



## DAFTAR PUSTAKA

- Alemneh dan Akeberegn. 2018. A Review Small Ruminants Brucellosis. *G. J. O Med. Ris.* 18 (2): 41-49.
- Alenyorege, B., dan Mensah, K. 2015. Incidence of retained placenta in ruminants and its treatment by rural farmers in Northern Ghana. 5: 7.
- Ali, S., Akhter, S., Neubauer, H., Melzer, F., Khan, I., Abatih, E. N., El-Adawy, H., Irfan, M., Muhammad, A., Akbar, M. W., Umar, S. dan Ahmed, H. 2016. Seroprevalence and risk factors associated with bovine brucellosis in the Potohar Plateau, Pakistan. *BMC Res Not.* 9 (81): 1
- Ali, T., Gul, T., Ali, I., Ullah, N., Khan, I., Ali, H., Ali, S. I., dan Ali, M. 2015. Cross-sectional study of brucellosis in Jordan: Prevalence, risk factors and spatial distribution in small ruminants and cattle. *Prev. Vet. Med.* 118(4), 387–396.
- Alirezaei, A., Khalili, M., Baseri, N., Esmaeili, S., Mohammadi Damaneh, E., dan Kazemnia, S. 2024. Molecular detection of Brucella species among aborted small ruminants in southeast Iran. *Brazilian Journal of Microbiology*, 55(1), 911-917.
- Almashhadany, D. A. 2021. Diagnosis of brucellosis in sheep and goats raw milk by fast and reliable techniques.
- Alshekh, K. A., Shahlol, A. M., Mostafa, K. K. B., Othman, A. A., Hiblu, M. A., Abouzeed, Y. M., Daw, M. A. dan Ahmed, M. O. 2024. Seroprevalence of brucellosis in sheep and goats from Al Jufrah district in Libya. *PAMJ*, 48, Article 23.
- Alton, G. 1990. *Brucella melitensis*. In : Nielsen K., Duncan J.R (Eds), *Animal Brucellosis*. CRC Press, Boca Raton, Ann Arbor, Boston.
- Alton, G.G., Jones, L.M., dan Angus, R.D. 1988. *Techniques for the Brucellosis Laboratory*. Paris: Institut National de la Recherche Agronomique. INRA Press : Paris.
- Anderson, T. D., Meador, V. P., dan Cheville, N. F. 1986. Pathogenesis of placentitis in the goat inoculated with *Brucella abortus*. I. Gross and histologic lesions. *Vet path.* 23(3): 219-226.
- Anonim. 2006. *Brucellosis in human and animal*. WHO.



- Anonim. 2009. *Bovine brucellosis: Terrestrial Manual*, Chapter 2.4.3. Version adopted by the World Assembly of Delegates of the OIE in May. OIE. 1-35.
- Anonim. 2010. *Brucella melitensis* in Eurasia and the Middle East. WHO. No. 10.
- Anonim. 2011. The merk veterinary manual 11 th edition, Merek & Co, Inc Rahway, New Jersey, USA.
- Anonim. 2016. Brucellosis abortus, Militensis, Suis of Diagnostic Tests and Vaccines. Chapter. 2.1.4. *OIE Terrestrial Manual*. France.
- Anonim. 2022. Populasi Kambing Domba tahun 2021-2022. Pusdatin : Jakarta.
- Anujna, Verma, Y., Swamy, M, Nayak, dan Dubey, A. 2019. Serodetection and Bacteriological Study of Brucellosis in Goats. *Int J Curr Micro App Sci*. 8(9): 3032-3040.
- Aparicio, D. E. 2013. Epidemiology of brucellosis in domestic animals caused by *Brucella melitensis*, *Brucella suis* and *Brucella abortus*. *Rev Sci Tech*. 32(1): 43-51.
- Arain, M. B. Babari, A., Pahnwar, M.I., dan Hal, K. 2015. Detection of *Brucella Abortus* in Caprine and Ovine by Real-Time PCR Assay. *Anim Veterinary Sci*, 2021, 9.5: 141-4.
- Ardiyanto, D., Wuryastuty, H., dan Wasito, R. 2020. Deteksi *Brucella abortus* dari Sampel Darah-Utuh dengan Uji Polymerase Chain Reaction Tanpa Ekstraksi DNA. *Jurnal Sain Veteriner*, 38(3), 222-230.
- Arifin, M. 2015. Mempercepat Penggemukan Domba. *Agro Media Pustaka* : Jakarta.
- Asmare, K., Megersa, B., Denbarga, Y., Abebe, G., Taye, A., Bekele, J., Bekele, T., Gelaye, E., Zewdu, E., dan Agonafir, A. 2012. A Study on Seroprevalence of Caprine Brucellosis Under Three Livestock Production Systems in Southern and Central Ethiopia. *Trop. Anim. Health Prod*. 45 :555–560.
- Awais, M. M., Khadim, B., Akhtar, M., Anwar, M. I., Khadim, G., Shirwany, A. S. A. K., dan Bhatti, M. S. 2024. Epidemiology of Brucellosis in Small Ruminants of Rural and Peri-Urban Areas of Multan, Pakistan. *Canadian Journal of Infec Dis and Med Micro*. (1). 8898827.
- Baily, G.G., Krahn, J.B., Drasar, B.S. and Stoker, N.G. 1992. Detection of *Brucella melitensis* and *Brucella abortus* by DNA amplification. *J. Trop. Med. and Hyg.*, 95(4), 271–275.



- Banai, M. 2002. Control of small ruminant brucellosis by use of *Brucella melitensis* Rev.1 vaccine laboratory aspects and field observations. *Vet Micro.*90 (4) :497-519.
- Bassiony, A. M., Abou gazia, k. A., abd al-azeem, m. W., & ibrahim, I. G. A. (2010). Diagnosis of brucellosis in lactating ewes using milk-elisa. *Assiut vet. med. J.* 56(125), 1-11.
- Batrinou, A., Strati, I.F., Tsantes, A.G., Papaparaskevas, J., Dimou, I., Vourvidis, D., Kyrma, A., Antonopoulos, D., Halvatsiotis, P. and Houhoula, D. 2022. The Importance of Complementary PCR Analysis in Addition to Serological Testing for the Detection of Transmission Sources of *Brucella* spp. in Greek Ruminants. *Vet. Sci.*, 9, 193. <https://doi.org/10.3390/vetsci9040193>
- Baud, D. dan Greub, D. 2011. Intracellular bacteria and adverse pregnancy outcomes. *Clin. Micro. Infect*, 17 (9) :1312-1322.
- Besung, I. N. K., Suwiti, N. K. dan Suarjan, I. G. K. 2015. Seroepidemiologi Brucellosis Pada Sapi Bali di Nusa Tenggara Barat Sebagai Upaya Deteksi Dini Kejadian Penyakit. *Semnas SainTek*. 1-8.
- Blasco, J. M. 2010. Control and eradication strategies for *Brucella melitensis* infection in sheep and goats. *Contributions, Sec. Bio Med Sc.* 31 (1): 145–165.
- Blasco, J. M. dan Molina-Flores, B. 2011. Control and eradication of *Brucella melitensis* infection in sheep and goats. *Vet. Clin. Food Anim.* 27 (1) :95-104.
- Blasco, J. M., dan Barberán, M. 1990. Brucellosis. Epidemiologia patogenicia y cuadro clinic. *Revis de Med Vet.* 79 (8) : 1-9.
- Bret, K.P., David, L. H., dan Arthur, M. F. 2007. *Brucellosis, Chapter 9*. US Army Medical Research Institute of Infectious Diseases, 1425 Porter Street, Fort Detrick, Maryland 21702. pp.186.
- Bricker, B. J. 2002. PCR as a diagnostic tool for Brucellosis. *Vet Micro.* 90 (1): 435-446.
- Bricker, B. J. dan Halling, S. M. 1994. Differentiation of *Brucella abortus* bv. 1, 2, and 4, *Brucella melitensis*, *Brucella ovis*, and *Brucella suis* bv. 1 by PCR. *J. Clin. Microbiol.* 32(11), 2660–2666.
- Bricker, B. J., dan Halling, S. M. 1994. Differentiation of *Brucella abortus* bv. 1, 2, and 4, *Brucella melitensis*, *Brucella ovis*, and *Brucella suis* bv. 1 by PCR. *Jl of Clin Micro.* 32 (11): 2660-2666.



