DAFTAR PUSTAKA

Agus, A. 2008.Panduan Bahan Pakan Ternak Ruminansia. Ardana Media Yogyakarta

Agus, A. 2012. Bahan Pakan Konsentrat untuk Sapi. Citra Aji Parama. Yogyakarta

Agarwal, A., A. Aponte-Mellado, B.J. Premkumar, A. Shaman and S. Gupta. 2012. The Effect of Oxidative Stress on Female Reproduction. Reproductive Biology and Endocrinology 10 :1-31.

Anam, M.S. 2016. Estimasi Sintesis Protein Mikrobia Rumen Berdasarkan Ekskresi Derivat Purin dalam Urin Kambing Bligon yang Diberi Pakan Fermentasi Berbasis Ampas Tahu dengan Penambahan Buffer $NaHCO_3$. Skripsi. Fakultas Peternakan Universitas Gadjah Mada. Yogyakarta

Andrade-Montemayor, H., T.G. Gasca, J. Kawas. 2009. Ruminal Fermentation Modification of Protein and Carbohydrate by Means of Roasted and Estimation of Microbial Protein Synthesis. R. Bras. Zootec. V. 38, p. 277-291.

Annison, E.F., D.B. Lindsay, and J.V. Nolan. 2002. Digestion and Metabolism. In: Sheep Nutrition. Freer. M and H.Dove (eds). Cabi Publishing. Canberra. Australia. pp. 95-118.

AOAC. 2005. Official Methods of Analysis. 18th ed. Association of Official Analytical Chemist. Washington DC

Astuti, D. A. and E. Wina. 2002. Protein Balance and Excretion of Purine Derivatives in Urine of Lactating Etawah Crossbred goats Fed with Tempe Waste. Seminar Nasional Teknologi Peternakan dan Veteriner.

Belanche, A., G. De la Fuente, J.M. Moorby, dan C.J. Newbold. 2012. Bacterial Protein Degradation by Different Rumen Protozoal Group. J. Anim. Sci. 90:4495-4504.

Belanche, A., A.H. Kingston-Smith, dan C.J. Newbold. 2016. An Integrated Multi-Omics Approach Reveals the Effect of Supplementing Grass or Grass Hay with Vitamin E on the Ruen Microbiome and Its Function. Front. Microbiol. 7::905. Doi: 10.389/fmicb. 2016.00905

Cecava, M.J., N.R. Merchen, L.C. Gay, and L.L. Berger. 1990. Composition of Ruminal Bacteria Harvested from Stees as Influenced by Dietary Energy Level, Feeding Frequency, and Isolation Techniques. J Dairy Sci 73:2480-2488

Channon, H.A. and G.R. Trout. 2002. Effect of Tocopherol Concentration on Rancidity during Frozen Storage of A Cured and an Uncured Processed Pork Product. Meat Science 62: 9-17.

Chikunya, S., G. Demirel, M. Enser, J.D. Wood, R.G. Wilkinson, dan L.A. Sinclair. 2004. Biohydrogenation of Dietary n-3 PUFA and Stability of Ingested Vitamin E in the Rumen, and their Effects on Microbial Activity in Sheep. British Journal of Nutrition 91, 539-550.

Chen, X. B. and M.J. Gomes. 1995. Estimation of Microbial Protein Supply to Sheep and Cattle Based on Urinary Excretion of Purine Derivatives. An Overiew of The Technical Details. Rowwet Research Institute, Bucksburn. Aberdeen.

Chen, X.B., Y.K. Chen, M.F. Franklin, E.R. Ørskov, dan W.J. Shand. 1992. The Effect of Feed Intake and Body Weight on Purine Derivate Excretion and Microbial Protein Supply in Sheep. J. Anim. Sci 70:1534-1542

Church, D.C. 1988. The Ruminant Animal: *Digestive Physiology and Nutrition.* Prentice Hall, Englewood Cliffs, New Jersey.

