POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Daftar Pustaka

Abebe W. dan Esayas G. 2001. Survey of ovine and caprine gastro-intestinal helminthosis in Eastern part of Ethiopia during the dry season of the year Revue. MedVet. Medical & Cancer Centers for Pets 152: 379-384.

Abdurezak M., Disassa H., Kabeta T. and Zenebe T. dan Kebede G. 2015. Prevalence of Gastrointestinal Nematodes of Sheep in Gursum Woreda Of Eastern Hararghe Zone, Oromia Regional State, Ethiopia. Researcher 7 (8).

Adegbeye M. J., Elghandour M. M. M. Y., Barbabosa-Pliego A, Monroy J. C., Mellado M., Ravi Kanth Reddy P. dan Salem A. Z. M. 2019. Nanoparticles in Equine Nutrition: Mechanism of Action and Application as Feed Additives. J Equine Vet Sci. Jul;78:29-37. doi: 10.1016/j.jevs.2019.04.001. Epub 2019 Apr 5. PMID: 31203981.

Adejoro F. A., Hassen A. dan Akanmu A. M. Effect of Lipid-Encapsulated Acacia Tanin Extract on Feed Intake, Nutrient Digestibility and Methane Emission in Sheep. Animals (Basel). 2019 Oct 25;9(11):863. doi: 10.3390/ani9110863. PMID: 31731391; PMCID: PMC6912666.

Adnan M., Chy M. N. U., Kamal A. T. M. M., Azad M. O. K., Paul A., Uddin S. B., Barlow J. W., Faruque M. O., Park C. H. and Cho D. H. 2019. Investigation of the Biological Activities and Characterization of Bioactive Constituents of *Ophiorrhiza rugosa* var. prostrata (D.Don) & Mondal Leaves through *In vivo* and *In Vitro*, and In Silico Approaches. Molecules, 24, 7, 1367. www.doi.org/10.3390/molecules24071367/.

Adnyana I. K., Y. Tezuka, A.H. Banskota dan S. Kadot. 2000. Hepatoprotective Constituents of the Seeds of *Combretum quadrangulare*, Biol Pharm Bull, 23(11), 328-332.

Agyigra I., J.I. Ejiofor dan M.G. Magaji. 2017. Acute and subchronic toxicity evaluation of metanol stem-bark extract of *Ximenia Americana* Linn (*Olacaceae*) in Wistar rats. Bulletin of faculty of Pharmacy, Cairo University. 55: 263-267.

Ampapon T dan Metha Wanapat. 2019. Rambutan fruit peel powder and dietary protein level influencing on fermentation characteristics, nutrient digestibility, ruminal microorganisms and gas production using *in vitro* fermentation techniques. Tropical Animal Health and Production (2019) 51:1489–1496 https://doi.org/10.1007/s11250-019-01837.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Ampapon T., K. Phesatcha and M. Wanapat. 2019. Effects of Phytonutrients on Ruminal Fermentation, Digestibility, and Microorganisms in Swamp Buffaloes. Animals 2019, 9, 671; doi:10.3390/ani9090671.

Animut G., R. Puchala, A. L. Goetsch, A. K. Patra., T. Sahlu, V. H. Varel, and J. Wells. 2008. Methane emission by goats consuming different sources of condensed tanins. Annim. Feed Sci. and Technol. 144:228-241.

Albores-Moreno S., J. A. Alayón-Gamboa, L. A. Miranda-Romero, B. Alarcón-Zúñiga, G. Jiménez-Ferrer, J. C. Ku-Vera, A. T. Piñeiro-Vázquez. 2019. Effect of tree foliage supplementation of tropical grass diet on *in vitro* digestibility and fermentation, microbial biomass synthesis and enteric methane production in ruminants. Tropical Animal Health and Production (2019) 51:893–904 https://doi.org/10.1007/s11250-018-1772-7.

Alexander R. R. dan J. M. Griffith. 1993. Basic Biochemical Methods. 2nd ed. Wiley-Liss Inc., New York.

Aliyu I.D., S.A. Maigandi, I.R. Muhammad dan Y. Garba. 2012. Haematological Indices and Blood Urea Nitrogen of Yankasa Ram Lambs Fed Urea, Poultry Droppings and or Urea Treated *Pennisetum pedicellatum* (Kyasuwa Grass). Nigerian Journal of Basic and Applied Science (March, 2012), 20(1): 39-43.

Araujo A. C. M., Almeida E. B., Rocha C. Q., Lima A. S., Silva C. R., Tangerina M. M. P., Neto J. S. L. and Costa-Junior L. M. 2019. Antiparasitic activities of hydroethanolic extracts of *Ipomoea imperati* (Vahl) Griseb. (Convolvulaceae). PLoS One, 14, 1, e0211372. www.doi.org/10.1371/journal.pone.0211372.

Arora S. P. 1989. Pencernaan Mikroba pada Ruminansia. Gajah Mada University Press. Yogyakarta.

Assan N. 2013. Crossbreeding as astrategy to increase productivity inresource poor goat keepers in therural areas of Zimbabwe.International Journal of Scienceand Knowledge2(1): 52-56.

Athanasiadou S, Kyriazakis I, Jackson F, Coop RL. 2000. Consequences of long-term feeding with condensed tanin on sheep parasitized with *Trichostrongylus colubriformis*. Int J Parasitol 3:1025–1033.

Atmosuseno B.S. 1998. Sengon: Budidaya, Kegunaan dan Prospek. Penebar Swadaya.

Awizer D., Deneke Y., Nuraddis I. 2014. Gastrointestinal Parasites in Sheep in Gemechis and Boke Districts, WstHarerghe Zone, Ethiopia. Acta Parasitologica Globalis. 5(2), 120–124. doi:10.5829/idosi.apg.2014.5.2.83110.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Badan Pusat Statistik. 2014. Statistik Penduduk Indonesia. Jakarta: BPS.

Badar N., Z. Iqbal, M. N. Khan, and M. S. Akhtar. 2011. *In vitro* and *In vivo* Anthelmintic Activity of *Acacia nilotica* (L.) Willd. Ex Delile Bark and Leaves, Pak. Vet. J, 31(3): 185-191.

Baihaqi Z.A., B. Suwignyo dan R. Utomo. 2016. Pengaruh waktu pembatasan dan pemenuhan kembali pakan terhadap kinerja kambing kacang. Skripsi. Fakultas Peternakan. Universitas Gadjah Mada. Yogyakarta.

Baliga M.S., Jagetia G.C., Ulloor J.N., Baliga M.P., Venkatesh P., Reddy R., Rao K.V., Baliga B.S., Devi S., Raju S.K., Veeresh V., Reddy T.K. dan Bairy K.L., 2004. The evaluation of the acute toxicity and long term safety of hydroalcoholic extract of Sapthaparna (*Alstonia scholaris*) in mice and rats. Toxicol. Lett. 151, 317–326.

Barrett K. E., Barman S. M., Boitano S., Brooks H. L. 2012. Ganong's review of medical physiology. 24th ed. New Delhi: Tata Mc Graw Hill Lange.

Barone C. D., A. M. Zajac, L. A. Manzi-Smith, A. B. Howell, J. D. Reed, C. G. Kruegerd dan K. H. Petersson. 2018. Anthelmintic efficacy of *Cranberry vine* extracts on ovine *Haemonchus contortus,* Vet. Parasitol, 253: 122-129.

Baskorowati L. 2014. Budidaya Sengon Unggul (*Falcataria moluccana*) untuk Pengembangan Hutan Rakyat. IPB Press. Bogor.

Bhatta R., U. Krisnamoorthy dan F. Mohammed. 2001. Effect of Tamarind (*Tamarindus indica*) Seed husk Tanins on *in vitro* rumen fermentation. Anim Feed Sci. Technol. 90: 143 – 152.

Bhat S.A., Mir M., Allaie S., Khan H., Husain I. dan Ali A. 2011. Comparative resistance of sheep breeds to *Haemonchus contortus* inpasture infectionin Jammu and Kashmir. Glob. Vet. 8 : 222-228.

