exhibit better adaptive characters in contrast to *Mentha piperita* when subjugated to sustained waterlogging stress. *Protoplasma* 251(3):603-614.
- PIER (Pacific Island Ecosystems at Risk), 2010. *Sphagneticola trilobata*. (http://www.hear.org/pier/species/sphagneticola_trilobata.htm). Diakses tanggal 17 September 2014.

- Pierik, R., Tholen, D., Poorter, H., Visser, E. J. and Voesenek, L. A. 2006. The Janus face of ethylene: growth inhibition and stimulation. *Trends in Plant Science* 11(4): 176-183.
- Pierik, R., Van Aken, J. M. and Voesenek, L. A. C. J. 2009. Is elongation-induced leaf emergence beneficial for submerged *Rumex* species?. *Annals of Botany* 103(2): 353-357.
- Pimentel, P., Almada, R. D., Salvatierra, A., Toro, G., Arismendi, M. J., Pino, M. T., Sagredo, B. and Pinto, M. 2014. Physiological and morphological responses of *Prunus* species with different degree of tolerance to long-term root hypoxia. *Scientia Horticulturae* 180: 14-23.
- Pompeiano, A., Vita, F., Alpi, A. and Guglielminetti, L. 2015. *Arundo donax* L. response to low oxygen stress. *Environmental and Experimental Botany* 111: 147-154.
- Poorter, H. and Nagel, O. 2000. The role of biomass allocation in the growth response of plants to different levels of light, CO₂, nutrients and water: a quantitative review. *Functional Plant Biology* 27(12): 1191-1191.
- Poorter, H., Niklas, K.J., Reich, P.B., Oleksyn, J., Poot, P. and Mommer, L. 2012. Biomass allocation to leaves, stems and roots: meta-analyses of interspecific variation and environmental control. *New Phytologist* 193: 30-50.
- Pramanik, M., Shelley, I., Adhikary, D. and Islam, M. 2016. Carbohydrate reserve and aerenchyma formation enhance submergence tolerance in rice . *Progressive Agriculture* 27(3): 256-264.
- Puijalon, S. and Bornette, G. 2006. Phenotypic plasticity and mechanical stress: biomass partitioning and clonal growth of an aquatic plant species. *American Journal of Botany* 93(8): 1090-1099.
- Purnobasuki, H. and Suzuki, M. 2004. Aerenchyma formation and porosity in root of a mangrove plant, *Sonneratia alba* (Lythraceae). *J Plant Res* 117: 465-472.
- Qi, S. S., Dai, Z. C., Miao, S. L., Zhai, D. L., Si, C. C., Huang, P., Wang, R.P. and Du, D. L. 2014. Light limitation and litter of an invasive clonal plant, *Wedelia trilobata*, inhibit its seedling recruitment. *Annals of botany* 114(2): 425-433.
- Qiu, K., Li, Z., Yang, Z., Chen, J., Wu, S., Zhu, X., Gao, S., Gao, J., Ren, G., Kuai, B. and Zhou, X. (2015). EIN3 and ORE1 accelerate degreening during ethylene-mediated leaf senescence by directly activating chlorophyll catabolic genes in *Arabidopsis*. *PLoS Genetics* 11(7): 1-20.
- Qian, Y., Li, D., Han, L. and Sun, Z. 2010. Inter-ramet photosynthate translocation in *Buffalograss* under differential water deficit stress. *J.Amer.Soc. Hort. Sci.* 135(4): 310-316.

- Rahman, A.H.M.M. 2013. Systematic studies on Asteraceae in the northern region of Bangladesh. *American Journal of Life Sciences* 1(4): 155-164.
- Rajhi, I., Yamauchi, T., Takahashi, H., Nishiuchi, S., Shiono, K., Watanabe, R., Mliki, A., Nagamura, Y., Tsutsumi, N., Nishizawa, N.K. and Nakazono, M. 2011. Identification of genes expressed in maize root cortical cells during lysigenous aerenchyma formation using laser microdissection and microarray analyses. *New Phytologist* 190(2): 351-368.
- Ren, B., Zhang, J., Dong, S., Liu, P. and Zhao, B. 2016. Effects of waterlogging on leaf mesophyll cell ultrastructure and photosynthetic characteristics of summer maize. *PloS One* 11(9): 1-22.
- Rich, S. M., Ludwig, M. and Colmer, T. D. 2012. Aquatic adventitious root development in partially and completely submerged wetland plants *Cotula coronopifolia* and *Meionectes brownii*. *Annals of Botany* 110(2): 405-414.
