DAFTAR PUSTAKA

Abdullah, L., 2010. Herbage production and quality of shrub indigofera treated by different concentration of foliar fertilizer. Media Peternakan Fakultas Peternakan Institut Pertanian Bogor 33, 169–175.

Abdullah, L., and Suharlina. 2010. Herbage yield and quality of two vegetative parts of indigofera at different times of first regrowth defoliation. *Jurnal Media Peternakan*. 33 (1): 44-49

Afzalani, A., Muthalib, R.A., Dianita, R., Hoesni, F., Raguati, R., Musnandar, E., 2021. Evaluasi suplementasi *indigofera zollingeriana* sebagai sumber green protein concentrate terhadap produksi gas metan, amonia dan sintesis protein mikroba rumen. Jurnal Ilmiah Universitas Batanghari Jambi 21, 1455.

Afzalani, A., Muthalib, R.A., Raguati, R., Syahputri, E., Suhaza, L., Musnandar, E., 2022. Supplemental effect of condensed tannins from sengon leaves (Albizia falcataria) on in vitro gas and methane production. J Anim Plant Sci 32, 1513–1520. https://doi.org/10.36899/JAPS.2022.6.0559

Afzalani, T. Kaswari, dan A. Yani. 1998. Kajian berbagai sumber protein pakan berdasarkan ketahannya terhadap degradasi oleh mikroba rumen. Laporan Penelitian. Kerjasama Universitas Jambi dengan Bagian Pembinaan Kelembagaan Penelitian dan Pengembangan Pertanian/ARM-II Badan Penelitian dan Pengembangan Pertanian.

Akbarillah T, D Kaharudin, & Kususiyah. 2002. Kajian tepung daun Indigofera sebagai supplemen pakan terhadap produksi dan kualitas telur. Laporan Penelitian Universitas Bengkulu: Lembaga Penelitian, Universitas Bengkulu.

Ali, A., L. Abdullah, P.D.M.H. Karti., M.A. Chozin, and D.A. Astuti. 2014. Production and nutritive value of Indigofera zollingeriana and Leucaena leucocephala in peatland. J. Animal Production 16(3):156-164,

Anggraeny, Y.N., H. Soetanto, Kusmartono dan Hartutik. 2015. Sinkronisasi Suplai Protein dan Energi dalam Rumen untuk Meningkatkan Efisiensi Pakan Berkualitas Rendah. WARTAZOA,. 25 (3) : 107-116.

Arisya, W., R Ridwan2 , M. Ridla and A. Jayanegara. 2019. Tannin treatment for protecting feed protein degradation in the rumen in vitro. IOP Conf. Series: Journal of Physics: Conf. Series 1360 012022.

Avila, A.S., Zambom, M.A., Faccenda, A., Fischer, M.L., Anschau, F.A., Venturini, T., Tinini, R.C.R., Dessbesell, J.G., Faciola, A.P., 2020. Effects of black wattle (acacia mearnsii) condensed tannins on intake, protozoa population, ruminal fermentation, and nutrient digestibility in jersey steers. Animals 10, 1–12.

Bach, A., Calsamiglia, S., Stern, M.D., 2005. Nitrogen metabolism in the rumen. J

Dairy Sci 88, E9–E21.

Bakhtiar, A.Y., Sutrisno, Sunarso, 2013. Pengaruh proteksi protein bungkil kelapa sawit dengen tanin terhadap fermentabilitasnya secara in vitro, Animal Agriculture Journal.

Besharati, M., Maggiolino, A., Palangi, V., Kaya, A., Jabbar, M., Eseceli, H., De Palo, P., Lorenzo, J.M., 2022. Tannin in Ruminant Nutrition: Review. Molecules. https://doi.org/10.3390/molecules27238273

Blummel, M., H.P.S. Makkar and K. Becker. 1997. In vitro gas production: a technique revisited. Journal of Animal Physiology and Animal Nutrition. 77:24–34.

Bunglavan, S.J., and N. Dutta. 2013. Use of Tannins as Organic Protectants of Proteins in Digestion of Ruminants. J. of Livestock Sci. 4:67-77.

Fathul, F. dan S. Wajizah. 2010. Penambahan mikromineral Mn dan Cu dalam ransum terhadap aktivitas biofermentasi rumen domba secara in vitro. Jurnal Ilmu Ternak dan Veteriner. 15(1):9–15.

Gemeda, B.S., Hassen, A., 2015. Effect of tannin and species variation on in vitro digestibility, gas, and methane production of tropical browse plants. Asian-Australas J Anim Sci 28, 188–199. https://doi.org/10.5713/ajas.14.0325

Ginting, S.P. 2005. Sinkronisasi degradasi protein dan energi dalam rumen untuk memaksimalkan produksi protein mikroba. Wartazoa. 15(1):1–10.

