DAFTAR PUSTAKA

Abbas, A. K., Lichtman, A. H., & Pillai, S. 2020. *Cellular and Molecular Immunology*. 9th ed. Elsevier, Philadelphia.

Abdelfatah, S. H., Yassin, A. M., Khattab, M. S., Abdel-Razek, A. S., & Saad, A. H. 2024. *Spirulina platensis* as a Growth Booster for Broiler; Insights Into Their Nutritional, Molecular, Immunohistopathological, and Microbiota Modulating Effects. *BMC Veterinary Research*, 20(1): 1-11.

Abubakar, J. O., Uchechi, N. C., Abosede, O. O., & Samuel, T. O. 2023. Role of Oral Phytogenic Supplementation to Protect Cardiac, Hepatic, Nephrotic, and Splenic Oxidative Stress in Broiler Chickens. *Translational Animal Science*, 7(1): 1-8.

Ahmed, J., Sarma, M., DevChoudhury, K. B., & Deka, A. 2023. Micro and Macro Anatomical Studies of Spleen at Different Stages of Development in Pati Duck (*Anas platyrhynchos domesticus*) of Assam. *Theoretical Biology Forum*, 12(2): 417–421.

Ali, T. H., Al-Emam, A. A., Wahab, A. E., El-Mesery, M. E., & El-Sayed, W. M. 2015. Antioxidant and Angiostatic Effect of *Spirulina platensis* Suspension in Complete Freund's Adjuvant-induced Arthritis in Rats. *Plos One*, 10(4): e0125414.

Allen, C. D. C., Okada, T., & Cyster, J. G. 2007. Germinal-Center Organization and Cellular Dynamics. *Immunity*, 27(2): 190-202.

Attia, Y. A., Hassan, R. A., Addeo, N. F., Bovera, F., Alhotan, R. A., Al-qurashi, A. D., Al-Baadani, H. H., Al-Banoby, M. A., Khafaga, A. F., Eisenreich, W., Shehata, A. A., & Basiouni, S. 2022. Effects of Spirulina Platensis and/or *Allium sativum* on Antioxidant Status, Immune Response, Gut Morphology, and Intestinal Lactobacilli and Coliforms of Heat-Stressed Broiler Chicken. *Veterinary Sciences*, 9(12): 1-15.

Aziz, M. A., Rahman, M. M., Hossain, M. S., & Kabir, A. 2017. Effect of Saline (NaCl 0,9%) and Phosphate-buffered Saline (PBS) on Organ Preservation in Laboratory Animals. *Journal of Advanced Veterinary and Animal Research*, 4(2): 192-197.

Baimai, S., Chaiwichayanant, P., Sricharoenvej, S., & Manoonpol, C. 2024. Spleen Anatomic Variations in The Context of Morphology. *European Journal of Anatomy*, 28(2): 145-152.

Bancroft, J. D., & Gamble, M. 2019. *Theory and Practice of Histological Techniques (8th ed.)*. Elsevier Health Sciences, London.

Becker, E. W. 2013. Microalgae for Human and Animal Nutrition. *Handbook Of Microalgal Culture: Applied Phycology and Biotechnology*. Wiley-Blackwell, Oxford.

Belay, A. 2002. The Potential Application of *Spirulina* (*Arthrospira*) as a Nutritional and Therapeutic Supplement in Health Management. *Journal of the American Nutraceutical Association*, 5(2): 27-48.

Belay, A., 2018. *Biology and Industrial Production of Arthrospira (Spirulina) (eds.) Biofuels from Algae*. 2nd ed. Elsevier, Amsterdam.

Budiwardani, D., Sunarno, S., Budiraharjo, K., Isdadiyanto, S., & Jaya, L. O. I. 2024. The Potential of *Spirulina* Powder as Feed Additive on Hepatic Histomorphometry in Peking Ducks (*Anas platyrhynchos domestica*). Biosaintifika: *Journal of Biology & Biology Education*, 16(3): 481-489.

Cyster, J. G., & Allen, C. D. C. 2019. B cell Responses: Cell Interaction Dynamics and Decisions. *Cell*, 177(3): 524-540.

Davison, T. F., Kaspers, B., & Schat, K. A. 2008. *Avian immunology*. Academic Press, London.

Ditjen Peternakan dan Kesehatan Hewan. 2023. Statistik Peternakan dan Kesehatan Hewan 2023. Direktorat Jendral Peternakan dan Kesehatan Hewan. Kementrian RI, Jakarta.

