

## DAFTAR PUSTAKA

- Amie-Marini A. B., K. Aslinda, R. Mohd-Hifzan, A. B. Muhd-Faisal, and K. Musaddin. 2012. Haell-RFLP polymorphism of growth hormone gene in Savanna and Kalahari goats. *Malays. J Anim Sci.* 15:13-19.
- Anggreini, A. 2020. Morfometrik kambing perah G1 Sapera betina berdasarkan analisa citra digital. Hlm. 347-356 di Prosiding Seminar Nasional Teknologi Peternakan dan Veteriner Virtual 2020. Balai Penelitian Ternak, Ciawi, Bogor.
- Anggraeni, A., F. Saputra, A. Hafid, and A. B. L. Ishak. 2020. Non-genetic and genetic effects on the growth traits from birth to 120 days of age of G2 Sapera goat. *Jurnal Ilmu Ternak dan Veteriner.* 25(2):48-59.
- Batubara, A., S. Nasution, Subandriyo, I. Inounu, B. Tiesnamurti. 2016. Kambing Peranakan Etawah (PE). Indonesian Agency for Agricultural Research and Development (IAARD) Press. Jakarta
- Adjassin, J.S., O. Thierry, L. Fronde, A.S. Assani, B. Gérard, C. Assogba, and M. Azalou. 2021. Thermoregulatory and Adaptive Responses of Dairy Goats Reared in A Sub Humid Tropical Environment Under Heat Stress Conditions: Physiological Approach. *World Appl. Sci. J.* 39:20–27. doi:10.5829/idosi.wasj.2021.20.27.
- Beyloto, V.Y., N. Solihati, D. Heriyadi, and D. Rahmat. 2022. Physiological adaptability of pregnant doe Kacang goats in a dry-land-area of Indonesia. *J. Anim. Behav. Biometeorol.* 10. doi:10.31893/jabb.22023.
- Bhatnagar, D. S. dan D.S. Chawla. 1984. Performance of Beetal, Alpine, and Saanen goats under stall-fed condition. *Asian J. Dairy Res.* 3: 55-59.
- Bhateshwar, V., D.C. Rai, and M. Datt. 2023. Heat Stress Responses in Small Ruminants under Arid and Semi-arid Regions of Western India: A Review. *Agric. Rev.* 2:164–172. doi:10.18805/ag.r-2393.
- BPS Kecamatan Berbah. 2021. Kecamatan Berbah Dalam Angka 2021. Badan Pusat Statistik Kabupaten Sleman, Sleman.
- BPS Kecamatan Turi. 2022. Kecamatan Turi Dalam Angka 2022. Badan Pusat Statistik Kabupaten Sleman, Sleman.
- Chaurasia, R.K., A. Mech, A. Dhali, V.K. Vidyarthi, and C. Rajkhowa. 2014. Effect of altitude and season on dry matter intake, THI and growth rate in mithun. *Indian J. Anim. Sci.* 84:799–801.
- Deng, T.X., C.Y. Pang, M.Q. Liu, C. Zhang, and X.W. Liang. 2016. Synonymous single nucleotide polymorphisms in the MC4R gene that are significantly associated with milk production traits in water buffaloes. *Genet. Mol. Res.* 15:1–8. doi:10.4238/gmr.15028153.

- Dewi, F. K. 2016. Tampilan Produksi, Kadar Laktosa dan Berat Jenis Susu Sapi Perah yang Disuplementasi Natrium Glutamat dalam Pakan. Skripsi. Program Studi Peternakan. Universitas Diponegoro, Semarang.
- Dewi, R. K. dan Wahyuni. 2020. Dasar Pemuliaan Ternak. Lembaga Penelitian, Pengembangan dan Pengabdian Masyarakat Universitas Islam Lamongan, Lamongan.
- Diana, P. Bagus, Purwanto, and A. Atabany. 2016. Pengaruh Ketinggian Tempat Terhadap Respon Termoregulasi Kambing Peranakan Etawah (PE). J. Sains Terap. Ed. V 6:52–62.
- Dubern, B. 2015. MC4R and MC3R Mutations. In M.L. Frelut (Ed.), The ECOG's eBook on Child and Adolescent Obesity. <https://ebook.ecog-obesity.eu/wp-content/uploads/2015/02/ECOG-Obesity-eBook-MC4R-and-MC3R-Mutations.pdf>. Diakses tanggal 1 Januari 2022.
- Fathoni, A. 2016. Estimasi parameter genetik sifat pertumbuhan dan identifikasi gen MC4R sapi Peranakan Ongole di Kabupaten Kebumen Jawa Tengah. Tesis. Sekolah PascaSarjana. Universitas Gadjah Mada. Yogyakarta.
