

## DAFTAR PUSTAKA

- Abáigar, T., Domené, M.A. dan Palomares, F. 2010. Effects of fecal age and seasonality on steroid hormone concentration as a reproductive parameter in field studies. *Eur J Wildl Res* (2010) 56:781–787. DOI 10.1007/s10344-010-0375-z
- Acconcia, F. dan Marino, M. 2018. Steroid Hormones: Synthesis, Secretion, and Transport. In: Belfiore A., LeRoith D. (eds) *Principles of Endocrinology and Hormone Action*. Endocrinology. Springer, Cham
- Akinloye, O., Obikoya, O.M., Jegede, A.I., Oprainde, D.P., dan Arowojulu, A.O. 2012. Cortisol plays central role in biochemical changes during pregnancy. *Int J Med Biomed Res* 2013;2(1):3-12
- Akoglu, H. 2018. User's guide to correlation coefficients. *Turk J Emerg Med*. 2018 Sep; 18(3): 91–93.
- Ambrojo, K.S., Corzano, M.M., dan Poggi, J.C.G. 2017. Action Mechanisms and Pathophysiological Characteristics of Cortisol in Horses. *IntechOpen*. doi:10.5772/intechopen.72721
- Arlt, W. dan Stewart, P. M. 2005. Adrenal Corticosteroid Biosynthesis, Metabolism, and Action. *Endocrinol Metab Clin N Am* 34 (2005) 293–313. DOI: 10.1016/j.ecl.2005.01.002
- Astuti, P., Yusuf, T., L., Hayes, E., Maheshwari, H., Sjahfirdi, L., dan Sajuthi, D. 2006. Pola Diurnal Metabolit Testosteron dan Kortisol di dalam Feses Owa Jawa (*Hylobates moloch*) di Penangkaran. *Hayati J. of Biosc.* 13(2):69-72
- Atkinson, S dan Williamson, P. 1987. Measurement of urinary and plasma estrone sulfate concentrations from pregnant sows. *Domestic Animal Endocrinology* 4(2):133-138
- Avrameas S, dan Uriel J. 1966. Me'thode de marquage d'antige`nes et d'anticorps avec des enzymes et son application en immunodiffusion. *C R Acad Sci Hebd Seances Acad Sci D*;262:2543–5.
- Avrameas S. 1969. Coupling of enzymes to proteins with glutaraldehyde. *Immunochemistry* ;6:43–52.
- Aydin, S. 2015. A short history, principles, and types of ELISA, and our laboratory experience with peptide/protein analyses using ELISA. *Peptides* 72 (2015) 4–15. DOI: 10.1016/j.peptides.2015.04.012

- Bergeron, C. 2000. Morphological changes and protein secretion induced by progesterone in the endometrium during the luteal phase in preparation for nidation. *Human Reproduction*, Vol. 15, (Suppl. 1), pp. 119-128.
- bin Mokbul, S., Rakib, T. M., Dash, A. K., Nath, S. K., Bhomwik, D. K., Barua, S. R., Islam, M. S., Sarker, S., dan Hossan, A. 2016. Fecal Hormone Assay and Urinalysis of Pregnant Cattle. *Adv. In. Anim. Vet. Sci.* 4(4):200-204
- Brooks, K., Burns, G., dan Spencer, T.E. 2014. Conceptus elongation in ruminants: roles of progesterone, prostaglandin, interferon tau and cortisol. *J Anim Sci Biotechnol.* 2014; 5(1): 53. doi: 10.1186/2049-1891-5-53
- Brunton, P.J. 2013. Effects of maternal exposure to social stress during pregnancy: consequences for mother and offspring. *reproduction* 146, 5; DOI: 10.1530/REP-13-0258
- Capezzuto, A., Chelini, M. O. M., Felipe, E. C. G., dan Oliveira, C. A. 2008. Correlation between serum and fecal concentrations of reproductive steroids throughout gestation in goats. *Animal Reproduction Science* 103: 78–86
- Carvajal, J.A dan Weiner, C.P. 2003. Mechanism underlying myometrial quiescence during pregnancy. *Fetal and Maternal Medicine Review*, 14(3), 209-237. doi:10.1017/S0965539503001098
- Cassburn, G. 2016. How to tell the age of sheep. *Primefact*:1481
- Catt K, dan Tregear GW. 1967. Solid-phase radioimmunoassay in antibodycoated tubes. *Science*;158:1570–2.