Elise, R., Hartati, S., & Wulandari, D., 2023. Aktivitas Antioksidan dan Imunomodulator Fikosianin dari *Spirulina platensis* terhadap Kesehatan Organ Limfoid pada Unggas. *Jurnal Ilmu dan Teknologi Hayati*, 10(2): 123-134.

El-Kazaz, S. E., Hafez, M. H., Albadrani, G. M., Al-Ghadi, M. Q., Abdel-Daim, M. M., & El-Sayed, Y. S. 2024. The Influence of Quercetin on Behavior, Performance and Splenic Immunity in Broiler Chickens. *Veterinary and Animal Science*, 26(2024): 1-9.

El Omari, N., Bakrim, S., Khalid, A., Abdalla, A. N., Iesa, M. A. M., El Kadri, K., Tang, S. Y., Goh, B. H., & Bouyahya, A. 2024. Unveiling the Molecular Mechanisms: Dietary Phytosterols as Guardians Against Cardiovascular Diseases. *Natural Products and Bioprospecting*, *14*(27): 1-29.

El-Shall, N. A., Jiang, S., Farag, M. R., Azzam, M., Al-Abdullatif, A. A., Alhotan, R. A., Alarifi, S., & Alkahtani, S. 2023. Potential of *Spirulina platensis* as a Feed Supplement for Poultry to Enhance Growth Performance and Immune Modulation. *Frontiers In Immunology*, 14(10): 1-12.

Field, A. 2013. *Discovering Statistics Using IBM SPSS Statistics* (Edisi ke-4). Sage Publications, London.

GBIF. 2025. *Global Biodiversity Information Facility*.https://www.gbif.org. 15 April 2025.

George, D., & Mallery, P. 2020. *IBM SPSS Statistics 27 Step by Step: A Simple Guide and Reference.* New York: Routledge.

Grosset, A-A., Loayza-Vega, K., Adam-Granger, É., Birlea, M., Gilks, B., Nguyen, B., Soucy, G., Tran-Thanh, D., Albadine, R., & Trudel, D. 2018. Hematoxylin and Eosin Counterstaining Protocol for Immunohistochemistry Interpretation and Diagnosis. *Journal of Histotechnology*, 41(4): 123-129.

Hanum, S., Hamdani, B., & Dian, M. 2017. Gambaran Histologis Limpa Ayam Kampung (*Gallus gallus domesticus*) pada Umur Berbeda. *Jurnal Ilmiah Mahasiswa Veteriner*, 1(3): 552-557.

Harahap, F. S., Nasution, R. A., & Siregar, M. F. 2021. Skrining Fitokimia Kualitatif pada Ekstrak Tanaman Obat untuk Identifikasi Metabolit Sekunder. *Jurnal Ilmu Farmasi dan Kesehatan,* 18(2): 120-127.

Hidayat, C., Irawan, A., Prihambodo, T.R., Jayanegara, A., Yanza, Y. R., Sholikin, M. M., Wina, E., Sadarman, S., Krisnan, R., & Isbandi, I. 2021. Effect of Dietary Tannins on the Performance, Lymphoid Organ Weight, and Amino Acid Ileal Digestibility of Broiler Chickens: A Meta-Analysis. *Veterinary World*, 14(6): 1341-1352.

Hirahashi, T., Matsumoto, M., Hazeki, K., Saeki, Y., Ui, M., & Seya, T. 2002. Activation of the Human Innate Immune System by Spirulina: Augmentation of Interferon Production and NK Cytotoxicity by Oral Administration of Hot Water Extract of *Spirulina platensis*. *International Immunopharmacology*, 2(4): 423-434.

Holman, B. W. B., & Malau-Aduli, A. E. O. 2013. *Spirulina* as a Livestock Supplement and Animal Feed. *Journal of Animal Physiology and Animal Nutrition,* 97(4): 615-623.

Istyadji, R., Prasetyo, B., & Lestari, D. 2023. Pengaruh Pemberian Pakan Ternak Bersumber Protein Hewani dan Protein Nabati terhadap Pertumbuhan Itik Peking. *Jurnal Ilmiah Peternakan Terpadu*, 11(1): 45-52.