- Brunetti, R., Ottaiano, M., Fordellone, M., Chiodini, P., Signoriello, S., Gargano, F., dan De Carlo, E. 2023. Risk Factors for the Spread of Brucellosis in Sheep and Goats in the Campania Region in the Years 2015–2020. *J. Micro.* 11(11): 2623.
- Budiharta, S. 2002. Kapita Selekta Epidemiologi Veteriner. Bagian Kesehatan Masyarakat Veteriner. FKH. UGM: Yogyakarta.
- Caraballo, D., Montani, M., Martínez, L., Antoniazzi, L., Sambrana, T., Fernández, C., Cisterna, D., Beltrán, F. and Colombo, V. 2020. Heterogeneous taxonomic resolution of cytochrome b gene identification of bats from Argentina: Implications for field studies. *PLoS One*, 15(12), e0244750.
- Celli, J., Chastellier, C.D., Franchini, D., Pizarro-cerda, J., Moreno, E., dan Gorvel, J. 2003. Brucella Evades Macrophage Killing via VirB-dependent Sustained Interactions with the Endoplasmic Reticulum. 198 (4): 545-556.
- Christi, R. F. L. B., Salman, Hermawan dan D. Suharwanti. 2019. Karakteristik ukuran tubuh kambing peranakan ettawa pada periode dara dan laktasi 1 di kelompok P4S Agribisnis Assalam Indihiang Kabupaten Tasikmalaya. *J Sains Pet.* 7(2): 122-127.
- Christi, R. F., D. S. Tasripin, dan D. Suharwanto. 2020. Ukuran tubuh cempem kambing perah di Roudhotul Ghonam Farm Pangandaran Jawa Barat. *J Pet.* 4(2): 103–106.
- Coelho, A., García-Díez, J., Góis, J., Rodrigues, J., & Coelho, A. C. 2019. Farm practices and risk factors which influence the high prevalence of brucellosis in small ruminant flocks in Northeast Portugal.
- Corbel, M. J. 2006. Brucellosis in humans and animals. WHO Press, Geneva.
- Crowther, J. R. 1996. The Elisa Guide. Method in molecular biology vol 149. Humana press: USA.
- Deepthi, I. B., RamaniIpuspa, R., dan Nand Rambabu, G. Serodiagnostic Approaches to Detect Brucellosis in Goats in an Outbreak in Kadapa District, andhrapradesh: *Indian J. Anim. Hlth.* 2017; 56(1):91-94.
- Dewi, A. K. 2009. Kajian Brucellosis pada Sapid dan Kambing Potong yang Dilalulintaskan di Penyeberangan Merak Banten. Tesis. Bogor. IPB.
- Direktorat Jenderal Peternakan dan Kesehatan Hewan (Ditjen PKH), Kementerian Pertanian Republik Indonesia. 2022. *Statistik peternakan dan kesehatan hewan 2022*. <https://satudata.pertanian.go.id/docs/publikasi>.



- Dorneles, E. M. S., Sriranganathan, N. dan Lage, A. P. 2014. Recent advances in *Brucella abortus* vaccines. *Vet. Res.*, 45, 115. <https://doi.org/10.1186/s13567-014-0115-8>.
- Dwatmadji, T. Suteky dan E. Efrianto. 2008. Scrotal circumference dan hubungannya dengan ukuran tubuh kambing kacang pada sistem pemeliharaan yang berbeda. *J Sain Pet Ind.* 3 (1):10-14.
- Egamberdiyevich, R. Z., Ilkhomovich, K. O., dan Salokhovich, A. A. (2021). Sheep Brucellosis Is A Dangerous Disease (Literature Review). *Aca Glo*, 2(12): 11-13.
- El Akbar, R., Indrijani, R., Heni, dan Budimulyati, S. L. 2019. Analisis Perbandingan Performa Reproduksi Kambing Saanen Dan Peranakan Etawa. *J I Pet.* 3(2): 27– 32.
- Elrashedy, A., Nayel, M., Salama, A., Zaghawa, A., Abdelsalam., N.R. dan Hasa, M.E. 2024. Phylogenetic analysis and comparative genomics of *Brucella abortus* and *Brucella melitensis* strains in Egypt. *J. Mol. Evol.* 92: 338-357. <https://doi.org/10.1007/s00239-024-10173-0>.
- Ermawati., Purnama, E. S., Siswanto, dan Muhammad, M. 2022. Diseminasi manajemen kesehatan, reproduksi, kelayakan usaha dan pengobatan massal ternak domba kambing di desa purworejo prospek binaan sentra ekonomi peternakan. *J. Pengmas.* 6 (1): 28-31.
- Esmaili, Hossein, Saeed, A., dan Armin, K. 2025. Isolation and Identification of Circulating *Brucella Abortus* and *Brucella Mellitensis* Isolates in Dairy Cattle Farms. *Res in Medicine: J of Resear in Med Sci.s.* 48.5.
- Fariani, A., Susantina, S., dan Muhakka. 2014. Pengembangan Populasi Ternak Ruminansia Berdasarkan Ketersediaan Lahan Hijauan dan Tenaga Kerja di Kabupaten Ogan Komering Ulu Timur Sumatera Selatan. *J. Pet. Sri.* 3(1): 37-46.
- Farina, R. 1985. Current serological methods in *B. melitensis* diagnosis. In : *Brucella melitensis. Nijhoff Publ* : Dordrecht.
- Ficht, T. A. 2003. Intracellular survival of *Brucella*: defining the link with persistence. *Veterinary microbiology*, 92(3), 213-223.
- Földi, J., Kulcsar, M., Pecs, A., Huyghe, B., De Sa, C., Lohuis, J. A. C. M., dan Huszenicza, G. 2006. Bacterial complications of postpartum uterine involution in cattle. *An repro sci.* 96(3-4):265-281.
- Food and Agricultural Organization (FAO). 2010. *Brucella melitensis* in Eurasia and the Middle East. *FAO Animal Production and Health Proceedings.* Rome. Italy.