Bhat S.A., Mir M., Qadir S., Allaie I. M., Khan H. M., Husain I. dan Sheikh B. A. 2012. Prevalence of gastrointestinal parasitic infections in Sheep of Kashmir Valley of India. Vet. World 5(11): 667-671.

Borjesson D. L., Christopher M. M. dan Boyce W. M. Biochemical and hematologic reference intervals for free-ranging desert bighorn sheep. J Wildl Dis. 2000 Apr;36(2):294-300. doi: 10.7589/0090-3558-36.2.294. PMID: 10813611.

Bowman, D.D. (2003) Parasitology for veterinary, Elsevier, New York, 8th Edition.

Brunton L. L., Chabner B. A., Knollmann B. C., Goodman dan Gilman's. 2011. The pharmacological basis of therapeutics. 12th Ed. New Delhi: Mc Graw Hill publication.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Bueno I. C. S., R. A. Brandi, R. Franzolin, G. Benetel, G. M., Fagundes, A. L. Abdalla, H. Louvandini, J. P. Muir. 2015. *In vitro* metane production and tolerance to condensed tanins in five ruminant species. Animal Feed Science and Technology. 205 (1-9).

Busquet M., S. Calsamiglia, A. Ferret, dan C. Kamel. 2006. Screen-ing for effects of plant extracts and secondary plant metaboliteson rumen microbial fermentation. Anim. Feed Sci. Technol. 123/124:597–613.

Cakra I. G. L. O. dan A. A. A. S. Trisnadewi. 2016. Penggantian daun gamal (*Gliricidia sepium*) dengan kaliandra (*Calliandra calothyrsus*) dalam ransum kambing terhadap kadar urea darah dan deposisi nutrien. Fakultas Peternakan.Universitas Udayana. Denpasar, Bali. Vol. 19 No. 3 Oktober 2016.

Cala A.C., Ferreira J.F.S., Chagas A.C.S., Gonzalez J.M., Rodrigues R.A.F., Foglio M.A., Oliveira M.C.S., Sousa I.M.O., Magalhães P.M. dan Junior W.B. 2014. Anthelmintic activity of *Artemisia annua* L. extracts *in vitro* and the effect of an aqueous extract and artemisinin in sheep naturally infected with gastrointestinal nematodes, Parasitol. Res, 113: 2345-2353, doi: https://doi.org/10.1007/s00436- 014-3891-z.

Castro-Montoya J., N. Peiren, J. W. Cone, B. Zweifel, V. Fievez, S. D. Campeneere. 2015. *In vivo* and *in vitro* effects of a blend of essential oils on rumen methane mitigation. Livestock Science, Volume 180, Pages 134-142, ISSN 1871-1413, https://doi.org/10.1016/j.livsci.2015.08.010.

Cheruiyot K., Kutima H., Kareru P. G., Njonge F., Odhiambo R., Mutembei J., and Madivoli E. 2015. *In vitro* ovicidal activity of encapsulated ethanolic extracts of *Prosopis juliflora* against *Haemonchus contortus* eggs, *J. Pharm. Biol. Sci*, 10(5), 18-22.

Chen X. B. 1994. An Excel Application Programme for Processing Feed Degradability Data: User Manual. Rowett Research Institute, UK.

Chen Y., M. X. Wua, J. Liua, X. J. Maa, J. L. Shia, S. N. Wanga, Z. Q. Zhenga, J. Y. Guob. 2018. Acute and sub-acute oral toxicity studies of the aqueous extract from radix, radix with cortex and cortex of *Psammosilene tunicoides* in mice and rats. Journal of Ethnopharmacology. 213 (199-209).

Choudhury P.K., Salem A.Z.M., Jena R., Kumar S., Singh R., Puniya A.K. 2015. Rumen Microbiology: An Overview. In: Puniya A., Singh R., Kamra D. (eds) Rumen Microbiology: From Evolution to Revolution. Springer, New Delhi. https://doi.org/10.1007/978-81-322-2401-3_1.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Chun K.O., Kim Dae-ok., dan Lee, Y.C. 2003. Superoxide Radikal Scavenging Activity of the Major Polyphenol in Fresh Plums, Journal Agric. Food Chem, Department of Food Science and Tecnology, Cornell University, Geneva, New York.

Coffey L., M. Hale, T. Terril, J. Mosjidis, J. Miller dan J. Burke. 2007. Tools for Managing Internal Parasites in Small Ruminants: Sericea Lespedeza. NCAT Agriculture Specialists and Southern Consortium for Small Ruminant Parasite Control. http://attra.ncat.org/attra-pub/sericea_lespedeza.html. Diakses tanggal 3 Januari 2019.

Costa G. A. Bastos A. C. M. Soares E. G. L. Costa, V. O. Vasconcelos N. J. F. Oliveira F.C. Braga E. R., Duarte W. S. Lima. 2016. *In vitro* and *in vivo* action of *Piptadenia viridiflora* (Kunth) Benth against *Haemonchus contortus* in sheep, Veterinary Parasitology, Volume 223, Pages 43-49, ISSN 0304-4017, https://doi.org/10.1016/j.vetpar.2016.04.002.

Cronquist A. 1981. An Integrated System of Classification of Flowering Plants,. New York, Columbia University Press, 477.

Cushnie T. T., Cushnie B., Lamb A. J. 2014. Alkaloids: an overview of their antibacterial, antibiotic-enhancing and antivirulence activities. International Journal of Antimicrobial Agents, 44(5), 377-386.

Daryatmo J., Hartadi H, Orskov Egil, Adiwimarta K., Nurcahyo W. 2010. *In vitro* screening of various forages for anthelmintic activity on *Haemonchus contortus* eggs. Advances in Animal Biosciences. DOI: 10.1017/S2040470010002566.

Demitas A., H. Özturk, I. Piskin. 2018. Overview of plant extracts and plant secondary metabolites as alternatives to antibiotics for modification of ruminal fermentation. Ankara Üniv Vet Fak Derg, 65, 213-217.

Diaz A., M. Avendano and A. Escobar. 1993. Evaluation of Sapindus saponaria as a defaunating agent and its effects on different ruminal digestion parameters. Livest. Res. Rural Dev., 5: 1-6.

Dijkstra J., J.L. Ellis, E. Kebreab, A.B. Strathe, S. López, J. France, A. Bannink. 2012. Ruminal pH regulation and nutritional consequences of low pH, Animal Feed Science and Technology, Volume 172, Issues 1–2, Pages 22-33, ISSN 0377-8401, https://doi.org/10.1016/j.anifeedsci.2011.12.005.

Direktorat Jenderal Peternakan dan Kesehatan Hewan. 2017. Statistik Peternakan dan Kesehatan Hewan 2017. Direktorat Jenderal Peternakan dan Kesehatan Hewan. Kementerian Pertanian RI, Jakarta.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Doligalska M., Jóźwicka K., Kiersnowska M., Mroczek A., Paczkowski C. and Janiszowska W. 2011. Triterpenoid saponins affect the function of P-glycoprotein and reduce the survival of the free-living stages of *Heligmosomoides bakeri*. Veterinary Parasitology, 179, 1-3, 144–151. www.doi.org/10.1016/j.vetpar.2011.01.053.

D'Mello J. P. F. and C. Devendra. 1995. Tropical Legume in Animal Nutrition. CABI Publishing, Wallingford.

Eschbach J. W., Adamson J. W., & Dennis M. B. 1980. Physiologic studies in normal and uremic sheep: I. The experimental model. Kidney International, 18(6), 725–731. doi:10.1038/ki.1980.191.

Eguale T., G. Tilahun, A. Debella, A. Feleke, E. Makonnen. 2007. *In vitro* and *in vivo* anthelmintic activity of crude extracts of *Coriandrum sativum* against *Haemonchus contortus*, Journal of Ethnopharmacology, Volume 110, Issue 3, Pages 428-433, ISSN 0378-8741, https://doi.org/10.1016/j.jep.2006.10.003.

Eleanore Y. 2013. Analisis Fitokimia dan Aktifitas Antioksidan Ekstrak Daun Sengon (*Paraserianthes falcataria*) Menggunakan Metoda DPPH. Skripsi. Departemen Biokimia. Fakultas Matematika Dan Ilmu Pengetahuan Alam. Institut Pertanian Bogor. Bogor.

