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DAFTAR PUSTAKA

Abutarbush, S. M., Alqawasmeh, D. M., Mukbel, R. M., and Al-Majali, A. M. 2011. Equine babesiosis: seroprevalensi, risk factors and comparison of different diagnostic methods in Jordan. *Transboundary and Emerging* Diseases. https://doi.org/10.1111/j.1865-1682.2011.01244.x

Almazan, C., Scimeca, R. C., Reichard, M. V., and Mosqueda, J. 2022. Babesiosis and Theileriosis in North America. *Pathogens,* 11 (2), 1-21. https://doi.org/10.3390/ pathogens11020168

Alsarhan, Q. T. S. 2017. *Prevalence, Risk Factors and Genetic Diversity of Equine Piroplasmosis in Kelantan, Malaysia*. Disertasi. Faculty of Veterinary Medicine, Universiti Malaysia Kelantan

Alvarez, J, A., Rojas, C., and Figueroa, J. V. 2019. Diagnostic tools for the identification of Babesia sp. In persistently infected cattle. *Pathogens*, *8*(3). https://doi.org/10.3390/pathogens8030143

Antonio Alvarez, J., Rojas, C., and Figueroa, J. V. 2019. Diagnostic tools for the identification of Babesia sp. in persistently infected cattle. *Pathogens*, *8*(3). https://doi.org/10.3390/pathogens8030143

Arif, R., Nugraha, A. B., Kedaton, F. G., Erlangga, W. K. A., dan Wibowo, B. D. S. 2025. Pengembangan deteksi parasit darah *Theileria equi* dan *Babesia caballi* secara otomatis menggunakan algoritma YOLOv8. *Jurnal Sain Veteriner*, 43 (2), 456-462. https://doi.org/10.22146/jsv.104069

Axt, C. W., Springer, A., Strube, C., Jung, C., Naucke, T. J., Müller, E., and Schäfer, I. 2024. Molecular and serological detection of vector-borne pathogens responsible for equine piroplasmosis in europe between 2008 and 2021. *Microorganisms*, *12*(4). https://doi.org/10.3390/microorganisms12040816

Aziz, K. J., Al-barwary, L. T. O., Issa, N. A., and Abdulwahid, M. J. 2025. Prevalence of *Theileria equi* and *babesia caballi* and associated hemato-biochemical changes in racing horses in erbil province, iraq. *Acta Parasitological,* 70, 38. https://doi.org/10.1007/s11686-024-00987-9

Badan Pusat Statistik. 2025. Peternakan dalam angka 2024. Penerbit Badan Pusat Statistik (BPS). Direktorat Statistik Peternakan, Perikanan, dan Kehutanan

Badan Pusat Statistik. 2025. Kabupaten Sumba Barat Daya Dalam Angka 2024. Badan Pusat Statistik (BPS) Kabupaten Sumba Barat Daya

Bellwood, B., and Andrasik-Catton, M. 2014. Veterinary Technician's Handbook of Laboratory Procedures. John Wiley & Sons, Inc.

UNIVERSITAS
GADJAH MADA
DETEKSI MOLEKULER DAN ANALISIS FAKTOR RISIKO PIROPLASMOSIS PADA KUDA DI KABUPATEN SUMBA BARAT DAYA
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Bhoora, R. V., Collins, N. E., Schnittger, L., Troskie, C., Marumo, R., Labuschagne, K., Smith, R. M., Dalton, D. L., and Mbizeni, S. 2020. Molecular genotyping and epidemiology of equine piroplasmids in South Africa. *Ticks and Tick-Borne Diseases*, *11*(2), 101358. https://doi.org/10.1016/j.ttbdis.2019.101358

Bhoora, R., Franssen, L., Oosthuizen, M. C., Guthrie, A. J., Zweygarth, E., Penzhorn, B. L., Jongejan, F., and Collins, N. E. 2009. Sequence heterogeneity in the 18S rRNA gene within Theileria equi and Babesia caballi from horses in South Africa. *Veterinary Parasitology*, 159, 112-120. https://doi.org/10.1016/j.vetpar.2008.10.004

Bisen, S., Aftab, A., Jeeva, K., Chandra, D., and Raina, O. K. 2023. Prevalence of Anaplasma marginale in Water Buffaloes (*Bubalus bubalis*) in the State of Uttar Pradesh, North India. *Indian Journal of Animal Research*, *57*(4), 522–526. https://doi.org/10.18805/IJAR.B-4765