- Chaudry, F. R., Qayyum, M., Khan, F. U., Ahmad, T., Khanum, A., Shakir, M. R., Hussain, D., dan Miller, J. E. 2009. Peri-Parturient Rise in Faecal Nematode Egg Counts with Reference to *Haemonchus contortus* in Bulkhi Ewes in Northern Punjab, *Pakistan*. *Pakistan J. Zool.*, vol. 41(6), pp. 437-443.
- D'Amato, F.R. Rizzi, R. dan Moles, A. 2006. Aggression and anxiety in pregnant mice are modulated by offspring characteristics *Anim. Behav.*, 72 (2006), pp. 773-780
- Danafi, E. D., Winarso, D., Swatomo, R., Fauzi, A., Masnur, I., Kurniawan, I., dan Titisari, N. 2017. Perbedaan Tingkat Stres Lutung Jawa (*Trachypitecus auratus*) Pada Kandang Perawatan Dan Kandang Karantina Di Javan Langur Center (JLC) Ditinjau Dari Kadar Kortisol Dan Rasio Neutrofil Perlimfosit (N/L). *J.Tern.Trop.* 18(2):29-36
- de Graaf-Roelfsema E, van Ginneken M.E., van Breda E., Wijnberg I.D., Keizer H.A., dan van der Kolk J.H. 2006. The effect of long-term exercise on glucose metabolism and peripheral insulin sensitivity in Standardbred horses. *Equine*

- Veterinary Journal. Supplement.* 2006;36:221- 225. DOI: 10.1111/j.2042-3306.2006.tb05543.x
- Downs, C. J., Boan, B. V., Lohuis, T. D., dan Stewart, K. M. 2018. Investigating Relationships between Reproduction, Immune Defenses, and Cortisol in Dall Sheep. *Frontiers in Immunology*, 9, 105. <http://doi.org/10.3389/fimmu.2018.00105>
- El-Tarabany, A.A. 2012. Physiological Changes in Ewes Conceived Single or Twins Fetuses Related with Survivability of Lambs. *Arab J of Nuc Sci and Appli.* 45(3).
- Engvall E, dan Perlmann P. 1971. Enzyme-linked immunosorbent assay (ELISA). Quantitative assay of immunoglobulin G. *Immunochemistry*;8:871-4.
- Fuadi, N. 2014. Identifikasi Sifat Kualitatif Domba wonosobo Jantan (Kasus di Desa Surenggede Kecamatan Kejajar Kabupaten Wonosobo). *Students e-Journal UNPAD*, Vol 3, No 3 (2014)
- Gan, S. D., dan Patel, K. R. 2013. Enzyme Immunoassay and Enzyme-Linked Immunosorbent Assay. *J Inv. Derm.* 133 e12 pp:1-3.
- Genazzani, A.R. 2004. *Endocrinologia ginecologica*. Editeam, Cento (FE), Italy. 2004;1-464.
- Guibourdenche, J. Fournier, T., Malassine, A., dan Evain-Brion, D. 2010. Development and hormonal functions of the human placenta. *Folia Histochemica et Cytobiologica* 47(5). DOI: 10.5603/4271
- Gür, S., Turk, G., Demirci, E., Yuce, A., Somnez, M., Ozer, S. dan Aksur, EH., 2011. Effect of Pregnancy and Foetal Number on Diameter of Corpus Luteum, Maternal Progesterone Concentration and Oxidant/Antioxidant Balance in Ewes. *Reprod Dom Anim* 46, 289-295 (2011); doi: 10.1111/j.1439-0531.2010.01660.x
- Gillespie S.L., Mitchell, A.M., Kowalsky, J.M. dan Christian LM. Maternal parity and perinatal cortisol adaptation: The role of pregnancy-specific distress and implications for postpartum mood. *Psychoneuroendocrinology*. 2018 Nov;97:86-93. DOI: 10.1016/j.psyneuen.2018.07.008.
- Hakim, F. R., Arifin, dan M., Rianto. 2019. Growth pattern and productivity of female Wonosobo sheep in Wonosobo District, Central Java Province, Indonesia. *IOP Conf. Series: Earth and Environmental Science* 247 (2019). doi:10.1088/1755-1315/247/1/012044

- Hall, O. J., dan Klein, S. L. Progesterone-based compounds affect immune responses and susceptibility to infections at diverse mucosal sites. *Mucosal Immunology* volume 10, pages 1097–1107. DOI: 10.1038/mi.2017.35.