Eruygur N., Koçyiğit U. M., Taslimi P., Ataş M., Tekin M. and Gülçin İ. 2018 Screening the *in vitro* antioxidant, antimicrobial, anticholinesterase, antidiabetic activities of endemic *Achillea cucullata* (Asteraceae) ethanol extract. S. Afr. J. Bot., 120 (4): 141-145.

Elsas M. D. 2014. Aktivitas Antibakteri Ekstrak Daun Sengon Terhadap Bakteri *Staphylococcus aureus* dan *Escherichia coli*. Departemen Biokimia. Fakultas Matematika Dan Ilmu Pengetahuan Alam. Istitut Pertanian Bogor. Bogor.

Fahrizal M. D. 2014. Total Flavonoid dan Fenolik serta Aktivitas Antioksidan Ekstrak Kulit Kayu Sengon (*Paraserianthes falcataria*). Skripsi. Departemen Biokimia. Fakultas Matematika Dan Ilmu Pengetahuan Alam. Institut Pertanian Bogor. Bogor.

FAO. 2014. Definitional framework of food losses and waste, Rome, Italy.

Food Agricultural Organization. 2002. Guidelines for the Evaluation of Probiotics in Food. Report of a Joint FAO/WHO Working Group on Drafting Guidelines for the Evaluation of Probiotics in Food Ontario, Canada.

Filípek, J., and R. Dvořák. 2009. Determination of the volatile fatty acid content in the rumen liquid: Comparison of gas chromatography and capillary isotachophoresis. Acta Vet. Brno. 78(4):627-633.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Ferreira L. E., Castro P. M. N., Chagas A. C. S., França S. C., Beleboni R. O. 2013. *In vitro* anthelmintic activity of aqueous leaf extract of *Annona muricata L*. (Annonaceae) against *Haemonchus contortus* from sheep. Experimental Parasitology, 134, 3, 327-332. www.doi.org/10.1016/j.exppara.2013.03.032.

Ferreira L. E., Benincasa B. I., Fachin A. L., Contini S. H. T., Franca S. C., Chagas A. C. S., Beleboni R. O. 2018. Essential oils of *Citrus aurantifolia, Anthemis nobile* and *Lavandula officinalis*: *in vitro* anthelmintic activities against *Haemonchus contortus.* Parasites and Vectors, 11, 269. www.doi.org/10.1186/s13071-018-2849-x.

Fiel C. A., Steffan P. E., Muchiut S. M., Fernández A. S., Bernat G., Riva E., Loberas M. M., Almada A., Homer D. 2017. An attempt to replace an ivermectin-resistant *Cooperia* spp. population by a susceptible one on grazing pastures based on epidemiological principles and refugia management. Veterinary Parasitology, 246, 53-59. sci-hub.tw/10.1016/j.vetpar.2017.08.026.

Fitriana S. 2008. Penapisan fitokimiadan uji aktivitas anthelmintik ekstrak daun jarak (*Jatropha curcas* L.) terhadap cacing *Ascaridia galli* secara in vitro.Skripsi. Fakultas Peternakan. Institut Pertanian Bogor, Bogor.

Gadahi J.A., Arshad M. J., Ali Q., Javaid S.B. dan Shah S. I. 2009. Prevalence of gastrointestinal parasites of sheep and goats in and around Rawalpindi, Islamabad. Vet World 2, 51-53.

Gatenby R. M., M. Martawidjaya, S. W. Handayani dan M. Waldron. 1986. Housing of Sheep and Goat Instruksional West Java, Working page 46: 17 –18.

Geissman T. A. 1962. The Chemistry of Flavonoid Counpound, Hal 51, Pergamon Press, Oxford.

Ghasemzadeh A., H. Z. E. Jaafar, S. Ashkani, A. Rahmat, A. S. Juraimi, A. Puteh dan M. T. M. Mohamed. 2016. Variation in secondary metabolite production as well as antioxidant and antibacterial activities of *Zingiber zerumbet* (L.) at different stages of growth. BMC Complementary and Alternative Medicine. 16: 104.

González A. R., M. E Burrola-Barraza, J. Domínguez-Viveros dan A. Chávez-Martínez. 2014. Rumen microorganisms and fermentation. Arch de Med Vet.46(2): 349-361. http://dx.doi.org/10.4067/S0301-732X2014000300003.

Gottlieb O. R. 1980. Alkaloid evolution and angiosperm systematics. BiochemicalSystematicsand Ecology, 8(1): 81-87.

UNIVERSITAS GADJAH MADA
POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Ikkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Grando T. H., de Sá M. F., Baldissera M. D., Oliveira C. B., de Souza M. E., Raffin R. P., Santos R. C. V., Domingues R., Minho A. P., Leal M., Monteiro S. 2016. *In vitro* activity of essential oils of free and nanostructured *Melaleuca alternifolia* and of terpinen-4-ol on eggs and larvae of *Haemonchus contortus*. Journal of Helminthology, 90, 3, 377–382. www.doi.org/10.1017/S0022149X15000401.

Gupta S. K. dan Singla L. D. 2012. Tren diagnostik pada penyakit parasit pada hewan. Veterinary Diagnostics: Current Trends. Satish Serial Publishing House, New Delhi. p. 81-112.

Harborne. 1987. Metode Fitokimia Penuntun Cara Modern Menganalisis Tumbuhan, trans. Padmawinata K, Soediro E, ITB Press, Bandung, Terjemahan dari: Phytochemical methods.

Hidayat S. 2001. Prospek Pepaya Gunung (*Carica pubescens*) dari Sikunang Pegunungan Dieng, Wonosobo. Prosiding Seminar Sehari: Menggali Potensi dan Meningkatkan Prospek Tanaman Hortikultura Menuju Ketahanan Pangan. Pusat Konservasi Tumbuhan Kebun Raya Bogor. Lembaga Ilmu Pengetahuan Indonesia. Bogor.

Hidayat J., D. Iriantono dan P. Ochsner. 2002. *Paraserianthes falcataria* (L.) Nielsen dalam Informasi Singkat Benih. Direktorat Perbenihan Tanaman Hutan. Jakarta.

Hoehn A., Titgemeyer E., Nagaraja T. G., Drouillard J., Miesner M., Olson K.C. 2018. Effects of high condensed-tanin substrate, prior dietary tanin exposure, antimicrobial inclusion, and animal species on fermentation parameters following a 48-h *in vitro* incubation. Journal of Animal Science. DOI: DO - 10.1093/jas/skx018.

Hossain M., Bhuiyan M. J., Alam M. S., Islam K. M., Nath T. C., Datta R., Musleh Uddin A. H. M. 2015. Cross sectional epidemiological investigation on the prevalence of gastrointestinal parasites of small ruminants in Sullah Upazilla of Sunamgonj District, Bangladesh. J. Adv. Parasitol. 2(4): 100-104.

Hutchinson G. 2009. Nematode Parasites of Small Ruminants, Camelids and Cattle Diagnosis with Emphasis on Anthelmintic Efficacy and Resistance Testing. Formerly at Elizabeth Mcarthur Agricultural Institute. Department of Primary Industries, New South Wales. p1-61.

Indranila dan M. Ulfah. 2015. Uji Aktivitas Antioksidan Ekstrak Etanol Daun Karika (*Carica Pubescens*) Dengan Metode Dpph Beserta Identifikasi Senyawa Alkaloid, Fenol

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Dan Flavonoid. Jurnal Ilmu Farmasi dan Farmasi Klinik. DOI: 10.31942/jiffk.v0i0.1352.

Irianty R. S. dan Yenti S. R. 2014, 'Pengaruh perbandingan pelarut etanol-air terhadap kadar tanin pada sokletasi daun gambir (*Uncaria gambir* Roxb)', SAGU, Maret 2014 Vol.13 No.1:1- 7, ISSN 1412-4424, hal.3.

Islam Md. K., Siraj Md. A., S. A. Baron, S. Sanjib, M. Imran dan R. Md. Mustafizur. "*In-vitro* anthelmintic activity of three Bangladeshi plants against *Paramphistomum cervi* and *Haemonchus contortus*" Journal of Complementary and Integrative Medicine, vol. 12, no. 2, 2015, pp. 171-174. https://doi.org/10.1515/jcim-2014-0059.