Camino, E., Buendia, A., Dorrego, A., Pozo, P., de Juan, L., Dominguez, L., and Cruz-Lopez, F. 2021. Sero-molecular survey and risk factors of equine piroplasmosis in horses in Spain. *Equine Veterinary Journal*, *53*(4), 771–779. https://doi.org/10.1111/evj.13348

Coultous, R. M., Sutton, D. G. M., and Boden, L. A. 2021. A risk assessment of equine piroplasmosis entry, exposure and consequences in the UK. *Equine veterinary Journal*, 5 (5), 282-294. https://doi.org/10.1111/evj.13579

Cui, Y., Cao, M., Yu, F., Zhao, A., Tao, D., Zhu, T., Zhang, Z., & Qi, M. 2024. Molecular detection of piroplasms in domestic donkeys in Xinjiang, China.*Vet Med Sci*, 10. https://doi.org/10.1002/vms3.1468

Dao, T. T. H., Szuts, T., Duong, N. N., Troung, D. T. Q., Solymosi, N., Takacs, N., Hornok, S., and Farkas, R. 2026. The first molecular detection of equine piroplasmosis in Vietnam and genetic characterization of three co-circulating genotypes of *Theileria equi*. *Parasitology Reasearch*, 125 (14). https://doi.org/10.1007/s00436-026-08630-4

de Waal, D. T., van Heerden, J., and Potgieter, F. T. 1987. An investigation into the clinical pathological changes and serological response in horses experimentally infected with Babesia equi and Babesia caballi. *The Onderstepoort Journal of Veterinary Research*, *54*(4), 561–568

del Pino, L. E. B., Meana, A., Zini, M., and Cersini, A. 2023. Evidence of transplacental transmission of equine piroplasms *Theileria equi* and *Babesia caballi* in an Italian breed mare. *Folia Parasitologica*, *70*(May). https://doi.org/10.14411/fp.2023.005

UNIVERSITAS
GADJAH MADA
DETEKSI MOLEKULER DAN ANALISIS FAKTOR RISIKO PIROPLASMOSIS PADA KUDA DI KABUPATEN SUMBA BARAT DAYA
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Disnakkeswan Sumba Barat Daya. 2025. Data populasi ternak di Kabupaten Sumba Barat Daya Tahun 2024. Sumba Barat Daya, NTT: Dinas Peternakan dan Kesehatan Hewan, kabupaten Sumba Barat Daya

Dohoo, I., Martin, W., and Stryhn, H. 2003. *Veterinary Epidemiologic Research*. Prince Edward Island, Canada: AVC Inc

Dorrego-Rodriguez, A., Gago, P., Olvera-Maneu, S., Jose-Cunilleras, E., De Cárdenas, L., Mantje, E., Raez, A., Gonzalez, S., and Cruz-Lopez, F. (2024). Novel detection of Theileria equi and Babesia caballi in Hippobosca equina from horses in Spain.*Research square* 1–20

Dorrego, A., Olvera-Maneu, S., Jose-Cunilleras, E., Gago, P., Raez, A., Rivera, B., Oporto, A., Gonzalez, S., dan Cruz-Lopez, F. 2026. Molecular detection of Theileria equi, Babesia caballi, and Borrelia burgdorferi sensu lato in Hippobosca equina from horses in Spain. *Pathogens*, 15, 94. https://doi.org/10.3390/pathogens15010094

Florin-Christensen, M and Schnittger L. 2018. Parasitic protozoa of farm animals and pets. Cham, Switzerland: Springer: 187-213. https://doi.org/10.1007/978-3-319-70132-5

Hornok, S., Takács, N., Szekeres, S., Szoke, K., Kontschán, J., Horváth, G., and Sugár, L. 2020. DNA of Theileria orientalis, T. equi and T. capreoli in stable flies (Stomoxys calcitrans). *Parasites and Vectors*, *13*(1), 4–9. https://doi.org/10.1186/s13071-020-04041-1

Jalovecka, M., Hajdusek, O., Sojka, D., Kopacek, P., and Malandrin, L. 2018. The complexity of piroplasms life cycles. *Frontiers in Cellular and Infection Microbiology*, *8*(JUL). https://doi.org/10.3389/fcimb.2018.00248

Jouglin, M., Bonsergent, C., de la Cotte, N., Mège, M., Bizon, C., Couroucé, A., Lallemand, É. A., Leblond, A., Lemonnier, L. C., Leroux, A., Marano, I., Muzard, A., Quéré, É., Toussaint, M., Agoulon, A., and Malandrin, L. 2025. Equine piroplasmosis in different geographical areas in France: Prevalence heterogeneity of asymptomatic carriers and low genetic diversity of Theileria equi and Babesia caballi. *Ticks and Tick-Borne Diseases*, *16*(1), 102434. https://doi.org/10.1016/j.ttbdis.2024.102434