Correa, J. E. 2016. Digestive System of Goats. The Alabama and Auburn Universities

Czerkawski, J.W. 1976. Chemical Composition of Microbial Matter in the Rumen. J. Sci. Fd. Agric. Pp 621-632.

Demeyer, D.I. 1991. Quantitative Aspects of Microbial Metabolism in the Rumen and Hindgut. In: Rument Microbial Metabolism adn Ruminant Digestion. Jouany, J.P. (ed). Institut National De La Recherche Agronomique. Rue De L'Universite. Paris

Lu, C. D., J.R. Kawas, dan O.G. Mahgoub. 2005. Fibre Digestion and Utilization in Goats. Main Papers of the 8th Intern. Conf. On Goats. Small Rum. Res 60, 45-52

El-Nouty, F.D., A.A. Al-Haidary, and S. Basmaeil. 1990. Physiological Responses, Feed Intake, Urine Volume and Serum Osmolality of Aardi Goats Deprived of Water During Spring and Summer. Ajas Vol. 3 (No.4) 331-336.

Fujihara, T. and M.N. Shem. Metabolism of Microbial Nitrogen in Ruminants with Special Reference to Nucleic Acids. Animal Science Journal 82: 198-208.

George,S.K.,M.T. Dipu, U.R. Mehra, A.K. Verma dan P. Singh. 2006. Influence of Level of Feed Intake on Concentrationof Purine Derivatives in Urinary Spot Samples and Microbial Nitrogen Supply in Crossbred Bulls. Asian-Aust. J. Anim. Sci. Vol. 19, No.9 : 1291-1297.

Ghaffari, T., M. Nouri, A.T. Saei, M.R. Rashidi. 2012. Aldehyde and Xanthine Oxidase Activities in Tissues of Streptozotocin-Induced Diabetic Rats: Effect of Vitamin E and Selenium Supplementation. Bio Trace Elem Res 147: 217-225

Grenet, E. Dan J.M. Besle.1991. Microbes and Fibre Degradation. In: Rumen Microbial Metabolism and Ruminant Digestion. Jouany,J .P. (eds). Institut National De La Recherche Agronomique. Rue De L'Universite. Paris.

Givens, D.I., E. Owen, R. F. E. Axford, and H. M. Omed. 2000. Forage Evaluation in Ruminant Nutrition. CABI Publ. Walingford. United Kingdom.

Gore, A.B. and M.A. Qureshi. 1997. Enhancement of Humoral and Cellular Imunity by Vitamin E after Embryonic Exposure. Poultry Science 76:984-991.

Hatfield, P.G. J.T. Daniels, R.W. Kott, D.E. Burgess, dan T.J. Evans. 1999. Role of Supplemental Vitamin E in Lamb Survival and Production : A Review. Proceedings of the American Society of Animal Science.

Hardjosubroto, W. 1994. Aplikasi Pemuliabiakan Ternak di Lapangan. PT Gramedia Mediasarana Indonesia. Jakarta

Hartadi, H.,S. Reksohadiprodjo, AD. Tillman. 2005. Tabel Komposisi Pakan Untuk Indonesia. Cetakan ke-lima. Gadjah Mada University Press. Yogyakarta

Hidriglou, M., T.R. Batra. 1996. Plasma and tissue concentration of vitamin E following supplementation of two forms of vitamin E in sheep. Small Rumin. Res. 21: 83 – 87.

Hino, T., N. Andoh, and H. Ohgi. 1993. Effect of β-Carotene and α-Tocopherol on Rumen Bacterina in thhe Utilization of Long-Chain Fatty Acids and Cellulose. J. Dairy Sci. 76:600-605

Hoogenraad, N.J. and F.J.R. Hird. 1970. Chemical Composition of Rumen Bacteria and Cell Walls from Rumen Bacteria. Russel Grimwade School of Biochemistry. University of Melbourne. Australia

Hossaini-Hilali, J., S. Benlamlih, K. Dahlborn. 1994. Effect of Dehydration, Rehydration, and Hyperhydration in the Lactating and Non-lactating Black Moroccan Goat. Comp. Biochem. Physiol. Vol. 109A, No. 4. Pp. 1017-1026.