Iqbal Z., M. A. Jabbar, S. Ahmed, M. Nisa, M. S. Sajid, M.N. Khan, K. A. MuĞ dan M. Yaseen. 2006. Direct and indi-rect anthelmintic effects of condensed tanins in sheep. Vet. Parasitol. 144:125-131.

Jafari S., Y. M. Goh, M. A. Rajion, M. F. Jahromi, Y. H. Ahmad, M. Ebrahimi. 2016. Papaya (*Carica papaya*) leaf methanolic extract modulates *in vitro* rumen methanogenesis and rumen biohydrogenation. Animal science journal. https://doi.org/10.1111/asj.12634.

Jas R dan Ghosh J. D. 2007. Economic impact of gastrointestinal nematodosis in sheep: enhanced meat production by anthelmintic treatment. Ind. J. Anim. Sci. 79 (8): 3-5.

Jayanegara A., M. Ridla, D. A. Astuti, K. G. Wiryawan, E. B. Laconi dan Nahrowi. 2017. Determination of Energy and Protein Requirements of Sheep in Indonesia using a Meta-analytical Approach. Media Peternakan, August 2017, 40(2):118-127DOI: https://doi.org/10.5398/medpet.2017.40.2.118.

Jenny I., Surono dan M. Cristiyanto. 2012. Produksi Amonia, *Undegraded Protein* dan Protein Total Secara *In vitro* Bungkil Biji Kapuk Yang Diproteksi dengan Tanin Alami. Animal Agricultural Journal. Vol. 1: 277-284.

Joglekar S. N., Pathak P. D., Mandavgane S. A. dan Kulkarni B. D. 2019. Process of fruit peel waste biorefinery: a case study of citrus waste biorefinery, its environmental impacts and recommendations. Environmental Science and Pollution Research, 26, 34713–34722. www.doi.org/10.1007/s11356-019-04196-0.

Jouany J. P. 1991. Defaunation of the rumen. In: J.P. Jouany (editor). Rumen microbial metabolism and ruminant digestion. Institute Nationale De La recherché Agronomique, INRA.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Kanojiya D., Daya S., Vikrant S. dan Amit K. J. 2014. Prevalence and seasonal variation of trichurid parasites infections of small ruminants of Mathura, India. J. Parasit. Dis. 40(1):199–202.

Kanyari P.W., Kagira J. M. dan Mhoma R.J. 2009. Prevalence and intensity of endoparasites in small ruminants kept by farmers in Kisumu Municipality, Kenya. Livestock Res. Rural Develop. 21, 111-116.

Kaplan R. M. 2004. Drug resistance in nematodes of veterinary importance: a status report. Trends in Parasitology. 20 (10): 477–481.

Kearl L. C. 1982. Nutrient Requirements of Ruminant. Pages 82 in Developing Countries. International Feedstuff Institute, Utah State University, Logan, Utah.

Kementerian Pertanian. 2011. Penetapan Rumpun Domba Wonosobo. No:2915/Kpts/OT.140/6/2011. Jakarta.

Khotimah K. 2016. Skrining fitokimia dan identifikasi metabolit sekunder senyawa karpain pada ekstrak metanol daun *Carica pubescens* Lenne & K. Koch dengan LC/MS. Skripsi. Fakultas Sain dan Teknologi. UIN Maulana Malik Ibrahim. Malang.

Kinne J., Cooper J.E., Wernery U. 1998. Pathological studies on camelpox lesions of therespiratory system in the United Arab Emirates (UAE). J. Comp. Pathol. 118,257–266.

Koike S., Kobayashi Y. 2001. Development and use of competitive PCR assays for the rumen cellulolytic bacteria: *Fibrobacter succinogenes, Ruminococcus albus* and *Ruminococcus flavefaciens*. FEMS Microbiol Lett. 2001 Nov 13;204(2):361-6. doi: 10.1111/j.1574-6968.2001.tb10911.x. PMID: 11731149.

Kommuru D. S., Whitley N. C., Miller J. E., Mosjidis J. A., Burke J. M., Gujja S., Mechineni A., Terrill T. H. 2014. Effect of *Sericea lespedeza* leaf meal pellets on adult female *Haemonchus contortus* in goats. Veterinary Parasitology, 207, 1-2, 170–175. www.doi.org/10.1016/j.vetpar.2014.11.008.

Kosasih A. S. 2003. Puslitbang Peningkatan Produktivitas Hutan. Badan Litbang dan Informasi Kementerian Lingkungan Hidup dan Kehutanan.

Krajewski D. D. C. and P. Schrejer. 1997. Aliphatic β-d-glucosides from fruits of *Carica pubescens*. Phytochemistry, vol. 45, no 8.

Krishnakanth K., P. Kumar, K. Neeraja dan C. Cheekavolu. 2017. Effect of *Sesbania grandiflora* Linn leaf extract on diuresis in Wistar rats. International journal of Basic & Clinical Pharmacology. Vol 6, issue 6.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Krisnawati H., Varis E., Kallio M. and Kanninen M. 2011. *Paraserianthes falcataria* (L.) Nielsen: ecology, silviculture and productivity, Center for International Forestry Research (CIFOR), Bogor, Indonesia.

King M., C. Catranis, J. A. Soria, and M. B. Leigh. 2016. Phytochemical and toxicological analysis of *Albizia falcataria* sawdust, Int. Wood Prod. J, 4(4): 232-241.

Kumar S., Jakhar K. K., Satyavir S., Sandeep P., Kailash K. and Madan P. 2015. Clinicopathological studies of gastrointestinal tract disorders in sheep with parasitic infection. Vet. World 8(1): 29-32.

Kumari P., S. Kumar M. Ramesh S. Shameena, A. D. Deo, K.V. Rajendran and R.P. Raman. 2019. Antiparasitic effect of aqueous and organic solvent extracts of *Azadirachta indica* leaf against Argulus japonicus in *Carassius auratus*, Aquaculture, 511: 634175, doi: https://doi.org/10.1016/j.aquaculture.2019.05.060.

Lahlou S., A. Tahraoui Z. Israili and B. Lyoussi. 2007. Diuretic activity of the aqueous extract of *Carum carvi* and *Tanacetum vulgare* in normal rats. Journal Ethno-Phamacology. 110, 458-463.

Latimer K. S. 2011. Duncan and Prasse's Veterinary Laboratory Medicine: Clinical Pathology, 5th Edition.

Laily A. N. 2014. Skrining Fitokimia Dan Kandungan Total Flavanoid Pada Buah *Carica pubescens* Lenne & K. Koch Di Kawasan Bromo, Cangar, Dan Dataran Tinggi Dieng. El-Hayah.Vol. 5, No.2.

Lakitan B. 1993. Dasar-Dasar Fisiologi Tumbuhan. Raja Grafindo Persada. Jakarta.

Leonita A. M. 2015. Pemanfaatan Limbah Kulit Buah Pepaya Gunung (*Carica pubescens*) yang diperkaya Probiotik EM4 Sebagai Pakan Alternatif Ikan Nila. Skripsi. Program Srudi Biologi. Fakultas Matematika dan Ilmu Pengetahuan Alam. Universitas Sebelas Maret. Surakarta.

Lin Q., Z. Jia, X. Xu, S. Xu, T. Han, Y. Gao, Y. Zhang, H. Zhang, H. Liu, J. Li dan X. Li. 2018. Sub-chronic toxicity study of arecae semen aqueous extract in Wistar rats. Journal of Ethnopharmacology. 215: 176-183.

Lins T. O. J. D'A., S. A. Terry, R. R. Silva, L. G. R. Pereira, L. J. Jancewicz, M. L. He, Y. Wang, T. A. McAllister and A. V. Chaves. 2018. Effects of the inclusion of *Moringa oleifera* seed on rumen fermentation and methane production in a beef cattle diet using the rumen simulation technique (Rusitec). Animal, Page 1 of 9

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BALHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/
doi:10.1017/S1751731118001428.

