UNIVERSITAS GADJAH MADA
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DAFTAR PUSTAKA

Abbas, R. Z., Zaman, M. A., Sharif, M., Rafique, A., Saeed, Z., Siddique, F., Zaheer, T., Khan, M. K., Akram, M. S., & Chattha, A. J. 2020. Anthelmintic effects and toxicity analysis of herbal dewormer against the infection of Haemonchus contortus and Fasciola hepatica in goat. *Pakistan Veterinary Journal*, 40(4).

Abongwa, M., Martin, R. J., & Robertson, A. P. 2017. A brief review on the mode of action of antinematodal drugs. *Acta veterinaria*, 67(2), 137.

Acevedo-Ramírez, P. M. D. C., Hallal-Calleros, C., Flores-Pérez, I., Alba-Hurtado, F., Mendoza-Garfías, M. B., Castro Del Campo, N., & Barajas, R. 2019. Anthelmintic effect and tissue alterations induced in vitro by hydrolysable tannins on the adult stage of the gastrointestinal nematode Haemonchus contortus. *Veterinary Parasitology*, 266, 1-6. doi: 10.1016/j.vetpar.2018.12.008

Adduci, I., Sajovitz, F., Hinney, B., Lichtmannsperger, K., Joachim, A., Wittek, T., & Yan, S. 2022. Haemonchosis in sheep and goats, control strategies and development of vaccines against Haemonchus contortus. *Animals*, 12(18), 2339.

Aguilar-Urquizo, E., Marcín-Marrufo, E. M., Magaña-Magaña, M. Á., Piñeiro-Vázquez, Á. T., Torres-Acosta, J. F. d. J., & Itza-Ortiz, M. 2023. Potential of plant extracts to inhibit egg hatching and migration of Haemonchus contortus larvae. *Veterinaria México OA*, 10. doi: 10.22201/fmvz.24486760e.2023.1258

Ahmad, R. Z., & Tiffarent, R. 2020. Pathological aspects of haemonchosis in goats and sheeps. *Wartazoa*, 30(2), 91-102.

Ahmed, A. H., Ejo, M., Feyera, T., Regassa, D., Mummed, B., & Huluka, S. A. 2020. In vitro anthelmintic activity of crude extracts of Artemisia herba-alba and Punica granatum against Haemonchus contortus. *Journal of parasitology research*, 2020(1), 4950196.

Alam, R. T., Hassanen, E. A., & El-Mandrawy, S. A. 2020. Heamonchus Contortus infection in Sheep and Goats: alterations in haematological, biochemical, immunological, trace element and oxidative stress markers. *Journal of Applied Animal Research*, 48(1), 357-364.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Alawiyah, F. 2016. Daya Antelmintik Ekstrak Metano Daun Kesum (Polygonum minus) terhadap Ascaridia galli secara in vitro. *Jurnal Mahasiswa PSPD FK Universitas Tanjungpura*, 2(4).

Aldridge, M. E., Fearon, J. E., Haynes, B. P., Miller, H. M., Sanford, K. Y., Scott, R. R., Anglin, W. W., Blalock, L. S., Burkes, B. L., & Cohn-White, O. L. 2018. Solutions for grand challenges in goat and Sheep Production. *Biotropia*, 26(1), 55-64.

Ali, R., Rooman, M., Mussarat, S., Norin, S., Ali, S., Adnan, M., & Khan, S. N. 2021. A systematic review on comparative analysis, toxicology, and pharmacology of medicinal plants against Haemonchus contortus. *Frontiers in Pharmacology*, 12, 644027.

Alkadir, G., Kumsa, B., & Terefe, G. 2023. Review on anthelminthic resistance in domestic ruminants. *J. Vet. Med. Res.*, 10, 1237.

Álvarez Valverde, V., Rodríguez Rodríguez, G., & Argüello Vargas, S. 2022. Bioguided phytochemical study of Ipomoea cairica extracts with larvicidal activity against Aedes aegypti. *Molecules*, 27(4), 1348.

Aminurita, A., Samodra, G., & Fitriana, A. S. 2024. Pengaruh Ketinggian Tempat Tumbuh Terhadap Kadar Flavonoid Total dan Uji Aktivitas Antioksidan Ekstrak Daun Mahoni (Swietenia Maghoni L.). *Pharmacy Genius*, 3(2), 108-115.

Anuracpreeda, P., Chawengkirttikul, R., Ngamniyom, A., Panyarachun, B., Puttarak, P., Koedrith, P., & Intaratat, N. 2017. The in vitro anthelmintic activity of the ethanol leaf extracts of Terminalia catappa L. on Fasciola gigantica. *Parasitology*, 144(14), 1931-1942.

Aprila, Z. 2025. *Uji Toksisitas Akut Ekastrak Etanol Daun Ubi Jalar(Ipomoea batatas L.) Varietas Ungu-Oranye Terhadap Mencit betina Dengan Metode Dosis Fixed Dose* Univ. Bakti Tunas Husada Tasikmalaya].

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

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Ariskah, A. 2022. *Pengaruh ketinggian tempat tumbuh terhadap kadar flavonoid total dan aktivitas antioksidan ekstrak daun kipahit (Tithonia diversifolia)* Universitas Islam Negeri Maulana Malik Ibrahim].

Arsenopoulos, K. V., Fthenakis, G. C., Katsarou, E. I., & Papadopoulos, E. 2021. Haemonchosis: A challenging parasitic infection of sheep and goats. *Animals*, 11(2), 363.

Azwanida, N. 2015. A review on the extraction methods use in medicinal plants, principle, strength and limitation. *Med aromat plants*, 4(196), 2167-0412.

Bachtiar, A. R. 2023. Penetapan Kadar Flavonoid Total Buah Dengen (Dillenia serrata) Menggunakan Metode Spektrofotometri UV-Vis. *Makassar Natural Product Journal (MNPJ)*, 86-101.

Badaso, T., & Addis, M. 2015. Small ruminants haemonchosis: prevalence and associated risk factors in Arsi Negelle municipal abattoir, Ethiopia. *Global Veterinaria*, 15(3), 315-320.

Baihaqi, Z., Sofyan, A., Suwignyo, B., Angeles, A., Widiyono, I., Nurcahyo, W., Ibrahim, A., & Putri, E. 2024. In vivo study: The effects of Carica pubescens seed extract on the anthelmintic activity, feed digestibility, performance, and clinical parameters of thin-tailed sheep. IOP Conference Series: Earth and Environmental Science,

Baihaqi, Z. A., Widiyono, I., Angeles, A. A., Suwignyo, B., & Nurcahyo, W. 2023. Anthelmintic activity of Carica pubescens aqueous seed extract and its effects on rumen fermentation and methane reduction in Indonesian thin-tailed sheep: An in vitro study. *Veterinary World*, 16(7), 1421.

Baihaqi, Z. A., Widiyono, I., & Nurcahyo, W. 2020. In vitro anthelmintic activity of aqueous and ethanol extracts of Paraserianthes falcataria bark waste against Haemonchus contortus obtained from a local slaughterhouse in Indonesia. *Veterinary World*, 13(8), 1549-1554. doi: 10.14202/vetworld.2020.1549-1554

Baltrušis, P., Halvarsson, P., & Höglund, J. 2020. Utilization of droplet digital PCR to survey resistance associated polymorphisms in the β tubulin gene of Haemonchus contortus in sheep flocks in Sweden. *Veterinary Parasitology*, 288, 109278.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Barone, C. D., Zajac, A. M., Manzi-Smith, L. A., Howell, A. B., Reed, J. D., Krueger, C. G., & Petersson, K. H. 2018. Anthelmintic efficacy of cranberry vine extracts on ovine Haemonchus contortus. *Veterinary parasitology*, 253, 122-129.