Kappmeyer, L. S., Thiagarajan, M., Herndon, D. R., Ramsay, J. D., Caler, E., Djikeng, A., Gillespie, J. J., Lau, A. O. T., Roalson, E. H., Silva, J. C., Silva, M. G., Suarez, C. E., Ueti, M. W., Nene, V. M., Mealey, R. H., Knowles, D. P., and Brayton, K. A. 2012. Comparative genomic analysis and phylogenetic position of Theileria equi. *BMC Genomics*, *13*(1). https://doi.org/10.1186/1471-2164-13-603

UNIVERSITAS
GADJAH MADA
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Kerber, C. E., Labruna, M. B., Ferreira, F., De Waal, D. T., Knowles, D. P., and Gennari, S. M. 2009. Prevalence of equine piroplasmosis and its association with tick infestation in the state of São Paulo, Brazil. *Revista Brasileira de Parasitologia Veterinária*, 18(4), 1–8. https://doi.org/0.4322/rbpv.01804001

Knowles, D. P., Kappmeyer, L. S., Haney, D., Herndon, D. R., Fry, L. M., Munro, J. B., Sears, K., Ueti, M. W., Wise, L. N., Silva, M., Schneider, D. A., Grause, J., White, S. N., Tretina, K., Bishop, R. P., Odongo, D. O., Pelzel-McCluskey, A. M., Scoles, G. A., Mealey, R. H., and Silva, J. C. 2018. Discovery of a novel species, Theileria haneyi n. sp., infective to equids, highlights exceptional genomic diversity within the genus Theileria: implications for apicomplexan parasite surveillance. *International Journal for Parasitology*, *48*(9–10), 679–690. https://doi.org/10.1016/j.ijpara.2018.03.010

Kumar, S., Sudan, V., Shanker, D., and Devi, A. 2020. *Babesia* (*Theileria*) *equi* genotype A among Indian equine population. *Veterinary Parasitology: Regional Studies and Reports,* 19. https://doi.org/10.1016/j.vprsr.2019.100367

Kyari, F., Kayeri, B. K., Zango, M. K., Haziel, B. J., Ibrahim, I. N., and Adamu, L. 2025. Seroepidemiology and Risk Factors Associated with Theileria equi and Babesia caballi Infections in Horses from Borno and Yobe. *International Journal of Equine Science 4*(1). 21-29

Laha, R., Das, M., and Sen, A. 2015. Morphology, epidemiology, and phylogeny of Babesia: An overview. *Tropical Parasitology*, *5*(2), 94. https://doi.org/10.4103/2229-5070.162490

Mahmoud, M. S., Abu El-Ezz, N. T., Abdel-Shafy, S., Nassar, S. A., El Namaky, A. H., Khalil, W. K. B., Knowles, D., Kappmeyer, L., Silva, M. G., and Suarez, C. E. 2016. Assessment of Theileria equi and Babesia caballi infections in equine populations in Egypt by molecular, serological and hematological approaches. *Parasites and Vectors*, *9*(1), 1–10. https://doi.org/10.1186/s13071-016-1539-9

Martin, S. W., Meek, A.H. and Willeberg, P. 1987. *Veterinary epidemiology:principles and methods.* Iowa State University Press. USA

Martinez-Ocampu, F. 2018. *Farm Animals Diseases, Recent Omic Trends and New Strategies of Treatment*. InTech. http://dx.doi.org/10.5772/intechopen.72633

Mehlhorn, H., and Schein, E. 1998. Redescription of Babesia equi Laveran, 1901 as Theileria equi Mehlhorn, Schein 1998. *Parasitology Research*, *84*(6), 467–475. https://doi.org/10.1007/s004360050431

UNIVERSITAS
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Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Mendoza, F. J., Pérez-Écija, A., Kappmeyer, L. S., Suarez, C. E., and Bastos, R. G. 2024. New insights in the diagnosis and treatment of equine piroplasmosis: pitfalls, idiosyncrasies, and myths. *Frontiers in Veterinary Science*, *11*(August), 1–17. https://doi.org/10.3389/fvets.2024.1459989

Nadal, C., Chanet, C., Delaunay, C., Pitel, P. H., Marsot, M., and Bonnet, S. I. 2025. Risk factors for tick infestation and equine Piroplasmosis infection among draught horses in France. *Ticks and Tick-Borne Diseases*, *16*(3), 102468. https://doi.org/10.1016/j.ttbdis.2025.102468