Marie-Magdeleine C., Hoste H., Mahieu M., Archimede H. 2009. *In vitro* effects of *Cucurbita moschata* seed extracts on *Haemonchus contortus*. Veterinary Parasitology, 161, 1-2, 99-105. www.doi.org/10.1016/j.vetpar.2008.12.008.

Makkar H.P.S. 2003. Quantification of Tanin in Tree and Shrub Legumes; A Laboratory Manual. Kluwer Academic Publishers, Dordrecht, The Netherlands.

Makkar H. P. S. and C. S. McSweeney. 2005. Methods in Gut Microbisl Ecology for Ruminants. Springer, Netherlands

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

Manitto P., Monti D. 1972. Photoaddition of sulphydryl groups to bilirubin in vitro. Experientia 28, 379–380. https://doi.org/10.1007/BF02008284.

Martawidjaya A., I. Kartasudjana, Y.I. Mandang, S. A. Prawira dan K. Kadir. 1989. Atlas Kayu Indonesia Jilid I. Badan Penelitian Dan Pengembangan Kehutanan. Departemen Kehutanan. Bogor.

Mavrot F., H. Hubertus, T. Paul. 2015. Effect of gastro-intestinal nematode infection on sheep performance: A systematic review and meta-analysis. Parasites & vectors. DO - 10.1186/s13071-015-1164-z.

Mc Donald P., R.A. Edwards, J.F.G. Greenhalgh and C.A. Morgan. 1995. Animal Nutrition Prentice Hall.

Meissner H. M., M. Smith and W.A. Niekerk. 1993. Rumen ammonia concentration and ammonia nitrogen passage to and apparent absorbtion from the small intestine of sheep ingesting subtropical and temperate tanin containing forage. J. Anim. Sci. 23: 92-97.

Mekhanzie M. 2012. Pengaruh berbagai konsentrasi ekstrak daun jambu mete sebagai denture cleanser terhadap pertumbuhan *Candida albicans* dengan waktu perendaman 15 menit. Universitas Jember, Jember.

Membrive C. M. B. 2016. Anatomy and Physiology of the Rumen Rumenology ed D D M Millen, M D B Arrigoni and R D Pacheco (Switzerland: Springer International Publishing) pp 1–138

Menke K. K. dan H. Steinngas. 1988. Estimastion of energetic feed value obtained from chemical analysis and *in vitro* gas production using rumen fluid. Anim. Res. Dev. 28(2):7-55.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP.; Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Miglio A, Antognoni MT, Maresca C, Moncada C, Riondato F, Scoccia E, Mangili V. 2015. Serum protein concentration and protein fractions in clinically healthy Lacaune and Sarda sheep using agarose gel electrophoresis. Vet Clin Pathol; 44/4: 564-569.

Mikolajczyk K, Pecka-Kiełb E, Zachwieja A. 2019. Impact of the volume and the profile of volatile fatty acids in the rumen fermentation on cow productivity and milk composition. Mljekarstvo.69(4):222-228. ISSN: 0026-704X. https://doi.org/10.15567/mljekarstvo.2019.0402.

Min B.R., W. C. Mc Nabb, T. N. Barry, J. S. Peters. 2000. Solubilization and degradation of ribulose-1, 5- bisphosphate carboxylase/oxygenase (EC 4.1.1.39; Rubisco) protein from white clover (*Trifolium repens*) and Lotus corniculatus by rumen microorganisms and the effect of condensed tanins on these processes. J. Agric. Sci. (Camb.) 134, 305–317.

Min B. R., G. T. Attwood, W. C. McNabb, A. L. Molan and T. N. Barry. 2005. The effect of condensed tanins from *Lotus corniculatus* on the proteolytic activities and growth of rumen bacteria. Animal Feed Science and Technology. 121: 45 – 58.

Minarno E. B. 2015. Skrining fitokimia dan kandungan total flavonoid pada buah *Carica pubescens* Lenne & K. Koch di kawasan Bromo, Cangar dan dataran tinggi Dieng. *El-Hayah*. Vol. 5, no.2.

Molla S.H. and P. K. Bandyopadhyay. 2016. *In vitro* and *in vivo* anthelmintic activity of *Murraya koenigii* against gastro-intestinal nematodes of sheep. J Parasit Dis. 2016 Jun; 40(2): 362–368.

Montellano C. M., Arroyo-López C., Fourquaux I., Torres-Acosta J. F. J., Sandoval-Castro C. A. and Hoste H. 2013. *Scanning electron microscopy* of *Haemonchus contortus* exposed to tanin-rich plants under *in vivo* and *in vitro* conditions. Experimental Parasitology,133: 281-286. https://doi.org/10.1016/j.exppara.2012.11.024.

Montoro P., Braca A., Pizza C., and De Tommasi N. 2005. Structure antioxidant activity relationships of flavonoids isolated from different plant species, Food Chem, 92(2): 349-355.

Morales J.A., A. Olmedo-Juárez, G. Trejo-Tapia, M. González-Cortazar, B.E. Domínguez-Mendoza, P. Mendoza-de Gives, and A. Zamilpa. 2019. *In vitro* ovicidal activity of *Baccharis conferta* Kunth against *Haemonchus contortus*, Exp. Parasitol, 197: 20-28.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Mueller-Harvey, I., Bee, G., Dohme-Meier, F., Hoste, H., Karonen, M., Kölliker, R., Andreas L., Vincent N., Wilbert F. P., Juha-Pekka S., Leif S., Lydia M.J. Smith, Stig M. Thamsborg, Paul T., Ian W., Andrew R. W., Blasius N. A., Nicolas B., Anja G. B., Giuseppe C., Olivier D., Chris D., Marica E., Christos F., Marion G., Nguyen T. H., Katharina K., Carsten M., Marina M,, Jessica Q., Aina R., Honorata M. R. and Waghorn, G. C. 2019. Benefits of Condensed Tanins in Forage Legumes Fed to Ruminants: Importance of Structure, Concentration, and Diet Composition. Crop Science, doi:10.2135/cropsci2017.06.0369.

Muladi, S., R. Amirta, E.T. Arung and Z. Arifin. 2001. Chemical component analysis of wood bark compost on waste of medium density fiberboard industry. Proceedings of seminar "Environment Conservation through Efficiency Utilization of Forest Biomass. Hlm. 124 -137. DEBUT Press. Yogyakarta.

Muruhan S., S. Selvaraj dan P. P. Viswanathan. 2013. *In vitro* antioxidant activities of *Solanum surattense* leaf extract. Asian Pac J Trop Biomed. 3(1): 28-34.

Nabi H., Saeed K.I., Shah S.R., Rashid M.I., Akbar H., Shehzad W. 2014. Epidemiological study of gastrointestinal nematodes of goats in District Swat, KhyberPakhtunkhwa. Pak. Sci. Int. (Lahore) 26 (1), 283–286.

Narhari D., D. Goshwami, Md. S. Hasan, S. Z. Raihan and N. K. Subedi. 2015. Phytochemical screening and *in vitro* anthelmintic activity of methanol extract of *Terminalia citrina* leaves, Asian Pacific Journal of Tropical Disease, Volume 5, Supplement 1, Pages S166-S168, ISSN 2222-1808, https://doi.org/10.1016/S2222-1808(15)60881-7.

Natural Resourches Conversation. 2010. Germplasm Resources Information Network (GRIN) Taxonomy for Plants. http://plants.usda.gov.java/profile?symbol=CAPU39 [Diakses tanggal 7 Oktober 2018].

Naumann H.D., Lambert B.D., Armstrong S.A., Fonseca M. A., Tedeschi L.O., Muir J.P. 2015. Effect of replacing alfalfa with panicled-tick clover or *Sericea lespedeza* in cornalfalfa- based substrates on *in vitro* ruminal methane production. J. Dairy Sci., 98: 3980–3987.

Nawir A.A., Murniati, dan L. Rumboko. 2008. Rahabilitasi Hutan di Indonesia, Center for Internasional Forestry Research (CIFOR), Bogor, Inodonesia.