Basnett, D., Banerjee, M., & Chowdhury, S. K. 2023. A review on medicinal values and pharmacological importance of Moraceae. *Plant Science Today*, 14719, 1-9.

Bassetto, C. C., Albuquerque, A. C. A., Lins, J. G. G., Marinho-Silva, N. M., Chocobar, M. L., Bello, H. J., Mena, M. O., Niciura, S. C., Amarante, A. F., & Chagas, A. C. S. 2024. Revisiting anthelmintic resistance in sheep flocks from São Paulo State, Brazil. *International Journal for Parasitology: Drugs and Drug Resistance*, 24, 100527.

Bauri, R. K., Tigga, M. N., & Kullu, S. S. 2015. A review on use of medicinal plants to control parasites. *IJNPR*, 6 (4), 268-277.

Besier, R., Kahn, L., Sargison, N., & Van Wyk, J. 2016a. Diagnosis, treatment and management of Haemonchus contortus in small ruminants. *Advances in parasitology*, 93, 181-238.

Besier, R., Kahn, L., Sargison, N., & Van Wyk, J. A. 2016b. The pathophysiology, ecology and epidemiology of Haemonchus contortus infection in small ruminants. *Advances in parasitology*, 93, 95-143.

Beynon, S. 2012. Potential environmental consequences of administration of anthelmintics to sheep. *Veterinary Parasitology*, 189(1), 113-124.

Bhat, J. A., Kumar, M., & Bussmann, R. W. 2013. Ecological status and traditional knowledge of medicinal plants in Kedarnath Wildlife Sanctuary of Garhwal Himalaya, India. *Journal of Ethnobiology and Ethnomedicine*, 9(1), 1.

Bresciani, K. D. S., Coelho, W. M. D., Gomes, J. F., de Matos, L. S., dos Santos, T. R., Suzuki, C. T. N., Lima, L. G. F., & Kaneto, C. N. 2017. Aspects of epidemiology and control of gastrointestinal nematodes in sheep and cattle–Approaches for its sustainability. *Revista de Ciências Agrárias*, 40(3), 664-669.

Bricarello, P. A., Longo, C., da Rocha, R. A., & Hötzel, M. J. 2023. Understanding animal-plant-parasite interactions to improve the management of gastrointestinal nematodes in grazing ruminants. *Pathogens*, 12(4), 531.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Bugis, P. A., Raharjo, S. H. T., & Wahditiya, A. A. 2024. Eksplorasi Morfologi Dan Kandungan Proksimat Pada Ubi Jalar (*Ipomoea Batatas L*.) Dari Kepulaonan Kei, Maluku. *AGRORADIX: Jurnal Ilmu Pertanian*, 8(1), 10-19.

Cabardo Jr, D. E., & Portugaliza, H. P. 2017. Anthelmintic activity of Moringa oleifera seed aqueous and ethanolic extracts against Haemonchus contortus eggs and third stage larvae. *International journal of veterinary science and medicine*, 5(1), 30-34.

Carvalho, V. F., Ramos, L. D. A., Da Silva, C. A., Nebo, L., Moraes, D., Da Silva, F. F. A., Da Costa, N. C. A., Rodrigues Junior, R. D. O., De Souza, L. F., & Rodrigues, R. M. 2020. In vitro anthelmintic activity of *Siparuna guianensis* extract and essential oil against *Strongyloides venezuelensis*. *Journal of Helminthology*, 94, e50. doi: 10.1017/S0022149X19000282

Castagna, F., Palma, E., Cringoli, G., Bosco, A., Nisticò, N., Caligiuri, G., Britti, D., & Musella, V. 2019. Use of complementary natural feed for gastrointestinal nematodes control in sheep: effectiveness and benefits for animals. *Animals*, 9(12), 1037.

Cavalcante, G. S., Morais, S. M. D., André, W. P. P., Araújo-Filho, J. V. D., Muniz, C. R., Rocha, L. O. D., Ribeiro, W. L. C., Rodrigues, A. L. M., Oliveira, L. M. B. D., Bevilaqua, C. M. L., & Ramos, M. V. 2020. Chemical constituents of Calotropis procera latex and ultrastructural effects on Haemonchus contortus. *Revista Brasileira de Parasitologia Veterinária*, 29(2), e001320. doi: 10.1590/s1984-29612020045

Charlier, J., Bartley, D., Sotiraki, S., Martinez-Valladares, M., Claerebout, E., von Samson-Himmelstjerna, G., Thamsborg, S., Hoste, H., Morgan, E., & Rinaldi, L. 2022. Anthelmintic resistance in ruminants: challenges and solutions. *Advances in parasitology*, 115, 171-227.

Charlier, J., Rinaldi, L., Morgan, E. R., Claerebout, E., Bartley, D. J., Sotiraki, S., Mickiewicz, M., Martinez-Valladares, M., Meunier, N., & Wang, T. 2024. Sustainable worm control in ruminants in Europe: current perspectives. *Animal Frontiers*, 14(5), 13-23.

Coy, D., Cruz-Carrillo, A., & Lizarazo-Cely, S. 2024. Some phytotoxins causing reproductive alterations in ruminants. *Toxicon*, 247, 107769.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Damiyati, S. Y., Pratama, I. S., & Tresnani, G. 2021. In vitro anthelmintic activity of pineapple peel juice (Ananas comosus (L.) Merr.) against Paramphistomum sp. *Communications in Science and Technology*, 6(1), 49-54.

de Jesús-Martínez, X., Rivero-Pérez, N., González-Cortazar, M., Olivares-Pérez, J., Zamilpa, A., Zaragoza-Bastida, A., Mendoza-de Gives, P., Rojas-Hernández, S., Flores-Franco, G., & Olmedo-Juárez, A. 2024. Ovicidal and larvicidal effects of a hydroalcoholic extract from Cyrtocarpa procera leaves against Haemonchus contortus. *Agrociencia*.

de Souza, R. B., & Guimarães, J. R. 2022. Effects of avermectins on the environment based on its toxicity to plants and soil invertebrates—a review. *Water, Air, & Soil Pollution*, 233(7), 259.

Degla, L. H., Kuiseu, J., Olounlade, P. A., Attindehou, S., Hounzangbe-Adote, M., Edorh, P. A., & Lagnika, L. 2022. Use of medicinal plants as alternative for the control of intestinal parasitosis: assessment and perspectives. *Agrobiol Rec*, 7, 1-9.

Deharo, E., & Ginsburg, H. 2011. Analysis of additivity and synergism in the anti-plasmodial effect of purified compounds from plant extracts. *Malaria Journal*, 10(Suppl 1), S5.

Dehuri, M., Palai, S., Mohanty, B., & Malangmei, L. 2021. Anti-helminthic Activity of Plant Extracts against Gastrointestinal Nematodes in Small Ruminants - A Review. *Pharmacognosy Reviews*, 15(30), 117-127. doi: 10.5530/phrev.2021.15.14

Delgado-Núñez, E. J., López-Arellano, M. E., Olmedo-Juárez, A., Díaz-Nájera, J. F., Ocampo-Gutiérrez, A. Y., & Mendoza-de Gives, P. 2023. Phytochemical profile and nematicidal activity of a hydroalcoholic extract from Cazahuate flowers (Ipomoea pauciflora M. Martens & Galeotti) against Haemonchus contortus infective larvae. *Trop Biomed*, 40(1), 108-114. doi: 10.47665/tb.40.1.017

Demessie, T. S., Nigussie, D. R., Biru, T. M., & Ambaw, Y. G. 2025. Prevalence, Associated Risk Factors of Haemonchosis and Burden of Strongyle Nematode of Small Ruminants in Bishoftu, Oromia, Central Ethiopia. *Journal of Parasitology Research*, 2025(1), 4417948.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Desalegn, C., & Berhanu, G. 2023. Assessment of the epidemiology of the gastrointestinal tract nematode parasites in sheep in Toke Kutaye, West Shoa Zone, Ethiopia. *Veterinary Medicine: Research and Reports*, 177-183.