- Haryanti, Y., Kurnianto, E., dan Lestari, C. M. S. 2015. Pendugaan Bobot Badan Menggunakan Ukuran-Ukuran Tubuh pada Domba wonosobo. *Jur. Sain. Pet. Ind.* Vol. 10 No.1. ISSN 1978-3000.
- Heistermann, M. 2010. Non-invasive monitoring of endocrine status in laboratory primates methods, guidelines, and application. *Adv. Sci. Res.*, 5, 1–9, 2010. doi:10.5194/asr-5-1-2010.
- Higashiyama, Y., Narita, H., Nashiki, M., Higashiyama, M. dan Kanno, T. 2005. Urinary Cortisol Levels in Japanese Shorthorn Cattle before and after the Start of a Grazing Season. *J.Anim.Sci.* 18(10):1430-1434.
- Hirschenhauser, K., Kotrschal, K., dan Möstl, E. 2005. Synthesis of measuring steroid metabolites in goose feces. *Annals of the New York Academy of Sciences*, 1046(1), 138-153.
- Hoffman, B., de Pinho, T. G., dan Schuler, G. 1997. Determination of free and conjugated oestrogens in peripheral blood plasma, feces and urine of cattle throughout pregnancy. *Experimental and Clinical Endocrinology & Diabetes* 105(5):296-303.
- Hopster, H., van der Werf, J.T.N., Erkens, J.H.F. dan Blokhuis, H.J. 1999. Effects of repeated jugular puncture on plasma cortisol in loose-housed dairy cows. *Journal of Animal Science*, 77, 708-714.
- Isnaini, N dan Wahjuningsih, S. 2014. konsentrasi gonadotropin releasing hormone (gnrh) ekstrak otak sapi peranakan friesien holstein betina fase folikuler dan luteal. *J.Ked Hewan* 8(2):108-110.
- Isobe, N. dan Nakao, T. 2004. Pregnancy Diagnosis in Miniature Pig by Direct ELISA of Oestrone Derivatives in Faeces. *Reproduction in Domestic Animals* 39(1):48-51
- Isobe, N., Akita, M., Nakao, T. dan Yamashiro, H., 2005. Pregnancy diagnosis based on the fecal progesterone concentration in beef and dairy heifers and beef cows. *Animal Reproduction Science* 90(3-4):211-8 .
- Isobe, N. dan Nakao, T. 2005. Direct enzyme immunoassay of fecal estrone derivatives in dairy cows. *Animal Science Journal* 76(3):203 – 207
- Jack, A.M.M., Chang, C.C., Peh, H.C., dan Chan, J.P.W. 2012. Fecal Progesterone Analysis for Monitoring Reproductive Status in Dairy Goats. *Turk. J. Vet. Anim. Sci.* 2012; 36(5): 566-572. doi:10.3906/vet-1105-1

- Jensen, E. C., Bennet, L., Wood, C., Vickers, M., Breier, B., Gunn, A. J., dan Keller-Wood, M. 2011. Loss of the pregnancy-induced rise in cortisol concentrations in the ewe impairs the fetal insulin-like growth factor axis. *Reproduction, fertility, and development*, 23(5), 665–672. doi:10.1071/RD10317
- Kalkan, C., Cetin, H., Kaygusuzoglu, E., Yilmaz, B, Ciftci, M., Yildiz, H., Yildiz, A., Deveci, H., Apaydin, A.M., dan Ocal H. 1996. An investigation on plasma progesterone levels during pregnancy and at parturition in the Ivesi sheep. *Acta Vet Hung.* 1996; 44(3): 335-40
- Kato, K., Hamaguchi, Y., Okawa, S., Ishikawa, E., dan Kobayashi, K. 1977. Use of rabbit antibodyIgG bound onto plain and aminoalkylsilyl glass surface for the enzyme-linked sandwich immunoassay. *J Biochem* 1977;82:261–6.
- Kenyon, P.R., Maloney, S.K. dan Blache, D. 2014. Review of sheep body condition score in relation to production characteristics. *NZ J. of Agr. Res.*57:1, 38-64
- Kersey, D. C., dan Denhard, M. 2014. The use of noninvasive and minimally invasive methods in endocrinology for threatened mammalian species conservation. *Gen. and Comp. Endocr* 203:296-306.