- Rich, S. M., Pedersen, O., Ludwig, M. and Colmer, T. D. 2013. Shoot atmospheric contact is of little importance to aeration of deeper portions of the wetland plant *Meionectes brownii*; submerged organs mainly acquire O₂ from the water column or produce it endogenously in underwater photosynthesis. *Plant, Cell & Environment* 36(1): 213-223.
- Rodríguez-Gamir, J., Ancillo, G., González-Mas, M. C., Primo-Millo, E., Iglesias, D. J. and Forner-Giner, M. A. 2011. Root signalling and modulation of stomatal closure in flooded citrus seedlings. *Plant Physiology and Biochemistry* 49(6): 636-645.
- Roiloa, S. and Retuerto, R. 2007. Responses of the clonal *Fragaria vesca* to microtopographic heterogeneity under different water and light conditions. *Environmental and Experimental Botany* 61: 1-9.
- Roiloa, S. R. and Retuerto, R. 2006. Physiological integration ameliorates effects of serpentine soils in the clonal herb *Fragaria vesca*. *Physiologia Plantarum* 128(4): 662-676.
- Roiloa, S. R., Retuerto, R., Campoy, J. G., Novoa, A. and Barreiro, R. 2016. Division of labor brings greater benefits to clones of *Carpobrotus edulis* in the non-native range: evidence for rapid adaptive evolution. *Frontiers in plant science* 7(349): 1-13.
- Roiloa, S. R., Rodríguez-Echeverría, S., Freitas, H. and Retuerto, R. 2013. Developmentally-programmed division of labour in the clonal invader *Carpobrotus edulis*. *Biological Invasions* 15(9): 1895-1905.
- Roitsch, T. 1999. Source-sink regulation by sugar and stress. *Current Opinion in Plant Biology* 2: 198-206.
- Ruan, Y. L. 2012. Signaling role of sucrose metabolism in development. *Molecular Plant* 5(4): 763-765.
- Růžicka, K., Šimášková, M., Duclercq, J., Petrášek, J., Zažímalová, E., Simon, S., Friml, J., Van Montagu, M.C. and Benková, E. 2009. Cytokinin regulates

- root meristem activity via modulation of the polar auxin transport. *Proceedings of the National Academy of Sciences* 106(11): 4284-4289.
- Ryser, P., Gill, H.K., and Byrne, C.J. 2011. Constraints of root response to waterlogging in *Alisma triviale*. *Plant Soil* 343: 247–260.
- Rzewuski, G. and Sauter, M. 2008. Ethylene biosynthesis and signaling in rice. *Plant Science* 175: 32–42.
- Saini, S., Sharma, I., Kaur, N. and Pati, P. K. 2013. Auxin: a master regulator in plant root development. *Plant Cell Reports* 32(6): 741-757.
- Sairam, R.K., Dharmar, K., Chinnusamy, V. and Meena, R.C. 2009. Waterlogging-induced increase in sugar mobilization, fermentation, and related gene expression in the roots of mung bean (*Vigna radiata*). *Journal of Plant Physiology* 166: 602—616.
- Sairam, R.K., Kumutha, D., Ezhilmathi, K., Deshmukh, P.S. and Srivastava, G.C. 2008. Physiology and biochemistry of waterlogging tolerance in plants. *Biologia Plantarum* 52 (3): 401-412.
- Sakagami, J. I., Joho, Y. and Sone, C. 2013. Complete submergence escape with shoot elongation ability by underwater photosynthesis in African rice, *Oryza glaberrima* Steud. *Field Crops Research* 152: 17-26.
- Saptiningsih, E., Dewi, K., Santosa and Purwestri, Y. A. 2018. Clonal integration of the invasive plant *Wedelia trilobata* (L.) Hitch in stress of flooding type combination. *International Journal of Plant Biology* 9(1): 1-17. *Accepted*.
- Sarkar, R. K. and Bhattacharjee, B. 2011. Rice genotypes with SUB1 QTL differ in submergence tolerance, elongation ability during submergence and re-generation growth at re-emergence. *Rice* 5(7): 1-11.
- Sasidharan, R. and Voesenek, L.A. 2015. Ethylene-Mediated Acclimations to Flooding Stress. *Plant Physiology* 169(1):3-12.
- Sauter, M. 2013. Root responses to flooding. *Current Opinion in Plant Biology* 16: 282–286.