Dewi, N. P. 2020. Uji Kuantitatif Metabolit Standar Ekstrak Etanol Daun Awar-Awar (Ficus Septica Burm. F) Dengan Metode Kromatografi. *Acta Holistica Pharmaciana*, 2(1), 16-24.

Doligalska, M., Jóźwicka, K., Kiersnowska, M., Mroczek, A., Pączkowski, C., & 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.

Domingo-Fernández, D., Gadiya, Y., Mubeen, S., Healey, D., Norman, B. H., & Colluru, V. 2023. Exploring the known chemical space of the plant kingdom: insights into taxonomic patterns, knowledge gaps, and bioactive regions. *Journal of Cheminformatics*, 15(1), 107.

Doyle, S. R., Laing, R., Bartley, D., Morrison, A., Holroyd, N., Maitland, K., Antonopoulos, A., Chaudhry, U., Flis, I., & Howell, S. 2022. Genomic landscape of drug response reveals mediators of anthelmintic resistance. *Cell Reports*, 41(3).

Ebene, N., Onyali, I., Mingoas, J., Poungue, H., & Mfopit, M. 2016. Efficacy testing of anthelmintics against field strains of Trichostrongyles in cattl e farms of the periurban zone of Ngaoundere in Cameroon. *AJVS*, 50(1), 78Ŕ86.

Elshafie, H. S., Camele, I., & Mohamed, A. A. 2023. A comprehensive review on the biological, agricultural and pharmaceutical properties of secondary metabolites based-plant origin. *International journal of molecular sciences*, 24(4), 3266.

Farabe, A., Ovi, A. H., Rakib, M. M. R., Saha, J., & Khan, R. 2024. Evaluation of Anthelmintic and Neuropharmacological Activities of the leaves of Chassalia. *European Journal of Medicinal Plants*, 35(6), 54-62.

Fayaz, M. R., Abbas, R. Z., Abbas, A., Khan, M. K., Raza, M. A., Israr, M., Khan, J. A., Mahmood, M. S., Saleemi, M. K., & ur Rehman, T. 2019. Potencial de aceites esenciales botánicos contra Haemonchus contortus en pequeños rumiantes. *Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromáticas*, 18(6), 533-543.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Fischer, E., Hansen, B., Nair, V., Hoyt, F., & Dorward, D. 2012. Scanning electron microscopy Curr Protoc Microbiol Chapter 2: Unit2B. 2-2B. 2. In.

Fissiha, W., & Kinde, M. Z. 2021. Anthelmintic resistance and its mechanism: a review. *Infection and Drug Resistance*, 5403-5410.

Flay, K. J., Hill, F. I., & Muguiro, D. H. 2022. A Review: Haemonchus contortus infection in pasture-based sheep production systems, with a focus on the pathogenesis of anaemia and changes in haematological parameters. *Animals*, 12(10), 1238.

Fomum, S. W., & Nsahlai, I. V. 2017. *In vitro* nematicidal activity of plant species possessing alkaloids and tannins. *Cogent Food & Agriculture*, 3(1), 1334295. doi: 10.1080/23311932.2017.1334295

Fthenakis, G., Mavrogianni, V., Gallidis, E., & Papadopoulos, E. 2015. Interactions between parasitic infections and reproductive efficiency in sheep. *Veterinary parasitology*, 208(1-2), 56-66.

Gadahi, J. A., Li, B., Ehsan, M., Wang, S., Zhang, Z., Wang, Y., Hasan, M. W., Yan, R., Song, X., & Xu, L. 2016. Recombinant Haemonchus contortus 24 kDa excretory/secretory protein (rHcES-24) modulate the immune functions of goat PBMCs in vitro. *Oncotarget*, 7(51), 83926.

Galyon, H. R., Zajac, A. M., Wright, D. L., Greiner, S. P., & Bradford, H. L. 2020. Evaluating the relationship between fecal egg count, FAMACHA score, and weight in dewormed and non-dewormed Katahdin rams during a parasite challenge. *Translational Animal Science*, 4(4), txaa178.

Gareh, A., Elhawary, N. M., Tahoun, A., Ramez, A. M., El-Shewehy, D. M., Elbaz, E., Khalifa, M. I., Alsharif, K. F., Khalifa, R. M., & Dyab, A. K. 2021. Epidemiological, morphological, and morphometric study on Haemonchus spp. recovered from goats in Egypt. *Frontiers in Veterinary Science*, 8, 705619.

Garza, J. J. (2014). *Comparison of immune responses during gastrointestinal helminth self-cure expulsion between resistant Gulf Coast Native and susceptible Suffolk sheep*. Louisiana State University and Agricultural & Mechanical College.

Goodenough, A. E., Webb, J. C., & Yardley, J. 2019. Environmentally-realistic concentrations of anthelmintic drugs affect survival and motility in the

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
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Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

cosmopolitan earthworm Lumbricus terrestris (Linnaeus, 1758). *Applied Soil Ecology*, 137, 87-95.

Gotardo, A. T., Pfister, J. A., Raspantini, P. C., & Górniak, S. L. 2016. Maternal ingestion of Ipomoea carnea: effects on goat-kid bonding and behavior. *Toxins*, 8(3), 74.

Greiffer, L., Liebau, E., Herrmann, F. C., & Spiegler, V. 2022. Condensed tannins act as anthelmintics by increasing the rigidity of the nematode cuticle. *Scientific Reports*, 12(1), 18850.

Grzybek, M., Kukula-Koch, W., Strachecka, A., Jaworska, A., Phiri, A. M., Paleolog, J., & Tomczuk, K. 2016. Evaluation of anthelmintic activity and composition of pumpkin (Cucurbita pepo L.) seed extracts—in vitro and in vivo studies. *International journal of molecular sciences*, 17(9), 1456.

Gupta, M., Rao, M., Pooja Dixit, P. D., Shukla, P., Baghel, R., & Dixit, A. 2016. Economic impact of anthelmintic therapy in goats naturally infected with gastrointestinal nematodes.

Hamzah, A., Hambal, M., Balqis, U., Darmawi, D., Maryam, M., Rosmaidar, R., Athaillah, F., Muttaqien, M., Azhar, A., & Ismail, I. 2016. In vitro anthelmintic activity of Veitchia merrillii nuts against Ascaridia galli. *Majalah Obat Tradisional*, 21(2), 55-62.

Handayani, T. W., Yusuf, Y., & Tandi, J. 2020. Analisis kualitatif dan kuantitatif metabolit sekunder ekstrak biji Kelor (Moringa oleifera Lam.) dengan metode spektrofotometri UV-Vis. *KOVALEN: Jurnal Riset Kimia*, 6(3), 230-238.

Hashemnia, S., Khovand, H., Ghahvei, Y., & Nourollahifard, S. 2024. Scanning electron microscopy of digestive tract parasites in jungle cat (Felis chaus). *Microscopy Research and Technique*, 87(2), 395-402.

Hassan, N., Sedky, D., El-Aziz, T. A., Shalaby, H., & Abou-Zeina, H. 2020. Anthelmintic potency and curative effect of pomegranate peels ethanolic extract against Haemonchus contortus infection in goats.