- Garofolo, G., Fasanella, A., Di Giannatale, E., Platone, I., Sacchini, L. dan Persiani, T. 2022. Genetic characterization of *Brucella abortus* field strains isolated from livestock in Italy through whole genome sequencing. *Vet. Sci.* 9(4):170.
- Gebretsadik, M. T., dan BISHOFTU, E. 2016. Seroprevalence of brucellosis and isolation of *Brucella* from small ruminants that had history of recent abortion in selected Kebeles of Amibara district, Afar region, Ethiopia. *Addis Ababa University*.
- Ghurafa, R., Lukman, D. W., dan Latif, H. 2019. I Indirect Enzyme Linked Immunosorbent Assay Sebagai Metode untuk Melacak Bruselosis pada Sapi Perah (Indirect Enzyme Immunosorbent Assay (I-Elisa) As Method For Detect Brucellosis In Dairy Cow). *J. Vet.* 20(1), 30-37.
- Godfroid, J., Cloeckert, A., Liautard, J. P., Kohler, S., Fretin, D., dan Walravens, K. 2013. From the discovery of the Malta fever's agent to the discovery of a marine mammal reservoir, brucellosis has continuously been a re-emerging zoonosis. *Vet Res.* 36(3): 313–26.
- Golshani, S., dan Buozari. 2017. A review of brucellosis in Iran: epidemiology, risk factors, diagnosis, control, and prevention Iran. *Biomed. J.* 21 (6): 349-359.
- Gomo, C., Musari, S., De Garine-Wichatitsky, M., Caron, A., Pfukenyi, D. M., dan Van Heerden, H. 2012. Detection of *Brucella abortus* in Chiredzi District in Zimbabwe. *Onderstepoort J Vet Res.* 79 (1):417-427.
- Gong, F., Wei, H-x., Li, Q., Liu. L. and Li, B. 2021. Evaluation and comparison of serological methods for Covid-19 diagnosis. *Front. Mol. Biosci.* 8-682405. doi 10.3389/fmolb.2021.682405.
- Grilló, M. J., Marín, M., Barberán, M., dan Blasco, J. M. 1999. Experimental *Brucella ovis* infection in pregnant ewes. *Vet Rec.* 144(20): 555-558.
- Grilló, M.J., Barberán, M., dan Blasco, J.M. 1997. Transmission of *Brucella militensis* from sheep to lambs. *Vet Rec.* 140. 602-605.
- Gunawan, A., dan Noor, R. R. 2005. Pendugaan nilai heritabilitas bobot lahir dan bobot sapih domba Garut tipe laga. *Med Pet.* 29 (1):7-15.
- Gunawan, H. 2013. *Prospek Penggemukan Kambing Potong*. Pustaka Baru Press: Yogyakarta.
- Gupte, S., dan Kaur, T. 2015. Diagnostic approach to Brucellosis. *J of Trop Dis & Pub He*, 4(1): 1–2.



- Gwida, M., El-Gohary, A., Melzer, F., Khan, I., Rösler, U., Neubauer, H. dan Boqvist, S. 2015. Comparison of diagnostic tests for the detection of *Brucella* spp. in milk and serum samples from aborted animals. *J. Infect. Dev. Ctries*, 9(3), 294–298. <https://doi.org/10.3855/jidc.6004>
- Habtamu. T.T., Rathore R., Dhama, K., dan Karthik, K. 2013. Isolation and molecular detection of *Brucella melitensis* from disease outbreak in sheep and *Brucella abortus* from cattle farm by 711 and omp2a gene based PCR. *J Curr Res*. 5 (7): 1920-1925.
- Haif, A., Khelifi-Ouchene, N. A., Khelifi, M., Ouchetati, I., Zeroual, F., dan Ouchene, N. 2016. Abortive diseases and their various associated risk factors in small ruminants in Algeria: a systematic review. *J Trop Anim Health Prod*. 53 (6): 520-530.
- Hall, V., Randal, V., German, M. J. dan Harvey, A. J. 2013. Early embryonic development, assisted reproductive technologies, and pluripotent stem cell biology in domestic mammals. *Vet. J.*, 197 (2), 128–142. <https://doi.org/10.1016/j.tvjl.2013.05.026>.
- Hamdani, M. D. 2015. Perbandingan berat lahir, persentase jenis kelamin anak dan sifat prolifrik induk kambing Peranakan Ettawah pada paritas pertama dan kedua di Kota metro. *J. I Pet Ter*. 3(4): 245-250.
- Harmoko, Ibrahim, Kusrianty, N., dan Marhayani. 2020. Gambaran struktur populasi ternak kambing di Kecamatan Galang Kabupaten Tolitoli. *J. Cen Eks*. 5(2), 121–125.
- Hasnudi, Ginting, N., Patriani, P., dan Hasanah, U. 2018. *Pengelolaan ternak kambing dan domba. Program Stud Pet FakPet : USU*.
- Hegazy, Y. M., Eltholth, M. M., El-Tras, W. F., Tayel, A. A., Guitian, J. dan El-Adawy, H. 2022. Brucellosis in small ruminants and cattle in mixed flocks and its zoonotic implication in Egypt. *Front. Vet. Sci.*, 9, 1017851. <https://doi.org/10.3389/fvets.2022.1017851>.
- Hou, H., Liu, X., dan Peng, Q. 2019. The advances in brucellosis vaccines. *Scie. Dir*. 37(30): 3981–3988.
- Huy, T. N., Nguyen, T. T., Kim, H., Reyes, A. B. dan Kim, S. 2022. *Brucella* phagocytosis mediated by pathogen-host interactions and their intracellular survival. *Microorganisms*, 10(10): 2003.
- Ipola, P. A., Kato, C. D., Ikwap, Kakooza, S. Ngolobe, B., Ndoboli, D., dan Tumwine. 2018. Comparison of rose bengal plate test, serum agglutination test, and indirect enzyme-linked immunosorbent assay in brucellosis detection for human and goat samples. *Int. J. One. Hea*. 4 (6):35–39.



- Islam, M. A., Samad, M. A., dan Rahman, A. K. M. A. (2010). Risk factors associated with prevalence of brucellosis in black Bengal goats in Bangladesh. *Bangladesh Journal of Veterinary Medicine*, 8(2), 141-147.
- Islam, M. S., Garofolo, G., Sacchini, L., Dainty, A. C., Khatun, M. M., Saha, S., dan Islam, M. A. 2019. First isolation, identification and genetic characterization of *Brucella abortus* biovar 3 from dairy cattle in Bangladesh. *J. Vetmed & scie.* 5(4) : 556-562.
- Jacobson, C., Bruce, M., Kenyon, P. R., Lockwood, A., Miller, D., Refshauge, G., dan Masters, D. G. (2020). A review of dystocia in sheep. *Small Ruminant Research*, 192 (1): 106-209.
- Jansen, T. K., Wolf-Jäckel, G. A., Larsen, G., Holm, E., Agerholm, J. S. 2020. Diagnostic studies of abortion in Danish cattle 2015–2017. *Acta Veterinaria Scandinavica*, 62(1): 1.
- Kadi, A. 2022. Seroprevalence of *Brucella* infection in sheep and goats in two Woreda. *Arsi Zone, Oromia, Ethiopia. Int. J. Vet. Res*, 8(3), 113-117.
- Kartini, D., Noor, S. M., dan Pasaribu, F. H. 2017. Deteksi Brucellosis pada Babi secara Serologis dan Molekuler di Rumah Potong Hewan Kapuk Jakarta dan Ciroyom Bandung. *Act Vet Ind.* 5 (2): 66-73.
- Kazemi, B., Yousefi Namin, S. A., Bandepour, M., Kafilzadeh, F., Gachkar, L., Mahmoudinejad, F., Samarghandi, A., dan Mardani, M. 2008. Detection of *Brucella* by peripheral blood PCR and comparison with culture and serological methods in suspected cases. *Iran. J. Public. Health.* 37:96-102.
- Keim, P., Van Ert, M. N., Pearson, T., Vogler, A. J., Huynh, L. Y. dan Wagner, D. M. 2001. Anthrax molecular epidemiology and forensics: Using the appropriate marker for different evolutionary scales. *J. Clin. Microbiol.*, 39 (1), 235–240. <https://doi.org/10.1128/JCM.39.1.235-240.2001>
- Khamesipour, F., Doosti, A., dan Taheri, H. 2013. Molecular detection of *Brucella* spp in the semen, testis and blood samples of cattle and sheep. *J. Pure. Appl Microbiol.* 7:495-500.
- Khan, I., Khan, A., Ullah, W., Yasir, M., Rehman, T. U., Ahmad, Z., dan Qadoos, A. 2025. Seroprevalence of Brucellosis in Sheep and Goat Population Using Rose Bengal Test in District Tank, Khyber Pakhtunkhwa. *Indus J of Bios Res.* 3(6): 140-144.
- Khan, M. Z., dan Zahoor, M. 2018. An overview of brucellosis in cattle and humans, and its serological and molecular diagnosis in control strategies. *Trop Med Infect Dis.* 3 (2):65-72.