Jouany, J.P. 1991. Defaunation of the Rumen. In: Rumen Microbial Metabolism and Ruminant Digestion. Jouany,J .P. (eds). Institut National De La Recherche Agronomique. Rue De L'Universite. Paris

Karami, M., A.R. Alimon, and Y.M. Goh. 2011. Effect of Vitamin E, *Andrographis paniculata and tumeric as dietary antioxidant supplementation on lipid and color stabilityof goat meat. Small Rumin. Res.* 97: 67-71

Kanjanapruthipong, J. dan Leng, R.A. 1998. Purine Derivatives Excreted in Urine as an Indicator Estimating Microbial Yield From the Rumen: A-Review. Ajas Vol. 11 (No.3): 209-216.

Kellems, R.O. and D.C. Church. 2010. Livestock Feeds and Feeding 6th edition. Pearson Education. Pp: 16-37.

Kurihara, Y., J. Margaret Eadie, P.H. Hobson, dan S.O. Mann. 1968. Relationship between Bacteria and Ciliate Protozoa in the Sheep Rumen. Gen. Microbial 51 : 267-288

Leedle, R.A., J.A.Z. Leedle and M.D. Butine. 1993. Vitamin E is not degraded by ruminal microorganism : assesment with ruminal contents from a steer fed a high-concentrate diet. J. Anim. Sci. 71: 3442 – 3450.

Linder, M.C. 1991. Nutritional Biochemistry and Metabolism with Clinical Application 2nd edition. Prentice-Hall International Inc. USA

Liu, J., Tingting Xu, Weiyun Zhu, dan Shengyong Mao. 2014. High Grain Feeding Alters Caecal Bacterial Microbiota Composition and Fermentation and Results in Caecal Mucosal Injury in Goats. British Journal of Nutrition 112, 416-427.

Liu, Q., M.C. Lanari, dan D.M. Schaefer. 1995. A Review of Dietary Vitamin E Supplementation for Improvement of Beef Quality. J. Anim. Sci. 73: 3131- 3140.

Mackie, R.I., C.S. McSweeny,and A.V. Klieve. 2002. Microbial Ecology of the Ovine Rumen. In: Sheep Nutrition. Freer, M. And H. Dove. Cabi Publishing. Canberra. Australia

Marapana, R.A.U.J., T. Seresinhe. 2007. Effect of Feeding Regime on Growth Digestibility and Excretion of Purine Derivatives in Goats. Proceedings of the Fourth Academic Sessions. Pp: 24-26.

McDiarmid, R.E., W. Majak, and K.J. Cheng. 1994. Procedure for analysisof α-tocopherol acetate in bovine ruminal fluid. Can. J.Anim. Sci. 74: 391 – 392.

McDonald, P., R.A. Edwards, J.F.D. Greenhalgh, C.A. Morgan, L.A. Sinclair, R.G. Wilkinson. 2010. Animal Nutrition. Pearson. United Kingdom.

Nasiu, F. Lies Mira Y., Supadmo 2013. Pengaruh Suplementasi Vitamin E dalam Ransum yang Mengandung *Capsulated* Crude *Palm Oil* terhadap Kandungan *Poly Unsaturated Fatty Acid* Daging dan Performan Kambing Bligon. Buletin Peternakan Vol. 37(3): 181-188.

Naziroglu, M., T. Güler, and A. Yüce. 2002. Effect of Vitamin E on Ruminal Fermentation *In Vitro.* J. Vet.Med. A 49, 251-225.

NRC. 1981. Nutrient Requirement of goat, Number 15. National Academy Science. Washington DC.

