

## Daftar Pustaka

- Abdel Latef, A.A.H., Srivastava, A.K., Saber, H. Alwaleed, E. A. Phan Tran, L. 2017. *Sargassum muticum* and *Jania rubens* regulate amino acid metabolism to improve growth and alleviate salinity in chickpea. *Sci Rep* 7, 10537.
- Ahmed, D.A.E.A., Gheda, S.F. and Ismail, G.A. 2021. Efficacy of two seaweeds dry mass in bioremediation of heavy metal polluted soil and growth of radish (*Raphanus sativus* L.) plant. *Environmental Science and Pollution Research*, 28(10), pp.12831-12846.
- Ahmed, M.A., Ahmed, A.G., Mohamed, M.H., Tawfik, M.M. 2011. Integrated effect of organic and biofertilizers on wheat productivity in new reclaimed sandy soil. *Res. J. Agric. Biol. Sci.* 7, 105–114.
- Al-Fraihat, A.H., Al-dalain, S.Y., Abu-Darwish, M.S., Al-Tabbal, J.A. and Al-Rawashdeh, Z.B. 2011. Effect of organic and biofertilizers on growth, herb yield and volatile oil of marjoram plant grown in Ajloun region, Jordan. *Journal of Medicinal Plants Research*, 5(13), pp.2822-2834.
- Almaroai, Y. A. and Eissa. M. A. 2020. Role of marine algae extracts in water stress resistance of onion under semiarid conditions. Saudi Arabia. *J Soil Sci Plant Nutr.* Vol 20:1092–1101
- Al-Omran, A. M., Fatah, A. M., Sheta, A. S., Al-Harbi, A. R. 2004. Clay deposits for water management of sandu soil. *Arid Land Research and Management*. 1: 171-183
- Anbes, T., Worku, W. and Beshir, H.M. 2018. Effects of seedling age and rates of phosphorus fertilizer on growth and yield performance of onion (*Allium cepa* L.) under irrigation at Alage, Central Rift Valley of Ethiopia. *African Journal of Plant Science*, 12(9), pp.215-226.
- Asgele, K., Woldetsadik, K., Gedamu, F.Y. and Arvind, C. 2018. Effect of inorganic np fertilizers and vermicompost on seed yield and seed quality of onion (*Allium cepa* L.) at Maitsebri, Northern, Ethiopia. *Int. J. of Life Sciences*, 6(3), pp.733-743.
- Atmodjo, W.Y. and Setyarini, P.H., 2009. karakterisasi unsur kimia, metalografi, dan melanik dalam sistem pengecoran vakum paduan aluminium magsimal-59.
- Ayissaa, T. and Kebedeb, F. 2011. Effect of nitrogenous fertilizer on the growth and yield of cotton (*Gossypium hirsutum* L.) varieties in middle Awash, Ethiopia. *J Drylands*, 4(1), pp.248-258.
- Azri. 2017. Pengaruh biostimulan terhadap pertumbuhan dan produksi bawang merah di lahan gambut. Indonesia. *Indonesia. J. Pertanian Agros* Vol.19 No. 2 88-97
- Balitsa. 2018. Deskripsi bawang merah varietas bima brebes. balai penelitian tanaman sayuran. Jawa Barat