- Kimera, S. I., Mellau, L. S., dan Kaneene, J. B. 2025. Prevalence of Brucellosis in cattle, sheep, and goats in rural pastoral settings in Northern Tanzania. *One Health*, 20. 101033.
- Kiros A., Asgedom H., dan Abdi, R. D. 2016. A review on bovine Brucellosis: epidemiology, diagnosis and control options ARC. *J Anim Vet Sci.* 2 (3): 8-21.
- Kolar, J. 1984. Diagnosis and control of brucellosis in small ruminants. *Prev Vet Med* 2(1- 4): 215-225.
- Konig, S., Brügemann, K., Yin, T., Wagner, H., Wehrend, A., Müller, A., . (2021). Associations between minerals and metabolic indicators in maternal blood pre-and postpartum with ewe body condition, methane emissions, and lamb body weight development. *Animal*, 15(3): 100034.
- Kumar, S., Stecher, G., Suleski, M., Sanderford, M., Sharma , S. dan Tamura, K. 2024. MEGA12: Molecular Evolutionary Genetic Analysis Version 12 for Adaptive and Green Computing. *Mol Biol Evol.* 41, 1–9. <https://doi.org/10.1093/molbev/msae263>.
- Kurmanov, B., Dian, Z., Wanwen, Hadfiel, T., Aikimbayef, A., Karinayef, T., Bedikulov, M., Orynbayev, M., Nicolix, M., dan Blackburn, J. 2022. Assay for Identification Diffrentiation of Brucela Species : A Review. *J. Micro.* 10 (8) : 2-23.
- Laloy, E., Bréard, E., Trapp, S., Pozzi, N., Riou, M., Barc, C., dan Zientara, S. 2017. Fetopathic effects of experimental Schmallerberg virus infection in pregnant goats. *Vet Micro.* 211: 141-149.
- Legesse, A., Mekuriaw, A., Gelaye, E., Getahun, T., Tadesse, B. and Kebede, N. 2023. Comparative evaluation of RBPT, I-ELISA, and CFT for the diagnosis of brucellosis and PCR detection of Brucella species from Ethiopian sheep, goats, and cattle sera. *BMC Microbiol.*, 23, 216. <https://doi.org/10.1186/s12866-023-02962-2>.
- Letesson, J. J., Barbier, T., Zuniga-Ripa, A., Godfroid, J., De Bolle, X., dan Moriyon, I. 2017. Brucella genital tropism: what's on the menu. *Frontiers in Microbiology*, 8, 506.
- Leuenberger, R., Boujon, P., Thür, B., Miserez, R., Garin-Bastuji, B., Rüfenacht, J., dan Stärk, K. D. 2007. Prevalence of classical swine fever, Aujeszky's disease and brucellosis in a population of wild boar in Switzerland. *Vet. Rec.* 160 (11) :362–368.
- Li, W., Zeng, L., Yuan, R., Qi, T., Liao, H., Cao, Y., Huang, S., Liu, Z. dan Li, Z. 2025. Genetic diversity atlas of Brucella melitensis strains from Sichuan



Province, China. *BMC. Microbiol.* 25: 21. <https://doi.org/10.1186/s12866-024-03739-x>.

Lindahl, J.F., Gill, J. P. S., Hazarika, R. A., Fairoze, N. M., Bedi, J. S., Dohoo, I., Chauhan, A.S., Grace, D., dan Kakkar, M. 2019. Risk factors for Brucella seroprevalence in peri-urban dairy farms in five Indian Cities. *Trop Med Int Health.* 4:70.

Liu, F., Wang, D., Yang, S. C., Zhu, J. H., Li, J. M., Shi, K., dan Zhao, Q. 2019. Prevalence and risk factors of brucellosis, toxoplasmosis, and neosporosis among Yanbian Yellow cattle in Jilin province, China. *Vector-Borne and Zoonotic Diseases,* 19(3), 217-221.

Liu, F.; Li, M. J., Zeng, L. F., Zong, Y., Leng, X., Shi, K., Diao, C.N., Li, D., Li, Y.B., Zhao, Q., dan Du, R. 2018. Prevalence and risk factors of brucellosis, chlamydiosis, and bluetongue among Sika deer in Jilin Province in China. *Vect Born Zoon.* 18 (4): 226–230.

Lonkar, S., Thorat, V., Gandge, R., Pharande, R., dan Gaikwad, S. 2023. Detection of Brucella melitensis in milk and serum samples of goats by serological and molecular techniques. *The In J of Ani Scie.* 93(8): 764-769.

MacMillan, A. 1990. Conventional Serological Tests. *CRC Press.* Boca Raton.

Madkour, M. M. 1989 Brucellosis an overview Brucellosis remain a major zoonosis worldwide .*CRC Press Butter.* London . pp. 151 – 161.

Maesya dan S. Rusdiana. 2018. Prospek Pengembangan Usaha Ternak Kambing dan Memacu Peningkatan Ekonomi Peternak. *J Agrie.* 7 (2) : 135-316.

Mahajan, M. 2022. Studies on pre-pubertal indices in cattle through nutritional interventions under field conditions. *Pan un Agri Tech India.* 152-155.

Malewa, A. D. G. 2007. Karakteristik fenotipe dan jarak genetik domba Donggala di tiga lokasi di Sulawesi Tengah. Tesis. *Pascasarjana IPB.* Bogor.

Martín, AI., Sancho P, de Miguel M.J, Fernández-Lago L, Vizcaíno N.. 2012. Quorum-sensing and BvrR/BvrS regulation, the type IV secretion system, cyclic glucans, and BacA in the virulence of Brucella ovis similarities to and differences from smooth brucellae. *Inf.Im.* 80 (5):1783–1793.

Martindah, E., Noor, S. M., Wahyuwardani, S., Sumirah, S., Wasito, W., Hewajuli, D. A., Putri, R., Prihandani, S. S., Indrawati, dan Andriani, A. 2023. Seroprevalence of Brucellosis reactor among goats and sheep on an agribusiness farm in a peri-urban of Bogor, Indonesia. *E3S Web of Conferences* 444, 04024. <https://doi.org/10.1051/e3sconf/202344404024>.