- Sauter, M. dan Steffens, B., 2014. Biogenesis of Adventitious Roots and Their Involvement in the Adaptation to Oxygen Limitations in van Dongen, J.T. dan Licausi, F. (eds.): Low-Oxygen Stress in Plants. *Plant Cell Monographs* 21. DOI 10.1007/978-3-7091-1254-0_15. Springer-Verlag Wien.
- Schaller, G. E., Bishopp, A. and Kieber, J. J. 2015. The yin-yang of hormones: cytokinin and auxin interactions in plant development. *The Plant Cell* 27(1): 44-63
- Schurr, U., Walter, A. and Rascher, U. 2006. Functional dynamics of plant growth and photosynthesis—from steady-state to dynamics—from homogeneity to heterogeneity. *Plant, Cell & Environment* 29(3): 340-352.

- Sedigheh, H. G., Mortazavian, M., Norouzian, D., Atyabi, M., Akbarzadeh, A., Hasanpoor, K. and Ghorbani, M. 2011. Oxidative stress and leaf senescence. *BMC Research Notes* 4(477): 1-9.
- Shabala, S., Shabala, L., Barcelo, J. and Poschenrieder, C. 2014. Membrane transporters mediating root signalling and adaptive responses to oxygen deprivation and soil flooding. *Plant, Cell & Environment* 37(10): 2216-2233.
- Shani, E., Yanai, O. and Ori, N. 2006. The role of hormones in shoot apical meristem function. *Current Opinion in Plant Biology* 9(5): 484-489.
- Shao, T., Li, L., Wu, Y., Chen, M., Long, X., Shao, H., Liu, Z. and Rengel, Z. 2016. Balance between salt stress and endogenous hormones influence dry matter accumulation in *Jerusalem artichoke*. *Science of The Total Environment* 568:891-898.
- Sharp, R. E. 2002. Interaction with ethylene: changing views on the role of abscisic acid in root and shoot growth responses to water stress. *Plant, Cell & Environment* 25(2): 211-222.
- Shimamura, S., Mochizuki, T., Nada, Y. And Fukuyama, M. 2003. Formation and function of secondary aerenchyma in hypocotyl, roots and nodules of soybean (*Glycine max*) under flooded conditions. *Plant and Soil* 251(2): 351-359.
- Shimamura, S., Yamamoto, R., Nakamura, T., Shimada, S. and Komatsu, S. 2010. Stem hypertrophic lenticels and secondary aerenchyma enable oxygen transport to roots of soybean in flooded soil. *Annals of Botany* 106: 277–284.
- Shimamura, S., Yoshioka, T., Yamamoto, R., Hiraga, S., Nakamura, T., Shimada, S. and Komatsu, S. 2014. Role of abscisic acid in flood-induced secondary aerenchyma formation in soybean (*Glycine max*) hypocotyls. *Plant Production Science* 17(2): 131-137.
- Shiono, K., Ogawa, S., Yamazaki, S., Isoda, H., Fujimura, T., Nakazono, M. and Colmer, T. D. 2011. Contrasting dynamics of radial O₂-loss barrier induction and aerenchyma formation in rice roots of two lengths. *Annals of Botany* 107(1): 89-99.
- Shiratake, K. 2007. Genetics of sucrose transporter in plants. *Genes, Genomes and Genomics* 1(1): 73-80.
- Si, C.C., Qi, S.S., Du, D.L., Dai, Z.C., Huang, P., Lin, Y. and Miao, S.L. 2014. Local adaptation and phenotypic plasticity both occurred in *Wedelia trilobata* invasion across a tropical island. *Biol. Invasions* 16(11): 2323–2337.
- Skylar, A. and Wu, X. 2011. Regulation of Meristem Size by Cytokinin Signaling. *Journal of Integrative Plant Biology* 53(6): 446-454.

- Slewinski, T. L., Meeley, R. and Braun, D. M. 2009. Sucrose transporter1 functions in phloem loading in maize leaves. *Journal of Experimental Botany* 60(3): 881-892.
- Smith, A. M., Zeeman, S. C. and Smith, S. M. 2005. Starch degradation. *Annu. Rev. Plant Biol.* 56: 73-98.
- Soler, M., Serra, O., Molinas, M., Huguet, G., Fluch, S., dan Figueras, M. 2007. A Genomic Approach to Suberin Biosynthesis and Cork Differentiation. *Plant Physiology* 144: 419-431.
- Sone, C., Ito, O. and Sakagami, J. I. 2012. Characterizing submergence survival strategy in rice via chlorophyll fluorescence. *Journal of Agronomy and Crop Science* 198(2): 152-160.
