

## DAFTAR PUSTAKA

- Al-Rawahy, M., Al-Rawahy, S., Al-Mulla, Y. & Nadaf, S. (2019). Influence of Nutrient Solution Temperature on Its Oxygen Level and Growth, Yield and Quality of Hydroponic Cucumber. *Journal of Agricultural Science*, (11):75.
- Bartok, J.W. (2021). UMass Extension Greenhouse Crops and Floriculture Program. Retrieved from University of Massachusetts: <https://ag.umass.edu/greenhouse-floriculture/fact-sheets/hydroponic-systems> (20 Agustus 2021)
- Bartok, J.W. (2015). Reducing Humidity in the Greenhouse. UMass Extension Greenhouse Crops and Floriculture Program. Retrieved from University of Massachusetts at: <https://ag.umass.edu/greenhouse-floriculture/fact-sheets/reducing-humidity-in-greenhouse>
- Bhagwat, S. D., Hulloli, A. I., Patil, S. B., Khan, A. A. & Kamble, A. S. (2018). Smart Green House using IOT and Cloud Computing. *International Research Journal of Engineering and Technology*, (3):5.
- Bita, C. E., & Gerats, T. (2013). Plant tolerance to high temperature in a changing environment: scientific fundamentals and production of heat stress-tolerant crops. *Frontiers in Plant Science*, 4, 1–18.
- Brechner, M. & Both, A. J. (2013). Hydroponic lettuce handbook. *Cornell Controlled Environment Agriculture*.
- Bumgarner, N. & Hochuth, R. (2019). Leafy Crop Production in Small-Scale Soilless and Hydroponic Systems. Retrieved from University of Tennessee at: <https://extension.tennessee.edu/publications/Documents/W844-B.pdf>
- Cahyono, B. (2014). Teknik Budidaya Daya dan Analisis Usaha Tani Selada. CV Ilmu Semarang. p 114
- Chutichudet, B., Chutichudet, P., & Kaewsit, S. (2011). Influence of Developmental Stage on Activities of Polyphenol Oxidase, Internal Characteristics and Colour of Lettuce cv. Grand Rapids. *American Journal of Food Technology*, 6, pp. 215-225
- Cytron Technologies. (2013). HC-SR04 Datasheet. *Ultrasonic Sensor User Manual*. Retrieved at: <https://datasheet4u.com/datasheet-pdf/Cytron/HC-SR04/pdf.php?id=1291829>
- Ebina, K., Shi, K., Hirao, M., Hashimoto, J., Kawato, Y., Kaneshiro, S., Morimoto, T., Koizumi, K. & Yoshikawa, H. (2013) Oxygen and Air Nanobubble Water Solution Promote the Growth of Plants, Fishes, and Mice. *PLoS ONE* 8(6): e65339.

- Farahani, H., Wagiran, R., & Hamidon, M. D. (2014). Humidity Sensors Principle, Mechanism, and Fabrication Technologies: A Comprehensive Review. *Sensors*. 14.
- Gent, M. P. N. (2016). Effect of temperature on composition of hydroponic lettuce. *Acta Horticulturae*, (1123), pp.95–100
- Hart, C. 2020. *Home hydroponics*. Retrieved from University of Illinois: [https://extension.illinois.edu/sites/default/files/illinois\\_extension\\_hydroponics\\_handouts.pdf](https://extension.illinois.edu/sites/default/files/illinois_extension_hydroponics_handouts.pdf) (6 Juli 2020)
- Hirofumi I. Y. K., Kaneda, Y., Imahara, J., Oishi, N., Kuroda, M., & Mineno, H. (2016). A reliable wireless control system for tomato hydroponics. *Sensors*, 16(5), 644.
- Hlusko, L. (2013). Hydroponic problems. Retrieved from Cornell University at <https://blogs.cornell.edu/agsci-interns/2013/07/14/planting-hydroponic-lettuce/>
- Internet of Things*. 2021. In Merriam-Webster.com from <https://www.merriam-webster.com/dictionary/Internet of Things>. (23 Agustus 2021)
- Interactive Telecommunications Program. 2021. Microcontroller: The Basics. Retrieved from <https://itp.nyu.edu/physcomp/lessons/microcontrollers-the-basics>. (23 Agustus 2021)
- Jensen, M. H., & Collins, W. L. (2011). Hydroponic Vegetable Production. *Horticultural Reviews*, 7, 483-558.
- Jin, E., Cao, L., Xiang, S., Zhou, W., Ruan, R., & Liu, Y. (2020). Feasibility of using pretreated swine wastewater for production of water spinach (*Ipomoea aquatic* Forsk.) in a hydroponic system. *Agricultural Water Management*, 228
- Jones, J. B. (2014). *Complete Guide for Growing Plants Hydroponically*.
- Julyana, S., Suhendar, R.M. & Janizal. (2018). Sistem Pengendalian Nutrisi Pada Tanaman Kangkung Hidroponik Menggunakan Mikrokontroler Arduino Mega 2560. *Elektra*. 3(2).
- Latha, A. L., Murthy, B. R. & Kumar, K. B. (2016). Distance Sensor with Ultrasonic Sensor and Arduino. *International Journal of Advance Research, Ideas and Innovations in Technology*. 2(10).
- Matos, J., Gonçalves, J.S. & Torres, M.B. (2015). An automatic mechanical system for hydroponics fodder production. *The Romanian Review Precision Mechanics, Optics & Mechatronics*, 47, 63-71.
- Miorandi, D., Sicari, S., de Pellegrini, F., & Chlamtac, I. (2012). *Internet of Things: Vision, applications, and research challenges*. 10(7). pp 1497-1516.