- Balittanah. 2006. Pupuk Organik dan pupuk hayati, balai besar litbang sumberdaya lahan pertanian. kementerian. Pertanian Republik Indonesia
- BPS. 2019. Produksi Tanaman Sayuran 2019. Jakarta
- Carlsson A, van Beilen J, Moller R, Clayton D. 2007. Micro- and macro-algae: utility for industrial applications. In: Bowles D (ed) Outputs from the EPOBIO project. CPL Press, Newbry, p 82
- Castro, J. S., Calijuri, M. L., Assemany, P. P., Cecon, P. R., Assis, I. R., Ribeiro, F. J. 2017. Microalgae biofilm in soil: Greenhouse gas emissions, ammonia volatilization and plant growth. Brazil. J. Science of the Total Environment. Vol (574) 1640–1648
- Chatterjee, A., Singh, S., Agrawal, C., Yadav, S., Rai, R., Rai, L. C. 2017. Role of algae as a biofertilizer. India. J. Algal Green Chemistry. 189-200
- Daniel, S. L., Kiril, B., and Leonel, P. 2019. Production of bio-fertilizer from *Ascomyces nodosum* and *Sargassum muticum* (*Phaeophyceae*). Journal of Oceanology and Limnology, 37(3), pp.918-927.
- Dineshkumar, R., Subramanian, J., Arumugam A., Rasheeq A. A., Sampathkumar P. 2020. Exploring the microalgae biofertilizer effect on onion cultivation by field experiment. India. J. Waste and Biomass Valorization. Vol 11:77–87
- Divya K., Roja, M. N. and Padal S.B. 2015. Effect of seaweed liquid fertilizer of *Sargassum wightii* on germination, growth and productivity of brinjal. Inter J of Adv Res in Sci, Eng and Tech, 2(10): 868–871.
- Dordas, C.A. and Sioulas, C. 2008. Safflower yield, chlorophyll content, photosynthesis, and water use efficiency response to nitrogen fertilization under rainfed conditions. Industrial crops and products, 27(1), pp.75-85.
- El-Tantawy, E.M. and El-Beik, A.K. 2009. Relationship between growth, yield and storability of onion (*Allium cepa* L.) with fertilization of nitrogen, sulphur and copper under calcareous soil conditions. Research Journal of Agriculture and Biological Sciences, 5(4), pp.361-371.
- Fahmi, N., Syamsuddin, S. and Marliah, A. 2014. Pengaruh pupuk organik dan anorganik terhadap pertumbuhan dan hasil kedelai (*Glycine max* (L.) Merrill). Jurnal Floratek, 9(2), pp.53-62.
- Fan, M., Huang, Y., Zhong, Y., Kong, Q., Xie, J., Niu, M., Xu, Y. and Bie, Z. 2014. Comparative transcriptome profiling of potassium starvation responsiveness in two contrasting watermelon genotypes. Planta, 239(2), pp.397-410.
- Fatma, M., Al-Shakankery, R.A., Hamonda, A.M.M. 2014. The promotive effect of different concentrations of marine algae as biofertilizers on growth and yield of maize (*Zea mays* L.) plants. J Chem Biol Phy Sci Sec B 4(4):3201–3211
- Fernández-Delgado, M., Amo-Mateos, E. D., Lucas, S., García-Cubero, MónicaCoca, M. T. 2020. Recovery of organic carbon from municipal mixed waste compost for the production of fertilizer. Spain. Journal of cleaner production. Vol 265

- Ganapathy Selvam G, Sivakumar K. 2013. Effect of foliar spray form seaweed liquid fertilizer of *Ulva reticulata* (Forsk.) on *Vigna mungo* L. and their elemental composition using SEM-energy dispersive spectroscopic analysis. A. Pac. J Rep. 2(2):119-125.
- Gawrońska, H., Przybysz, A., Szalacha, E. and Słowiński, A. 2008. Physiological and molecular mode of action of Asahi SL biostimulator under optimal and stress conditions. ed. H. Gawronska. Biostimulators in modern agriculture, General Aspects, Wieś Jutra, 54, p.76.
- Gebretsadik, K. and Dechassa, N., 2018. Response of onion (*Allium cepa* L.) to nitrogen fertilizer rates and spacing under rain fed condition at Tahtay Koraro, Ethiopia. Scientific reports, 8(1), pp.1-8.
- Ghazali M., Husna H., Sukiman. 2018. Diversitas dan karakteristik alga merah (*Rhodophyta*) pada akar mangrove di teluk serewe kabupaten Lombok Timur, Jurnal Biologi Tropis, 18 (1): 80-90.
- González-Morales, S., Pérez-Labrada, F., García-Enciso, E.L., Leija-Martínez, P., Medrano-Macías, J., Dávila-Rangel, I.E., Juárez-Maldonado, A., Rivas-Martínez, E.N. and Benavides-Mendoza, A. 2017. Selenium and sulfur to produce *Allium* functional crops. Molecules, 22(4), p.558.
- Goswami, D., Thakker, J. N. and Dhandhukia, P. C. 2016. Portraying mechanics of plant growth promoting rhizobacteria (PGPR): a review. Cogent Food Agric 2, 1127500.
- Gunadi, N., 2009. Kalium sulfat dan kalium klorida sebagai sumber pupuk kalium pada tanaman bawang merah. Jurnal Hortikultura, 19(2).
- Hatfield, J.L. and Prueger, J.H. 2015. Temperature extremes: Effect on plant growth and development. Weather and climate extremes, 10, pp.4-10.
- Hidangmayum, A. and Sharma, R. 2017. Effect of different concentrations of commercial seaweed liquid extract of *Ascophyllum nodosum* as a plant bio stimulant on growth, yield and biochemical constituents of onion (*Allium cepa* L.). J. Pharmacogn. Phytochem, 6(4), pp.658-663.
- Illera-Vives, M., Labandeira, S. S., Fernández-Labrada, M., López-Mosquera, M. E. 2020. Agricultural uses of seaweed. Spain. J. Sustainable seaweed technologies. Vol 19: 591-612
- Isnansetyo A, Lutfia FNL, Nursid M, Susidarti RA. 2017. Cytotoxicity of fucoidan from three tropical brown algae against breast and colon cancer cell lines. Pharmacognosy Journal 9: 14-20
- Kementerian Kelautan dan Perikanan Republik Indonesia. 2019. Laut masa depan bangsa, mari jaga bersama. Jakarta
- Kementerian Pertanian. 2019. Pusat data dan sistem informasi pertanian sekretariat jenderal kementerian pertanian tahun 2019, Buletin Konsumsi Pangan. Vol 10(1)