- Song, Y. B., Yu, F. H., Keser, L. H., Dawson, W., Fischer, M., Dong, M. and van Kleunen, M. 2013. United we stand, divided we fall: a meta-analysis of experiments on clonal integration and its relationship to invasiveness. *Oecologia* 171(2): 317-327.
- Sosnova, M., van Diggelen, R. and Klimešova, J. 2010. Distribution of clonal growth forms in wetlands. *Aquatic Botany* 92(1): 33-39.
- Space, J.C., Waterhouse, B.M., Newfield, M. and Bull, C. 2004. Report to the Government of Niue and UNDP: Invasive species on Niue following Cyclone Heta. UNDP NIU/98/G31 – Niue Enabling Activity. 76 pp.
- Steffens, B. and Sauter, M. 2005. Epidermal Cell Death in Rice Is Regulated by Ethylene, Gibberellin, and Absciscic Acid. *Plant Physiology* 139: 713-721.
- Steffens, B. dan Rasmussen, A. 2016. The physiology of adventitious roots. *Plant Physiology* 170(2): 603-617.
- Steffens, B., Geske, T. and Sauter, M. 2011. Aerenchyma formation in the rice stem and its promotion by H₂O₂. *New Phytologist* 190(2): 369-378.
- Steffens, B., Kovalev, A., Gorb, S.N. dan Sauter, M., 2012. Emerging Roots Alter Epidermal Cell Fate through Mechanical and Reactive Oxygen Species Signaling. *The Plant Cell* 24: 3296-3306.
- Steffens, B., Steffen-Heins, A. and Sauter, M. 2013. Reactive oxygen species mediate growth and death in submerged plants. *Frontiers in Plant Science* 4(179): 1-7.
- Striker, G.G. 2012. Flooding stress on plants: anatomical, morphological and physiological responses. In Mworira, J. (Ed.). *Botany. In Tech*, China.
- Stuefer, J. F., Gómez, S. and Van MÖlken, T. 2004. Clonal integration beyond resource sharing: implications for defence signalling and disease transmission in clonal plant networks. *Evolutionary Ecology* 18(5-6): 647-667.
- Sturm, A. 1999. Invertases. Primary structures, functions, and roles in plant development and sucrose partitioning. *Plant Physiology* 121(1): 1-8.

- Su, M., Li, X., Li, X., Cheng, L., Qi, D., Chen, S. and Liu, G. 2013. Molecular characterization and defoliation-induced expression of a sucrose transporter LcSUT1 gene in sheep grass (*Leymus chinensis*). *Plant Molecular Biology Reporter* 31(5): 1184-1191.
- Su, Y.H., Liu, Y.B. and Zhang, X.S. 2011. Auxin–cytokinin interaction regulates meristem development. *Molecular Plant* 4(4): 616-625.
- Sugiura, D., Kojima, M. and Sakakibara, H. 2016. Phytohormonal regulation of biomass allocation and morphological and physiological traits of leaves in response to environmental changes in *Polygonum cuspidatum*. *Frontiers in Plant Science* 7(1189): 1-14
- Tabot, P. T. and Adams, J. B. 2013. Early responses of *Bassia diffusa* (Thunb.) Kuntze to submergence for different salinity treatments. *South African journal of Botany* 84: 19-29.
- Takahashi, H., Yamauchi, T., Colmer, T. D. and Nakazono, M. 2014. Aerenchyma formation in plants. In *Low-Oxygen Stress in Plants* (pp. 247-265). Springer, Vienna.
- Takatsuka, H., and Umeda, M. 2014. Hormonal control of cell division and elongation along differentiation trajectories in roots. *Journal of Experimental Botany* 65(10): 2633-2643.
- Tamang, B.G and Fukao, T. 2015. Plant Adaptation to Multiple Stresses during Submergence and Following Desubmergence. *Int. J. Mol. Sci.*, 16(12): 30164-30180.
- Tan, S., Zhu, M. and Zhang, Q. 2010. Physiological responses of bermudagrass (*Cynodon dactylon*) to submergence. *Acta Physiol Plant* 32:133–140.
- Tanaka, M., Takei, K., Kojima, M., Sakakibara, H. and Mori, H. 2006. Auxin controls local cytokinin biosynthesis in the nodal stem in apical dominance. *The Plant Journal* 45(6): 1028-1036.
- Tanimoto, E. 2012. Tall or short? Slender or thick? A plant strategy for regulating elongation growth of roots by low concentrations of gibberellin. *Annals of Botany* 110(2): 373-381.
- Thalmann, M. and Santelia, D. 2017. Starch as a determinant of plant fitness under abiotic stress. *New Phytologist* 214(3): 943-951.