Ngoubangoye B., Larson B., Serge-Ely D., Thierry-Audrey T., Cyr M. K., Franck P., David F. and Dominique P. 2021. Surgical Treatment of *Oesophagostomum* spp. Nodular Infection in a Chimpanzee at the CIRMF Primatology Center, Gabon. Case Reports

UNIVERSITAS GADJAH MADA
POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

in Veterinary Medicine Volume 2021, Article ID 6617416, 5 pageshttps://doi.org/10.1155/2021/661741.

Niciura S.C.M., G.G. Cruvinel, C.V. Moraes, A.C.S. Chagas, S.N. Esteves, M.V. Benavides and A.F.T. Amarante. 2019. *In vivo* selection for *Haemonchus contortus* resistance to monepantel, J. Helminthol, 1-5.

Nuryani M. 2017. Pemanfaatan Limbah Kulit Buah Pepaya Gunung (*Carica pubescens*) dengan Penambahan MOL Kubis Terhadap Kandungan Unsur Hara Makro (C, N, P, K) Sebagai Pupuk Organik Cair. Skripsi, Universitas Diponegoro.

Nwosu C.O., Madu P.P. and Richards W.S. 2007. Prevalence and seasonal changes in the population of gastrointestinal nematodes of small ruminants in the semi-arid zone of North-Eastern Nigeria. Vet. Parasitol., 144(1-2): 118-124.

Orskov E. R. and I. Mc Donald. 1979. Tbeestimation of protein degradability in the rumen from incubati onmeasurements weighted according torate of passage. J. Agric. Sci., Camb.92:499-503.

Orskov E. R. 1992. Protein Nutritional in Ruminant. Academic Press, London.

Owens F.N., Basalan M. 2016. Ruminal Fermentation. In: Millen D., De Beni Arrigoni M., Lauritano Pacheco R. (eds) Rumenology. Springer, Cham. https://doi.org/10.1007/978-3-319-30533-2_3.

Owusu M., Jemima O. S. and Frederick A. 2016. Prevalence and burden of gastrointestinal parasites of Djallonke sheep in Ayeduase, Kumasi, Ghana. Vet. World, 9(4): 361-364.

Oyedemi S.O., A.I. Okoh, L.V. Mabinya, G. Pirochenva and A.J. Afolayan. 2010. The proposed mechanism of bactericidal action of eugenol, α-terpinol and γ-terpinene *against Listeria monocytogenes, Streptococcus pyogenes, Proteus vulgaris* and *Escherichia coli*. African Journal of Biotechnology 8(7) : 1280-1286.

Pagare S., M. Bhatia, N. Tripathi, S. Pagare and Y.K. Bansa. 2015. Secondary Metabolites of Plants and their Role:Overview. Current Trends in Biotechnology and PharmacyVol. 9 (3) 293-304 July 2015, ISSN 0973-891.

Papadopoulos E, Gallidis E. and Ptochos S. 2012. Resistensi antelmintik pada domba di Eropa: Tinjauan terpilih. Vet. Parasitol. 189: 85-88.

Park S. H., J. Noh, E. J. Jeong, Y. S. Kim, B. C. Han, S. H. Lee, K. S. Moon. 2018. Subchronic oral toxicity study of Korean red ginseng extract in Sprague Dawley rats with a 4-week recovery period. Regulatory Toxicology and Pharmacology. 92: 82-93.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

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.

Perry B. 2002. Investing in Animal Health Research to Alleviate Poverty. International Livestock Research Institute, Nairobi. p148.

Piñeiro-Vázquez A.T., Canul-Solis J.R., Jiménez-Ferrer G.O., Alayón-Gamboa J.A., Chay-Canul A.J., Ayala-Burgos A.J., Aguilar-Pérez C.F., Ku-Vera J.C. 2018. Effect of condensed tanins from *Leucaena leucocephala* on rumen fermentation, methane production and population of rumen protozoa in heifers fed low-quality forage. Asian-Australas J Anim Sci. Nov;31(11):1738-1746. doi: 10.5713/ajas.17.0192. Epub 2017 Nov 3. PMID: 29103289; PMCID: PMC6212753.

Purohit V., Russo D., Coates P.M. 2004. Role of fatty liver, dietary fattyacid supplements, and obesity in the progression of alcoholic liver disease: introduction and summary of the symposium. Alcohol 34:3–8.

Pratt D.S., Kaplan M.M. 2000. Evaluation of abnormal liver-enzyme results in asymptomatic patients. N Engl J Med; 342: 1266-1271 [PMID: 10781624].

Rahayu S. E., Sulisetijono, Lestari U. 2019. Phytochemical screening, antioxidant activity, and total phenol profile of *Carica pubescens* leaves from Cangar, Batu East Java, Indonesia. IOP Conf Series: Earth and Environmental Science, 276, 1.www.doi.org/10.1088/1755-1315/276/1/012022.

Ramírez P.M.C., Calleros C.H., Pérez I.F., Hurtado F.A., Mendoza-Garfías M.B., Campo N.C. and Barajas R. 2019. Anthelmintic effect and tissue alterations induced *in vitro* by hydrolysable tanins on the adult stage of the gastrointestinal nematode *Haemonchus contortus*. Vet. Parasitol., 266: 1-6.

Reed J.D. 1995. Nutritional toxicology of tanins and related polyphenols in forage legumes. J. Anim. Sci. 73: 1516-1528.

Regassa F., Teshale S., Reta D., Yosef K. 2006. Epidemiologi parasit gastrointestinal ruminansia di Oromia Barat, Ethiopia. Int. J. Appl. Res. Vet. Med. 4(1): Pp: 51-57.

Riauwaty M., K. Kurniasih, J. Prastowo, W. Windarti. 2011. *Scanning electron microscopy* dari *Clinostomum complanatum* (digenea: clinostomidae) pada ikan betok (*Anabas testudineus*) di yogyakarta, indonesia. Jurnal Riset Akuakutur. DOI: http://dx.doi.org/10.15578/jra.6.2.2011.303-309.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Rinca K. F., Joko P., Dwi P. W., and Yudhi R. N. 2019. Trematodiasis occurrence in cattle along the Progo River, Yogyakarta, Indonesia. Vet. World 12(4): 593-597.

Rira M., D. P Morgavi L. Genestoux S. Djibiri, I. Sekhri, M. Doreau. 2019. Methanogenic potential of tropical feeds rich in hydrolyzable tanins. Journal of Animal Science, Volume 97, Issue 7, July, Pages 2700–2710, https://doi.org/10.1093/jas/skz199.

Robinson T. 1995. Kandungan Organik Tumbuhan Tinggi. Penerjemah: K. Padmawinata. Edisi IV. Bandung: ITB Press.

Rochfort S., A.J. Parker and F.R. Dunshea. 2008. Plant bioactives for ruminant health and productivity: Review. Phytochem. 69: 299 – 322.

Rock Red. 2009. Product Review – Wild Mountain Papaya Extract. http://www.associatedcontent.com/article/1987516/product_review_wild_mountan_papaya.html. [Diakses 5 Oktober 2020].

Roheem F.O., S. Z. M. Soad Q. U. Ahmed S. A. A. Shah, J. Latip and Z. A. Zakaria. 2019. Evaluation of the Enzyme Inhibitory and Antioxidant Activities of *Entada spiralis* Stem Bark and Isolation of the Active Constituents, Molecules, 24: 1006, doi: 10.3390/molecules24061006.

Rozen S, Skaletsky H. 2000. Primer3 on the WWW for general users and for biologist programmers. Methods Mol Biol. 132:365-86. doi: 10.1385/1-59259-192-2:365. PMID: 10547847.

Rungsung W., K. K. Ratha, S. Dutta, A. K. Dixit, J. Hazra. 2015. Secondary metabolites of plants in drugs discovery. World Journal of Pharmaceutical Research. Vol 4, Issue 07, 2015.604.

Siddiqui F.A., Dhawan S., Singh S., Singh B., Gupta P., Pandey A., Mohmmed A., Gaur D., Chitnis C.E. 2013. A thrombospondin structural repeat containing rhoptry protein from *Plasmodium falciparum* mediates erythrocyte invasion. Cell Microbiol. Aug;15(8):1341-56. doi: 10.1111/cmi.12118. Epub 2013 Mar 6. PMID: 23387921.