- Kim, T. H., Böhmer, M., Hu, H., Nishimura, N & Schroeder, J. I. 2010. Guard cell signal transduction network: Advances in Understanding abscisic acid, CO<sub>2</sub>, and Ca<sup>2+</sup> signaling. *Annual Review of Plant Biology*. 61: 561–591.
- Kramer, P.J. and T. Kozlowski. 1979. *Physiology of wood plants*. Academic Press, New York, 811 p.
- Krishnaiah, D., Sarbatly, R., Prasad, D. M. R. Bono, A. 2008. Mineral Content of Some Seaweeds from Sabah's South China Sea. *Asi J of Sci Res*, 1:166-170.
- Kumar, G. and Sahoo, D., 2011. Effect of seaweed liquid extract on growth and yield of *Triticum aestivum* var. Pusa Gold. *Journal of applied phycology*, 23(2), pp.251-255.
- Kumar, I. N., Barot, M., Kumar, R. 2014. Phytochemical analysis and antifungal activity of selected seaweeds from okha coast, Gujarat. *Ind J of Coa Life Medi*, 2(7): 535-540
- Kuttimani, R., Velayudham Somasundram, E. and Muthukrishnan, P. 2013. Effect of integrated nutrient management on yield and economics of banana. *Global Journal of Biology, Agriculture and Health Sciences*, 2(4), pp.191-195.
- Liu, B., Wang, X., Ma, L., Chadwick, D. and Chen, X. 2021. Combined applications of organic and synthetic nitrogen fertilizers for improving crop yield and reducing reactive nitrogen losses from China's vegetable systems: A meta-analysis. *Environmental Pollution*, 269, p.116143.
- Mandal, S.K., Das, A., Dey, S., Sahoo, U., Bose, S., Bose, A., Dhiman, N., Madan, S. and Ramadan, M.A. 2019. Bioactivities of Allicin and related organosulfur compounds from garlic: Overview of the literature since 2010. *Egyptian Journal of Chemistry*, 62(Special Issue (Part 1) Innovation in Chemistry), pp.1-11.
- Manlay, R.J., Feller, C. and Swift, M.J. 2007. Historical evolution of soil organic matter concepts and their relationships with the fertility and sustainability of cropping systems. *Agriculture, Ecosystems & Environment*, 119(3-4), pp.217-233.
- Mukherjee, A. and Patel, J.S. 2020. Seaweed extract: biostimulator of plant defense and plant productivity. *International Journal of Environmental Science and Technology*, 17(1), pp.553-558.
- Muslimin, M. and Sari, W.K.P. 2018. Budidaya rumput laut *Sargassum* sp. dengan metode kantong pada beberapa tingkat kedalaman di dua wilayah perairan berbeda. *Jurnal Riset Akuakultur*, 12(3), pp.221-230.
- Nabti, E., Jha, B. and Hartmann, A. 2017. Impact of seaweeds on agricultural crop production as biofertilizer. *International Journal of Environmental Science and Technology*, 14(5), pp.1119-1134.
- Pamungkas, P. B., Purwaningsih, O., Susetyo H. B. 2020. Pengaruh Kompos Rumput Laut dan Azolla terhadap Pertumbuhan dan Hasil Bawang Merah. *Indonesia. Jurnal Vegetalika*. Vol 9(3) 500-511