- Martindah, E., Noor, S. M., Wahyuwardani, S., Wasito, W., Hewajuli, D. A., Putri, R., Prihandani, S. S., Andriani, A., Sumirah, S., Mulyadi, A. dan Azizah, N. A. K. 2025. Seroprevalence and risk factors of small ruminant brucellosis in Jabodetabek, Indonesia. *Vet. World*, 18(4): 888-895.
- Mazlan, M., Khairani-Bejo, S., Hamzah, H., Nasruddin, N. S., Salleh, A., dan Zamri-Saad, M. 2021. Pathological changes, distribution and detection of *Brucella melitensis* in foetuses of experimentally-infected does. *Vet. Qua.* 41(1): 36-49.
- McDermott, J., Grace, D. dan Zinsstag, J. 2013. Economics of brucellosis impact and control in low-income countries. *Rev Sci Tech Off Int Epiz*, 32(1), 249–261.
- Mcgiver, J., Taylor, A., Duncombe, L., Sayers, R., Albert, D., Banai, M., Blasco, J. M., Elena, S., Fretin, D., Garin-bastuji, B., Melzer, F., Muñoz, P. M., Nielsen, K., Nicola, A., Scacchia, M., Tittarelli, M., Travassos Dias, I., Walravens, K. dan Stack J. 2011. The First International Standard Anti-*Brucella Melitensis* Serum. *Rev. Sci. Tech.* 30 (1): 809–819.
- Meador, V. P., dan Deyoe, B. L. 1991. Effect of milk stasis on *Brucella abortus* infection of the mammary gland in goats. *American journal of veterinary research*, 52(6), 886-890.
- Meador, V. P., Deyoe, B. L., dan Cheville, N. F. 1989. Pathogenesis of *Brucella abortus* infection of the mammary gland and supramammary lymph node of the goat. *Veterinary pathology*, 26(5), 357-368.
- Meador, V. P., Deyoe, B. L., dan Cheville, N. F. 1990. Effect of nursing on *Brucella abortus* infection of mammary glands of goats. *Veterinary Pathology*, 26(5), 369-375.
- Megid, J., Mathias L. A., dan Robles C. A. 2010. Clinical manifestations of brucellosis in domestic animal and human. *Vet Scie.* 4 (10): 119-126.
- Minas, A. 2006. Control and eradication of brucellosis in small ruminants. *Small Ruminant Res.* 62 (1) : 101-107.
- Moreno, E. 2002. *Brucella* evolution and taxonomy. *Vet Micro.* 90 (1) : 209-227.
- Mortezaei, S., Rezaei, H., Momtaz, H., dan Hosseini, S. 2023. Molecular detection and species identification of *Brucella* spp. in small ruminant abortion cases in southeast Iran. *Vet. World*, 16 (11), 2568–2575. <https://doi.org/10.14202/vetworld.2023.2568-2575>.
- Moses., Hermadi, H. A., Khairullah, A. R., Damayanti, Y., Safitri, E., Tyasningsih, W., Warsito, S. H., dan Ahmad, R. Z. 2025. Endometritis in Cattle: A



Review of Current Understanding and Practical Causes of Repeat Breeding. *Trends in Sciences*, 22(6), 9587-9587.

Mugabi, R. 2012. Brucellosis Epidemiology, Virulence Factors, Control and Molecular Targets to Prevent Bacterial Infectious Diseases. [M.Sc. Thesis]. *North Dakota State Univ.*

Mujiatun, M., Soejoedono, R. D., Sudarnika, E., dan Noor, S. M. 2016. Deteksi spesies brucella pada kambing di rumah potong hewan Jakarta. *J Sain Vet.* 34(2):172-181.

Mujiatun., Soejojodono, R. D., Sudarnika, E., Noor, S. M., Putri, O. N., Andriana, L., Marjono, Kartika, I. S., Mukromin., Sumirah. And Supartono. 2017. Detection of goat Brucellosis in several districs showing bovine brucellosis seropositivity in Java Island, Indonesia. *IJSBAR Vol 31 (1): 277-287.*

Mulyono, S. 2011. *Teknik Pembibitan Kambing dan Domba*. Penebar Swadaya. Jakarta.

Nabi, I., Achek, R., Karim, A., Melzer, F., Brangsch, H., Elschner, M. C., dan El-Adawy, H. 2025. Serological, phenotypic and molecular characterization of brucellosis in small ruminants in Northern Algeria. *Front in Micro.* 15. 1505294.

Nafiu, L. O., Pagala, M. A., dan Mogiye, S. L. 2020. Karakteristik Produksi Kambing Peranakan Etawa Dan Kambing Kacang Pada. *J. I. Prod Dan Tek. HaPet.* 08(2) : 91–96.

Najmuddin, M., dan Nasich, M. 2019. Produktivitas Induk Domba Ekor Tipis di Desa Sedan Kecamatan Sedan Kabupaten Pemalang. *J Trop An Prod.* 20(1): 76–83.

Narcana, I. K., Dartini, N. L., Putra, A. A. S., dan Rohmanto, M. 2014. Survei Serologis Brucellosis pada Sapi dan Kerbau dalam Rangka Program Pembrantasan Brucellosis di Pulau Sumba Provinsi Nusa Tenggara Timur Tahun 2012-2014. *Bul. Vet.* 16(85):1-19.

Narouei, M. R., Saadati, D., Najimi, M., Gangali, H., dan Shah Karami, F. (2022). Prevalence and risk factors of Brucella infection in sheep and goats in the Sistan region by PCR method. *J of Zoo Dis.* 6(3) :129-137.

Nath, N., Ahmed, S. S. U., Malakar, V., Hussain, T., Chandra Deb, L., dan Paul, S. 2023. Sero-prevalence and risk factors associated with brucellosis in dairy cattle of Sylhet District, Bangladesh: A cross-sectional study. *Vet Med and Scie.* 9(3), 1349-1358.

Neta, A. V. C., Mol, J. P., Xavier, M. N., Paixão, T. A., Lage, A. P., dan Santos, R. L. 2010. Pathogenesis of bovine brucellosis. *Vete J*, 184 (2): 146-155.



- Neta, C., A. V., Stynen, A. P., Paixao, T. A., Miranda, K. L., Silva, F. L., Roux, C. M., Santos, R. L. 2008. Modulation of the bovine trophoblastic innate immune response by *Brucella abortus*. *Infection and immunity*, 76(5), 1897-1907.
- Neubauer, H. 2010. Brucellosis: New demands in a changing world. *Prilozi* 1: 209-217.
- Njeru, J., Nthiwa, D., Akoko, J., Oyas, H., dan Bett, B. 2021. Incidence of *Brucella* infection in various livestock species raised under the pastoral production system in Isiolo County, Kenya. *BMC Vet Res.* 17(1): 342.
- Noor, M. 2018. Teknik Molekuler Amplifikasi DNA untuk Deteksi Brucellosis pada Sapi. *Wartazoa.* 28 (2): 081-088.
- Noor, S. M. 2006. Brucellosis: Penyakit Zoonosis yang belum banyak dikenal di Indonesia. *Wartazoa.* 16 (1) : 31 – 39.
- Noor, S. M. 2009. Epidemiologi dan Pengendalian Brucellosis pada Sapi Perah di Pulau Jawa. *Ba Pen Vet.* 1 (1) :75-80.
- Noor, Y., dan Hidayat, R. 2017. Menggerakkan Produksi Ternak Kambing Domba Berorientasi Ekspor. *J. SemNas .TekPet. Dan. Vet.* PP. 37–47.
- Novita, R. 2016. Brucellosis: Penyakit Zoonosis Yang Terabaikan. *Pus Pen Peng Biom Tek Da Kes.* 12 (2) :135-140.
- Novita, R., Handijatno, D., Setiawan K., dan Aditya Y. 2017. Karakterisasi Protein VirB4 *Brucella abortus* Isolat Lokal dengan Teknik Sodium Dodecyl Sulfate Polyacrylamide Gel Electrophoresis. *J Vet.* 17 (3) : 318-326.
- Ntivuguruzwa, Bosco, J., Kolo, F. Gashururu. R. S., Umurerwa, L. Byaruhanga, C dan Heerden, V. 2020. Risk Factors of Bovine Brucellosis. *Micro J.* 8 (10): 1-15.
- Nurhaida., Zulkanain. dan Wirawan, H. P. 2024. Deteksi *Brucella melitensis* pada kambing (*Capra hircus*) dengan metode Rose Bengal Test (RBT) di BBVET Maros. *J. Mah. Bio.* 4(1): 28-34.
- Nyerere, N., Luboobi, L. S., Mpeshe, S. C., dan Shirima, G. M. 2019. Mathematical model for the infectiology of brucellosis with some control strategies. *BISKA Bil Tech.* 4: 387-405.
- OIE. 2008. Bovine Brucellosis. Manual of Diagnostic Tests and Vaccines for Terrestrial Animals Office international des Epizootics. France.
- OIE. 2009. *OIE Manual of diagnostic tests and vaccines for terrestrial animals.* Office international des epizooties (OIE) Paris. France. Pp.1-9.