NRC. 2006. Nutrient Requirements of Small Ruminants Sheep, Goats, Cervids, and New World Camelids. National Academies Press. USA.

Ørskov, E. R. 2002. Trails and Trials in Livestock Research. Halcon Printing.

Ørskov, E. R., F.D. D. Hovell and F. Mould. 1980. The Use of Nylon Bag Technique For The Evaluation of Feedstuff. Trop. Anim. Prod. 5 : 195- 213

Parakkasi, Aminuddin, 1995. Ilmu Nutrisi dan Makanan Ternak Ruminan. UI Press. Jakarta

Purwati, S. P., L. M. Yusiati, dan S. P. S. Budhi. 2013. Kontribusi Ekskresi Basal Purin terhadap Total Ekskresi Derivat Purin dalam Urin Kambing Bligon dan Kejobong. Fakultas Peternakan. Universitas Gadjah Mada. Yogyakarta

Putra, Dianestu. 2013. Nitrogen Balance pada Kambing Bligon dan Kejobong Jantan Yang diberi pakan Jerami Kacang Tanah. Skripsi. Fakultas Peternakan Universitas Gadjah Mada. Yogyakarta

Putra, D. 2015. Estimasi Sintesis Protein Mikrobia Rumen Menggunakan Ekskresi Derivat Purin dalam Urin dengan Teknik *Spot Sampling* pada Kambing Bligon dan Kambing Kejobong. Tesis. Pasca Sarjana Fakultas Peternakan Universitas Gadjah Mada. Yogyakarta.

Putra, D., L.M. Yusiati, R. Utomo. 2016. Estimasi Sintesis Protein Mikrobia Rumen Menggunakan Ekskresi Derivat Purin dalam Urin dengan Teknik *Spot Sampling* pada Kambing Bligon dan Kejobong. Buletin Peternakan Vol 40 (3) : 178-186.

Pottier, J., M. Focant, C. Debbier, G. Buysser, C. Goffe, E. Mignolet, E. Froidmont, and Y. Larondelle. 2006. EffectofDietary Vitamin E on Rumen Biohydrogenation and Milk Fat Depression in Dairy Cows Fed High-Fat Diets. J. Dairy Sci. 89: 685-692.

Reynolds, C.K. 1995. Quantitative Aspects of Liver Metabolism in Ruminants. In: Ruminant Physiology: Digestion, Metabolism, Growth and Reproduction. Engelhardt, W.V., S. leonhard-Marek, G. Breves, D. Giesecke (eds). Ferdinand Enke Verlag Stutgart. Berlin. Germany. Pp 351-385.

Ramirez-Bribiesca, J.E., J.L. Tortora, M. Huerta, L.M. Hernandez, R. Lopez, M.M. Crosby. 2005. Effect of Selenium-Vitamin E Inection in Selenium-deficient Dairy Goat and Kids o the Mexican Plateau. Arq. Bras. Med, Vet. Zootec., V.57, n.1, p. 77-84.

Ruiz, D.R.Y. , A.I.M. Garcia, A. Moumen, and E.M. Alcaide. 2004. Ruminal fermentation and degradation patterns, protozoa population, and urinary purine derivatives excretion in goats and wether fed diets based on olive leaves. J. Anim. Sci. 82:3006-3014.

Rustan, A.C. dan C.A. Drevon. 2005. Fatty Acids: Structures and Properties. Encyclopedia of Life Science. Pp: 01-07.

Singh, M., K. Sharma, N. Dutta, P. Singh, A.K. Verma, dan U.R. Mehra. 2007. Estimation Microbia N Supply Using Urinary Purine Derivatives Excretion in Crossbred Calves Fed at Different Levels of Feed Intake. Asian-Aust. J. Anim. Sci. Vol. 20, No. 10: 1567-1574.