- Nemali, K. (2018). Indoor Production Farm for Small-Scale Greenhouse Operations, Restaurants, Schools, Hospitals and Nursing Homes. Retrieved from Purdue University at: <https://www.purdue.edu/hla/sites/cea/article/indoor-production-farm-for-small-scale-greenhouse-operations-restaurants-schools-hospitals-and-nursing-homes/>
- New York University. (2021). Transistors, Relays, and Controlling High-Current Loads. Retrieved from New Your University from: <https://itp.nyu.edu/physcomp/lessons/electronics/transistors-relays-and-controlling-high-current-loads/> (25 Agustus 2021)
- Resh, H. M., & Howard, M. (2012). Hydroponic Food Production: A Definitive Guidebook for the Advanced Home Gardener and the Commercial Hydroponic Grower.
- Sardare, D. & Admane, S.V. (2013). A review on plant without soil – hydroponics. MIT Academy of Engineering, Alandi Pune, Vol.3(3), p.303
- Savvas, D., and N. Gruda. (2018). Application of Soilless Culture Technologies in the Modern Greenhouse Industry – A Review. *European Journal of Horticultural Science*, vol. 83(5), pp. 280–293.
- Lehr, T. & Williams, A. (2016). Garage Door Security System. *Electrical Engineering Department*. Retrieved from California Polytechnic State University at <https://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?article=1380&context=eesp>
- Singh, H. & Dunn, B. (2016). *Electrical Conductivity and pH Guide for Hydroponics*. Retrieved from Oklahoma State University, Division of Agricultural Sciences and Natural Resources: <http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-10397/HLA-6722web.pdf> (25 Agustus 2021)
- Situmeang, D., Sulastri, T., Girsang, R. L. (2019) The Influence Of Cow Urine Fertilizer, Leaf Bokashi, And AB Mix For The Growth Of Water Spinach Plant (*Ipomoea Reptans* Var.*Poir*) With The DFT (Deep Flow Technique) Hydroponic System At Adventist University Of Indonesia. *Abstract Proceedings International Scholars Conference*, vol 7(1). Pp 1879 - 7894
- Smith, T. & Lopes, P. (2010). A Handbook for the Greenhouse Industry in Massachusetts. Retrieved at University Of Massachusetts at: <https://ag.umass.edu/sites/ag.umass.edu/files/book/pdf/greenhousebmpfb.pdf>
- Stephens, J.M. (2015). Cabbage, Chinese-*Brassica campestris* L. (Pekinensis group), *Brassica campestris* L. (Chinensis group). IFAS Extension,

- University of Florida. Retrieved from University of Florida: <https://edis.ifas.ufl.edu/pdffiles/MV/MV03600.pdf> (21 Juli 2020)
- Sublett, W. Barickman, C. & Sams, C. (2018). The Effect of Environment and Nutrients on Hydroponic Lettuce Yield, Quality, and Phytonutrients. *Horticulturae*. 4. 48. 10.3390/horticulturae4040048.
- Texas A&M University. (2021). Light, Temperature, and Humidity. *Ortnamental Production*. Retrieved at Department of Horticulture Science at <https://aggie-horticulture.tamu.edu/ornamental/a-reference-guide-to-plant-care-handling-and-merchandising/light-temperature-and-humidity/>
- Treftz, C. & Omaye, S. T. (2015). Nutrient Analysis of Soil and Soilless Strawberries and Raspberries Grown in a Greenhouse. *Food Nutr. Sci.* ,6, pp 805–815.
- Treftz, C., Kratsch, H., and Omaye, S. T. (2015). *Hydroponics: A Brief Guide to Growing Food Without Soil*. Retrieved from University of Nevada: <https://extension.unr.edu/publication.aspx?PubID=2756> (5 July 2020)
- United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*, Volume II: Demographic Profiles
- United States Department of Agriculture. (2020). Weed Risk Assessment for *Ipomoea aquatica* Forssk. (Convolvulaceae) – Water Spinach. *Animal and Plant Health Inspection Service*. 1
- University of Maine. 2013. Cytron Technology Product User's Manual – HCSR04 Ultrasonic Sensor.
- University of Massachusetts Amherst. (2021) Water Quality for Crop Production. Retrieved from University of Massachusetts at: <https://ag.umass.edu/greenhouse-floriculture/greenhouse-best-management-practices-bmp-manual/water-quality-for-crop> (29 August 2021)
- Velazquez, L. A., Hernandez, M. A., Leon, M. Dominguez, R. B., & Gutierrez, J. M. (2013). First Advances on the Development of a Hydroponic System for Cherry Tomato Culture. *Computing Science and Automatic Control*.
- Vatari, S., Bakshi, A., & Thakur, T. (2016). Green house by using IOT and cloud computing. IEEE International Conference on *Recent Trends in Electronics, Information & Communication Technology* (RTEICT).
- Victoria State Government. (2020). Internet of Things in Agriculture. Retrieved from Agriculture Victoria at: <https://agriculture.vic.gov.au/farm-management/digital-agriculture/internet-of-things-in-agriculture> (25 Agustus 2021)

Wati, D. R. & Sholihah, W. (2021). Pengontrol pH dan Nutrisi Tanaman Selada pada Hidroponik Sistem NFT Berbasis Arduino. *Jurnal Multinetics*, 7(1)