- Fattah, A.H., R. Faridah, A. Harnita, and N. Amalia. 2023. Pengaruh Pengaturan Suhu dan Kelembaban di Kandang Closed House Terhadap Performa Broiler. Musamus J. Livest. Sci. 6:12–20.
- Ferreira, J., R.M.F. Silveira, J.E.R. de Sousa, A.M. de Vasconcelos, M.M. Guilhermino, and D.A.E. Façanha. 2021. Evaluation of homeothermy, acid-base and electrolytic balance of black goats and ewes in an equatorial semi-arid environment. J. Therm. Biol. 100. doi:10.1016/j.jtherbio.2021.103027.
- Habeeb, A.A., A.E. Gad, and M.A. Atta. 2018. Temperature-Humidity Indices as Indicators to Heat Stress of Climatic Conditions with Relation to Production and Reproduction of Farm Animals. Int. J. Biotechnol. Recent Adv. 1:35–50. doi:10.18689/ijbr-1000107.
- Harjanti, D.W., A. Mustaqim, and R. Hartanto. 2021. Produksi Susu dan Komposisi Susu Sapi Friesian Holstein yang Mendapat Suplemen Tepung Temulawak (*Curcuma xanthorriza* Roxb). J. Agripet 21:40–48. doi:10.17969/agripet.v21i1.16170.
- Hasanah, F.T. 2020. Karakteristik wilayah daratan dan perairan Indonesia. J. Geogr. 20:1–6.
- Hassan, M. R., M. A. I. Talukder and S. Sultana. 2010. Evaluation of the production characteristics of the Jamunapari goat and its adaptability to farm conditions in Bangladesh. The Bangladesh Veterinarian. 27: 26-35.
- Heraini, D., B.P. Purwanto, and S. Suryahadi. 2019. Perbandingan Suhu Lingkungan Dan Pengaruh Pakan Terhadap Produktivitas Sapi Perah Di Daerah Dengan Ketinggian Berbeda. J. Ilm. Peternak. Terpadu 7:234. doi:10.23960/jipt.v7i2.p234-240.

- Huo, L., H.J. Grill, and C. Bjørbaek. 2006. Divergent regulation of proopiomelanocortin neurons by leptin in the nucleus of the solitary tract and in the arcuate hypothalamic nucleus. *Diabetes* 55:567–573. doi:10.2337/diabetes.55.03.06.db05-1143.
- ICAR, 1998. Nutrient Requirements of Domestic Animal, Indian Council of Agricultural Research, New Delhi, India.
- Ilham, F., S.D.A.B. Rachman, M.I.A. Dagong, L. Rahim, and Yulianty. 2016. Genetic polymorphisms of growth hormone (GH) gene in kacang goat population based on polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) identification. *Livest. Res. Rural Dev.* 28:5–11.
- Istiawan, N.D., and D. Kastono. 2019. Pengaruh Ketinggian Tempat Tumbuh terhadap Hasil dan Kualitas Minyak Cengkih (*Syzygium aromaticum* (L.) Merr di Kecamatan Samigaluh, Kulon Progo. *Vegetatika* 8:27–41.
- Joy, A., F.R. Dunshea, B.J. Leury, I.J. Clarke, K. Digiacomio, and S.S. Chauhan. 2020. Resilience of small ruminants to climate change and increased environmental temperature: A review. *Animals* 10. doi:10.3390/ani10050867.
- Jun Z., Q. Yong, Z. Sheng, C. Hua, W. H. Li, L.Y. Xia, C.S. Xian. 2013. Single nucleotide polymorphisms of gene fragment of melanocortin receptor-4 C-terminal and its association with body weight in Boer goats. *Jiangsu J. Agr. Sci.* (Abstrak).
- Kaleka, N. dan N. K. Haryadi. 2019. Kambing Perah. Arcita. Solo.
- Kurniawati, N., Latifah, K. Kustantinah, M.D.E. Yulianto, and T. Hartatik. 2021. Identification of MC4R gene markers in Bligon goats with single and twin birth type. *IOP Conf. Ser. Earth Environ. Sci.* 667. doi:10.1088/1755-1315/667/1/012074.
- Lacorte G.A, M. A. Machado, M.L. Martinez, A. L. Campos, R. P. Maciel, R. S. Verneque, R. L. Teodoro, M. G. C. D. Peixoto, M. R. S. Carvalho, and C. G. Fonseca. 2006. DGAT1 K232A polymorphism in Brazilian cattle breeds. *Genet Mol Res.* 5:475-482.