- Thaman, R.R. 1999. *Wedelia trilobata*: Daisy invader of the Pacific Islands. IAS Technical Report 99/2. Institute of Applied Science, University of the South Pacific Suva, Fiji Islands.
- Thaman, R.R. 2009. *Wedelia (Sphagneticola trilobata)* - Daisy invader of the Pacific Islands: The worst weed in the Pacific?. Conference Proceedings.
- Thaman, R.R., Keppel, G., Watling, D., Thaman, B., Gaunavinaka, T., Naikatini, A., Thaman, B., Bolaqace, N., Sekinoco, E. and Masere, M. 2005. Nasoata

- Mangrove Island, the PABITRA Coastal Study Site for Viti Levu, Fiji Islands. *Pacific Science* 59(2): 193-204.
- Ubeda-Tomás, S., Swarup, R., Coates, J., Swarup, K., Laplaze, L., Beemster, G. T., Hedden, P., Bhalerao, R. and Bennett, M. J. 2008. Root growth in *Arabidopsis* requires gibberellin/DELLA signalling in the endodermis. *Nature Cell Biology* 10(5):625-628
- Vartapetian, B.B. and Jackson, M.B. 1997. Plant adaptations to anaerobic stress. *Annals of Botany* 79: 3-20.
- Vasil'ev, S. and Bruce, D. 2004. Optimization and evolution of light harvesting in photosynthesis: the role of antenna chlorophyll conserved between photosystem II and photosystem I. *The Plant Cell* 16(11): 3059-3068.
- Verloove, F. and Gullón, E.S. 2012. New records of interesting vascular plants (mainly xenophytes) in the Iberian Peninsula. II. *Fl. Medit.* 22: 5-24.
- Vernoux, T., Besnard, F. and Traas, J. 2010. Auxin at the Shoot Apical Meristem. *Cold Spring Harb Perspect Biol* 2(4): 1-14
- Viana Andrade Junior, W., Santos Filho, G., Klynger da Silva Lobato, A., Tan, D. K. Y., Ferreira de Oliveira Neto, C., da Costa Pereira, A. C., Moraes da Cunha, R.L., Lobo da Costa, R.C., Kikuchi, T.Y.S. and Okumura, R. S. 2015. Negative interference on growth and morpho-anatomical modifications in young '*Parkia gigantocarpa*' plants under waterlogging. *Australian Journal of Crop Science* 9(6): 523-531.
- Vidoz, M.L., Loreti, E., Mensuali, A., Alpi, A. and Perata, P. 2010. Hormonal interplay during adventitious root formation in flooded tomato plants. *The Plant Journal* 63: 551–562.
- Visser, E.J.W. and Voesenek, L.A.C.J. 2004. Acclimation to soil flooding – sensing and signal-transduction. *Plant and Soil* 254: 197–214.
- Visser, E.J.W., Colmer, T.D., Blom, C.W.P. and Voesenek, L.A.C.J. 2000. Changes in growth, porosity, and radial oxygen loss from adventitious roots of selected mono- and dicotyledonous wetland species with contrasting types of aerenchyma. *Plant, Cell and Environment* 23: 1237–1245.
- Voesenek, L. A. C. J., Colmer, T. D., Pierik, R., Millenaar, F. F. and Peeters, A. J. M. 2006. How plants cope with complete submergence. *New Phytologist* 170(2): 213-226.
- Voesenek, L.A. and Bayley-Serres, J. 2015. Flood adaptive traits and processes: an overview. *New Phytologist* 206(1):57-73.
- Voesenek, L.A.C.J. and Bailey-Serres, J. 2013. Flooding tolerance: O₂ sensing and survival strategies. *Current Opinion in Plant Biology* 16: 647–653.
- Voesenek, L.A.C.J. and Sasidharan, R. 2013. Ethylene – and oxygen signalling – drive plant survival during flooding. *Plant Biology* 15: 426–435.

- Voeselek, L.A.C.J., Banga, M., Rijnders, J.G.H.M., Visser, E.J.W. and Blom, C.W.P.M. 1996. Hormone sensitivity and plant adaptations to flooding. *Folia Geobot. Phytotax.* 31: 47-56.
- Vreeburg, R.A.M., Benscop, J.J., Peeters, A.J.M., Colmer, T.D., Ammerlaan, A.H.M., Staal, M., Elzenga, T.M., Staals, R.H.J., Darley, C.P., McQueen-Mason, S.J. and Voeselek, L.A.C.J. 2005. Ethylene regulates fast apoplastic acidification and expansin A transcription during submergence-induced petiole elongation in *Rumex palustris*. *The Plant Journal* 43: 597–610.