Jalaludin, M., Afifuddin, Hammy, Sabri, M., & Fadhli, A. G. 2016. Morfologi dan Kandungan Karbohidrat Kelenjar Lingualis dan Sublingualis Itik (*Anas plathyrinchos*). *Jurnal Medika Veterinaria*, 10(2): 85-89.

Jamilah, S., Nuraini, T., & Sari, M. P. 2013. Penggunaan Acidifier sebagai Feed Additive dalam Pakan. *Jurnal Peternakan Indonesia*, 15(2): 222-229.

Kamaludin, M., & Holik, A. 2022. Artikel Ulasan: Kandungan Senyawa Kimia dan Aktivitas Farmakologi *Spirulina* sp. *Indonesian Journal of Biological Pharmacy*, 2(2): 1-10.

Kamboh, A. A., Hang, S.-Q., Khan, M. A., & Zhu, W.-Y. 2016. In Vivo Immunomodulatory Effects of Plant Flavonoids in Lipopolysaccharide-Challenged Broilers. *Animal: An International Journal of Animal Bioscience*, 10(10): 1619-1625.

Karkos, P. D., Leong, S. C., Karkos, C. D., Sivaji, N., & Assimakopoulos, D. A. 2011. *Spirulina in Clinical Practice: Evidence-Based Human Applications. Evidence-Based Complementary and Alternative Medicine,* 2011: 1-4.

Kavitha, C. H., Saraswathi, K., & Naga, C. H. 2021. Pharmacological Activities and Health Benefits of Spirulina: a Review. *Journal of Young Pharmacists*, 15(3): 441-447.

Kiernan, J. A. 2024. Spleen – Histology Guide. Histology Guide. https://histologyguide.com/slideview/MH-MHS-spleen/10-slide-1.html. 6 Oktober 2025.

Kokoszyński, D., Saleh, M., Bernacki, Z., Topoliński, T., Andryszczyk, M., & Wirwicki, M. 2019. Growth Performance, Carcass Composition, Leg Bones, and Digestive System Characteristics in Pekin Duck Broilers Fed a Diet Diluted With Whole Wheat Grain. *Canadian Journal of Animal Science*, 99(4): 781-791.

Kokoszyński, D., Bernacki, Z., Saleh, M., Stęczny, K., & Biegniewska, M. 2017. Body Conformation and Internal Organs in Pekin Ducks from Different Genetic Groups. *European Poultry Science*, 1(19): 47-51.

König, H.E., Korbel, R. & Liebich, H.G., 2016. *Avian Anatomy: Textbook and Colour Atlas*. 2nd ed. Stuttgart, Schattauer GmbH.

Krama, L. S. 2014. *Pengaruh Pemberian Spirulina dalam Ransum terhadap Kualitas Telur Itik.* Repository Universitas Padjadjaran, Bandung.

Kumar, V., Abbas, A. K., & Aster, J. C. 2017. *Robbins Basic Pathology*. 10th ed. Elsevier, Philadelphia.

Kurotaki, D. 2015. Functions and Development of Red Pulp Macrophages. *Microbiology and Immunology*, 59(2): 55-62.

Liu, M., Wang, Y., Zhang, Y., Zhao, H., Zhang, S., & Chen, H. 2025. Transcriptomic Analysis Revealed Ferroptosis in Ducklings With Splenic Necrosis Induced By NDRV. *Veterinary Research*, 56(1): 1-10.

Liu, X., Zhang, Y., Chen, L., & Wang, J. 2023. Effects of Dietary Protein and Energy Levels on Growth Performance and Nutrient Utilization in Meat-Type Ducks. *Poultry Science*, 102(1): 123-130.

López-Posadas, R., Ballester, I., Abadía-Molina, A. C., Suárez, M. D., Zarzuelo, A., Martínez-Augustin, O., & Sánchez de Medina, F. 2008. Effect of Flavonoids on Rat Splenocytes: A Structure Activity Relationship Study. *Biochemical Pharmacology*, 76(5): 495-506.

Mahadevan, V. 2019. *Anatomy of the Pancreas and Spleen*. Elsevier, London.

Mahfudin, W., & Prabewi, N. 2022. Penggunaan Spirulina (*Arthrospira platensis*) sebagai Feed Additive terhadap Produktivitas dan Kinerja Reproduksi Induk Ayam Ras Petelur Fase Layer. Jurnal Peternakan dan Pertanian Polbangtan Yoma, 20(1): 95-107.