- Pangestuti, R., Sulistyaningsih, E., Kurniasih, B., Murti, R. H. 2021. Kajian Agregasi Bawang Merah Asal Biji. Disertasi Pasca Sarjana. Faperta UGM. on Press.
- Pardo JM, Quintero FJ. 2002. Plants and sodium ions: keeping company with the enemy. *Genome Biology* 3: 1-4.
- Peraturan Menteri Pertanian Nomor 70/Permentan/SR.140/10/2011. Pupuk Organik, Pupuk Hayati Dan Pembenah Tanah. Lampiran I, Persyaratan Teknik Minimal Pupuk Organik Padat
- PUSLITBANGHORTI (Pusat Penelitian dan Pengembangan Hortikultura). 2015. Budidaya Tanaman Bawang Merah. [Online]. Available at <http://hortikultura.litbang.pertanian.go.id/teknologi-detail-42.html>. diakses pada 22 September 2021
- Rabinowitch, H.D., and Brewster, J.L. 1990. Onions and Allied Crops: Botany, Physiology, and Genetics (1st ed.). CRC Press.
- Ragaa, A.H. and Safinaz, A.F. 2013. Enhancement the growth and phenolic content of faba bean (*Vicia faba* L.) by applying some biofertilizer agents. *Journal of Food Studies*, 2(2), pp.20-30.
- Raghunandan, B.L., Vyas, R.V., Patel, H.K. and Jhala, Y.K. 2019. Perspectives of seaweed as organic fertilizer in agriculture. In *Soil fertility management for sustainable development* (pp. 267-289). Springer, Singapore.
- Rahman, K.M. and Zhang, D. 2018. Effects of fertilizer broadcasting on the excessive use of inorganic fertilizers and environmental sustainability. *Sustainability*, 10(3), p.759.
- Ramulifho, E., Goche, T., Van As, J., Tsilo, T.J., Chivasa, S. and Ngara, R. 2019. Establishment and characterization of callus and cell suspension cultures of selected *Sorghum bicolor* (L.) Moench varieties: A resource for gene discovery in plant stress biology. *Agronomy*, 9(5), p.218.
- Ramya, S.S., Vijayanand, N. and Rathinavel, S. 2015. Foliar application of liquid biofertilizer of brown alga *Stoechospermum marginatum* on growth, biochemical and yield of *Solanum melongena*. *International Journal of Recycling of Organic Waste in Agriculture*, 4(3), pp.167-173.
- Rashti, M.R., Wang, W., Moody, P., Chen, C. and Ghadiri, H. 2015. Fertiliser-induced nitrous oxide emissions from vegetable production in the world and the regulating factors: A review. *Atmospheric Environment*, 112, pp.225-233.
- Rokhminarsi, E. and Utami, D.S. 2019. Efektivitas Pupuk Hayati Mikoriza Berbasis Azolla (Mikola) pada Tanaman Bawang Merah (Effectiveness of Biofertilizer Mycorrhiza Based Azolla (Mikola) on Shallot). *J. Hort.* Vol. 29 (1) : 45-52
- Russo RO, Berlyn GP. 1990. The use of organic biostimulants to help low input sustainable agriculture. *J Sustain Agric* 1:19–38

