

## DAFTAR PUSTAKA

1. Kementerian Pertanian. Outlook Komoditas Peternakan Daging Ayam Ras Pedaging. 2022;
2. Viegas C, Gouveia L, Gonçalves M. Evaluation of microalgae as bioremediation agent for poultry effluent and biostimulant for germination. *Environ Technol Innov* 2021;24.
3. Martinelli G, Vogel E, Decian M, et al. Assessing the eco-efficiency of different poultry production systems: an approach using life cycle assessment and economic value added. *Sustain Prod Consum* 2020;24:181–193.
4. Alfionita ANA, Patang P, Kaseng ES. Pengaruh Eutrofikasi Terhadap Kualitas Air Di Sungai Jeneberang. *J Pendidik Teknol Pertan* 2019;5(1):9.
5. Olivianti A, Abidjulu J, Koleangan HSJ. Air Sungai Sawangan Di Desa Sawangan Kecamatan Tombulu Kabupaten Minahasa. *Chem Prog* 2016;9(2):45–49.
6. Ma Y, Luo Z, Zhong J, et al. Effect of Environmental Factors on Nitrite Nitrogen Absorption in Microalgae–Bacteria Consortia of *Oocystis borgei* and *Rhodospseudomonas palustris*. *Water (Switzerland)* 2023;15(9).
7. Ighalo JO, Dulta K, Kurniawan SB, et al. Progress in Microalgae Application for CO<sub>2</sub> Sequestration. *Clean Chem Eng* 2022;3(May):100044.
8. Muyassaroh, Dewi RK, Minah FN. Penentuan Kadar Protein Pada *Spirulina Platensis* Menggunakan Metode Lowry Dan Kjeldahl Estimation Of Protein Content In *Spirulina Platensis* Under Lowry ' S And Kjeldahl ' S Method. *Tek Kim* 2020;15(1):40–45.
9. Dolatabadi S, Hosseini SA. Wastewater treatment using *Spirulina platensis*. *J Chem ,Biological Phys Sci* 2017;6(July):1239–1246.
10. Hartami P, Mauliyani M, Erniati E, et al. Effectiveness of *Spirulina platensis* as a bioremediator candidate for vaname shrimp (*Litopenaeus vannamei*) wastewater. *Acta Aquat Aquat Sci J* 2022;9(1):54.
11. Hadiyanto, Azim M. Mikroalga Sumber Pangan dan Energi Masa Depan. Edisi Pert. Semarang: UPT UNDIP Press Semarang, 2012;
12. Salim MA. Mikroalga Dalam Riset Biologi. Bandung: Yayasan Lembaga Pendidikan dan Pelatihan Multiliterasi, 2022;
13. Haris A, Hadiyanto, Muhammad F. Pertumbuhan mikroalga spirulina (*Arthrospira platensis*) dalam tekanan styrofoam pada lingkungan air tawar. *Proceeding Semin Nas IPA XII* 2022;315–326.
14. Abdelfattah A, Samir S, Ramadan H, et al. Environmental Science and Ecotechnology Microalgae-based wastewater treatment : Mechanisms , challenges , recent advances , and future prospects. *Environ Sci Ecotechnology [homepage on the Internet]* 2023;13:100205. Available from: <https://doi.org/10.1016/j.ese.2022.100205>
15. Yuliang AN, Feng QI, Ruimin MU, Guixia MA. Research progress on the mechanism of phosphorus removal by microalgae and its process mode. *Ind Water Treat* 2025;45(2):10–17.
16. Suciana I, Utomo KP, Pramadita S. Perencanaan Instalasi Pengolahan Air Limbah (IPAL) Rumah Potong Ayam PD.X. *J Teknol Ramah Lingkung* 2023;7(1):37–48.
17. Damuk YF, Sudiro, Dwiratna C. Pengolahan Limbah Cair Rumah Potong Ayam dengan Metode Free Water Surface Menggunakan Kayu Apu ( *Pistia Stratiotes L .* ) sebagai Media Fitoremediasi. *Enviro* 2022;
18. Peraturan Menteri Lingkungan Hidup Nomor 5 Tahun 2014 RI. Baku Mutu Air Limbah. 2014;1815.
19. Fidiastuti HR, Prabowo CA, Lathifah AS, Amin M, Utomo Y. Bioremediasi Limbah Industri. Malang: Forind, 2019;
20. Dewi ERS. Bioremediasi. Semarang: Universitas PGRI Semarang Press, 2020;
21. Sahabuddin ES. Filosofi Cemar Air. Kupang: PTK PRESS, 2018;
22. Cavonius LR, Carlsson N, Undeland I. Quantification of total fatty acids in microalgae : comparison of extraction and transesterification methods. 2014;7313–7322.
23. Armaini A, Imelda I, Yerizel E, Suharti N, Kusnanda AJ, Musifa E. Characterization and Biological activities of Phycocyanin extracted from *Spirulina platensis* local isolate of Maninjau Lake , West Sumatra , Indonesia Abstract : 2024;17(July):3119–3126.