Hempstead, M. N., Candy, P. M., Hannaford, R., Ross, M. A., Sutherland, I. A., & Sauermann, C. W. 2025. Threshold levels of artificial infection with

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Haemonchus contortus impacting lamb physiology and production. *Scientific reports*, 15(1), 19551.

Hendawy, S. H. 2018. Immunity to gastrointestinal nematodes in ruminants: effector cell mechanisms and cytokines. *Journal of Parasitic Diseases*, 42(4), 471-482.

Huang, Y., Dong, F., Du, Q., Zhang, H., Luo, X., Song, X., Zhao, X., Zhang, W., & Tong, D. 2014. Swainsonine induces apoptosis through mitochondrial pathway and caspase activation in goat trophoblasts. *International Journal of Biological Sciences*, 10(7), 789.

Ibekwe, H. 2019. In vitro anthelmintic activities of aqueous crude extract of Azadirachta indica on Paramphistomum cervi and Fasciola hepatica. *International Journal of Veterinary Sciences and Animal Husbandry*, 4(1), 14-18.

Ibrahim, A., Budisatria, I., Widayanti, R., & Artama, W. 2019. Consumer's preferences for sheep attributes for Eid al-Adha celebration in Yogyakarta, Indonesia. IOP Conference Series: Earth and Environmental Science,

Irungu, R., Migwi, P., Kariuki, J., & Guliye, A. 2017. Nutrient intake, digestibility and rumen fermentation characteristics of sheep fed on selected forage sweet potato cultivars. *East African Agricultural and Forestry Journal*, 82(1), 10-22.

Irwan, M., Hanafiah, D., Rahmawati, N., & Bakti, D. 2019. Analysis of changes in morphological characteristics of leaves and stems in some sweet potato cultivars (Ipomoea batatas L.) from Simalungun and Dairi highlands planting in the lowlands. IOP Conference Series: Earth and Environmental Science,

Islami, N., Arif, R., Reflianti, R. M., & Anum, T. 2024. Sintesis Antihelmintik Nanoherbal Daun Pepaya dan Kemangi dengan Teknik Ultrasonikasi serta Efikasinya Secara In Vivo. *Jurnal Veteriner dan Biomedis*, 2(2), 68-73.

Jato, J., Waindok, P., Ngnodandi, F. N. B. F., Orman, E., Agyare, C., Bekoe, E. O., Strube, C., Hensel, A., Liebau, E., & Spiegler, V. 2023. Anthelmintic activities of extract and Ellagitannins from Phyllanthus urinaria against Caenorhabditis elegans and zoonotic or animal parasitic nematodes. *Planta Medica*, 89(13), 1215-1228.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Jayawardene, K. D., Palombo, E. A., & Boag, P. R. 2021. Natural products are a promising source for anthelmintic drug discovery. *Biomolecules*, 11(10), 1457.

Judin, S., Datta, F. U., & Lazarus, E. J. 2022. Evaluasi Penambahan Buah Pare (Momordica Charantia) Pada Pakan Terhadap Penampilan Produksi Ayam Pedaging. *Journal of Tropical Animal Production*, 23(1), 54-62.

Julianto, R. P. D., Indawan, E., & Paramita, S. 2020. Perbedaan karakter hasil tiga varietas ubi jalar berdasarkan waktu panen. *Kultivasi*, 19(3), 1223-1229.

Kaminsky, R., & Maser, P. 2025. Global impact of parasitic infections and the importance of parasite control. *Front Parasitol*, 4, 1546195. doi: 10.3389/fpara.2025.1546195

Kandil, O. M., Hassan, N. M., Sedky, D., Ata, E. B., Nassar, S. A., Shalaby, H. A., Nanev, V., Tsocheva-Gaytandzhieva, N., & Gabrashanska, M. 2018. Anthelmintic efficacy of Moringa oleifera seed methanolic extract against Fasciola hepatica. *Journal of Parasitic Diseases*, 42(3), 391-401.

Kang, T.-C., Lai, I., & Shen, P.-C. 2025. Laparoscopic artificial insemination in small ruminants: technological integration, economic evaluation, and future perspectives. *Frontiers in Veterinary Science*, 12, 1667887.

Kaplan, R., Burke, J., Terrill, T., Miller, J., Getz, W., Mobini, S., Valencia, E., Williams, M., Williamson, L., & Larsen, M. 2004. Validation of the FAMACHA© eye color chart for detecting clinical anemia in sheep and goats on farms in the southern United States. *Veterinary parasitology*, 123(1-2), 105-120.

Kaplan, R. M. 2020. Biology, Epidemiology, Diagnosis, and Management of Anthelmintic Resistance in Gastrointestinal Nematodes of Livestock.

Kasiama, G. N., Ikey, A., Kabengele, C. N., Kilembe, J. T., Matshimba, E. N., Bete, J. M., Bahati, P. B., Inkoto, C. L., Mutwale, P. K., & Ngbolua, K. 2022. Anthelmintic and antioxidant activities, phytochemical profile and microscopic features of Senna alata collected in the Democratic Republic of Congo. *Annu. Res. Rev. Biol*, 37, 28-36.

Katiki, L. M., Gomes, A., Barbieri, A., Pacheco, P., Rodrigues, L., Veríssimo, C. J., Gutmanis, G., Piza, A., Louvandini, H., & Ferreira, J. 2017. Terminalia catappa:

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

chemical composition, in vitro and in vivo effects on Haemonchus contortus. *Veterinary Parasitology*, 246, 118-123.

Khajuria, J., Katoch, R., Yadav, A., Godara, R., Gupta, S., & Singh, A. 2013. Seasonal prevalence of gastrointestinal helminths in sheep and goats of middle agro-climatic zone of Jammu province. *Journal of parasitic diseases*, 37(1), 21-25.

Komáromyová, M., Barčák, D., Königová, A., Urda Dolinská, M., & Várady, M. 2022. Does *in vitro* and *in vivo* exposure to medicinal herbs cause structural cuticular changes in *Haemonchus contortus* ? *Helminthologia*, 59(3), 265-274. doi: 10.2478/helm-2022-0023

Kotze, A., & Prichard, R. 2016. Anthelmintic resistance in Haemonchus contortus: history, mechanisms and diagnosis. *Advances in parasitology*, 93, 397-428.

Kristiyani, F., Aini, N., & Wijayanti, A. D. 2019. Evaluasi pengobatan trematodiasis menggunakan albendazol pada sapi di Kecamatan Pakem, Sleman, Daerah Istimewa Yogyakarta. *Jurnal Sain Veteriner*, 37(1), 104-111.

Kumar, Sravanthi, K., Chadalawada, P. K., Pooja, B., & Vadivel, K. 2016. Phytochemical and In-vitro pharmacological evaluation of Ipomoea sepiaria against selected pathogenic micro-organisms. *European Journal of Pharmaceutical and Medical Research*, 3(2), 166-170.

Kumar, I. M., & Praween, S. N. 2025. To Study Anthelmintic Activity of Herbal Drug. *Int. J. of Pharm. Sci.*, Vol 3, Issue 9, 3337-3370. doi: 10.5281/zenodo.17224342

Laemmli, U. K. 1970. Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *nature*, 227(5259), 680-685.

Lanusse, C., Canton, C., Virkel, G., Alvarez, L., Costa-Junior, L., & Lifschitz, A. 2018. Strategies to optimize the efficacy of anthelmintic drugs in ruminants. *Trends in parasitology*, 34(8), 664-682.