Haryanto, B. 2012. Perkembangan penelitian nutrisi ruminansia. Wartazoa. 22(4):169–177.

Hassen, A., N. F. G. Rethman, W. A. Z. Apostolides, & Van Niekerk. 2008. Forage production and potential nutritive value of 24 shrubby indigofera accessions under fields conditions in South Africa. Tropical Grasslands. 42: 96–103.

Hidayat Tanuwiria, U., Hidayat, R., 2019. Efek level tanin pada proteksi protein tepung keong mas (pomacea canaliculata) terhadap fermentabilitas dan kecernaan in vitro. Jurnal Ilmu Ternak, Desember 19, 122–130.

Hristov, A.N., Bannink, A., Crompton, L.A., Huhtanen, P., Kreuzer, M., McGee, M., Nozière, P., Reynolds, C.K., Bayat, A.R., Yáñez-Ruiz, D.R., Dijkstra, J., Kebreab, E., Schwarm, A., Shingfield, K.J., Yu, Z., 2019. Invited review: nitrogen in ruminant nutrition: a review of measurement techniques. J Dairy Sci 102, 5811–5852.

Hume, I.D.1982. Digestion and Protein Microbalism. In a Course Manual in Nutrition and Growth. Australian Universitas. Australian Vice Choncelors Committe. Sidney.

Ikhwanti, A. 2018. Evaluasi Nilai Nutrisi dan Kandungan Tannin pada Beberapa

Tanaman Legum Tropis dan Hubungannya terhadap Fermentabilitas Nutrien Secara In Vitro. Thesis. Institut Pertanian Bogor, Bogor.

Jayanegara, A., H.P.S. Makkar, dan K. Becker. 2009. Emisi metana dan fermentasi rumen in vitro ransum hay yang mengandung tannin murni pada konsentrasi rendah. Media Peternakan. 32(3):185–195.

Jayanegara, A. dan A. Sofyan. 2008. Penentuan aktivitas biologis tannin beberapa hijauan secara in vitro menggunakan ' hohenheim gas test ' dengan polietilen glikol sebagai determinan. Media Peternakan. 31(1):44–52.

Khoiriyah, M., S. Chuzaemi, and H. Sudarwati. 2016. Effect of flour and papaya leaf extract (Carica papaya l.) addition to feed on gas production, digestibility and energy values in vitro. Jurnal Ternak Tropika. 17(2):74– 85.

Makkar, H.P.S. 2003. Effects and fate of tannins in ruminant animals, adaptation to tannins, and strategies to overcome detrimental effects of feeding tannin rich feeds. Journal of Small Ruminant Research. 49:241–256

Marhaeniyanto, E. dan S. Susanti. 2018. Fermentabilitas ruminal secara in vitro suplementasi tepung daun gamal, kelor, randu dan sengon dalam konsentrat hijau. Jurnal Ilmu-Ilmu Peternakan. 28(3):13–223.

Menke H.H., and H.Steingass. 1988. Estimation of The Energetic Feed Value Obtained From Chemical Analysis and In Vitro Gas Production Using Rumen Fluid. Anim Res Dev.28:7-55.

Min, B.R., Barry, T.N., Attwood, G.T., McNabb, W.C., 2003. The effect of condensed tannins on the nutrition and health of ruminants fed fresh temperate forages: a review. Anim Feed Sci Technol.

Mokhtarpour, A., A.A. Naserian, F. Pourmollae, and S. Safa. 2017. Effects of two sources of tannins on performance, nitrogen utilization and efficiency of microbial nitrogen synthesis in dairy goats. Iranian Journal of Applied Animal Science, 7(1), 61-68.

Molan, A.L., S.O. Hoskin, T.N. Barry, and W.C. McNabb. 2000. Effect of 22 Condensed Tannins extracted from four Forages On The Viability of The Larvae of Deer lungworms and Gasroinestinal Nematodes. The Veterinery Record. 147:44–49.

Mueller-Harvey, I. 2006. Unravelling the conundrum of tannins in animal nutrition and health. J Sci Food Agric 86:2010–2037.

Naumann, H.D., Tedeschi, L.O., Zeller, W.E., Huntley, N.F., 2017. The role of condensed tannins in ruminant animal production: Advances, limitations and future directions. Revista Brasileira de Zootecnia. https://doi.org/10.1590/S1806-92902017001200009

Nurhaliq, M., 2017. Energi Metabolisme Pakan Komplit Berbasis Tongkol Jagung

Dengan Kandungan Tepung Rese Berbeda Pada Ternak Kambing Jantan. Universitas Hasanuddin.