Sagar N.A., S. Pareek, S. Sharma, E.M. Yahia, and G. Lobo. 2018. Fruit and Vegetable Waste: Bioactive Compounds, Their Extraction, and Possible Utilization, Compr. Rev. Food Sci. Food Saf, 17.

Sajati G., B.W.H.E. Prasetyo dan Surono. 2012. Pengaruh Ekstruksi dan Proteksi dengan Tanin pada Tepung Kedelai Terhadap Produksi Gas Total dan Metan Secara In Vitro. Animal Agricultural Journal, Vol. 1. No. 1, 2012, p 241 – 256.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Sambodo P., Prastowo J., Kurniasih K., Indarjulianto J. 2018. *In vitro* potential anthelmintic activity of *Biophytum petersianum* on *Haemonchus contortus*. Veterinary World, 11, 1, 1-4. www.doi.org/10.14202/vetworld.2018.1-4.

Santoso H. B. 1992. Sereh Wangi Bertanam dan Penyulingan. Yogyakarta. Kanisius.

Sakti A.A., Kustantinah, R.W. Nurcahyo. 2018. *In vitro* and *in vivo* Anthelmintic Activities of Aqueous Leaf Infusion of *Azadirachta indica* against *Haemonchus contortus*. Tropical Animal Science Journal. 41 (3), 185-190.

Salas R. Z., Raúl V. V., Liseth V. H. O., Leonardo R. O., Diana N. P. E. 2016. Prevalencia de Nematodos Gastrointestinales en Sistemas de Producción Ovina y Caprina bajo Confinamiento, Semiconfinamiento y Pastoreo en Municipios de Antioquia, Colombia. Rev Inv Vet Perú 27(2): 344-354.

Sayana S. B., Christina, T. Medabala and P. S. Patil. 2014. Study of diuretic of ethanolic extract of leaves of *Cissampelos pareira* in Rats. Asian Journal of Pharmaceutical and Clinical Research. Vol. 7, Issue 4.

Sadki C., B. Hacht, A. Souliman and F. Atmani. 2010. Acute diuretic activity of aqueous *Erica multiflora* flowers and *Cynodon dactylon* rhizomes extract in rats. Journal of Ethnopharmacology.128 (352-356).

Sen A. K., Sen D. B., Masheswari R. A. 2020. Extraction, isolation and quantitative determination of flavonoids be HPLC. Herbal Medicine in India, 303-336. https://doi.org/10.1007/978-981-13-7248-3_21.

Shapiro S. L. 2005. Pathology and parasitology for veterinary technicians, Thomson Delmar Learning.

Sharma R, John SJ, Damgaard M, McAllister TA. Extraction of PCR-quality plant and microbial DNA from total rumen contents. Biotechniques. 2003 Jan;34(1):92-4, 96-7. doi: 10.2144/03341st06. PMID: 12545546.

Sinclair R., Lynsey M., Fiona S., Fiona K., Nusseya, Kathryn W. and Neil S. 2016. Gastrointestinal nematode species diversity in Soay sheep kept in a natural environment without active parasite control. Vet. Parasitol. 227, 1-7.

Singh V., Varshney P., Dash S.K. and Lal H.P. 2013. Prevalence of gastrointestinal parasites in sheep and goats in and around Mathura. India. Vet. World 6 (5): 260-262.

Singh M., Hussain T., Firdous H., Shaikh S., Danish Rizvi, S. M. Moin A., Khan M., & Kamal M. A. 2018. Preclinical hepatoprotective effect of herbalism against ethanol induced hepatotoxicity: A review. Current Drug Metabolism, 19 (12), 1002–1011.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Siregar U.J. and P. A. Salimma. 2011. Studi Alfa-Amylase Inhibitor Pada Pohon Sengon (Paraserianthes falcataria (L) Nielsen) Provenan Kediri, Solomon Dan Subang. JURNAL SILVIKULTUR TROPIKA. Vol. 02 No. 01 April 2011, Hal. 52 – 58. ISSN: 2086-8227

Smith Alexander, H. E. Zoetendal & R. I. Mackie. 2005. Bacteria mechanisms to overcome inhibitory effects of dietary tanins. J. Microb. Eco. 50: 197-205.

Soerianegara dan Indrawan. 1994. Ekologi Hutan Indonesia. Laboratorium Ekologi Fakultas Kehutanan. Institut Pertanian Bogor.

Srikandakumar A., Johnson E. H. & Mahgoub O. 2003. Effect of heat stress on respiratory rate, rectal temperature and blood chemistry in Omani and Australian Merino sheep. Small Ruminant Research, 49(2), 193–198. doi:10.1016/s0921-4488(03)00097-x.

Steven M., Colegate J., dan Russell M. 1993. Bioactive Natural Products : Detection, Isolation, and Determination. CRC Press, Boca Raton.

Subrata A. 2005. Pemanfaatan Tanin Ampas Teh terhadap Efek Defaunasi, Parameter Fermentasi Rumen dan Sintesis Protein Mikrobiasecara *In Vitro*. Program Pascasarjana Universitas Gadjah Mada. Yogyakarta. (Tesis Magister Peternakan.

Sutardi, T. 1978. Ikhtisar Ruminologi. Departemen ilmu makanan ternak. Fakultas Peternakan Institut Pertanian Bogor. Bahan Penataran Kursus Sapi Perah, Kayu-Ambon, Lembang.

Suwignyo B., B. Suhartanto, N. Umami, N. Suseno dan Z. Bachruddin. 2016. Feeding Strategy of Ruminants and Its Potential Effect on Methane Emission Reduction. Journal of Agricultural Science; Vol. 8, No. 9.

Syahrir S., K. G. Wiryawan, A. Parakkasi, M. Winugroho, O. N. P. Sari. 2009. Efektivitas Daun Murbei Sebagai Pengganti Konsentrat dalam Sistem Rumen in Vitro. Media Peternakan. Vol. 32 No. 2.

Tamokou J. D., Mbaveng A. T., and Kuete V. 2017. Antimicrobial activities of African spices and vegetables, In V. Kuete (Ed.), Medicinal spices and vegetables from Africa, Amsterdam, the Netherlands: Elsevier. 207-237.

Tanaka J. C. A. 2006. Antibacterian Activity of Indole Alkaloids from *Aspidosperma ramiflorum.* Journal of Medical and Biological Research. 39: 387-391.

Tangendjaja, B., E. Wina, T. Ibrahim and B. Falmer. 1992. Kaliandra dan Pemanfaatanya. Balai Penelitian Ternak dan The Australian Centre For International Agriculture Research (ACIAR).

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Tillman A. D., H. Hartadi, S. Reksohadiprodjo, S. Prawirokusumo dan S. Lebdosoekojo. 1998. Ilmu Makanan Ternak Dasar. Gadjah Mada University Press, Yogyakarta.

Tjahjohutomo R. 2011. Teknologi Pascapanen Tanaman Obat. Balai Besar Penelitian dan Pengembangan Pascapanen Pertanian.

Tjokropranoto R., Rosnaeni dan Nathania M.Y. 2011. Anthelmintic effect of ethanol extract of pare leaf (*Momordica charantiaL.*) against female *Ascaris suumworm* in vitro, J Med Plant,1(4):33–39.

Toral P. G., G. Hervas, E. Bichi, A. Belenguer and P. Frutos. 2011. Tanins as feed additives to modulateruminal biohydro-genation: Effect on animal performance, milk fatty acid compotition and ruminal fermentation in dairy ewes fed a diet containing sunflower oil. Anim Feed Sci Technol Journal.164: 199-206.

Toral P. G., G. Hervás, H. Missaoui, S. Andrés, F. J. Giráldez, S. Jellali and P. Frutos. 2016. Effect of a tanin-rich legume (*Onobrychis viciifolia*) on *in vitro* ruminal biohydrogenation and fermentation. Spanish Journal of Agricultural Research. 14 (1) e0602.

Tramboo S.R., Shahardar R. A., Allaie I. M., Wani Z. A. and Bushra M. S. 2015. Prevalence of gastrointestinal helminth infections in ovine population of Kashmir Valley. Vet. World 8(10): 1199-1204.