- OIE. 2011. *Bovine brucellosis, Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*. Paris. France.
- Okoh, A. E. 1980. Abortion in sheep near Kano, Nigeria. *Trop Anim Health Prod* 12(1): 11-14.
- Onoja, I. I., Ajani, A. J., Mshelia, W. P., Andrew, A., Ogunkoya, A. B., Achi, C. R., dan Sambo, K. W. 2008. Brucellosis outbreak in a flock of seventeen sheep in Zaria. *Sok J of Vet Scie*. 7(2).
- Pal, M., 2007. *Zoonoses 2nd Edition*. Satyam Publishers. Jaipur India. Pp. 98-99.
- Pappas, G., Papadimitriou, P., Aktridis, N., Christou, L., dan Tsianos, E.V. 2006. The new global map of human brucellosis. *Lanc Inf Dis* 6 (2): 91–99.
- Park, K. 2017. Clinical significance of histologic chorioamnionitis with a negative amniotic fluid culture in patients with preterm labor and premature membrane rupture. *PLoS One* 2012;12 (3):e0173312. doi: 10.1371/ journal.pone.0173312.
- Petersen, E., Gourley, C. R., Harms, J., dan Splitter, G. 2015. Decreased in vivo virulence and altered gene expression by a *Brucella melitensis* light-sensing histidine kinase mutant. *Pathogens and disease*, 73(2): 1.
- Pizarro, J., Moreno, E., dan Gorvel, J. P. 2020. Invasion and intracellular trafficking of *Brucella abortus* in nonphagocytic cells. *Microb Infect*. 2 (7) :829-835.
- Poester, F. P., Miranda, K. L., Minharro, S., Dorneles, E. M. S., Stynen, A. P. R., dan Lage, A. P. 2013. Evaluation of *Brucella abortus* S19 vaccines commercialized in Brazil: immunogenicity, residual virulence and MLVA15 genotyping. *Vaccine*, 31(29), 3014-3018.
- Pratama, M. L., Nurokhmi., Maryono., dan Subekti, W. 2012. *Isolasi dan Reidentifikasi Brucella abortus bv. 1 di Balai Besar Veteriner (bbvet) Wates*. Yogyakarta.
- Promsatit, S., Heingraj, S., dan Pumipuntu, N. 2024. Investigation of outbreaks and risk factors for brucellosis in goat and sheep farms in central Thailand. *Int. J. One Health*, 10(1): 125-132.
- Pudjiatmoko. 2012. *Manual Penyakit Hewan Mamalia*. Kementerian Pertanian. Direktorat Jenderal Peternakan dan Kesehatan Hewan. Direktorat Kesehatan Hewan. Jakarta
- Radostits O. M., Gay, C. C., Hinchcliff, K. W., dan Constable, P. D. 2007. *A text book of diseases of cattle, sheep, pigs, goats and horses*. 10th Ed. W.B., Saunders; London.



- Rahimoon, M. M., Mirani, A. H. M., Kashif, A. H., Sahitol, J. K., Kaka, A., Aqee, M., dan Rasool, G. 2024. Brucellosis and its diagnosis in animals. *J. Biores. Manag.* 11(3): 151-170.
- Rahman, A. K. M. A., Saegerman, C., Berkvens, D., Fretin, D., Gani, O., Uddin, M., dan Emmanuel, A. 2013. Bayesian estimation of true prevalence, sensitivity and specificity of indirect ELISA, Rose Bengal Test and Slow Agglutination Test for the diagnosis of brucellosis in sheep and goats in Bangladesh. *Prev Vet.* 110(2), 242–252.
- Rerkyusuke, S., Lerk-U-Suke, S., Sukon, P., dan Phuektes, P. 2024. Serological and Molecular Prevalence and Associated Risk Factors in Caprine Brucellosis, Northeastern Thailand. *Vet Med Inter.* (1). 9966352.
- Ridlo, M. R., Andityas, M., Primatika, R. A., Widantara, H., Loong, S. K., dan Nuraini, D. M. 2024. A meta-analysis of livestock brucellosis prevalence in Indonesia. *Veterinary Quarterly*, 44(1), 1-14.
- Rodríguez, M. C., Viadas, C., Seoane, A., Sangari, F. J., Lopez-Goni, I., & García-Lobo, J. M. 2012. Evaluation of the effects of erythritol on gene expression in *Brucella abortus*. *PloS one.* 7(12):50876.
- Romero, C., Gamazo, C., dan Pardo, L. G. 1995. Specific detection of *Brucella* DNA by PCR. *Jo of Clin Micro.* 33 (3): 615–617.
- Rosartio, R., Suranindyah, Y., Bintara, S. dan Ismaya. 2015. Produksi Dan Komposisi Susu Kambing Peranakan Ettawa Di Dataran Tinggi Dan Dataran Rendah Daerah Istimewa Yogyakarta. *Bul Pet.* 39 (3): 180-188.
- Rossetti, C. A., Arenas-Gamboa, A. M., dan Maurizio, E. 2017. Caprine brucellosis: Historically neglected disease with significant impact on public health. *PLoS Negl. Trop. Dis.* 11.
- Rossetti, C. A., Drake, K. L., dan Adams, L. G. 2012. Transcriptome analysis of HeLa cells response to *Brucella melitensis* infection: a molecular approach to understand the role of the mucosal epithelium in the onset of the *Brucella* pathogenesis. *Microbes and infection*, 14(9), 756-767.
- Rossetti, C. A., Maurizio, E., dan Rossi, U. A. 2022. Comparative review of brucellosis in small domestic ruminants. *Front. Vet. Sci.* 12(9):887-895.
- Rostami, S., Rashidian, E., Jaydari, A., dan Rahimi, H. 2023. Investigation of the Proportion of *Brucella abortus* and *Brucella melitensis* in Sheep and Goat Milk. *Vet. Med. Inter.* 2023 (1): 6751152.
- Rusdiana, S. dan Praharani, L. 2015. Peningkatan Usaha Ternak Domba melalui Diversifikasi Tanaman Pangan: Ekonomi Pendapatan Petani. *J Agrie* 4(1): 80-96.



