Staff Handbook

Name	*Ir. Muhlisin, S.Pt., M.Agri., Ph.D., IPP.*		
Post	*Meat Enzymes and Biochemistry.*		
Academic career	*Professional Engineering (IPM)*	*Universitas Gadjah Mada*	*2018*
	Doctorate	*Kangwon National University I South Kores*	*2015*
	Graduate degree	*Kangwon National University I South Kores*	*2011*
	Undergraduate degree	*Universitas Gadjah Mada*	*2008*
Employment	*Associate Professor*	*Universitas Gadjah Mada*	*2018- present*
	Assistant Professor	*Universitas Gadjah Mada*	*2014-2018*
Research and development projects over the last 5 years	*Research projects:* 1. *Natural Bioactive Plant-Based Feed Supplement Technology for Environmentally Friendly Livestock Development (Green Livestock) (2020)* *Source of Funds: PTUPT, PTNBH-Kemenristekdikti* 2. *Efforts to Improve the Quality of Local Goat Fatty Meat: In Vitro Study of the Effect of Addition of Nutmeg Extract (Myristica Fragans) as a Source of Secondary Metabolite Compounds on Fermentation Characteristics, Microorganisms and Ruminant Digestive Fatty Acid Profile (2020)* *Source of Funds: Final Project Recognition, UGM* 3. *Feed Supplement Products (Multi-Functional Feed Additive) to Increase Reproductive Productivity and Quality of Livestock Products (2020)* *Source of Funds: National Research Priority, Kemenristekdikti* 4. *The Effect of Addition of Mixture Lactic Acid Bacteria in a Feed High in Unsaturated Fatty Acids on the Morphology and Diversity of Gastrointestinal Bacteria, as well as the Fatty Acid Content of Blood, Liver, and Broiler Chicken Meat (2020)* *Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* 5. *Marmelosin in Maja Fruit (Aegle marmelos) as an Effort for Mitigation of Ammonia Pollution and Flies in Laying Hens Excreta in the Tropics (2019)* *Source of Funds: Excellent Basic Research for Higher Education, Ristekdikti* 6. *Estimation of Rumen Microbial Protein Synthesis Based on Excretion of Purine Derivatives in Urine by Spot Sampling Method in Merino Sheep (2019)*		

	Source of Funds: Excellent Basic Research for Higher Education, Ristekdikti 7. *Natural Bioactive Plant-Based Feed Supplement Technology for Environmentally Friendly Livestock Development (Green Livestock) (2019)* *Source of Funds: Leading University Applied Research, Ristekdikti* 8. *Study of Natural Bioactive Compounds from Nutmeg (Myristica fragrance) Fruit, Seeds and Leaves and Their Applications in Improving Feed Quality and Livestock Productivity (2019)* *Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* 9. *Effect of Addition of Beetroot Flour (Beta vulgaris L.) on the Quality of Rabbit Meat Patty During Storage (2019)* *Source of Funds: Faculty of Animal Science Universitas Gadjah Mada Postgraduate Research Grants* 10. *Estimation of Rumen Microbial Protein Synthesis Based on Excretion of Purine Derivatives in Urine by Spot Sampling Method in Merino Sheep (2018)* *Source of Funds: PDUPT, Ristekdikti* 11. *Natural Bioactive Plant-Based Feed Supplement Technology for Development of Environmentally Friendly Livestock (Green Livestock) (2018)* *Source of Funds: PTUPT, Ristekdikti* 12. *Prospects of Grass Seed Development to Provide Forage Seeds for Livestock in Indonesia (Third Year) (2018)* *Source of Funds: PTUPT, Ristekdikti* 13. *Block Fermentation Protein Engineering as Feed Additive (2018)* *Source of Funds: Prospective Technology-Based Start-up Company, CPPBT Ristekdikti* 14. *Study of the Potential of Marmelosin Bioactive Compounds in Maja Fruit (Aegle Marmelos) as an Effort to Mitigate Ammonia and Flies Pollution in Laying Chicken Excreta in the Tropics (2018)* *Source of Funds: PDUPT, Ristekdikti* 15. *Study of Natural Bioactive Compounds from Black Cumin Cake (Nigella sativa L.) and Its Application in Feed for Environmentally Friendly Livestock Development (Green Livestock) (2018)* *Source of Funds: ory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* 16. *Estimation of Rumen Microbial Protein Synthesis Based on Excretion of Purine Derivatives in Urine by Spot Sampling Method in Merino Sheep (Year 1) (Member of 3 Researchers) (2017)*