Trease G.E. dan Evans W.C. 2002. Pharmacognosy. 15th ed. Saunders Publishers, London. p391-393.

Tresia G.E., Evvyernie D. dan Tiuria R. 2016. Phytochemical screening and *in vitro* ovicidal, larvacidal, and nematicidal effects of *Murraya paniculata* (L.) jack extract on gastrointestinal parasites of goats. Med. Peternakan, 39(3): 173-179.

Tripathi, N., Hills, C.D., Singh, R.S. 2019. Biomass waste utilisation in low-carbon products: harnessing a major potential resource, Atmos. Cli. Sci, 2: 35, doi: https://doi.org/10.1038/s41612-019-0093-5.

Uddin SM, Misra V, Banerjee S. 2012. Laxative and diuretic property of ethanolic extract of leaves of Alocasia macrorrhiza Linn on experimental albino rats. Int Res J Pharm. 3(2):174-6.

Ufnar J.A., Wang S.Y., Ufnar D.F., Ellender R.D. 2007. *Methanobrevibacter ruminantium* as an indicator of domesticated-ruminant fecal pollution in surface waters. Appl Environ Microbiol. Nov;73(21):7118-21. doi: 10.1128/AEM.00911-07. Epub 2007 Sep 7. PMID: 17827308; PMCID: PMC2074949.

UNIVERSITAS GADJAH MADA
POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Ugbogu E. A., Elghandour M.M. M. Y., Ikpeazu V. O., Buendía G. R., Molina O. M., Arunsi U. O. Arunsia. 2019. The potential impacts of dietary plant natural products on the sustainable mitigation of methane emission from livestock farming. Journal of Cleaner Production, 213, 915-925.www.doi.org/10.1016/j.jclepro.2018.12.233.

Uhi H. T., A. Parakkasi dan B. Haryanto. 2006. Pengaruh suplemen katalitik terhadap karakteristik dan populasi mikroba rumen domba. Media Peternakan. Vol. 29. No. 1, hlm. 20 – 26.

Ulfa A. 2014. Uji toksisitas dan identifikasi golongan senyawa aktif ekstrak kulit dahan sirsak (*Annona muricata* linn) terhadap larva udang artemia salina leach. Skripsi. Jurusan Kimia Fakultas Sains dan Teknologi Universitas Islam Negeri Maulana Malik Ibrahim Malang.

Umesh K.S., Uma S.S., Abhishek S., Vijit A. 2010. Diuretic activity of *Kigelia pinnata* bark extract. J Pharmacol Res. 1(2):17-20.

Vakili A.R., Khorrami B., Mesgaran M.D., Parand E. 2013. The effects of thyme and cinnamon Essential oils on performance, rumen fermentation and blood metabolites in Holstein calves consuming high concentrate diet. Asian-Australas J Anim Sci. 26:935-944.

Venkatesh P., A. Dinakar, N. Senthilkumar. 2012. Evaluation of Diuretic activity of an Alcoholic extracts of *Boerhaavia diffusa* and *Anisochilus carnosus* in Rats. International Journal of Drug Development & Research., October-December, 4 (4): 239-242.

Verheij E.W.M. dan Coronel, R.E. 1997. Sumber Daya Hayati Asia Tenggara 2. Prosea. PT. Gramedia Pustaka Utama, Jakarta

Vickery M.L., B. Vickery. 1981.Secondary Plant Metabolism, The MacmillanPress, London, 255-288.

Wanapat P., P. Gunun, N. A. Soo, and S. Kang. 2014. Changes of rumen pH, fermentation and microbial populationas influenced by different ratios of roughage (rice straw) toconcentrate in dairy steers. Journal of Agricultural Science, Page 1 of 11. doi:10.1017/S0021859613000658.

Wang T., G. Ma C. Ang, P. K. Korhonen, R. Xu, S. Nie, A. V. Koehler, R. J. Simpson, D. W. Greening, G. E. Reid, N. A. Williamson, and R. B. Gasser. 2019. Somatic proteome of *Haemonchus contortus*, Int. J. Parasitology, 49: 311-320. Doi: https://doi.org/10.1016/j.ijpara.2018.12.003.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP., Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Watthanakulpanich D., Pongvongsa T., Sanguankiat S., Nuamtanong S., Malpanich W., Yoonuan T. 2013. Prevalence and clinical aspects of human *Trichostrongylus colubriformis* infection in Lao PDR. Acta Trop.; 126:37 – 42.

Widianingrum D.C., Salisia S.I.O., Nuviandi C.T. 2019. Kecernaan dan karakteristik fermentasi rumen *in vitro* ransum ruminansia dengan suplementasi virgin coconut oil terproteksi. Pros. Semnas. TPV 2019- p 156 – 164.

Wilmsen M. O., Bruna F. S., César C. B. and Alessandro F. T. do A. 2014. Gastrointestinal nematode infections in sheep raised in Botucatu, state of São Paulo, Brazil. Braz. J. Vet. Parasitol., Jaboticabal 23(3): 348-354.

Woldemedhin B., T. Nedi, W. Shibeshi, M. Sisay. 2017. Evaluation of the diuretic activity of the aqueous and 80% metanol extract of the root of *Euclea divinorum* Hiern (*Ebenaceae*) in Sprague Dawley rats. Journal of Ethnopharmacology.

Yusuf A. O., O. O. Egbinola . D. A. Ekunseitan . A. Z. M. Salem. 2019. Chemical characterization and *in vitro* methane production of selected agroforestry plants as dry season feeding of ruminants livestock. Agroforest Syst https://doi.org/10.1007/s10457-019-00480-7(0123456789().,-volV)(01234567.

Yoshihara E., Minho, A.P., Tabacow, V.B.D., Cardim, S.T. and Yamamura, M.H. 2015. Ultrastructural changes in the *Haemonchus contortus* cuticle exposed to *Acacia mearnsii* extract. Sem. Ciên. Agrár. Lond., 36(6): 3763-3768.

Yoshikawa M., T. Morikawa., Y. Kashima, K. Ninomiya, dan H. Matsuda. 2003. Structures of New DammaraneTriterpeneSaponins from the Flower Buds of Panaxnoto ginseng and Hepatoprotective Effects of Principal Ginseng Saponin, J.Nat. Prod., 66, 922-927.

Zainalabidin F.A., Raimy N., Yaacob M.H., Musbah A., Bathmanaban P., Ismail E.A., Mamat Z.C., Zahari Z., Ismail M.I. and Panchadcharam C. 2014. Prevalensi infestasi parasit pada peternakan ruminansia kecil di Perak, Malaysia. Trop. Life Sci. Res. 25(2): 1-8.

Zeller W.E. 2019. Activity, purification, and analysis of condensed tanins: Current state of affairs and future endeavors. Crop Sci. 59:886–904. doi:10.2135/cropsci2018.05.0323.

Zhou M-L, Shao J-R, Tang Y-X. 2004. Production and metabolic engi-neering of terpenoid indole alkaloids in cell cultures of the medicinal plant *Catharanthus roseus* (L.) G. Don (Madagascar periwinkle). Bio-technol Appl Biochem 52:313–323.

POTENSI LIMBAH TANAMAN SENGON LAUT (Paraserianthes falcataria) dan PEPAYA GUNUNG (Carica pubescens)
SEBAGAI ANTI PARASIT NEMATODA GASTROINTESTINAL DAN PENDUKUNG PRODUKTIVITAS DOMBA LOKAL DI KABUPATEN WONOSOBO
ZEIN AHMAD BAIHAQI, Dr. drh. Irkham Widiyono; Bambang Suwignyo, Ir., S.Pt., MP.c, Ph.D., IPM., ASEAN Eng; Dr.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Zouyed I., Cabaret J. and Bentounsi B. 2016. Climate influences assemblages of abomasal nematodes of sheep on steppe pastures in the east of Algeria. J. Helminthol. Page 1 of 8.

Zulfikar Z., Hambal M. and Razali R. 2017. Prevalence of Gastrointestinal Nematoda in Cattle In Pintu Rime Gayo Highland of Bener Meriah Regency. Int. J. Trop. Vet. Biomed. Res. 2 (1) : 34-37.