- Sadhu, D. B., Panchasara, H. H., Chauhan, H. C., Sutariya, D. R., Parmar, V. L., dan Prajapati, H. B. 2015. Seroprevalence and comparison of different serological tests for brucellosis detection in small ruminants. *Veterinary world*, 8(5), 561.
- Saeed, U., Ali, S., Khan, T. M., El-Adawy, H., Melzer, F., Khan, A. U., dan Neubauer, H. 2019. Seroepidemiology and the molecular detection of animal brucellosis in Punjab, Pakistan. *Microorganisms*, 7(10), 449.
- Samad, A., Abbas, F., Ahmad, Z., Pokryshko, O., dan Asmat, T. M. 2018. Prevalence of foodborne pathogens in food items in Quetta, Pakistan. *Pak. J. Zool*, 50, 1-4.
- Samartino, L. E., Truax, R. E., dan Enright, F. M. 1994. Invasion and replication of *Brucella abortus* in three different trophoblastic cell lines. *Journal of Veterinary Medicine, Series B*, 41(1-10), 229-236.
- Samartino, L.E., dan Enrigh, F. M. 1993. Pathogenesis of abortion of bovine brucellosis. *Micro Inf. Dis.* 16(2):95-101.
- Sarim dan Ghupta, R. 2017. Usaha Susu Kambing Peranakan Etawa (Pe) Produksi Tharraya Farm di Desa Paya Geli Kecamatan Sunggal Kabupaten Deli 52 Serdang. *J. K. E. P. 2.* (2):1-8.
- Saxena, N., Singh, B. B., dan Saxena, H. M. 2018. Brucellosis in sheep and goats and its serodiagnosis and epidemiology. *Inter J. of Cur. Micro and App. Scie.* 7(1), 1848-1877.
- Septiana, Y., Nurmeidiansyah, A. A., dan Hilmia, N. 2020. Sebaran Rumpun dan Pola Warna Bulu Domba Lokal Betina Beberapa Pasar Hewan Di Wilayah III Cirebon ciayumajakuning. *J.Prod Ter Ter.* 1 (2) : 51-59.
- Septiningtyas, W., Pribadi, E., S. dan Pasaribu, F. H. 2018. Brucellosis seropositivity in sheep slaughtered at small ruminant Slaughterhouse in Bogor Regency. *J. Ked. Hew.* 12(1):10-12.
- Septyawati, R., Dharmawan, N. S., dan Suartha, N. 2013. Serodeteksi *Brucella abortus* pada Sapi Bali di Timor Leste. *In Med Vet.* 2(5): 504 – 514.
- Seria, w., Tadese, yosefdeneke, D., dan Shumi, E. 2020. A review on brucellosis in small ruminants. *A J of Zoo.* 3.1: 17-25.
- Shakerian, A., Deo, P., Rahimi, E., Shahjavan, A. R., dan Khamesipour, F. 2016. Molecular detection of *Brucella melitensis* in sheep and goat milk in Iran. *Tropical Journal of Pharmaceutical Research*, 15(5), 913-918.



- Shehzad, A., Rantam, F. A., Masud, A., dan Ahmed, S. 2020. Seroprevalence and potential risk factors associated with brucellosis in the Desert Thal of Pakistan. *Human Vet. Med.* 12, 47–52.
- Sheldon, K. M., dan Niemiec, C. P. 2006. It's not just the amount that counts: balanced need satisfaction also affects well-being. *J. of person and soc psyc*, 91(2) :331.
- Shirazi, S., Khalili, M., Sadeghi, B., Sharif, B., dan Shahrnaz, B. A. 2017. Detection of Brucella spp. in the Sheep and Goats Milks from Southeastern Iran Using Culture and PCR. *J Med Micro. Infect.* 5 (3): 40-42.
- Shirwany, A. S. A. K., Awais, M. M., Anwar, M. I., Hameed, M. R., Akhtar, M., Ijaz, N., dan Chaudhry, M. 2024. Seroepidemiology and associated risk factors of brucellosis in small ruminants of district Khanewal, Pakistan. *Journal of Advanced Veterinary and Animal Research*, 11(1), 9.
- Sistem Informasi Peternakan dan Perikanan (SINAKKAN). 2024. Sistem Informasi Peternakan dan Perikanan (SINAKKAN). Pemerintah Kabupaten Magelang. <https://sinakkan.magelangkab.go.id>
- Siswani., Sulaxono., dan Hadi, S. 2021. Kondisi brucellosis Pasca Vaksinasi DiKecamatan Majaleung Kabupaten Wajo Sulawesi Selatan. *BBVET Maros. Prosiding.* 2 (1): 114-118.
- Sitorus, S. S. 2004. Pengaruh creep feed pada anak kambing kacang pra-sapih berbeda jenis kelamin. *Media Peternakan*, 27(1).
- Sodiq, A., dan Abidin, Z. 2008. Meningkatkan Produksi Susu Kambing Peranakan Etawa. PT. *Agro Med Pust*: Jakarta.
- Suárez-Esquivel, M., Baker, K.S., Ruiz-Villalobos, N., Hernández-Mora, G., Barquero-Calvo, E., González-Barrientos, R., Castillo-Zeledón, A., Jiménez-Rojas, C., Chacón-Díaz, C., dan Cloeckert, A. 2017. *Brucella* genetic variability in wildlife marine mammals populations relates to host preference and ocean distribution. *Genome Biol. Evol.* 9 (7): 1901–1912.
- Suárez-Esquivel, M., Chaves-Olart, E., Moreno, E., dan Guzman-Verri, C. 2020. Brucella Genomics: Macro and Micro Evolution. *Int. J. Mol. Sci.* 21 7749 :1- 23.
- Sugiyono. 2009. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Alfa beta :Bandung.



- Taleski, V. 2010. An overview of introducing various laboratory tests for diagnosis of human Brucellosis in the Republic of Macedonia. *Maced J Med Sci.* 3:239- 245.
- Tasiame, W., Emikpe, B. O., Folitse, R. D., Fofie, C. O., Burimuah, V., Johnson, S., dan Wurapa, F. 2016. The prevalence of brucellosis in cattle and their handlers in North Tongu District of Volta Region, Ghana. *African journal of infectious diseases*, 10(2): 111-117.
- Tegegn, A. H., dan Feleke, A. 2016. Small Ruminant Brucellosis and Public Health Awareness in Two Districts of Afar Region, Ethiopia. *J Vet Sci Tech.* 7(4). 335-340.
- Teka, D., Tadesse, B., Kinfe, G., dan Denberga, Y. 2019. Sero-prevalence of bovine brucellosis and its associated risk factors in Becho District, South West Shewa, Oromia regional state. *J. Anim. Vet. Sci.* 5 (2) :35–45.
- Tesfaye, G., Tsegaye, W., Chanie, M., dan Abinet, F. 2011. Seroprevalence and associated risk factors of bovine brucellosis in Addis Ababa dairy farms. *Trop Anim Health Prod.* 43(5):1001–1005.
- Thrusfield, M. 2005. *Veterinary Epidemiology. 2nd Edition.* Blackwell Science Ltd. United Kingdom.
- Tittarelli, M., Di Ventura, M., De Massis, F., Scacchia, M., Giovannini, A., Nannini, D., dan Caporale, V. 2005. The persistence of *Brucella melitensis* in experimentally infected ewes through three reproductive cycles. *Journal of Veterinary Medicine, Series B*, 52(9), 403-409.
- Trangoni, M. D., Gioffre, A. K., Ceron, M. E., Caimi, K. C., Ruybal, P., Zumarraga, M. J., dan Cravero, S. L. 2015. LAMP technology: rapid identification of brucella and mycobacterium avium subsp paratuberculosis. *Braz J Micro.* 46 (2):619-626.
- Tranter, Campbel, R. S. F., dan Copeman, D. B. 1983. *Veterinary Epidemiologi.* Canberra. Pp 116-120.
- Ul Hassan, S., Khan, F. A., Shuaib, M., Shahid, M., Shah, S. S. A. dan Siddiqui, S. A. 2025. Investigation into the sero-molecular prevalence of *Brucella melitensis* in small ruminants in districts Mohmand and Charsadda Khyber Pakhtunkhwa Pakistan. *Plos. One.* 20(2): 315206.
- Ul Hassan, S., Khan, F. A., Shuaib, M., Shahid, M., Shah, S. S. A., Siddiqui, S. A., dan Swelum, A. A. 2025. Investigation into the sero-molecular prevalence of *Brucella melitensis* in small ruminants in districts Mohmand and Charsadda Khyber Pakhtunkhwa Pakistan. *PloS one*, 20(2): e0315206.