Levitt, D. G., & Levitt, M. D. 2017. Protein losing enteropathy: comprehensive review of the mechanistic association with clinical and subclinical disease states. *Clinical and experimental gastroenterology*, 147-168.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Li, M., Zi, X., Lv, R., Zhang, L., Ou, W., Chen, S., Hou, G., & Zhou, H. 2023. Cassava foliage effects on antioxidant capacity, growth, immunity, and ruminal microbial metabolism in Hainan black goats. *Microorganisms*, 11(9), 2320.

Lidyawati, L., Dita, S. F., & Agustiany, C. M. 2021. Uji Skrining fitokimia ekstrak etanol daun ubi jalar ungu (Ipomoea Batatas L.). *Journal of Pharmaceutical and Health Research*, 2(1), 1-3.

Liu, M., Panda, S. K., & Luyten, W. 2020. Plant-based natural products for the discovery and development of novel anthelmintics against nematodes. *Biomolecules*, 10(3), 426.

Liu, W., Yin, D., Li, N., Hou, X., Wang, D., Li, D., & Liu, J. 2016. Influence of environmental factors on the active substance production and antioxidant activity in Potentilla fruticosa L. and its quality assessment. *Scientific reports*, 6(1), 28591.

Maestrini, M., Molento, M. B., Forzan, M., & Perrucci, S. 2021. *In vitro* anthelmintic activity of an aqueous extract of *Glycyrrhiza glabra* and of glycyrrhetinic acid against gastrointestinal nematodes of small ruminants. *Parasite*, 28, 64. doi: 10.1051/parasite/2021060

Maestrini, M., Tava, A., Mancini, S., Tedesco, D., & Perrucci, S. 2020. In Vitro Anthelmintic Activity of Saponins from Medicago spp. Against Sheep Gastrointestinal Nematodes. *Molecules*, 25(2). doi: 10.3390/molecules25020242

Mafruchati, M. 2020. Identification of Moniezia, Sp in goat intestines in Indonesia which can impede goat productivity. *Syst. Rev. Pharm*, 11, 1341-1345.

Majid, T., Razak, R., & Abidin, Z. 2023. Penetapan Kadar Fenolik Ekstrak Etanol Biji Alpukat (Persea americana Mill.) Menggunakan Metode Spektrofotometri UV-Vis. *BULLET: Jurnal Multidisiplin Ilmu*, 2(2), 351-354.

Malede, B. A., Kebede, M. C., Berihun, A. M., Mekonnen, M. Y., Yesuf, M., Mitiku, T., Birhan, M., Kenubih, A., & Temesgen, A. B. 2025. Haematobiochemical alterations and lesion characterization induced by haemonchosis in slaughtered sheep at Gondar ELFORA abattoir, Ethiopia. *BMC Veterinary Research*, 21(1), 22.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Manjusa, A., & Pradeep, K. 2022. Herbal anthelmintic agents: a narrative review. *Journal of Traditional Chinese Medicine*, 42(4), 641.

Maqbool, I., Wani, Z., Shahardar, R., Allaie, I., & Shah, M. 2017. Integrated parasite management with special reference to gastro-intestinal nematodes. *Journal of Parasitic Diseases*, 41(1), 1-8.

Martindah, E., Sawitri, D., Wardhana, A., Ekawasti, F., & Dewi, D. 2023. Anthelmintic Resistance Status in Gastrointestinal Nematodes of Seven Different Breeds of Sheep in intensive management. IOP Conference Series: Earth and Environmental Science,

Martínez-Ortiz-de-Montellano, C., Torres-Acosta, J. F. D. J., Fourquaux, I., Sandoval-Castro, C. A., & Hoste, H. 2019. Ultrastructural study of adult *Haemonchus contortus* exposed to polyphenol-rich materials under *in vivo* conditions in goats. *Parasite*, 26, 65. doi: 10.1051/parasite/2019065

Medjekal, S., & Ghadbane, M. 2021. Sheep digestive physiology and constituents of feeds. In *Sheep Farming-An Approach to Feed, Growth and Health*. IntechOpen.

Meenakshisundaram, A., Harikrishnan, T. J., & Anna, T. 2016. Anthelmintic activity of Indigofera tinctoria against gastrointestinal nematodes of sheep. *Veterinary world*, 9(1), 101.

Melesse, A., Chalew, N., & Nurfeta, A. 2020. Effect of sweet potato leaf supplementation on growth and nutrient digestibility in sheep.

Mhlongo, L. C., Fomum, S. W., Mseleku, C., Hassen, A., & Nsahlai, I. V. 2024. Effect of combined crude plant extracts on sheep and goat gastrointestinal nematodes in vitro. *Veterinary Research Notes*, 3(12), 95-95.

Mhomga, L. I., Adamu, M., Idika, I. K., Sakong, B. M., Marire, B. N., & Nwosu, C. O. 2022. In vitro anthelmintic activities of three ethnomedicinal plant extracts against Haemonchus contortus. *Spanish Journal of Agricultural Research*, 20(3), e0504-e0504.

Moghaddam, M. K., Fallah, H., Niknejad, Y., & Dastan, S. 2022. Investigating the altitude impact on the eco-phytochemical parameters of Ziziphora clinopodioides and Sophora alopecuroides in the different regions of northern

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Iran. *Acta Scientiarum Polonorum Hortorum Cultus*, 21(1), 57-65. doi: 10.24326/asphc.2022.1.5

Mohanraj, R., & Sivasankar, S. 2014. Sweet potato (Ipomoea batatas [L.] Lam)--a valuable medicinal food: a review. *Journal of Medicinal Food*, 17(7), 733-741. doi: 10.1089/jmf.2013.2818

Mpofu, T. J., Nephawe, K. A., & Mtileni, B. 2022. Prevalence and resistance to gastrointestinal parasites in goats: A review. *Vet World*, 15(10), 2442-2452. doi: 10.14202/vetworld.2022.2442-2452

Mubarokah, W. W., Nurcahyo, W., Prastowo, J., & Kurniasih, K. 2019. In vitro and in vivo Areca catechu crude aqueous extract as an anthelmintic against Ascaridia galli infection in chickens. *Veterinary world*, 12(6), 877.

Muda, I., Prastowo, J., Nurcahyo, W., & Sarmin, S. 2021. Anthelmintic effect of Indigofera tinctoria L on Haemonchus contortus obtained from sheep in Indonesia. *Veterinary world*, 14(5), 1272.

Murshed, M., Alzaylaee, H., Mares, M., Aljawdah, H., & Al-Quraishy, S. 2025. Evaluation of the anthelmintic effectiveness of Cinnamomum verum bark extract in mice naturally infected with Aspiculuris tetraptera: in vitro and in vivo. *Helminthologia*, 62(2), 102.

Mushonga, B., Habumugisha, D., Kandiwa, E., Madzingira, O., Samkange, A., Segwagwe, B. E., & Jaja, I. F. 2018. Prevalence of Haemonchus contortus infections in sheep and goats in Nyagatare District, Rwanda. *Journal of veterinary medicine*, 2018(1), 3602081.

Naeem, M., Iqbal, Z., & Roohi, N. 2021. Ovine haemonchosis: a review. *Tropical animal health and production*, 53(1), 19.

Najmuddin, M., & Nasich, M. 2019. Produktivitas induk domba ekor tipis di desa sedan kecamatan sedan kabupaten rembang. *TERNAK TROPIKA Journal of Tropical Animal Production*, 20(1), 76-83.

Nasiru, A. 2017. Nutritional evaluation of sweet potato vines from twelve cultivars as feed for ruminant animals. *Asian Journal of Animal and Veterinary Advances*.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Nawaz, M., Sajid, S. M., Zubair, M., Hussain, J., Abbasi, Z., Mohi-Ud-Din, A., & Waqas, M. 2014. In vitro and in vivo anthelmintic activity of leaves of Azadirachta indica, Dalbergia sisso and Morus alba against Haemonchus contortus. *Glob. Vet*, 13(6), 996-1001.