- Vriezen, W.H., Voeselek, L.A.C.J. and Mariani, C. 1999. Ethylene Biosynthesis in *Rumex palustris* Upon Flooding. Abstract. pp. 343-344. In Kanellis, A.K., Chang, C., Klee, H., Bleecker, A.B., Pech, J.C. and Grierson, D. (Eds). *Biology and Biotechnology of the Plant Hormone Ethylene II*. Springer Netherlands.
- Wang, C., Xie, Y., He, Y., Li, X., Yang, W. and Li, C. 2017. Growth and Physiological Adaptation of *Salix matsudana* to Periodic Submergence in the Hydro-Fluctuation Zone of the Three Gorges Dam Reservoir of China. *Forests* 8(8): 283.
- Wang, G. B. and Cao, F. L. 2012. Formation and function of aerenchyma in baldcypress (*Taxodium distichum* (L.) Rich.) and Chinese tallow tree (*Sapium sebiferum* (L.) Roxb.) under flooding. *South African Journal of Botany* 81: 71-78.
- Wang, R., Rehman, S.U., Song, Y., Su, Y., Baerson, S.R. and Zeng, R. 2012. Effects of simulated acid rain on the allelopathic potential of invasive weed *Wedelia trilobata*. *Allelopathy Journal* 30(1): 23-32.
- Wang, Y., Wang, J., Shi, B., Yu, T., Qi, J., Meyerowitz, E. M., and Jiao, Y. 2014. The stem cell niche in leaf axils is established by auxin and cytokinin in Arabidopsis. *The Plant Cell* 26(5): 2055-2067.
- Wang, Z., van Kleunen, M., During, H.J. and Werger, M.J.A. 2013. Root Foraging Increases Performance of the Clonal Plant *Potentilla reptans* in Heterogeneous Nutrient Environments. *PLoS ONE* 8(3): 1-8.
- Waring, E.F. and Maricle, B.R. 2012. Photosynthetic variation and carbon isotope discrimination in invasive wetland grasses in response to flooding. *Environmental and Experimental Botany* 77: 77–86.
- Waters, E. M. and Watson, M. A. 2015. Live substrate positively affects root growth and stolon direction in the woodland strawberry, *Fragaria vesca*. *Frontiers in Plant Science* 6(814): 1-10.
- Wegner, L.H. 2010. Oxygen transport in waterlogged plants. In Mancuso, S and Shabala, S. (Editors), *Waterlogging Signalling and Tolerance in Plants*. Springer Verlag Berlin Heidelberg. Germany.

- Wellburn, A. R. 1994. The spectral determination of chlorophylls a and b, as well as total carotenoids, using various solvents with spectrophotometers of different resolution. *Journal of Plant Physiology* 144(3): 307-313.
- Werner, T., Holst, K., Pörs, Y., Guivarc'h, A., Mustroph, A., Chriqui, D., Grimm, B. and Schmölling, T. 2008. Cytokinin deficiency causes distinct changes of sink and source parameters in tobacco shoots and roots. *Journal of Experimental Botany* 59(10): 2659-2672.
- Werner, T., Motyka, V., Laucou, V., Smets, R., Van Onckelen, H. and Schmölling, T. 2003. Cytokinin-deficient transgenic *Arabidopsis* plants show multiple developmental alterations indicating opposite functions of cytokinins in the regulation of shoot and root meristem activity. *The Plant Cell* 15(11): 2532-2550.
- Werner, T., Motyka, V., Strnad, M. and Schmölling, T. 2001. Regulation of plant growth by cytokinin. *PNAS* 98(18): 10487-10492.
- White, A. C., Rogers, A., Rees, M. and Osborne, C. P. 2016. How can we make plants grow faster? A source–sink perspective on growth rate. *Journal of Experimental Botany* 67(1): 31-45.
- Wientjes, E., Philippi, J., Borst, J. W. and van Amerongen, H. 2017. Imaging the Photosystem I/Photosystem II chlorophyll ratio inside the leaf. *Biochimica et Biophysica Acta (BBA)-Bioenergetics* 1858(3): 259-265.
- Wolfer, S. R. and Straile, D. 2012. To share or not to share: clonal integration in a submerged macrophyte in response to light stress. *Hydrobiologia* 684(1): 261-269.