- Urkixo, P. I., Mena-Bueno, S., Ramírez, G. A., Zabalza-Baranguá, A., Tsolis, R. M., dan Grilló, M. J. 2024. *Brucella melitensis* Rev1Δwzm: Placental pathogenesis studies and safety in pregnant ewes. *Vaccine*, 42(17), 3710-3720.
- Verger, J. M., Grimont, F., Grimont, P. A., dan Grayon, M. 1987. Taxonomy of the genus *Brucella*. *J Inst Past Micro*. 138(2):235–238.
- Wang Q., Zhao S., Wureli H., Xie S., Chen C., Wei Q., Cui B., Tu C., dan Wang Y. 2018. *Brucella melitensis* and *B. abortus* in eggs, larvae and engorged females of *Dermacentor marginatus*, *Ticks and Tick-Borne Diseases*. 9 (4): 1045–1048.
- Wang, Q., Zhao, S., Wureli, H., Xie, S., Chen, C., Wei, Q., Cui, B., Tu, C. dan Wang, Y. 2018. Molecular detection of tick-borne pathogens harbored by ticks collected from livestock in the Xinjiang Uygur Autonomous Region, China. *Ticks Borne Dis*. 9: 1045-1048.
- Wardhana, A.H., Joses, M., dan Tolibin, I. 2006. Scabies: Tantangan penyakit masa kini dan masa mendatang. *Wartazoa*. 16(1):40-52.
- Wareth, G., Melzer, F., Tomaso, H., Roesler, U., Neubauer, H. 2015. Detection of *Brucella abortus* DNA in aborted goats and sheep in Egypt by real-time PCR. *BMC Res Notes*. 8:212. doi: 10.1186/s13104-015-1173-1.
- Wasiati, Hera., dan Edi Faisal. 2018. Peternakan Kambing Peranakan Etawa di Kabupaten Bantul. *Jurnal Abdimas Unmer Malang*. 3(1): 8-14.
- Wattam, A. R., Foster, J. T., Mane, S. P., Beckstrom-Sternberg, S. M., Beckstrom-Sternberg, J. S., Dickerman, A. W., Keim, P., Pearson, T., Shukla, M., Ward, D. V., Williams, K. P., Sobral, B. W. and Tsolis, R. M. 2009. Comparative phylogenomics and evolution of the *Brucellae* reveal a path to virulence. *J. Bacteriol*, 191(8), 2873–2881. <https://doi.org/10.1128/JB.01581-08>.
- West, D. M., dan Bruce, R. A. (1991). Observations on the eradication of *Brucella ovis* infection from a ram flock. *New Zealand Veterinary Journal*. 39(1), 29-31.
- Whatmore, A. M., Koylass, M. S., Muchowski, J., Edwards-Smallbone, J., Gopaul, K. K., dan Perrett, L.L. 2016. Extended multilocus sequence analysis to describe the global population structure of the genus *Brucella*: phylogeography and relationship to biovars. *Front Microbiol*. 7:2049.
- WHO. 1986 . Joint food and Agriculture Organization, World Health Organization, FAO-WHO. Expert Communittee on brucellosis (sixth) report . World Health Org. *Tech . Rep. Ser.* 740.



- Wickramasingha, S. 2025. Intersection of crises, discourses, and gender ideologies in change making: The case of Sri Lankan labour law reforms. *Competition & Change*, 10245294251332707.
- Widiasih, A. D., dan Budiharta, S. 2012. *Epidemiologi Zoonosis di Indonesia*. Gadjah Mada University Press. Yogyakarta.
- Widodo, V., R. Afina., dan I. G. S. Budisatria. 2012. Produksi dan evaluasi kualitas susu bubuk asal kambing Peranakan Etawa (PE). *J. Tek & Indu Pang.* 23(2):132-139.
- Wijaya, U., Tumbelaka, L., Supriatna, I., dan Tambajong. 2019. Evaluasi Status Reproduksi Domba Garut Jantan Tipe Tangkas. *Act Vet Ind.* 7 (1): 55-63.
- World Organisation for Animal Health (OIE). 2018. *Terrestrial animal health code* (27th ed.). Paris: OIE. <https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/>
- World Organisation for Animal Health (OIE). 2018. *Terrestrial animal health code* (27th ed.). Paris: OIE. <https://www.woah.org/en/what-we-do/standards/codes-and-manuals/terrestrial-code-online-access/>
- World Organisation for Animal Health (OIE). 2021. *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals: Brucellosis (Brucella abortus, B. melitensis and B. suis)*.
- Xavier, M. N., Costa, E. A., Paixao, T. A., dan Santos, R. L. 2009. *The genus Brucella and clinical manifestations of brucellosis* *Ciencia Rural.* 39 (7): 2252-2260.
- Xavier, M.N., Paixao, T. A., Hartigh, A. B., Tsolis, R. M., dan Santos, R. L. 2010. Pathogenesis of *Brucella* spp. *Vet. Sci.* 4 (1):109-118.
- Yadav, J. P., dan Singh, M. 2025. Seroprevalence of brucellosis among bovine populations of Southwestern Punjab, India. *J. Vet. Anim. Sci.* 56(3), 457-463.
- Yang, Z., Chai, Z., Wang, X., Zhang, Z., Zhang, F., Kang, F., Liu, W., Re, H., Jin, Y. dan Yue, J. 2024. Comparative genomic analysis provides insight into the genetic diversity and pathogenicity of the genus *Brucella*. *Front. Microbiol.* 15: 1389859. DOI 10.3389/fmicb.2024.1389859.
- Yendraliza, M. A., Mucra, D. A., dan Elfawati. 2021. Pertumbuhan dan Stock Ternak Pengganti Kerbau Lumpur (*Buballus buballis*) di Kecamatan Kuantan, Kabupaten Kuansing, Provinsi Riau. *J. I. Pet. Ter.* 9 (1): 97-107.
- Young, E. J. 1995. An overview of human Brucellosis. *Inf Dis.* 21 (2) : 283 – 290



- Young, E. J., Roushan M. R., Shafae S., Genta R. M., dan Taylor S. L. 2014. Liver histology of acute brucellosis caused by *Brucella melitensis* *Hum Pathol.* 45 (10) : 2023-2028
- Young, H., Cham, J., Neal, B. P., Fan, Z., He, T. dan Zhang, L. 2023. NAIR: Network analysis of immune repertoire. *Front. Immunol.* 14, 1181825. <https://doi.org/10.3389/fimmu.2023.1181825>.
- Yu, W. L., dan Nielsen, K. 2010. Review of detection of *Brucella* sp by polymerase chain reaction. *Croat Med J.* 51 (4) :306- 313.
- Yuniza, L., Sulystiati, M., dan Mauludin, M. A. 2023. Karakteristik peternak domba dalam penerapan good farming practice di Desa Cinanjung Kecamatan Tanjungsari. *J. I. Tek. Per.* 11: 50-58.
- Zinsstag, J., Roth, F., Schoenegger, K. dan Dickson, K. 2023. *Brucellosis surveillance and control: A One Health case study.* One Health Cases. <https://doi.org/10.1079/onehealthcases.2023.0004>
- Zulfahmi, T., Ramdani, E., dan Nurmeidiansyah. 2016. Hubungan Antara Ukuran- Ukuran Tubuh Dengan Bobot Badan Pada Kambing Kacang Di Kabupaten Grobogan Jawa Tengah. *Anim Agri J*, 8(1): 29–35.