Nirala, R. K. 2019. Medicinal plants and its activity against helminth: A review. *Journal of Pharmacognosy and Phytochemistry*, 8(5), 2348-2355.

Nixon, S. A., Welz, C., Woods, D. J., Costa-Junior, L., Zamanian, M., & Martin, R. J. 2020. Where are all the anthelmintics? Challenges and opportunities on the path to new anthelmintics. *International Journal for Parasitology: Drugs and Drug Resistance*, 14, 8-16.

Nolan, T. M., Vukašinović, N., Liu, D., Russinova, E., & Yin, Y. 2020. Brassinosteroids: Multidimensional Regulators of Plant Growth, Development, and Stress Responses. *The Plant Cell*, 32(2), 295-318. doi: 10.1105/tpc.19.00335

Nolinda, N., Ikusika, O. O., Akinmoladun, O. F., & Mpendulo, C. T. 2024. Impact of nematode infestation in livestock production and the role of natural feed additives – A review. *Open Agriculture*, 9(1), 20220234. doi: 10.1515/opag-2022-0234

Nurfitriani, I. 2015. Karakteristik vulva dan sitologi sel mucus dari vagina fase estrus pada domba lokal. *Students e-Journal*, 4(3).

Ogwu, M. C., Izah, S. C., & Joshua, M. T. 2025a. Ecological and environmental determinants of phytochemical variability in forest trees. *Phytochem. Rev*, 1-29.

Ogwu, M. C., Izah, S. C., & Joshua, M. T. 2025b. Ecological and environmental determinants of phytochemical variability in forest trees. *Phytochemistry Reviews*. doi: 10.1007/s11101-025-10066-0

Oliveira Santos, F., Ponce Morais Cerqueira, A., Branco, A., José Moreira Batatinha, M., & Borges Botura, M. 2019. Anthelmintic activity of plants against gastrointestinal nematodes of goats: a review. *Parasitology*, 146(10), 1233-1246. doi: 10.1017/S0031182019000672

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Ooko Abong', G., Muzhingi, T., Wandayi Okoth, M., Ng'ang'a, F., Ochieng', P. E., Mahuga Mbogo, D., Malavi, D., Akhwale, M., & Ghimire, S. 2020. Phytochemicals in leaves and roots of selected Kenyan orange fleshed sweet potato (OFSP) varieties. *International Journal of Food Science*, 2020(1), 3567972.

Pant, P., Pandey, S., & Dall'Acqua, S. 2021. The Influence of Environmental Conditions on Secondary Metabolites in Medicinal Plants: A Literature Review. *Chemistry & Biodiversity*, 18(11), e2100345. doi: 10.1002/cbdv.202100345

Pathak, A. 2017. Nutritional Bases to Control Gastrointestinal Parasites of Livestock. *Dairy and Vet Sci* 4(1). doi: 10.19080/JDVS.2017.04.555632

Pertiwi, V. R., Putri, D. D., & Syihabbudin, F. 2025. Effectiveness Therapy to Eliminate Parasite in Cattle at Teaching Factory Polytechnic State of Lampung. *Journal of Applied Veterinary Science & Technology*, 6(1).

Quadros, D., & Burke, J. 2024. Nutritional strategies for small ruminant gastrointestinal nematode management. *Animal Frontiers: the Review Magazine of Animal Agriculture*, 14(5), 5.

Rachmawati, D. 2016. Antihelmintik Ekstrak Etanol Daun Katuk (Sauropus Androgynus (l.) Merr.) Terhadap Mortalitas Ascaris Suum Goeze Secara In Vitro.

Raja, D. N. L., Raguati, R., & Insulistyowati, A. 2022. Pengaruh penggunaan daun karet sebagai sumber hijauan yang disupplementasi probiotik terhadap profil hemogram darah kambing Peranakan Etawah. *Jurnal Ilmiah Ilmu-Ilmu Peternakan*, 25(2), 187-198.

Ramada, J. M. S., Soriano, M. L. L., & Abella, J. A. C. 2018. Anthelmintic properties of panyawan (Tinospora rumphii Boerl.) crude aqueous stem extracts against gastrointestinal helminths of naturally infected upgraded goats (Capra hircus). *Animal Biology & Animal Husbandry*, 10(1).

Ranasinghe, S., Armson, A., Lymbery, A. J., Zahedi, A., & Ash, A. 2023. Medicinal plants as a source of antiparasitics: an overview of experimental studies. *Pathogens and global health*, 117(6), 535-553.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Ribeiro, W. L. C., Andre, W. P. P., Cavalcante, G. S., De Araújo-Filho, J. V., Santos, J. M. L., Macedo, I. T. F., De Melo, J. V., De Morais, S. M., & Bevilaqua, C. M. L. 2017. Effects of Spigelia anthelmia decoction on sheep gastrointestinal nematodes. *Small Ruminant Research*, 153, 146-152. doi: 10.1016/j.smallrumres.2017.06.001

Risa, D., Mamo, G., Waktole, H., Haile, G., & Terefe, G. 2024. Goats are more susceptible to Haemonchus contortus infection than sheep under similar experimental settings. *Scientific Reports*, 14(1), 25379.

Rodrigues, C. I., da Costa, D. M., Santos, A. C. V., Batatinha, M. J. M., Souza, F. V. D., de Souza, E. H., Botura, M. B., Alves, C. Q., Soares, T. L., & Brandão, H. N. 2020. Assessment of in vitro anthelmintic activity and bio-guided chemical analysis of BRS Boyrá pineapple leaf extracts. *Veterinary Parasitology*, 285, 109219.

Romero-Jola, N. J., Cubides-Cárdenas, J. A., Escobar, N., & Simirgiotis, M. J. 2023. Ovicidal effect on Haemonchus contortus of extract partitions shrubby plants of the tropical dry forest and potentially active compounds identification by UHPLC-Q/Orbitrap/MS/MS. *Applied Sciences*, 13(12), 7147.

Romero, N., Areche, C., Cubides-Cárdenas, J., Escobar, N., García-Beltrán, O., Simirgiotis, M. J., & Céspedes, Á. 2020. In vitro anthelmintic evaluation of Gliricidia sepium, Leucaena leucocephala, and Pithecellobium dulce: Fingerprint analysis of extracts by UHPLC-orbitrap mass spectrometry. *Molecules*, 25(13), 3002.

Rouatbi, M., Gharbi, M., Rjeibi, M. R., Salem, I. B., Akkari, H., Lassoued, N., & Rekik, M. 2016. Effect of the infection with the nematode Haemonchus contortus (Strongylida: Trichostrongylidae) on the haematological, biochemical, clinical and reproductive traits in rams. *Onderstepoort Journal of Veterinary Research*, 83(1), 1-8.

Rushton, J., & Bruce, M. 2017. Using a One Health approach to assess the impact of parasitic disease in livestock: how does it add value? *Parasitology*, 144(1), 15-25.

Sachan, A., Shanker, D., Jaiswal, A. K., & Sudan, V. 2015. In vitro ovicidal assessment of methanol, ethyl acetate and chloroform extracts of Annona squamosa and

Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada
Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Chenopodium album against caprine gastrointestinal nematodiosis. *Journal of Parasitic Diseases*, 39(1), 62-66.

Sadam, M. R., Ayuningsih, B., Hernaman, I., & Dhalika, T. 2021. Pengaruh Daun Ubi Jalar sebagai Substitusi Konsentrat dalam Ransum Domba terhadap Produksi VFA dan NH3 (In Vitro). *Jurnal Sumber Daya Hewan*, 2(2), 50-54.