- Wolters, H. and Jürgens, G. 2009. Survival of the flexible: hormonal growth control and adaptation in plant development. *Nature Reviews Genetics* 10: 305-317.
- Wu, Y. S. and Yang, C. Y. 2016. Physiological responses and expression profile of NADPH oxidase in rice (*Oryza Sativa*) seedlings under different levels of submergence. *Rice* 9(2): 1-10.
- Wu, Y.Q., Hu, Y.J. and Chen, J.N. 2005. Reproductive Characteristics of Alien Plant *Wedelia trilobata*. *Abstract. Acta Scientiarum Naturalium Universitatis Sunyatseni* 44:93-96.
- Xiao, Y., Tang, J., Qing, H., Ouyang, Y., Zhao, Y., Zhou, C. and An, S. 2010. Clonal integration enhances flood tolerance of *Spartina alterniflora* daughter ramets. *Aquatic Botany* 92: 9–13.
- Xiao, Y., Tang, J., Qing, H., Zhou, C. and An, S. 2011. Effects of salinity and clonal integration on growth and sexual reproduction of the invasive grass *Spartina alterniflora*. *Flora-Morphology, Distribution, Functional Ecology of Plants* 206(8): 736-741.
- Xiaoling, L., Ning, L., Jin, Y., Fuzhou, Y., Faju, C. and Fangqing, C. 2011. Morphological and photosynthetic responses of riparian plant *Distylium*

chinense seedlings to simulated Autumn and Winter flooding in Three Gorges Reservoir Region of the Yangtze River, China. *Acta Ecologica Sinica* 31: 31–39.

- Xu, K., Xu, X., Fukao, T., Canlas, P., Maghirang-Rodriguez, R., Heuer, S., Ismail, A.M., Bailey-Serres, J., Ronald, P.C. and Mackill, D. J. 2006. Sub1A is an ethylene-response-factor-like gene that confers submergence tolerance to rice. *Nature* 442(7103):705-708
- Xu, L. and Zhou, Z. F. 2017. Physiological Integration Affects Expansion of an Amphibious Clonal Plant from Terrestrial to Cu-Polluted Aquatic Environments. *Scientific Reports* 7: 1-10.
- Xu, Q. T., Yang, L., Zhou, Z. Q., Mei, F. Z., Qu, L. H. and Zhou, G. S. 2013. Process of aerenchyma formation and reactive oxygen species induced by waterlogging in wheat seminal roots. *Planta* 238(5): 969-982.
- Yamauchi, T., Abe, F., Kawaguchi, K., Oyanagi, A. and Nakazono, M. 2014. Adventitious roots of wheat seedlings that emerge in oxygen-deficient conditions have increased root diameters with highly developed lysigenous aerenchyma. *Plant Signaling & Behavior* 9: 1-4
- Yamauchi, T., Rajhi, I. and Nakazono, M. 2011. Lysigenous aerenchyma formation in maize root is confined to cortical cells by regulation of genes related to generation and scavenging of reactive oxygen species. *Plant Signaling & Behavior* 6(5): 759-761.
- Yamauchi, T., Shimamura, S., Nakazono, M. and Mochizuki, T. 2013. Aerenchyma formation in crop species: a review. *Field Crops Research* 152: 8-16.
- Yamauchi, T., Tanaka, A., Mori, H., Takamure, I., Kato, K., and Nakazono, M. 2016. Ethylene-dependent aerenchyma formation in adventitious roots is regulated differently in rice and maize. *Plant, Cell & Environment* 39(10): 2145-2157.
- Yang, J., Zhang, J., Wang, Z. and Zhu, Q. 2001. Activities of starch hydrolytic enzymes and sucrose-phosphate synthase in the stems of rice subjected to water stress during grain filling. *Journal of Experimental Botany* 52(364): 2169-2179.
- Yang, Z. and Midmore, D.J. 2005. Modelling plant resource allocation and growth partitioning in response to environmental heterogeneity. *Ecological Modelling* 181: 59–77.
- Ye, X.Q., Meng, J.L., Zeng, B., Wu, M., Zhang, Y.Y and Zhang, X.P. 2016. Submergence Causes Similar Carbohydrate Starvation but Faster Post-Stress Recovery than Darkness in *Alternanthera philoxeroides* Plants. *PLoS One* 11(10): 1-11
- Yin, D., Zhang, Z. and Luo, H. 2012. Anatomical responses to waterlogging in *Chrysanthemum zawadskii*. *Scientia Horticulturae* 146:86-91.