- Khan, J. R., dan Ludri, R. S. 2001. Hormonal Profiles during Periparturient Period in Single and Twin Fetus Bearing Goats. *Asian-Australasian Journal of Animal Sciences* 2002;15(3): 346-351. <https://doi.org/10.5713/ajas.2002.346>
- Kota, S. K., Gayatri, K., Jammula, S., Kota, S. K., Krishna, S. V., Meher, L. K., dan Modi, K. D. 2013. *Endocrinology of parturition. Indian journal of endocrinology and metabolism*, 17(1), 50–59. doi:10.4103/2230-8210.107841
- Kulcsar, M., Danko, G., Delavaud, C., Mircu, C., Nikolic, A.J., Gaspardy, A., Cernescu, H., Chilliard, Y., Cseh, S., Rudas, P. dan Huszenicza, G. 2006. Endocrine Characteristics Of Late Pregnant Hyperketonaemic Ewes And Their Reproductive Performance Following The Induction Of Ovarian Cyclicity Out Of The Breeding Season. *Acta Veterinaria Hungarica* 54 (2), pp. 235–249
- Kyurkchiev, D., Ivanova-Todorova, E., Murdjeva, M., dan Kyurkchiev, S. 2011. Immunoregulation by Progesterone: Effects on Immune Cells and Mesenchymal Stem Cells. *Advances in Neuroimmune Biology*, vol. 1, no. 2, pp. 105-123. DOI: 10.3233/NIB-2011-012
- Leclere, M. 2017. Corticosteroids and immune suppressive therapies in horses. *The Veterinary Clinics of North America. Equine Practice.* 2017;33(1):17-27. DOI: 10.1016/j.cveq.2016.11.008

- Lequin, R. M. 2005. Enzyme Immunoassay (EIA)/Enzyme-Linked Immunosorbent Assay (ELISA). *Clinical Chemistry* 51:12 pp: 2415–2418
- Lewis, J.G., Bagley, C.J., Elder, P.A., Bachmann, A.W., dan Torpy, D.J. 2005. Plasma free cortisol fraction reflects levels of functioning corticosteroid-binding globulin. *Clinica Chimica Acta*. 2005;359(1-2):189-194. DOI: 10.1016/j.cccn.2005.03.044
- Liggins, G.C. 1974. Parturition in the Sheep and the Human. In: Coutinho E.M., Fuchs F. (eds) *Physiology and Genetics of Reproduction. Basic Life Sciences, vol 4*. Springer, Boston, MA.
- Liggins, G.C., Fairclough, R.J., Grives, S.A., Foster, C.S. dan Knox, B.S. 1977<sup>a</sup>. Parturition in the sheep. *Ciba Found Symp*. 1977;(47):5-30.
- Liggins, G.C. Forster, C.S., Grieves, S.A. dan Schwartz, A.L. 1977<sup>b</sup>. Control of Parturition in Man. *Biol of Rep*. 16,39-56.
- Lindner, H.R. 1972. Enterohepatic circulation and patterns of urinary excretion of cortisol metabolites in the ewe. *Journal of Endocrinology*, 52, XIX-XX.
- Lindström, P., dan Wager, O. 1978. IgG autoantibody to human serum albumin studied by the ELISA-technique. *Scand J Immunol* 1978;7:419–25.
- Mason, I. L. 1996. *A World Dictionary of Livestock Breeds, Types and Varieties*. 4<sup>th</sup> Edition. C.A.B International: Oxfordshire.
- Miller W.L, dan Auchus R.J. 2011. The molecular biology, biochemistry, and physiology of human steroidogenesis and its disorders. *Endocr Rev*.;32:81.
- Mishra, S.R. dan Palai, T.P. 2014. Steroidogenesis in luteal cell: A critical pathway for progesterone production. *J.of Inves.Biochem*. Vol.3:170-172. DOI: 10.5455/jib.20141222123216
- Mor, G dan Cardenas, I. 2010. The Immune System in Pregnancy: A Unique Complexity. *Am J Reprod Immunol*. 2010 June ; 63(6): 425–433. doi:10.1111/j.1600-0897.2010.00836.x.
- Möstl, E., Maggs, J.L., Schrötter, G., Besenfelder, U., dan Palme, R. 2002. Measurement of Cortisol Metabolites in Faeces of Ruminants, *Vet Res Comm*. 26:127-139.