24. Wan D, Wu Q, Kuča K. Spirulina. Nutraceuticals Effic Saf Toxic [homepage on the Internet] 2016 [cited 2025 Oct 10];569–583. Available from: <https://www.sciencedirect.com/science/article/abs/pii/B9780128021477000425>
25. Elystia S, Saragih LR, Muria SR. Algal-Bacterial Synergy for Lipid Production and Nutrient Removal in Tofu Liquid Waste. *Int J Technol* 2021;12:287–297.
26. Baker M, Blackman S, Cooper E, et al. Exploratory analysis of *Spirulina platensis* LB 2340 growth in varied concentrations of anaerobically digested pig effluent (ADPE). *Heliyon* [homepage on the Internet] 2021;7(9):e08065. Available from: <http://dx.doi.org/10.1016/j.heliyon.2021.e08065>
27. Pozzobon V, Cui N, Moreaud A, Michiels E, Levasseur W. Nitrate and nitrite as mixed source of nitrogen for *Chlorella vulgaris*: Growth, nitrogen uptake and pigment contents. *Bioresour Technol* [homepage on the Internet] 2021;330(February):124995. Available from: <https://doi.org/10.1016/j.biortech.2021.124995>
28. Peraturan Pemerintah. Lampiran VI tentang Baku Mutu Air Nasional - PP Nomor 22 Tahun 2021 Tentang Penyelenggaraan Perlindungan dan Pengelolaan Lingkungan Hidup. *Sekr Negara Republik Indones* [homepage on the Internet] 2021;1(078487A):483. Available from: <http://www.jdih.setjen.kemendagri.go.id/>
29. Pérez-Guzmán SM, Hernández-Aguilar E, Alvarado-Lassman A, Méndez-Contreras JM. Kinetics of Obtaining Microalgal Biomass and Removal of Organic Contaminants in Photobioreactors Operated with Microalgae—Study Case: Treatment of Wastewater from a Poultry Slaughterhouse. *Water (Switzerland)* 2024;16(11).
30. Ummalyma SB, Chiang A, Herojit N, Arumugam M. Sustainable microalgal cultivation in poultry slaughterhouse wastewater for biorefinery products and pollutant removal. *Bioresour Technol* [homepage on the Internet] 2023;374(January):128790. Available from: <https://doi.org/10.1016/j.biortech.2023.128790>
31. Ziganshina EE, Yureva KA, Ziganshin AM. Poultry Slaughterhouse Wastewater Treatment by Green Algae: An Eco-Friendly Restorative Process. *Environments* 2025;12, 331:1–20.
32. Gutiérrez-casiano N, Hernández-aguilar E, Alvarado- A, Méndez-contreras JM. Toxic / Hazardous Substances and Environmental Engineering Removal of carbon and nitrogen in wastewater from a poultry processing plant in a photobioreactor cultivated with the microalga *Chlorella vulgaris*. *J Environ Sci Heal Part A* [homepage on the Internet] 2022;57(7):620–633. Available from: <https://doi.org/10.1080/10934529.2022.2096986>
33. Aksu M, Tanattı NP, Erden B, Şengi İA. *Environmental Research & Technology*. 2021;4(May):140–144.
34. Zerveas S, Mente MS, Tsakiri D, Kotzabasis K. Microalgal photosynthesis induces alkalization of aquatic environment as a result of H<sup>+</sup> uptake independently from CO<sub>2</sub> concentration – New perspectives for environmental applications. *J Environ Manage* [homepage on the Internet] 2021;289(March):112546. Available from: <https://doi.org/10.1016/j.jenvman.2021.112546>
35. Amir M, Agustini WS, Caesar QF, Farmasi PS. Analisis Protein, Karbohidrat, Lemak, Dan Pigmen Fikobiliprotein Mikroalga *Spirulina Platensis* Yang Dikultivasi Pada Media Limbah Cair Pembuatan Tempe. *Ilmu Kefarmasian* 2013;6:21–29.
36. Liang C, Zhang N, Pang Y, et al. Cultivation of *Spirulina platensis* for nutrient removal from piggery wastewater. *Environ Sci Pollut Res* [homepage on the Internet] 2023;30(36):85733–85745. Available from: <https://doi.org/10.1007/s11356-023-28334-x>
37. Ciferri O. *Spirulina*, the edible microorganism. *Microbiol Rev* 1983;47(4):551–578.
38. Supraja K V, Behera B, Balasubramanian P. Industrial Crops & Products Efficacy of microalgal extracts as biostimulants through seed treatment and foliar spray for tomato cultivation. *Ind Crop Prod* [homepage on the Internet] 2020;151. Available from: <https://doi.org/10.1016/j.indcrop.2020.112453>
39. Tezera F, Chacha M, John M, Raymond J. Nutritional values of *Spirulina platensis* biomass cultivated in East Africa. *Int J Biosci* 2020;16(6):121–128.