	Source of Funds: Fundamental Research, DIKTI 17. *Prospects of Grass Seed Development to Provide Forage Seeds for Animal Feed in Indonesia (Second Year) (Member of 3 Researchers) (2017)* *Source of Funds: PUPT, DIKTI* 18. *Plant Secondary Metabolites as Feed Additives: Effect of Patchouli Essential Oil (Pogostemon cablin Benth.) in In Vitro Rumen Fermentation (Member of 6 Researchers) (2017)* *Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* 19. *Role of Secondary Metabolites in Livestock: Effect of Subpages: Feed Implementation with Nutmeg (Myristica fragrant) Essential Oil as a Source of Antioxidants on Goat Meat Quality (Leader of 7 Researchers) (2016)* *Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* *Community Service over the last 5 years* 1. *Sheep Village: Development of a Sheep Farming Center to Improve the Economy of the Kadilanggon Village Community, Wedi District, Klaten Regency (2020)* *Source of Funds: Kadilanggon Village Government, Wedi, Klaten* 2. *Community Service Based on Fostered Village Development in Balak Hamlet, Pendoworejo Village, Girimulyo District, Kulonprogo Regency (2020)* *Source of Funds: Indonesian Association of Biochemistry and Molecular Biology* 3. *Community Service Through Cultivation of Umbaran Layers to Produce Functional Eggs at the Irsyadul Anam Islamic Boarding School, Kiyudan, Selomartani, Kalasan, Sleman, Yogyakarta (2020)* *Source of Funds: PT Widodo Makmur Unggas and Laboratory Nutritional Biochemistry Faculty of Animal Science Universitas Gadjah Mada.* 4. *Community Service Through Cultivation of Umbaran Layers to Produce Functional Eggs in the Dasawisma Women's Association of Dewi Sari, Buyutan, Gadingsari, Sanden, Bantul, Yogyakarta (2020)* *Source of Funds: PT Widodo Makmur Unggas and Laboratory Nutritional Biochemistry Faculty of Animal Science Universitas Gadjah Mada* 5. *Community Service Through Cultivation of Umbaran Layers to Produce Functional Eggs at IS ASWAJA Islamic Boarding School Lintang Songo, Pagergunung Hamlet, Piyungan, Bantul, Yogyakarta (2020)*

	Source of Funds: PT Widodo Makmur Unggas and Laboratory Nutritional Biochemistry Faculty of Animal Science Universitas Gadjah Mada 6. *Development of Environmentally Friendly Livestock Using Feed Supplement Technology Based on Natural Bioactive Tropical Plants in the Ayo Angon Livestock Group, Buyutan Hamlet, Ngalang Village, Gedangsari District, Gunung Kidul Regency (2020)* *Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* 7. *Amazing Livestock Microbes (2020)* *Source of Funds: Faculty of Animal Science Universitas Gadjah Mada* 8. *Livestock Chat Resource Person with the theme "Poultry Industry Overview-Feed Technology to Improve Poultry Gastrointestinal Performance" (2020)* *Source of Funds: Source of Funds: Faculty of Animal Science Universitas Gadjah Mada* 9. *The Prospect of Fat Bypass in Animal Production (2020)* *Source of Funds: Faculty of Animal Science Universitas Gadjah Mada* 10. *PKM at Banyusoco Playen Gunung Kidul (2019)* *Source of Funds: PKM Ristekdikti* 11. *Extension on Total Mixture Ration (TMR) Based on Fermentation and Institutional Empowerment of Livestock Plasma-Core (2019)* *Source of Funds: Faculty of Animal Science, Universitas Gadjah Mada* 12. *Application of the Mendo Makmur Livestock Farmer Group Integrated Livestock System in the Sleman Region of Yogyakarta (2019)* *Source of Funds: Faculty of Animal Science, Universitas Gadjah Mada* 13. *Free Lecture Speaker: Farmers, We Serve "Quality Animal Feed" (2019)* *Source of Funds: Faculty of Animal Science, Universitas Gadjah Mada* 14. *PKM Livestock Group Based on Natural Methane Reducing (NMR) in Banyusoco Village, Playen District, Gunung Kidul Regency (2018)* *Source of Funds: Community Service Grants for Development of Fostered Villages, Universitas Gadjah Mada* 15. *Development of Self-reliance in Karangkobar Village, Karangkobar District, Banjarnegara Regency from the Livestock Side in Facing Landslide Disasters: Preparation of Disaster Response Farmers Group (2018)* *Source of Funds: Assisted Village Grants, BPPTN BH* 16. *Application of Super Block fermented protein as a feed supplement to improve the performance of dairy cattle in Kopersi Smesta (Sejahtera*