Sadr, S., Ahmadi Simab, P., Kasaei, M., Gholipour Landi, M., Borji, H., & Adhami, G. 2022. Potential of Anthelmintic Herbal Drugs against Gastrointestinal Nematodes in Farm Animals: A Review. *Farm Animal Health and Nutrition*, 1(1), 26-30. doi: 10.58803/fahn.v1i1.9

Saidu, A., Paul, B. T., Jesse, F. F. A., Kamaludeen, J., Mustafa, S., Malahubban, M., Hakim, A. H., & Stephen, J. 2025. Anthelmintic resistance in gastrointestinal nematodes of sheep and goats: A systematic review. *Journal of Advanced Veterinary Research*, 15(3), 397-405.

Sakti, A., Kustantinah, K., & Nurcahyo, R. 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.

Sakti, A., Nurcahyo, R., Baliarti, E., & Suwignyo, B. 2020. In vitro anthelmintic activity of kersen leaf (Muntingia calabura) infusion against to Haemonchus contortus worm. IOP Conference Series: Earth and Environmental Science,

Salehi, A., Razavi, M., & Vahedi Nouri, N. 2022. Seasonal prevalence of helminthic infections in the gastrointestinal tract of sheep in mazandaran province, northern Iran. *Journal of Parasitology Research*, 2022(1), 7392801.

Sambodo, P., Prastowo, J., Kurniasih, K., & Indarjulianto, S. 2018. In vitro potential anthelmintic activity of Biophytum petersianum on Haemonchus contortus. *Veterinary World*, 11(1), 1.

Sambodo, P., Prastowo, J., Kurniasih, K., Mubarokah, W., & Indarjulianto, S. 2020. In vivo efficacy of Biophytum petersianum on Haemonchus contortus in goats. *Adv. Anim. Vet. Sci*, 8(3), 238-244.

Sampul, M. B., Tulung, B., Umboh, J., & Moningkey, S. 2018. Pengaruh pemanfaatan daun ubi jalar (Ipomea batatas L) terhadap performans ternak kelinci. *ZOOTEC*, 38(2), 314-319.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
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Santos, F. O., Cerqueira, A. P. M., Branco, A., Batatinha, M. J. M., & Botura, M. B. 2019. Anthelmintic activity of plants against gastrointestinal nematodes of goats: a review. *Parasitology*, 146(10), 1233-1246.

Saputri, A. D. S., & Besthari, N. S. 2023. Penetapan Kadar Flavonoid Total Dari Fraksi-Fraksi Daun Insulin (*Smallathus sonchifolius*) Secara Spektrofotometri Uv-Vis. *Jurnal Ilmiah Farmasi Simplisia*, 3(1), 28-37.

Sargison, N. 2020. The critical importance of planned small ruminant livestock health and production in addressing global challenges surrounding food production and poverty alleviation. *New Zealand Veterinary Journal*, 68(3), 136-144.

Sarwanto, D., Tuswati, S. E., & Prayitno, C. H. 2024. The substitution of sweet potatoes (Ipomoea batatas) plant waste as indigenous forage replacement for goat feeding in the limestone mining area. *Livestock Research for Rural Development*, 36(3).

Sauermann, C. W., Leathwick, D. M., Lieffering, M., & Nielsen, M. K. 2020. Climate change is likely to increase the development rate of anthelmintic resistance in equine cyathostomins in New Zealand. *International Journal for Parasitology: Drugs and Drug Resistance*, 14, 73-79.

Seixas, L., Peripolli, V., Façanha, D. A. E., Fischer, V., Poli, C. H. E. C., Melo, C. B. d., Louvandini, H., & McManus, C. M. 2021. Physiological and hematological parameters of sheep reared in the tropics and subtropics. *Arquivo Brasileiro de Medicina Veterinária e Zootecnia*, 73, 622-630.

Selemon, M. 2018. Review on control of Haemonchus contortus in sheep and goat. *J Vet Med Res*, 5(5), 1139.

Singh, K., Maurya, P. S., Kumar, S., & Baghel, K. 2023. Anthelmintic resistance: recent trends in diagnosis and control strategy. *Journal of Experimental Zoology India*, 26(1).

Singh, R., Mehta, A., Mehta, P., & Shukla, K. 2011. Anthelmintic activity of rhizome extracts of Curcuma longa and Zingiber officinale (Zingiberaceae). *International Journal of Pharmacy and Pharmaceutical Sciences*, 3(2), 236-237.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Soares, A. M. d. S., Araújo, S. A. d., Lopes, S. G., & Costa Junior, L. M. 2015. Anthelmintic activity of Leucaena leucocephala protein extracts on Haemonchus contortus. *Revista Brasileira de Parasitologia Veterinária*, 24, 396-401.

Soldera-Silva, A., Seyfried, M., Campestrini, L. H., Zawadzki-Baggio, S. F., Minho, A. P., Molento, M. B., & Maurer, J. B. B. 2018. Assessment of anthelmintic activity and bio-guided chemical analysis of Persea americana seed extracts. *Veterinary parasitology*, 251, 34-43.

Srikanth, Kiran Kumar, V., Krishna Sai, K., Sunitha, M., Ramanjaneyulu, K., & Himabindhu, J. 2018. In vitro anthelmintic activity of ipomea aquatica. *Int J Curr Pharm Res*, 10(3), 52-54.

Srivastava, D., & Rauniyar, N. 2020. Medicinal plants of genus Ipomoea. *LAP Lambert Academic Publishing, Beau Bassin, Mauritius*.

Štrbac, F., & Stojanović, D. 2024. Anthelmintic resistance in gastrointestinal nematodes of sheep: Current situation and novel strategies. 26th International Congress of the Mediterranean Federation for Health and Production of Ruminants-FeMeSPRum,

Sudji, I. R., Subburaj, Y., Frenkel, N., García-Sáez, A. J., & Wink, M. 2015. Membrane disintegration caused by the steroid saponin digitonin is related to the presence of cholesterol. *Molecules*, 20(11), 20146-20160.

Suhendy, H., Fidrianny, I., & Insanu, M. 2023. Phytochemical compounds and pharmacological activities of Ipomoea batatas L.: An updated review. *Pharmacia*, 70, 1283-1294.

Sumihe, G., Runtuwene, M. R., & Rorong, J. A. 2014. Analisis fitokimia dan penentuan nilai LC50 ekstrak metanol daun liwas. *Jurnal Ilmiah Sains*, 125-128.

Sun, H., Mu, T., Xi, L., Zhang, M., & Chen, J. 2014. Sweet potato (Ipomoea batatas L.) leaves as nutritional and functional foods. *Food chemistry*, 156, 380-389.

Susanto, A., & Rahmawati, S. 2019. Uji skrining fitokimia ekstrak etanol daun ubi jalar ungu (Ipomoea batatas L). *ARTERI: Jurnal Ilmu Kesehatan*, 1(1), 1-7.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Syahputra, A., Rahmawati, N., & Setiado, H. 2017. Growth Response and Production Kind of Sweet Potato Varieties (Ipomoea batatas (L.) Lam) by giving Rice Straw Compost. *Jurnal Agroekoteknologi Universitas Sumatera Utara*, 5(1), 109072.

Tachack, E. B., Oviedo-Socarrás, T., Pastrana, M. O., Pérez-Cogollo, L. C., Benavides, Y. H., Pinto, C. R., & Garay, O. V. 2022. Status of gastrointestinal nematode infections and associated epidemiological factors in sheep from Córdoba, Colombia. *Tropical Animal Health and Production*, 54(3), 171.