Metzer Farms. 2025. Nutritional Requirements for Ducks and Geese. [Online] Available at: https://www.metzerfarms.com/Nutritional-Requirements-for-Ducks-and-Geese-a/182.html. [Accessed 9 September 2025].

Mohammed, L. E., Mohammed, N. I., & Karim, A. J. 2020. Histological Study of the Spleen in Guineafowl (*Numida meleagris*). *Plant Archives*, 20(1): 235-237.

Mullenix, G. J., Greene, E. S., Emami, N. K., Tellez-Isaias, G., Bottje, W. G., Erf, G. F., Kidd, M. T., & Dridi, S. 2021. *Spirulina platensis* Inclusion Reverses Circulating Pro-Inflammatory (Chemo) Cytokine Profiles in Broilers Fed Low-Protein Diets. *Frontiers in Veterinary Science*, 8: 40968.

Muthmainnah, A., & Khalid, J. 2022. Produktivitas Budidaya antara Bebek Peking (*Anas platyrhynchos domestica*) dengan Bebek Madura (*Anas platyrhynchos domestica domesticus*). *Jurnal Ilmiah Pendidikan Sains dan Terapan*, 2(4): 258-271.

Nugroho, M. I., Aku, A. S., & Has, H. 2020. Konsumsi, PBB, dan Konversi Pakan Itik Peking Umur 3-6 Minggu yang Menggunakan Tepung Kulit Ari Kedelai sebagai Bahan Pakan. *Jurnal Ilmiah Peternakan Halu Oleo (JIPHO)*, 2(2): 145-149.

Nurhidayat, N., Cahyono, B., & Sedjati, S. 2021. Pengaruh Suplementasi *Spirulina platensis* terhadap Respons Imun Humoral dan Aktivitas Fagositik pada Itik Peking. *Jurnal Veteriner Indonesia*, 15(3): 210-218.

Nurhilaliyah, N., Fauziah, P. N., Rakhmina, D., Virgiawan, A. R., Tandjungbulu, Y. F., Wahyuni, R. A., Purnama, T., Thaslifa, T., Hijriani, B. I., Arimurti, A. R. R., Primal, D., Sabban, I. F., Lendawati, L., Sispita Sari, Y. E., & Hadiatun, N. 2024. *Bunga Rampai Sitohistoteknologi Mahasiswa Teknologi Laboratorium Medik*. PT Media Pustaka Indo, Cilacap.

Ohashi, K., Yamamoto, T., Takahashi, Y., & Suzuki, M. 2025. Nobiletin Enhances IL-4 Secretion and Humoral Immune Responses in Ovalbumin-Immunized Mice. *Frontiers in Immunology*, 12: 1583947.

Pernar, L. I. M., & Tavakkoli, A. 2019. Anatomy and Physiology of the Spleen, in Shackelford's Surgery of the Alimentary Tract. Elsevier, 2(2): 1591–1597.

Phillips, S. M., Lopez, M. A., Jensen, K. J., Tran, Q. T., & Wu, D. 2023. Dietary Antioxidants Modulate Immune Responses and Preserve Lymphoid Organ Architecture: a Review of Recent Findings. *Journal of Nutritional Immunology*, 30(1): 22-38.

Putra, I. R., Ariana, I. N. T., & Siti, N. W. S. 2023. Pengaruh Pemberian Kulit Nanas Fermentasi dalam Ransum terhadap Potongan Primal Karkas dan Distribusi Lemak Itik Peking Umur 10 Minggu. *Peternakan Tropika*, 11(3): 596-613.

Rahmasari, D., Ma'ruf, A. M., Dewi, R. P., & Fadillah, F. 2024. Effect of *Spirulina* (*Arthospira platensis*) Supplementation on Productivity, Serum Metabolite, and Meat Cholesterol in Pekin Duck. *Jurnal Ilmiah Peternakan Terpadu*, 12(1): 28-35.

Ramah, A., Yasuda, M., Ohashi, Y., Urakawa, M., Kida, T., Yanagita, T., Uemura, R., Bakry, H. H., Abdelaleem, N. M., & El-Shewy, E.A. 2020. Different Doses of Tannic Acid Reflect a Double-edged Impact on Broiler Chicken Immunity. *Veterinary Immunology and Immunopathology*, 220: 109991.