Stewart, C.S. 1991. The Rumen Bacteria. In: Rumen Microbial Metabolism and Ruminant Digestion. Jouany,J .P. (eds). Institut National De La Recherche Agronomique. Rue De L'Universite. Paris

Stangassinger, M., X.B. Chen, J.E. Lindberg, D. Giesecke. 1995. Metabolism of Purines in Relation to Microbial Production. In: Ruminant Physiology: Digestion, Metabolism, Growth and Reproduction. Engelhardt, W.V., S. Leonhard-Marek, G. Breves, D. Giesecke (eds). Ferdinand Enke Verlag Stuttgart. Germany

Tagliapietra, F., M.Cattani, H.H. Hansen, G. Bittante, S. Schiavon. High Doses of Vitamin E on Micobial Activity. Animal Feed Science and Technology 183 (2013) pp: 210-214

Tillman, A. D., H. Hartadi, S. Reksohadiprodjo, S. Prawirokusumo, S. Lebdosoekojo. 1983. Ilmu Makanan Ternak Dasar. Gadjah Mada University Press. Fakultas Peternakan. Universitas Gadjah Mada. Yogyakarta.

Utomo, B., T. Herawati dan S. Prawirodigdo. 2005. Productivity of Goat Farming on Rural Conditon. Seminar Nasional Teknologi Peternakan dan Veteriner. p: 660-665.

Valadares, R.F.D., G.A.Broderick, S.C. Valadares Filho, and M.K. Clayton. 1999. Effect of Replacing Alfalfa Silage with High Moisture Corn on Ruminal Protein Synthesis Estimated from Excretion of Total Purine Derivatives. J. Dairy Sci: 82: 2686-2696

Verbic, J. 2002. Factor Affecting Microbial Protein Synthesis in the Rumen with Emphasis on Diets Contain Forages. Agricultural Instituteof Slovenia. Viehwirtschafliche Fachtagung, BAL Gumpenstein

Wang, Xiaoyuan and Peter J. Quinn. 1999. Vitamin E and its Function in Membranes. Progress in Lipid Research 38: 309-336.

Wei, C., S.X. Lin, J.L. Wu, G.Y. Zhao, T.T. Zhang, W.S. Zheng. 2015. Effects of Supplementing Vitamin E on *In Vitro* Rumen, Gas Production, Volatile Fatty Acid Production, Dry Matter Disapperance Rate, and Utilizable Crude Protein. Czech J. Anim. Sci., 60 (8) :335-341.

Williamson, G. Dan W. J. A. Payne. 1993. Pengantar Peternakan di Daerah Tropis. Gadjah Mada University Press. Yogyakarta

Wood, J.D., R.I. Richardson, G.R. Nute, A.V. Fisher, M.M. Campo, E. Kasapidou, P.R. Sheard, M. Enser. 2003. Effect of Fatty Acids on Meat Quality: A Review. Meat Science 66: 21-32.

Yang, A., M.J. Brewster, M.C. Lanari, R.K. Tume. 2002. Effect of Vitamin E Supplementation on α-Tocopherol and β-Carotene Concentrations in Tissue From Pasture- and Grain Fed Cattle. Meat Science 60: 35-40.

Yusiati, Lies Mira. 2004. Pengembangan Metode Estimasi Sintesis Protein Mikrobia Rumen Menggunakan Ekskresi Derivat Purin dalam Urin Berbagai Ternak Ruminansia Indonesia. Disertasi. Universitas Gadjah Mada. Yogyakarta.

Yusiati, L.M., Supadmo, Z. Bachrudin. 2012. Pengaruh Suplemmentasi Vitamin E pada Ransum Kambing Bligon terhadap Balans Nitrogen dan Sintesis Protein Mikrobia Rumen. Fakultas Peternakan. Universitas Gadjah Mada. Yogyakarta.

Zapsalis, C. And R. Anderle Beck. 1986. Food Chemistry and Nutritional Biochemistry. Macmilan Publishing Company, a Division of Macmilan. Inc. USA.