Tak, I.-u.-R., Chishti, M., & Ahmad, F. 2015. Protein profiling of Haemonchus contortus found in sheep of Kashmir valley. *Journal of Parasitic Diseases*, 39(4), 639-644.

Tariq, A., Sadia, S., Pan, K., Ullah, I., Mussarat, S., Sun, F., Abiodun, O. O., Batbaatar, A., Li, Z., & Song, D. 2017. A systematic review on ethnomedicines of anti-cancer plants. *Phytotherapy Research*, 31(2), 202-264.

Tchetan, E., Olounladé, P. A., Azando, E. V. B., Khaliq, H. A., Ortiz, S., Houngbeme, A., Alowanou, G. G., Koura, B. I., Akouedegni, G. C., Houinato, M. R. B., Hounzangbe-Adote, S. M., Gbaguidi, F. A., & Quetin-Leclercq, J. 2022. Anthelmintic Activity, Cytotoxicity, and Phytochemical Screening of Plants Used to Treat Digestive Parasitosis of Small Ruminants in Benin (West Africa). *Animals*, 12(19), 2718. doi: 10.3390/ani12192718

Toklo, P. M., Yayi Ladekan, E., Linden, A., Hounzangbe-Adote, S., Kouam, S. F., & Gbenou, J. D. 2021. Anthelmintic flavonoids and other compounds from *Combretum glutinosum* Perr. ex DC (Combretaceae) leaves. *Acta Crystallographica Section C Structural Chemistry*, 77(9), 505-512. doi: 10.1107/S2053229621007841

Vande Velde, F., Charlier, J., & Claerebout, E. 2018. Farmer behavior and gastrointestinal nematodes in ruminant livestock—uptake of sustainable control approaches. *Frontiers in Veterinary Science*, 5, 255.

Veerakumari, L. 2015. Botanical anthelmintics. *Asian J Sci Technol*, 6, 1881-1894.

Vidar, W. S., Baumeister, T. U., Caesar, L. K., Kellogg, J. J., Todd, D. A., Linington, R. G., M. Kvalheim, O., & Cech, N. B. 2023. Interaction metabolomics to discover

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

synergists in natural product mixtures. *Journal of natural products*, 86(4), 655-671.

Wang, Y., & Zhang, X. 2023. Gastroduodenal strongyloidiasis infection causing protein-losing enteropathy: A case report and review of the literature. *Heliyon*, 9(7), e18094.

Widiarso, Nurcahyo, W., Kurniasih, K., & Prastowo, J. 2020. The ultrastructure changes of Haemonchus contortus exposed to bamboo leaves (Gigantochloa apus) aqueous extract under in vitro condition. *Biodiversitas Journal of Biological Diversity*, 22(1). doi: 10.13057/biodiv/d220101

Widiyono, I., Putro, P. P., Sarmin, S., Astuti, P., & Airin, C. 2011. Serum estradiol and progesterone concentration, vulval appearance, and exfoliative vaginal cytology during estrous cycle in bligon goats.

Wijayanti, D., & Ardigurnita, F. 2020. Kualitas tampilan vulva dan tanda-tanda berahi pada kambing peranakan etawah yang diberi ekstrak buah parijoto (Medinilla speciosa). *Sains Peternakan: Jurnal Penelitian Ilmu Peternakan*, 18(1), 31-37.

Williams, E. G., Brophy, P. M., Williams, H. W., Davies, N., & Jones, R. A. 2021. Gastrointestinal nematode control practices in ewes: identification of factors associated with application of control methods known to influence anthelmintic resistance development. *Veterinary Parasitology: Regional Studies and Reports*, 24, 100562.

Wirawan, I. G. K. O., & Nurcahyo, W. 2017. Daya Larvasida Ekstrak Daun Muda Kedondong Hutan Terhadap Haemonchus contortus Secara In-vitro. *Jurnal Veteriner Juni*, 18(2), 283-288.

Worku, E., Kiros, A., Asgedom, H., & Tadesse, B. 2017. Alternative control methods of gastrointestinal nematode infections in small ruminants: biological method and use of medicinal plant extracts. *ARC J. Anim. Vet. Sci*, 3, 11-28.

Wu, C., Feng, K., Lu, D., Yan, D., Han, T., & Zhao, B. 2016. Reproductive toxicities caused by Swainsonine from locoweed in mice. *BioMed research international*, 2016(1), 6824374.

Yacout, M., Khayyal, A., Shwerab, A., & Khalel, M. 2016. Introduce sweet potato vines as good roughage for small ruminants. *EC Veterinary Science*, 2, 184-204.

UNIVERSITAS GADJAH MADA
Kajian Daun Ubi Jalar (Ipomoea batatas L.) sebagai Zat Antelmintika Cacing Haemonchus contortus pada Domba
Pramu, Prof. Dr. drh. R Wisnu Nurcahyo; Prof. Dr. drh. Joko Prastowo, M.Si.; Prof. Dr. drh. Irkham Widiyono
Universitas Gadjah Mada, 2025 | Diunduh dari http://etd.repository.ugm.ac.id/

Yanuartono, Y., Indarjulianto, S., Nururrozi, A., Raharjo, S., & Purnamaningsih, H. 2019. Resistensi Cacing Nematoda Gastrointestinal Terhadap Golongan Macrocyclic Lactone pada Ternak Ruminansia. *TERNAK TROPIKA Journal of Tropical Animal Production*, 20(2), 84-99. doi: 10.21776/ub.jtapro.2019.020.02.1

Yoshihara, E., Minho, A. P., Tabacow, V. B. D., Cardim, S. T., & Yamamura, M. H. 2015. Ultrastructural changes in the Haemonchus contortus cuticle exposed to Acacia mearnsii extract. *Semina: Ciências Agrárias*, 36(6), 3763. doi: 10.5433/1679-0359.2015v36n6p3763

Zabré, G., Kaboré, A., Bayala, B., Katiki, L. M., Costa-Júnior, L. M., Tamboura, H. H., Belem, A. M., Abdalla, A. L., Niderkorn, V., & Hoste, H. 2017. Comparison of the in vitro anthelmintic effects of Acacia nilotica and Acacia raddiana. *Parasite*, 24, 44. doi: 10.1051/parasite/2017044

Zangueu, C. B., Olounlade, A. P., Ossokomack, M., Djouatsa, Y. N. N., Alowanou, G. G., Azebaze, A. G. B., Llorent-Martínez, E. J., de Córdova, M. L. F., Dongmo, A. B., & Hounzangbe-Adote, M. S. 2018. In vitro effects of aqueous extract from Maytenus senegalensis (Lam.) Exell stem bark on egg hatching, larval migration and adult worms of Haemonchus contortus. *BMC veterinary research*, 14(1), 147.

Zenebe, S., Feyera, T., & Assefa, S. 2017. In vitro anthelmintic activity of crude extracts of aerial parts of Cissus quadrangularis L. and leaves of Schinus molle L. against Haemonchus contortus. *BioMed research international*, 2017(1), 1905987.

Zhang, Q.-p., Wang, J., & Wang, Q. 2021. Effects of abiotic factors on plant diversity and species distribution of alpine meadow plants. *Ecological Informatics*, 61, 101210. doi: 10.1016/j.ecoinf.2021.101210

Zheng, Y., Young, N. D., Wang, T., Chang, B. C., Song, J., & Gasser, R. B. 2025. Systems biology of Haemonchus contortus–Advancing biotechnology for parasitic nematode control. *Biotechnology Advances*, 108567.

Zhong, R., Sun, H., Liu, H., & Zhou, D. 2014. Effects of tannic acid on H aemonchus contortus larvae viability and immune responses of sheep white blood cells in vitro. *Parasite Immunology*, 36(2), 100-106.