Palupi, R., Abdullah, L., Astuti, D.A., Sumiati, 2014. Potensi dan pemanfaatan tepung pucuk indigofera sp. sebagai bahan pakan substitusi bungkil kedelai dalam ransum ayam petelur. Jurnal Ilmu Ternak dan Veteriner 19.

Patra, A. K.and J. Saxena. 2010. A new perspective on the use of plant secondary metabolites to inhibit methanogenesis in the rumen. J. Phytochemistry. 71: 1198± 1222.

Piluzza, G., Sulas, L., Bullitta, S., 2014. Tannins in forage plants and their role in animal husbandry and environmental sustainability: a review. Grass and Forage Science.

Prasetiyono B W H E, Subrata A, Tampoebolon B I M, Surono S and Widiyanto W 2018 In vitro ruminal degradability of soybean meal protein protected with natural tannin IOP Conf Ser Earth Environ Sci.119 012016.

Putra, S. 2006. Pengaruh Suplementasi Agensia Defaunasi dan Waktu Inkubasi terhadap Bahan Kering, Bahan Organik Terdegradasi dan Produk Fermentasi secara In Vitro. Jurnal Protein. 13(2):113–123.

Qori'ah, A., Surono, dan Sutrisno. 2016. Sintesis protein mikroba dan aktivitas selulolitik akibat penambahan level zeolit sumber nitrogen slow release pada glukosa murni secara in vitro. Jurnal Ilmu-Ilmu Peternakan. 26(2):1– 7.

Rafleliawati, P., Surahmanto dan J. Achmadi. 2016. Efek pemanasan pada molases yang ditambahkan urea terhadap ketersediaan NH3, volatile fatty acid dan protein total secara in vitro. Jurnal Ilmu-Ilmu Peternakan 26 (2): 24 - 29

Raguati, Afzalani, Musnandar, E., 2018. Penggunaan probiotik dari kulit nenas sebagai sumber pakan tambahan untuk ternak ruminansia. Jurnal Ilmiah Ilmu-Ilmu Peternakan 21, 110–120.

Rahmawati, I.G.A.W.D. 2001. Evaluasi In Vitro Kombinasi Lamtoro Merah (Acacia villosa) dan Gamal (Gliricidia maculata) untuk Meningkakan Kualitas Pakan pada Ternak Domba. Skripsi. Institut Pertanian Bogor, Bogor.

Ramaiyulis, Ningrat, R.W.S., Zain, M., Warly, L., 2018. Optimization of rumen microbial protein synthesis by addition of gambier leaf residue to cattle feed supplement. Pakistan Journal of Nutrition 18, 12–19. https://doi.org/10.3923/pjn.2019.12.19

Ruzic-Muslic, D., Petrovic, M.P., Petrovic, M.M., Bijelic, Z., Caro-Petrovic, V., Maksimovic, N., Mandic, V., 2014. Protein source in diets for ruminant nutrition. Biotechnology in Animal Husbandry 30, 175–184.

Siahaan, L.T. 1999. Pengaruh penggantian sebahagian bungkil kedelai dengan daun sengon (Albizzia falcataria) hasil fermentasi dalam ransum terhadap pertam

bahan bobot badan puyuh. Skripsi. Fakultas Peternakan Universitas Jambi, Jambi.

Sirait, J., K. Simanihuruk dan R. Hutasoit. 2012. Potensi Indigofera sp. Sebagai pakan kambing: produksi, nilai nutrisi dan palatabilitas. pastura 1 (2): 56 – 60.

Sutardi, T. 1979. Ketahanan Protein Bahan Pakan terhadap Degradasi oleh Mikrobia Rumen dan Manfaatnya bagi Peningkatan Produktivitas Ternak. LPP, Bogor.

Sutaryono, Y.A., Harjono, Mastur, Putra, R.A., 2021. Pertumbuhan dan produksi hijauan legum pohon indigofera zollingeriana sebagai hijauan pakan strategis di pulau lombok. pastura 11, 1–7.

Tiemann, T.T., C.E. Lascano, H.R. Wettstein, A.C. Meyer, M. Kreuzer and H.D. Hess. Effect of tropical tannin-shurb legumes Calliandra calothyrsus and Flemingia macrophylla on methane emission and nitrogen and energy balance in growing lambs. Animal. 2:5. 790-799.

Waghorn, G., 2008. Beneficial and detrimental effects of dietary condensed tannins for sustainable sheep and goat production-progress and challenges. Anim Feed Sci Technol 147, 116–139.