- Latifah, D.A. Priyadi, D. Maharani, Kustantinah, and T. Hartatik. 2017. Genetic analysis using partial sequencing of melanocortin 4 receptor (MC4R) gene in Bligon goat. *Media Peternak.* 40:71–77. doi:10.5398/medpet.2017.40.2.71.
- Lawrence, D.C., M. O'Donovan, T.M. Boland, E. Lewis, and E. Kennedy. 2015. The effect of concentrate feeding amount and feeding strategy on milk production, dry matter intake, and energy partitioning of autumn-calving Holstein-Friesian cows. *J. Dairy Sci.* 98:338–348. doi:10.3168/jds.2014-7905.

- Lee, Y., S. Park, H. Kim, S. K. Lee, J. W. Kim, H. K. Lee and S. J. Lee. 2013. A C1069G SNP of the MC4R gene and its association with economic traits in Korean native cattle (brown, brindle and black). *Electron J Biotechnol.* 16:1-5.
- Lima, A.R.C., R.M.F. Silveira, M.S.M. Castro, L.B. De Vecchi, M.H.M. da R. Fernandes, and K.T. de Resende. 2022. Relationship between thermal environment, thermoregulatory responses and energy metabolism in goats: A comprehensive review. *J. Therm. Biol.* 109. doi:10.1016/j.jtherbio.2022.103324.
- Lu, C.D. 1989. Effects of heat stress on goat production. *Small Rumin. Res.* 2:151–162. doi:10.1016/0921-4488(89)90040-0.
- Lucena, L.F.A., D.A. Furtado, J.W.B. do Nascimento, A.N. de Medeiros, and B.B. de Souza. 2013. Physiological responses of native goats maintained in thermoneutral temperature and thermal stress. *Rev. Bras. Eng. Agric. e Ambient.* 17:672–679. doi:10.1590/S1415-43662013000600014.
- Maharani, D., A. Fathoni, Sumadi, T. Hartatik, and M. Khusnudin. 2018. Identification of MC4R gene and its association with body weigh and body size in Kebumen Ongole grade cattle. *J Ind Tropic Anim Agric.* 43:87-93.
- Marwah, M.P., Y.Y. Suranindyah, and T.W. Murti. 2010. Produksi dan komposisi susu kambing peranakan ettawa yang diberi suplemen daun katu (*Sauropus androgynus* (L) merr) pada awal masa laktasi. *Bul. Peternak.* 34:94–102.
- McDonald, P., Edwards RA, Greenhalgh JFD, Morgan CA, Sinclair LA, Wilkinson RG. 2011. *Animal Nutrition*. 7th ed. Prentice Hall, London.
- MC4R. 2022. Gen Melanocortin 4 Receptor Information for Scientist, Doctors and Patiens. <https://www.mc4r.org.uk/>. (Diakses tanggal 20 November, 2023).
- Mukharomi, Citra. 2017. Perbandingan Kemampuan Produksi Susu Kambing Peranakan Etawa dan Sapera (Studi Kasus di Farm Iwan Desa Gumelar Kecamatan Gumelar Kabupaten Banyumas). Skripsi, Universitas Jenderal Soedirman, Purwokerto.
- National Research Council. 2007. *Nutrient Requirements of Small Ruminants: Sheep, Goats, Cervids, and New World Camelids*. The National Academies Press, Washington DC.
- Nei, M. 1987. *Molecular Evolutionary Genetics*. Columbia University Press, New York.
- Nei, M and S. Kumar. 2000. *Molecular Evolution and Phylogenetics*. Oxford University Press. Inc., New York.

- Novianti, J., B.P. Purwanto, and A. Atabani. 2013. Respon Fisiologis dan Produksi Susu Sapi Perah FH pada Pemberian Rumput Gajah (Pennisetum Purpureum) dengan Ukuran Pemotongan yang Berbeda. *J. Ilmu Produksi dan Teknol. Has. Peternak*. 1:138–146.
- Nugroho, Trisianto. 2022. Peran Sistem Produksi Ternak terhadap Kinerja dan Variasi Genetik berdasarkan Gen Leptin Sapi Madura di Wilayah Pengembangan Sonok. Tesis. Magister Ilmu Peternakan. Universitas Gadjah Mada, Yogyakarta.
- Nurnasari, E., and . Djumali. 2010. Pengaruh Kondisi Ketinggian Tempat Terhadap Produksi dan Mutu Tembakau Temanggung. *Bul. Tanam. Tembakau, Serat Miny. Ind.* 2:45–59. doi:10.21082/bultas.v2n2.2010.45-59.