- Nedić, S., Pantelić, M., Vranješ-Đurić, S., Nedić, D., Jovanović, L., Čebulj-Kadunc, N., Silvestra, Kobal, Snoj, T., dan Kirovski, D. 2017. Cortisol Concentrations In Hair, Blood And Milk Of Holstein And Busha Cattle. *Slov Vet Res*: 54 (4): 163-72

- Nemeth, M., Pschernig, E., Wallner, B., dan Millesi, E. 2016. Non-invasive cortisol measurements as indicators of physiological stress responses in guinea pigs. *PeerJ*; 4: e1590.
- Noakes, D. E., Parkinson, T.J., dan England, G.C.W. 2009. *Veterinary Reproduction and Obstetrics 9<sup>th</sup> edition*. Saunders Elsevier, Toronto.
- Noor, Y.G., dan Hidayat, R. 2017. Menggerakkan Produksi Ternak Kambing Domba Berorientasi Ekspor. *Prosiding Seminar Nasional Teknologi Peternakan dan Veteriner 2017*.
- Noviani, F., Sutopo, dan Kurnianto, E. 2013. Hubungan Genetik antara Domba wonosobo (Dombos), Domba Ekor Tipis (DET) dan Domba Batur (Dombat) Melalui Analisis Polimorfisme Protein Darah. *Sains Peternakan* Vol. 11 (1), Maret 2013: 1-9. ISSN 1693-8828
- Nugraha, R. T. P., Purwantara, B., Supriatna, I., Agil, M., dan Semiadi, G. 2016. Gambaran Umum Kajian Profil Hormon Steroid Menggunakan Metode Non-Invasif Dari Sampel Feses. *Zoo Indonesia* 25(1): 33-50.
- Palme, R. Robia, C., Messmann, S., Hofer, J. dan Möstl, E. 1999. Measurement of fecal cortisol metabolites in ruminants: a non-invasive parameter of adrenal function. *Wiener Tierärztliche Monatsschrift*, 86, 237-241.
- Peter, I. D., Haron, A. W., Jesse, F., Ajat, M., Han, M., Fitri, W. N., Yahya, M., S. dan Alamaary, M. 2018. Opportunities and challenges associated with fecal progesterone metabolite analysis. *Veterinary world*, 11(10), 1466–1472. doi:10.14202/vetworld.2018.1466-1472
- Rachmawati, L., Ismaya, dan Astuti, P. 2014. Korelasi Antara Hormon Testosteron, Libido, Dan Kualitas Sperma Pada Kambing Bligon, Kejobong, Dan Peranakan Etawah. *Bul. Peternak*. 38(1):8-15
- Raju, R.G.A., Chavan, R., Deenadayal, M., Gunasheela, D., Gutgutia, R., Haripriya, G., Govindarajan, M., Patel, N.H., dan Patki, A.S. 2013. Luteinizing hormone and follicle stimulating hormone synergy: A review of role in controlled ovarian hyper-stimulation. *J Hum Reprod Sci* 2013;6:227-34
- Ramamoorthy, S dan Cidlowski, J.A. 2016. Corticosteroids-mechanism of action in health and disease. *Rheum Dis Clin North Am*. 2016 Feb; 42(1): 15–31. doi: 10.1016/j.rdc.2015.08.002
- Reed, B.G., dan Carr, B.R. 2018. *The Normal Menstrual Cycle and the Control of Ovulation*. In: Feingold KR, Anawalt B, Boyce A, dkk..., Ed. *Endotext*. South Dartmouth.