Rusadi, A. F., Sunarno, & Kasiyati. 2025. Profil Eritrogram Itik Peking (*Anas platyrhynchos domesticus*) setelah Penambahan Tepung Spirulina (*Arthrospira platensis*) sebagai Suplemen Pakan. *Buletin Anatomi dan Fisiologi*, 10(1): 71-80.

Saharan, V. & Jood, S., 2017. Nutritional Composition of *Spirulina platensis* Powder and its Acceptability in Food Products. *International Journal of Advanced Research*, 5(6): 2295-2300.

Satyantini, W. H., & Sukenda, E. H. N. B. P. U. 2014. Pemberian Fikosianin *Spirulina* Meningkatkan Jumlah Sel Darah, Aktivitas Fagositosis, dan Pertumbuhan Ikan Kerapu Bebek Juvenil. *Jurnal Veteriner*, 15(1): 46-56.

Sedjati, S., Widyastuti, E., & Pramono, Y. B. 2020. Komposisi Protein dan Profil Asam Amino Esensial *Spirulina platensis* serta Potensinya dalam Menunjang Sistem Imun. *Jurnal Gizi dan Pangan*, 15(2): 85-92.

Selim, S., Abdel-Megeid, N. S., Abou-Elnaga, M. K., & Mahmoud, S. F. 2021. Early Nutrition with Different Diets Composition versus Fasting on Immunity-Related Gene Expression and Histomorphology of Digestive and Lymphoid Organs of Layer-Type Chicks. *Animals*, 11(6), 1568.

Shen, L., Luo, H., Fan, L., Tian, X., Tang, A., Wu, X., Dong, K., & Su, Z. 2023. Potential Immunoregulatory Mechanism of Plant Saponins: a Review. *Molecules*, 29(1): 1-18.

Shi, L., Zhan, S., Wu, H., Wei, H., Li, X., Xiong, Q., & Yang, Y. 2023. Proteogenomic Analysis Reveals the Activation of Phagosome Maturation Pathway in Chicken Spleen Infected with *Escherichia coli* O78. *Poultry Science*, 102(1): 102258.

Sirait, L. M., Sitorus, T., Hutapea, J. R., & Simbolon, R. 2019. Uji Fitokimia dan Aktivitas Antibakteri Ekstrak *Spirulina* terhadap *Escherichia coli* dan *Staphylococcus aureus*. *Jurnal Penelitian Kesehatan Suara Forikes*, 10(2): 135-139.

Siti, N., & Sudarsono. 2018. Gangguan Fungsi Limpa Akibat Stres dan Infeksi Serta Dampaknya terhadap Sistem Imun Unggas. *Jurnal Ilmu Ternak dan Veteriner*, 23(1): 42-49.

Steel, Robert G. D., & Torrie, James H. 1991. *Principles and Procedures of Statistics: A Biometrical Approach* (Edisi ke-3). McGraw-Hill, New York.

Steiniger, B. S. 2015. Human Spleen Microanatomy: Why Mice do not Suffice. *Immunology*, 145(3): 334-346.

Steczny, K., Kokoszynski, D., Bernacki, Z., Wasilewski, R., & Saleh, M. 2017. Growth Performance, Body Measurements, Carcass Composition and Some Internal Organ Characteristics in Young Pekin Ducks. *South African Journal of Animal Science*, 47(3): 399-406.

Subekti, E., & Hastuti, D. 2015. Pengaruh Penambahan Probiotik Herbal pada Ransum terhadap Performent Itik Pedaging. *Mediagro: Jurnal Ilmu-ilmu Pertanian*, 11(2): 11-21.

Sugiyono. 2016. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta, Bandung.

Taufik, M., Sulaiman, A., & Habibah. 2023. Penggunaan Limbah Roti sebagai Sumber Energi dalam Ransum Terhadap Bobot Akhir, Persentase Karkas, Persentase Lemak Abdominal dan IOFC Itik Peking. *Jurnal Penelitian Peternakan Lahan Basah*, 3(1): 47-56.

Ulya, N. A., Setyaningrum, R. A., & Nurhidayat. 2018. Aktivitas Antioksidan dan Kandungan Phycocyanin dari *Spirulina platensis* sebagai Agen Imunostimulator. *Jurnal Bioteknologi dan Biosains Indonesia*, 5(1): 12-19.

Ulya, S., Sedjati, S., & Yudiati, E. 2018. Digital Image Analysis in Histomorphometry. *Journal of Microscopy Techniques*, 7(2): 33-45.