- Nutrient Requirements of Goats: Angora, Dairy, and Meat Goats in Temperate and Tropical Countries. 1981. The National Academies Press, Washington, DC.
- Piccione, G., and R. Refinetti. 2003. Thermal Chronobiology of Domestic Animal. *Frointiers Biosci.* 8 258–264.
- Pramono, A., D.N.P. Altiara, and M. Cahyadi. 2023. The effect of differences in lactation period and milking time on milk production and quality of Saanen Etawa Crossbreed Goats (Sapera). *IOP Conf. Ser. Earth Environ. Sci.* 1200:012007. doi:10.1088/1755-1315/1200/1/012007.
- Pramono, H., S. Suharyati, and E. Santosa. 2014. Respon Fisiologis Kambing Boerawa Jantan Fase PascaSapih di Dataran Rendah dan Dataran Tinggi. *J. Ilm. Peternak. Terpadu* 2:11–15.
- Putra, W.P.B., P.P. Agung, S. Anwar, S. Said, and A. Hermansyah. 2017. Polimorfisme gen reseptor hormon pertumbuhan ( GHR ) pada sapi Pasundan. *Pros Sem Nas Masy Biodiv Indon* 3:299–303.doi:10.13057/psnmbi/m030303.
- Qisthon, A., and M. Hartono. 2019. Respon Fisiologis dan Ketahanan Panas Kambing Boerawa dan Peranakan Ettawa pada Modifikasi Iklim Mikro Kandang melalui Pengkabutan. *J. Ilm. Peternak. Terpadu* 7:206–211.
- Qisthon, A., and S. Suharyati. 2007. Pengaruh Naungan terhadap Respon Termoregulasi dan Produktivitas Kambing Peranakan Ettawa. *Maj. Ilm. Peternak*. 1–10.
- Ratya, N., E. Taufik, and I.I. Arief. 2017. Karakteristik Kimia, Fisik dan Mikrobiologis Susu Kambing Peranakan Etawa di Bogor. *J. Ilmu Produksi dan Teknol. Has. Peternak*. 05:1–4.
- Ribeiro, N.L., R. Germano Costa, E.C. Pimenta Filho, M.N. Ribeiro, and R. Bozzi. 2018. Effects of the dry and the rainy season on endocrine and physiologic profiles of goats in the Brazilian semi-arid region. *Ital. J. Anim. Sci.* 17:454–461. doi:10.1080/1828051X.2017.1393320.

- Ribeiro, N.L., E.C. Pimenta Filho, J.K.G. Arandas, M.N. Ribeiro, E.P. Saraiva, R. Bozzi, and R.G. Costa. 2015. Multivariate characterization of the adaptive profile in Brazilian and Italian goat population. *Small Rumin. Res.* 123:232–237. doi:10.1016/j.smallrumres.2014.12.010.
- Rosartio, R., Y. Suranindyah, S. Bintara, and I. (Ismaya). 2015. Produksi Dan Komposisi Susu Kambing Peranakan Ettawa Di Dataran Tinggi Dan Dataran Rendah Daerah Istimewa Yogyakarta. *Bul. Peternak.* 39:180. doi:10.21059/buletinpeternak.v39i3.7986.
- Rosita, E., I.G. Permana, and T. Toharmat. 2015. Kondisi Fisiologis, Profil Darah Dan Status Mineral Pada Induk Dan Anak Kambing Peranakan Etawah (PE). *Bul. Ilmu Makanan* 102:9–18.
- Rusdiana, S., L. Praharani, and S. Sumanto. 2016. Kualitas Dan Produktivitas Susu Kambing Perah Persilangan Di Indonesia. *J. Penelit. dan Pengemb. Pertan.* 34:79. doi:10.21082/jp3.v34n2.2015.p79-86.
- Sarmin, I. Widiyono, and D. Anggraeni. 2021. Measurement of Body Measurement Characteristics and Vital Parameters in Saanen, Sapera, and Ettawa Crossbred Goats. *IOP Conf. Ser. Earth Environ. Sci.* 662:6–11. doi:10.1088/1755-1315/662/1/012026.
- Sejian, V., M. V. Silpa, M.R. Reshma Nair, C. Devaraj, G. Krishnan, M. Bagath, S.S. Chauhan, R.U. Suganthi, V.F.C. Fonseca, S. König, J.B. Gaughan, F.R. Dunshea, and R. Bhatta. 2021. Heat stress and goat welfare: Adaptation and production considerations. *Animals* 11:1–24. doi:10.3390/ani11041021.