- Ricketts, A.P. and Flint, A.P. 1980. Onset of synthesis of progesterone by ovine placenta. *J Endocrinol.* 1980 Aug;86(2):337-47. PMID: 6933207
- Roelofs, S., Godding, L., de Haan, J.R., van der Staay, F.J., dan Nordquist, R.E. 2019. Effects of parity and litter size on cortisol measures in commercially housed sows and their offspring. *Physiology & Behavior* Volume 201, 83-90
- Rone, M. B., Fan, J., dan Papadopoulos, V. 2009. Cholesterol transport in steroid biosynthesis: role of protein-protein interactions and implications in disease states. *Biochimica et biophysica acta*, 1791(7), 646–658. doi:10.1016/j.bbali.2009.03.001
- Rossi, E., Robbe, D., di Nardo, A., Villa, P. D., Giammarino, A., dan Sciorsci, R. L. 2007. Faecal concentration of cortisol metabolites in prepartum ewes. *Vet. Ita* 43(4):837-841
- Rumball, C.W.H., Oliver, M.H., Thorstensen E.B., Jaquiry, A.L., Hustd, S.M., Harding, J.E., dan Bloomfield, F.H. 2008. Effects of Twinning and Periconceptional Undernutrition on Late-Gestation Hypothalamic-Pituitary-Adrenal Axis Function in Ovine Pregnancy. *Endocrinology*, Volume 149, Issue 3, 1 March 2008, Pages 1163–1172,
- Russel, E., Koren, G., Reider, M. J., dan van Uum, S. 2013. The Detection of Cortisol in Human Sweat. *Therap Drug Mon* 36(1)
- Ruzty, R. H. 2014. Identifikasi Sifat-Sifat Kualitatif Domba wonosobo Betina (Kasus pada Peternak di Kecamatan Kejajar Kabupaten Wonosobo). *Students e-Journal UNPAD*, Vol 3, No 2 (2014)
- Ryan, K.J., Petro, Z, dan Kaiser, J. 1968. Steroid formation by isolated and recombined granulosa and thecal cells. *J Clin Endocrinol Metab.* 1968;28:355–60.
- Sapolsky R.M., Romero L.M., dan Munck A.U. 2000. How do glucocorticoids influence stress responses? Integrating permissive, suppressive, stimulatory, and preparative actions. *Endocrine Reviews.* 2000;21(1):55-89. DOI: 10.1210/edrv.21.1.0389
- Sari, A. P., Yerizel, E., dan Serudji, J. 2018. Perbedaan Kadar Aldosteron dan Tekanan Darah pada Akseptor KB Pil Kombinasi Berdasarkan Lama Pemakaian Kontrasepsi. *J.Kes.And.* 7(2): 154-159
- Satria, R.G.D. 2017. *Konsep dasar dan cara praktis belajar analisis statistik dengan SPSS*. Pt Global Byakta Waylayy. Yogyakarta.
- Sawyer, G., Webster, D., dan Narayan, E. 2019. Measuring wool cortisol and progesterone levels in breeding maiden Australian merino sheep (*Ovis aries*). *PLoS ONE* 14(4): e0214734



- Schmitt, E., Maffi, A.S., Raimondo, R.F.S., Lima, M.E., Hffmann, D.A.C., Farofa, T.S., Montagner, P., Rincon, J.A.A., Del Pino, F.A.B., dan Correa, M.N. 2018. Energetic metabolic profile of ewes presenting low body condition score induced to subclinical hypocalcemia in early postpartum. *Austral j. vet. sci.* vol.50 no.1
- Schock, H., Zeleniuch-Jacquotte, A., Lundin, E., Grankvist, K., Lakso, H. Å., Idahl, A., Lehtinen, M., Surcel, H.M. dan Fortner, R. T. 2016. Hormone concentrations throughout uncomplicated pregnancies: a longitudinal study. *BMC pregnancy and childbirth*, 16(1), 146. doi:10.1186/s12884-016-0937-5
- Schuler, G., Fürbass, R., dan Klisch, K. 2018. Placental contribution to the endocrinology of gestation and parturition. *Anim. Reprod.*, v.15, (Suppl.1), p.822-842. 2018. DOI: 10.21451/1984-3143-AR2018-0015
- Schwarzenberger, F., Möstl, E., Palme, R. dan Barmberg, E. 1996. Faecal steroid analysis for non-invasive monitoring of reproductive status in farm, wild and zoo animals. *Animal Reproduction Science* 42 (1996) 5 15-526. DOI: 10.1016/0378-4320(96)01561-8
- Sharpley, C. F., McFarlane, J. R., dan Slominski, A. 2011. Stress-linked cortisol concentrations in hair: what we know and what we need to know. *Reviews in the neurosciences*, 23(1), 111–121. doi:10.1515/RNS.2011.058
- Shen, W.J., Azhar, S., dan Kraemer, F.B. 2016. Lipid droplets and steroidogenic cells. *Exp Cell Res.* Jan 15;340(2):209-14. doi: 10.1016/j.yexcr.2015.11.024
- Sitepu, S. A. 2012. *Profil Metabolit Hormon Estrogen dan Progesteron Feses selama Kebuntingan serta Pola Kelahiran Rusa Sambar (Cervus unicolor)*. Tesis Universitas Sumatra Utara
- Somanjaya, R., Heriyadi, D., dan Hernaman, I. 2015. Performa Domba Lokal Betina Dewasa pada Berbagai Variasi Lamanya Penggembalaan di Daerah Irigasi Rentang Kabupaten Majalengka. *Jurn. Ilmu Ternak*, Vol 15 No.1.