Nardini, R., Cersini, A., Del Pino, L. E. B., Manna, G., Scarpulla, M., Di Egidio, A., Giordani, R., Antognetti, V., Veneziano, V., and Scicluna, M. T. 2022. Comparison of direct and indirect methods to maximise the detection of *Babesia caballi* and *Theileria equi* infections in Central Southern Italy. *Ticks and Tick-borne Diseases*, 13. https://doi.org/10.1016/j.ttbdis.2022.101939

Nugraha, A. B., Cahyaningsih, U., Amrozi, A., Ridwan, Y., Agungpriyono, S., Taher, D. M., Guswanto, A., Gantuya, S., Tayebwa, D. S., Tuvshintulga, B., Sivakumar, T., Yokoyama, N., dan Igarashi, I. 2018. Serological and molecular prevalence of equine piroplasmosis in Western Java, Indonesia. *Veterinary Parasitology: Regional Studies and Reports*, *14*(July), 1–6. https://doi.org/10.1016/j.vprsr.2018.07.009

Nugraheni, Y. R., Ariyadi, B., Rochmadiyanto, Kesumaningrum, N., Imran, K., Kartiko, B. P., Farhani, N. R., Nurani, S., Sahara, A., dan Awaludin, A. 2023. Molecular detection of Babesia infection in cattle in Yogyakarta, Indonesia. *Biodiversitas*, *24*(7), 4192–4198. https://doi.org/10.13057/biodiv/d240759

Nguyen, H. L. A., dan Kaewthamasorn, M. 2019. Molecular detection of selected vector-borne protozoa and rickettsia in beef cattle and water buffaloes in Thailand. *The Thai Journal of Veterinary Medicine, 49*

Onyiche, T. E., Suganuma, K., Igarashi, I., Yokoyama, N., Xuan, X., and Thekisoe, O. 2019. A review on equine piroplasmosis: Epidemiology, vector ecology, risk factors, host immunity, diagnosis and control. *International Journal of Environmental Research and Public Health*, *16*(10). https://doi.org/10.3390/ijerph16101736

Onyiche, T. E., Taioe, M. O., Ogo, N. I., Sivakumar., T., Biu, A. A., Mbaya, A. W., Xuan, X., Yokoyama, N., and Thekisoe, O. 2020. Moleculer evidence of *Babesia caballi* and *Theileria equi* in equines and ticks in Nigeria: prevalence and risk factors analysis. *Parasitology*, 147, 1238–1248. https://doi.org/10.1017/S0031182020000992

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Pereira, M. R., Trein, C. R., Webster, A., Dallagnol, B., Gonchoroski, G. Z., Pellegrini, D. P., Doyle, R., Klafke, G., and Reck, J. 2023. Comparison of seroprevalence and identification of risk factors for theileria equi in horses from vector-free and infested areas in southern brazil. *Journal of Equine Veterinary Science*, *126*. https://doi.org/10.1016/j.jevs.2023.104241

Phetkarl, T., Fungwithaya, P., Lewchalermvong, K., and Sontigun, N. 2024. Prevalence of gastrointestinal and blood parasites in horses of Nakhon Si Thammarat province, Thailand. *Veterinary World*, *17*(11), 2460–2468. https://doi.org/10.14202/vetworld.2024.2460-2468

Rothschild, C. M. 2013. Equine piroplasmosis. *Journal of Equine Veterinary Science*, *33*(7), 497–508. https://doi.org/10.1016/j.jevs.2013.03.189

Scoles, G. A., and Ueti, M. W. 2015. Vector ecology of equine piroplasmosis∗. *Annual Review of Entomology*, *60*, 561–580. https://doi.org/10.1146/annurev-ento-010814-021110

Selim, A., and Khater, H. 2020. Seroprevalence and risk factors associated with Equine piroplasmosis in North Egypt. *Comparative Immunology, Microbiology and Infectious Diseases*, *73*(September), 101549. https://doi.org/10.1016/j.cimid.2020.101549

Seo, H.-J., Kim, K.-H., Lee, S. K., Min, S., Lim, J.-Y., Yang, S.-J., Yoo, M.-S., Jung, S., Yoon, S.-S., and Cho, Y. S. 2021. Molecular and serological surveillance of equine piroplasmosis in the Republic of Korea between 2016 and 2017. *Korean Journal of Veterinary Research*, 5(4), 543–551. https://doi.org/10.14405/kjvr.2021.61.e4