- Seong J., H. K., D. S. Lee, H. Suh, H. S. Kong, and K. D. Park. 2012. Identification and analysis of MC4R polymorphisms and their association with economic traits of Korean cattle (Hanwoo). *Mol. Biol. Rep.* 3597-3601.
- Setiawan, A.A., E. Erwanto, M. Hartono, and A. Qisthon. 2021. Pengaruh Manipulasi Iklim Kandang Melalui Pengkabutan Terhadap Respon Fisiologis Dan Ketahanan Panas Kambing Sapera Dan Peranakan Ettawa. *J. Ris. dan Inov. Peternak. (Journal Res. Innov. Anim.* 5:64–69. doi:10.23960/jrip.2021.5.1.64-69.
- Solaiman, S.G. 2010. *Goat Science and Production*. first. A John Wiley & Sons, USA.
- Sitanggang, R.S.H., K. Wahyudi, and P. Tafonao. 2017. Analisis Hubungan Ketinggian Tempat Dengan Jenis Dan Klasifikasi Flora Di Wilayah Hutan Sibolangit. *Tunas Geogr.* 6:124. doi:10.24114/tgeo.v6i2.8570.
- Souza, P.T. de, M.G. oret. F. Salles, A.N.L. da Costa, H.A. lexandr. V. Carneiro, L.P. ere. de Souza, D. Rondina, and A.A. lenca. de Araújo. 2014. Physiological and production response of dairy goats bred in a tropical climate. *Int. J. Biometeorol.* 58:1559–1567. doi:10.1007/s00484-013-0760-x.



- Sudono, A dan I. K. Abdulgani. 2002. Budidaya Aneka Ternak Perah. Diklat. Jurusan Ilmu Produksi Ternak. Fakultas Peternakan. Institut Pertanian Bogor, Bogor.
- Sumarmono, J. 2022. Current goat milk production, characteristics, and utilization in Indonesia. IOP Conf. Ser. Earth Environ. Sci. 1041. doi:10.1088/1755-1315/1041/1/012082.
- Suranindyah, Y.Y., D.H.A. Khairy, N. Firdaus, and Rochijan. 2018. Milk production and composition of Etawah crossbred, Sapera and Saperong dairy goats in Yogyakarta, Indonesia. Int. J. Dairy Sci. 13:1–6. doi:10.3923/IJDS.2018.1.6.
- Sutama, I. K., H. Prasetyo, I. G. M. Budiarsana, Supriyati, Sumanto, dan D. Priyanto. 2010. Perakitan kambing Sapera dengan produksi susu 2 L dan pertumbuhan pasca sapih >100 g/hari. Laporan Hasil Penelitian. Balai Penelitian Ternak. Ciawi, Bogor.
- Sutama, I.K. 2009. Productive and Reproductive Performance of Female Etawah Crossbred Goats in Indonesia. Indonesian Research Institute for Animal Production. 19(1):1–6.
- Sutardi, T. 1981. Sapi Perah dan Pemberian Makanannya. Bogor (ID) : Departemen Ilmu Nutrisi dan Makanan Ternak, Fakultas Peternakan, Institut Pertanian Bogor.
- Tagoi, K.Y., F. Ilham, dan N.K. Laya. 2020. Analisis Morfometrik Ukuran Tubuh Kambing Lokal Umur Pra Sapih yang di Pelihara secara Tradisional. Jambura. Journal of Animal Science. 3(1).
- Thai Agricultural Standar. 2008. Raw Goat Milk. R. Gaz. 1–15.
- Thakare, P. D., A. R. Sirothia, and A. R. Sawarkar. 2017. Heat tolerance ability and its variability in different breeds of goat with reference to pulse rate. International Journal of Current Innovation Research. 3(09): 805--806.
- Usman, and A. Rustam. 2020. Pengaruh Pemberian Pakan Tambahan Hijauwan Lamtoro Terhadap Status Fisiologis Kambing Kacang yang Digembalakan. Tolis Ilm. J. Penelit. 2:94–100.
- Yudi, A. Atabany, and B. P. Purwanto. 2021. Pengaruh Tipe Kelahiran terhadap Produksi Susu, Lama Laktasi, Masa Kering, Masa Kosong, dan Selang Beranak Kambing Saanen. J. Ilmu Produksi dan Teknol. Has. Peternak. 9:102–109. doi:10.29244/jipthp.9.2.102-109.
- Zhang, C.L., Y.H. Wang, H. Chen, X.Y. Lan, C.Z. Lei, and X.T. Fang. 2009. Association between variants in the 5'-untranslated region of the bovine MC4R gene and two growth traits in Nanyang cattle. Mol. Biol. Rep. 36:1839–1843. doi:10.1007/s11033-008-9388-z.