- Sousa, L.M.M.C., Campos, D.B., Buratini, J., Binelli, M. dan Papa, P.C. Growth factors and steroidogenesis in the bovine placenta. *Anim. Reprod.*, v.5, n.1/2, p.3-15, Jan./Jun. 2008
- Suparno. 2007. Pengaruh Stresor Psikologik Terhadap Distribusi Transporter Serotonin (Sert) Dan Indeks Apoptosis Hipokampus Yang Dimediasi Oleh Kortisol Dan IL – 6. *J.Ked.Braw.* 13(3):107-115.
- Sunendar, Widayati, D., dan Junaidi, A. 2008. Profil Hormon Progesteron dan Estrogen pada Kambing Peranakan Etawah yang Disinkronisasi Estrus dengan Implan Controlled Internal Drug Release. *Buletin Peternak* 32(1):26-37



- Syafruddin, Rizal, K., Rosmaidar, Melia, J., Roslizawaty, Zuhrawati, Rahmi, E., dan Abrar, M. Correlation Between Progesterone Hormone Concentration And Number Of Fetuses Of Etawa Crossbred Goat In Different Gestation Period. *J.Ked.Hewan* 11(3):91-93
- Taraborrelli, S. 2015. Physiology, production and action of progesterone. *Acta Obstetricia et Gynecologica Scandinavica* 94 8–16. DOI: 10.1111/aogs.12771
- Udo, H. M. J., and Budisatria, I. G. S. 2011. Fat-tailed sheep in Indonesia; an essential resource for smallholders. *Tropical Animal Health and Production*, 43(7), 1411–1418. <http://doi.org/10.1007/s11250-011-9872-7>
- Van Milligen, N.V. 2017. Cortisol levels in sheep. Does litter size influence cortisol levels in hair in ewes or their lambs? *Utr Univ Repost*. 3751775
- van Weemen BK, and Schuurs AHWM. 1971. Immunoassay using antigenenzyme conjugates. *FEBS Letts*;15:232–236.
- Vaughan, O.R., Davies, K.L., Ward, J.W., de Blasio, M.J., dan Fowden, A.L. 2016. A physiological increase in maternal cortisol alters uteroplacental metabolism in the pregnant ewe. *J Physiol*. 2016 Nov 1; 594(21): 6407–6418.
- Verduzco, A., Fecteau, G., Lefebvre, R., Smith, L.C. dan Murphy, B.D. 2012. Expression of steroidogenic proteins in bovine placenta during the first half of gestation. *Reproduction, Fertility and Development* 24(2) 392-404 DOI: 10.1071/RD10303
- Veronesi, M.C., Tosi, U., Villani, M., Govoni, N., Faustini, M., Kindahl, H., Madej, A., dan Carluccio, A. 2010 Oxytocin, vasopressin, prostaglandin F(2alpha), luteinizing hormone, testosterone, estrone sulfate, and cortisol plasma concentrations after sexual stimulation in stallions. *Theriogenology*. Mar 1, 2010;73(4):460-467. DOI: 10.1016/j.theriogenology.2009.09.028
- Villani, M., Cairoli, F., Kindahl, H., Galeati, G., Faustini, M., Carluccio, A., dan Veronesi, M.C. 2006. Effects of mating on plasma concentrations of testosterone, cortisol, oestrone sulphate and 15-ketodihydro-PGF2alpha in stallions. *Reproduction in Domestic Animals*. 2006;41(6):544-548. DOI: 10.1111/j.1439-0531.2006.00711.x
- Yorde, D.E., Sasse, E.A., Wang, T.Y., Husa, R.O., dan Garancis, J.C. 1976. Competitive enzyme-liked immunoassay with use of soluble enzyme/antibody immune complexes for labeling. I. Measurement of human choriogonadotropin. *Clin Chem*1976;22:1372–7.