- Santoso, W.E.A. and Estiasih, T. 2014. Jurnal Review: Kopigmentasi ubi jalar ungu (*Ipomoea Batatas* Var. Ayamurasaki) dengan kopigmen Na-Kaseinat dan protein whey serta stabilitasnya terhadap pemanasan. Jurnal Pangan dan Agroindustri, 2(4), pp.121-126.
- Sarwono H. 1987. Ilmu Tanah. PT Mediatama sarana Perkasa. Jakarta.
- Satriya, R., Siswanto, B. and Nuraini, Y. 2017. Pengaruh aplikasi hasil sampling industri rumput laut terhadap sifat kimia tanah dan pertumbuhan tanaman jagung. Jurnal Tanah dan Sumberdaya Lahan, 3(2), pp.375-380.
- Scherer, G.F. 2011. Auxin-binding-protein1, the second auxin receptor: what is the significance of a two-receptor concept in plant signal transduction. Journal of Experimental Botany, 62(10), pp.3339-3357.
- Shareef, H.J., Alhamd, A.S., Naqvi, S.A. and Eissa, M.A., 2021. Adapting date palm offshoots to long-term irrigation using groundwater in sandy soil. Folia oecologica, 48(1).
- Sharma, A. and Upadhyay, B.K. 2007. Marketing promotion policies in agriculture (special reference to National Fertilizer Limited). Marketing Promotion Policies in Agriculture in India, 152, pp.8-15.
- Sulistyarningsih, E., Pangestuti, R. and Rosliani, R. 2020. Growth and yield of five prospective shallot selected accessions from true shallot seeds in lowland areas. Ilmu Pertanian (Agricultural Science), 5(2), pp.92-97.
- Sumarni, N., E. Sumiati dan Suwandi. 2005. Pengaruh kerapatan tanaman dan aplikasi zat pengatur tumbuh terhadap produksi umbi bibit bawang merah asal biji kultivar Bima. J. Hort. 15(3): 208-214.
- Sumiati, E. and Gunawan, D.O. 2007. Aplikasi pupuk hayati mikoriza untuk meningkatkan efisiensi serapan unsur hara NPK serta pengaruhnya terhadap hasil dan kualitas umbi bawang merah. Jurnal Hortikultura, 17(1).
- Sun, B., Gu, L., Bao, L., Zhang, S., Wei, Y., Bai, Z., Zhuang, G. and Zhuang, X. 2020. Application of biofertilizer containing *Bacillus subtilis* reduced the nitrogen loss in agricultural soil. Soil Biology and Biochemistry, 148, p.107911.
- Suwandi, S., Sopha, G.A. and Yufdy, M.P. 2016. Efektivitas pengelolaan pupuk organik, NPK, dan pupuk hayati terhadap pertumbuhan dan hasil bawang merah. J. Hort. 253 208
- Szczepanek, M., Wszelaczyńska, E. and Pobereźny, J. 2018. Effect of seaweed biostimulant application in spring wheat. AgroLife Scientific Journal, 7(1), pp.131-136.
- Szczepanek, M., Wszelaczyńska, E., Pobereźny, J. and Ochmian, I. 2017. Response of onion (*Allium cepa* L.) to the method of seaweed biostimulant application. Acta Sci. Pol. Hortorum Cultus, 16(2), pp.113-122.
- Thirumaran, G., Arumugam, M., Arumugam, R. and Anantharaman, P. 2009. Effect of seaweed liquid fertilizer on growth and pigment concentration of *Cyamopsis*



*tetragonolaba* (L) Taub. American-Eurasian Journal of Agronomy, 2(2), pp.50-56.

Thompson, L.M. and Troeh, F.R., 1978. Soils and soil fertility-4. McGraw-Hill Pub. xi + 516 h.

Triharyanto, E., Damayanti, N.D., Nyoto, S. and Muliawati, E.S. 2021, July. The role of vermicompost and PGPR on growth and formation of bulbils shallot (*Allium cepa* L. *Aggregatum*). In IOP Conference Series: Earth and Environmental Science (Vol. 824, No. 1, p. 012061). IOP Publishing.

Upe, A. and Sau, T. 2018. Adaptasi keberagaman varietas terhadap pertumbuhan dan produksi pada wilayah marginal pertanaman bawang merah (*Allium ascalanicum* L.). Journal Tabaro Agriculture Science, 2(1), pp.172-177.

Uthirapandi, V., Suriya, S., Boomibalagan, P., Eswaran, S., Ramya, S. S., Vijayanand, N., Kathiresan, D. 2018. Bio-fertilizer potential of seaweed liquid extracts of marine macro algae on growth and biochemical parameters of *Ocimum sanctum*. India. Journal of Pharmacognosy and Phytochemistry. Vol 7(3): 3528-3532

Wei, W. Y. Yan, J. Cao, P. Christie, F. Zhang, M. Fan. 2016. Effects of combined application of organic amendments and fertilizers on crop yield and soil organic matter: an integrated analysis of long-term experiments. Agric. Ecosyst. Environ., 225, pp. 86-92

Wigati, E.S., Syukur, A., Kertonegoro, B.D. 2006. Pengaruh takaran bahan organik dan tingkat kelengasan tanah terhadap serapan fosfor oleh kacang tunggak di tanah pasir pantai. Jurnal Ilmu Tanah dan Lingkungan 6(1) 52-58.

Wu H. 2018. Plant salt tolerance and Na<sup>+</sup> sensing and transport. The Crop Journal 6: 215-225.

Xia, L., S.K. Lam, X. Yan, D. Chen. 2017. How does recycling of livestock manure in agroecosystems affect crop productivity, reactive nitrogen losses and soil carbon balance. Environ. Sci. Technol., 51 (2017), pp. 7450-7457

Yusuf, R., Syakur, A., Budiatno, Mas'ud, H. 2016. Application of some types of seaweeds on the growth and yield of shallot (*Allium Ascalonicum* L.). Australia. J. Agroland. 3(2) : 81 – 8