Sivakumar, T., Hayashida, K., Sugimoto, C., and Yokoyama, N. 2014. Evolution and genetic diversity of Theileria. *Infection, Genetics and Evolution*, *27*, 250–263. https://doi.org/10.1016/j.meegid.2014.07.013

Sumbria, D., Moudgil, A. D., and Singla, L. Das. 2014. Veterinaria Equine Piroplasmosis: Current status Veterinaria. *Veterinaria*, *2*(1), 9–14

Sumiarto, B. dan Budiharta, S. 2021. *Epidemiologi Veteriner Analitik*. Yogyakarta: Gadjah Mada University Press

Tamzali, Y. 2013. Equine piroplasmosis: An updated review. *Equine Veterinary Education*, *25*(11), 590–598. https://doi.org/10.1111/eve.12070

Tardy, O., Acheson, E. S., Bouchard, C., Chamberland, É., Fortin, A., Ogden, N. H., and Leighton, P. A. 2023. Mechanistic movement models to predict geographic range expansions of ticks and tick-borne pathogens: Case studies with Ixodes scapularis and Amblyomma americanum in eastern North

UNIVERSITAS
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DETEKSI MOLEKULER DAN ANALISIS FAKTOR RISIKO PIROPLASMOSIS PADA KUDA DI KABUPATEN SUMBA BARAT DAYA
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America. *Ticks and Tick-borne Diseases*, 14. https://doi.org/10.1016/j.ttbdis.2023.102161

Tirosh-Levy, S., Gottlieb, Y., Fry, L. M., Knowles, D. P., and Steinman, A. 2020. Twenty years of equine piroplasmosis research: Global distribution, molecular diagnosis, and phylogeny. *Pathogens*, *9*(11), 1–32. https://doi.org/10.3390/pathogens9110926

Thrusfield, M., Christley, R., Brown, H., Diggle, P. J., French, N., Howe, Kelly, L., O'Connor, A., Sargeant, Jan., and Wood, H. 2018. *Veterinary Epidemiology.* 4th Edition. Wiley Blackwell

Ueti, M. W., Mealey, R. H., Kappmeyer, L. S., White, S. N., Kumpula-McWhirter, N., Pelzel, A. M., Grause, J. F., Bunn, T. O., Schwartz, A., Traub-Dargatz, J. L., Hendrickson, A., Espy, B., Guthrie, A. J., Fowler, W. K., and Knowles, D. P. 2012. Re-Emergence of the Apicomplexan Theileria equi in the United States: Elimination of Persistent Infection and Transmission Risk. *PLoS ONE*, *7*(9), 5–10. https://doi.org/10.1371/journal.pone.0044713

Ueti, M. W., Palmer, G. H., Scoles, G. A., Kappmeyer, L. S., and Knowles, D. P. 2008. Persistently infected horses are reservoirs for intrastadial tick-borne transmission of the apicomplexan parasite Babesia equi. *Infection and Immunity*, *76*(8), 3525–3529. https://doi.org/10.1128/IAI.00251-08

Vianna, A. M., Stori de Lara, A. P. D.S., Weege, G. B., Cunha, R. C., and Leite, F. P. L. 2018. Equine theileriosis: review. *Annals of Reviews and Research*, 3(4): 555620

Widodo, S., Wulansari, R., dan Choliq, C. 2008. *Case Report: Kejadian babesiosis pada kuda*. 48–50

Wise, L. N., Kappmeyer, L. S., Mealey, R. H., and Knowles, D. P. 2013. Review of equine piroplasmosis. *Journal of Veterinary Internal Medicine*, *27*(6), 1334–1346. https://doi.org/10.1111/jvim.12168

WOAH (World Organization Animal Health). 2021. Terrestrial Manual 2021. *Chapter 3.6.8: Equine Piroplasmosis.* Paris.

Ybañez, A. P., Ybañez, R. H. D., Talle, M. G., Arreglo, R. M. T., Geense, M. J. C., Villas, J. G. I., Villarc, S. R., Laruga, C. L., Cao, S., Moumouni, F. P. A., Liu, M., Igarashi, I., and Xuan, X. 2018. Serological and molecular detection of *Theileria equi* and *Babesia caballi* in Philippine horses. *Ticks and Tick-borne Diseases*, 9(6), 1465–1469. https://doi.org/10.1016/j.ttbdis.2018.04.010

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Zhao, S., Wang, H., Zhang, S., Xie, S., Li, H., Zhang, X., and Jia, L. 2020. First report of genetic diversity and risk factor analysis of equine piroplasm infection in equids in Jilin, China. *Parasites and Vectors*, *13*(1), 1–9. https://doi.org/10.1186/s13071-020-04338-1