- You, W., Yu, D., Liu, C., Xie, D. and Xiong, W. 2013. Clonal integration facilitates invasiveness of the alien aquatic plant *Myriophyllum aquaticum* L. under heterogeneous water availability. *Hydrobiologia* 718: 27–39.
- Yu, B., Zhao, C. Y., Li, J., Li, J. Y. and Peng, G. 2015. Morphological, physiological, and biochemical responses of *Populus euphratica* to soil flooding. *Photosynthetica* 53(1): 110-117.
- Yu, S. M., Lo, S. F. and Ho, T. H. D. 2015. Source–sink communication: regulated by hormone, nutrient, and stress cross-signaling. *Trends in plant science* 20(12): 844-857.
- Yukiyoshi, K. and Karahara, I. 2014. Role of ethylene signalling in the formation of constitutive aerenchyma in primary roots of rice. *AoB Plants* 6: 1-9.
- Zarembinski, T.I. and Theologis, A. 1997. Expression characteristics of *OS-ACSI* and *OS-ACS2*, two members of the 1-aminocyclopropane-1-carboxylate synthase gene family in rice (*Oryza sativa* L. cv. Habiganj Aman II) during partial submergence. *Plant Molecular Biology* 33: 71-77.
- Zhang, C., Tanabe, K., Tamura, F., Itai, A. and Yoshida, M. 2007. Roles of gibberellins in increasing sink demand in Japanese pear fruit during rapid fruit growth. *Plant Growth Regulation* 52(2): 161.
- Zhang, C., Yang, C. and Dong, M. 2002. Clonal integration and its ecological significance in *Hedysarum laeve*, a rhizomatous shrub in Mu Us Sandland. *Journal of Plant Research* 115(2): 0113-0118.
- Zhang, H., Liu, J., Chen, X., Du, Y., Wang, Y. and Wang, R. 2016. Effects of submergence and eutrophication on the morphological traits and biomass allocation of the invasive plant *Alternanthera philoxeroides*. *Journal of Freshwater Ecology* 31(3): 341-349.
- Zhang, H., Zhong, H., Wang, J., Sui, X. and Xu, N. 2016. Adaptive changes in chlorophyll content and photosynthetic features to low light in *Physocarpus amurensis* Maxim and *Physocarpus opulifolius* “Diabolo”. *PeerJ* 4: 1-23
- Zhang, Q., Huber, H., Boerakker, J. W., Bosch, D., de Kroon, H. dan Visser, E. J. 2017. Environmental factors constraining adventitious root formation during flooding of *Solanum dulcamara*. *Functional Plant Biology* 44(9): 858-866.
- Zhang, W., Yang, G., Sun, J., Chen, J. and Zhang, Y. 2015. Clonal integration enhances the performance of a clonal plant species under soil alkalinity stress. *PloS One* 10(3): 1-12.
- Zhang, X., Shabala, S., Koutoulis, A., Shabala, L., Johnson, P., Hayes, D., Nichols, D. and Zhou, M. 2015. Waterlogging tolerance in barley is associated with faster aerenchyma formation in adventitious roots. *Plant and soil* 394(1-2): 355-372.

- Zhang, Y., Zhang, Q. and Sammul, M. 2012. Physiological integration ameliorates negative effects of drought stress in the clonal herb *Fragaria orientalis*. *PloS One* 7(9): 1-8.
- Zhou, J., Qi, A.G, Zhang, Y.C., Wan, S.W. dan Qin, P. 2012. Adventitious root growth and relative physiological responses to waterlogging in the seedlings of seashore mallow (*Kosteletzkya virginica*), a biodiesel plant. *AJCS* 6(1):73-80.
- Zhou, M. B., Yang, P., Gao, P. J. and Tang, D. Q. 2011. Identification of differentially expressed sequence tags in rapidly elongating *Phyllostachys pubescens* internodes by suppressive subtractive hybridization. *Plant Molecular Biology Reporter* 29(1): 224-231.
- Zhou, X., Zhang, Z. L., Park, J., Tyler, L., Yusuke, J., Qiu, K., Nam, E.A., Lumba, S., Desveaux, D. McCourt, P., Kamiya, Y. and Sun, T.P. 2016. The ERF11 transcription factor promotes internode elongation by activating gibberellin biosynthesis and signaling. *Plant Physiology* 171(4): 2760-2770.
- Zou, X., Hu, C., Zeng, L., Cheng, Y., Xu, M. and Zhang, X. 2014. A Comparison of Screening Methods to Identify Waterlogging Tolerance in the Field in *Brassica napus* L. during Plant Ontogeny. *PLoS ONE* 9(3): 1-9.