Umar, J., Djaelani, M. A., Kasiyati, & Sunarno. 2024. *Struktur Mikroanatomi Duodenum Puyuh (Coturnix coturnix japonica) setelah Pemberian Tepung Daun Kelor* (*Moringa oleifera* Lam.) *dalam Pakan*. Al-Kauniyah Jurnal Biologi, 17(2): 339–350.

Utami, Y. P., Fahria, F., Farizal, J., Hasanuddin, A. R. P., Mayasari, D., Pangaribuan, C. M. O., Malik, N., Santoso, A. L., Liana, N., Tan, H. T., Nurwiyeni, Laksmi, L. I., Nurkasanah, S., & Susana, Y. 2025. *Teknik Dasar Histopatologi.* Eureka Media Aksara, Purbalingga.

Victora, G. D., & Nussenzweig, M. C. 2012. Germinal Centers. *Annual Review of Immunology*, 30: 429-457.

Wang, H., Li, M., Zhou, Q., & Zhang, T. 2022. Vitamin E and Organic Selenium Deficiency Impair Immune Function in The Spleen of Ducks. *Journal of Animal Physiology and Animal Nutrition*, 106(5): 987-995.

Wasilewski, R., Kokoszyński, D., & Włodarczyk, K. 2023. Fatty Acid Profile, Health Lipid Indices, and Sensory Properties of Meat from Pekin Ducks of Different Origins. *Animals*, 13(6), 1031.

Windoro, S., Wahjuni, R. S., & Widodo, E. 2020. Pengaruh Imbuhan Tepung Daun Kelor (*Moringa oleifera* Lam.) pada Pakan terhadap Bobot Beberapa Organ dalam dan Lemak Abdominal Itik Pengging (*Anas platyrhyncos*). *Jurnal Ilmu-Ilmu Peternakan (Indonesian Journal of Animal Science)*, 30(1): 34-41.

Wulandari, S., & Suryani, E. 2018. Pengaruh Suplementasi Cacing Tanah (*Lumbricus rubellus*) pada Pakan terhadap Produksi dan Kualitas Telur Itik Lokal. *International Journal of Applied Science and Technology*, 2(1): 1-10.

Yoshimura, Y., Nii, T., & Isobe, N. 2024. Innate Immune Training in Chickens for Improved Defense Against Pathogens: a Review. *Journal of Poultry Science*, 61(1): 1-9.

Yuan, P., Xu, H., Ma, Y., Niu, J., Liu, Y., Huang, L., Jiang, S., Jiao, N., Yuan, X., Yang, W., & Li, Y. 2023. Effects of Dietary Galla Chinensis Tannin Supplementation On Immune Function And Liver Health In Broiler Chickens Challenged With Lipopolysaccharide. *Frontiers in Veterinary Science*, 10: 1-10.

Yuandani, Jantan, I., Haque, M. A., Rohani, A. S., Nugraha, S. E., Salim, E., Septama, A. W., Juwita, N. A., Khairunnisa, N. A., Nasution, H. R., Utami, D. S., & Ibrahim, S. 2023. Immunomodulatory Effects and Mechanisms of the Extracts and Secondary Compounds of Zingiber and Alpinia Species: a Review. *Frontiers in Pharmacology*, 10(14): 1-26.

Yudiati, E., Sedjati, S., & Ulya, S. 2019. Mekanisme Imunomodulasi *Spirulina platensis* pada Sistem Pertahanan Udang Vaname. *Jurnal Ilmu Kelautan Undip*, 24(2): 89-97.

Yulisa, W. A., Setiasih, N. L. E., Heryani, L. G. S. S., Suwiti, N. K., Susari, N. N. W., & Soma, I. G. 2023. Struktur dan Morfometri Limpa Itik Bali (*Anas* Sp.) pada Fase Pertumbuhan. *Jurnal Veteriner*, 24(3): 357-364.

Yuriwati, E., Sari, D. P., & Wulandari, R. 2016. Prosedur Preparasi Jaringan Organ Limpa Menggunakan Teknik Parafin untuk Pengamatan Histologis. *Jurnal Veteriner*, 17(3): 245-252.

Zhao, L., Wang, J., Liu, R., & Li, Y. 2014. *Spirulina* Prevents Hepatic Inflammation and Fibrosis in Mice Infected with *Schistosoma japonicum*. *Journal of Functional Foods*, 9: 25-34.