	Merapi Cattle) (2018) *Source of Funds: TTG Grant, Ristekdikti* 17. *Application of Forage Fermentation Technology as a Solution for Fulfilling Animal Feed Needs in Peri-Urban Areas at Irsyadul Anam Islamic Boarding School, Kiyudan, Selomartani, Kalasan, Sleman, Yogyakarta (2018)* *Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* 18. *Building Green Livestock Development Free of Pollutants: Dissemination of Feed Material Sources for Methane Reducing Agents in the Gama Ngudi Lestari Farmer Women's Group, Banyusuco Village, Gunung Kidul (2017)* *Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* 19. *Introduction of Forage Preservation Methods with Application of Fermentation Technology Based on Local Feed Sources to the Ruminant Livestock Group Association of Triharjo Village, Pandak, Bantul (Leader of Researchers) (2016)* *Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada* 20. *Application of Forage Fermentation Technology as an Effort to Fulfill Feed Needs by Utilizing the Potential of Local Agricultural Waste in the Goat Farmer Group Anom Sari, Murtigading, Sanden, Bantul (Leader of Researchers) (2016)* *Source of Funds: BPPTNBH (Funding Assistance for PTN BH), Appropriate Technology Grants LPAGES: M UGM*
Industry collaborations over the last 5 years	1. *Project title: Education, Research, and Community Service* *Partners: PT Trouw Nutrition Indonesia*
Patents and proprietary rights	-
Important publications over the last 5 years	*Total number of publications: 27* 1. *The Effect of Protected Lemuru Fish Oil Supplementation on In Vivo Nutrient Digestibility and Sheep Blood Profile (Ratri Ratna Dewi*, Kustantinah, **Muhlisin**) (2022)* *Publisher: Buletin Peternakan 46 (1): 1 -6, February 2022 ISSN-0126-4400/E-ISSN-2407-876X* 2. *Lactic Acid Bacterial Fermentation Feed as Basal Ration: Addition Effect of Protein and Carbohydrate Protection on Rumen Fermentation of Bligon Goat (Moh. Ikmal Khoirozzadit Taqwa, Zaenal Bachruddin, Lies Mira Yusiati, Nafiatul Umami, **Muhlisin Muhlisin**)* *Publisher: Advances in Biological Sciences Research, Volume 18*

	Proceedings of the 9th International Seminar on Tropical Animal Production (ISTAP 2021) 3. *The Effects of NaOH Treatment and Drying Method of the Protected Lemuru Fish Oil on in Vitro Fermentation Gas Production (Dewi, R.R., Kustantinah, **Muhlisin**) (2021)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2021, 686(1), 012041* 4. *The effects of catfish oil supplementation as the unsaturated fatty acid source on Bali cow gas production kinetics, dry matter digestibility, and organic matter digestibility in vitro (Cahyo, D.N., Yusiati, L.M., Kurniawati, A., Hanim, C., **Muhlisin**) (2021)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2021, 637(1), 012058* 5. *The effect of sludge dairy cattle and expired milk powder waste as growth media for white oyster mushroom (Pleurotus Florida) (Sirajuddin, M.M., **Muhlisin**, Pertiwiningrum, A.)(2021)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2021, 637(1), 012047* 6. *The evaluation bypasses energy based on in vitro gas production digestibility and palatability (Dewi, R.R., **Muhlisin, Kustantinah**) (2021)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2021, 667(1), 012011* 7. *Review: The Effect of Protected Lemuru Fish Oil in Total Mixed Ration of Thin-Tailed Sheep (Dewi, R.R., Kustantinah, **Muhlisin**) (2021)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2021, 662(1), 012027* 8. *Effect of purple sweet potato levels (Ipomoea batatas L.) carbohydrate sources on fermentation kinetics and lactic acid production by Lactobacillus paracasei (Tasminto, D., Bachruddin, Z., Kurniawati, A., **Muhlisin**) (2021)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2021, 686(1), 012048* 9. *The potential of Biogas Sludge Dairy Cattle with Fortification of Expired Milk Powder Waste and Eggshell as a Planting Media of White Oyster Mushroom (Pleurotus Florida) on Mycelium Growth (Sirajuddin, M.M., **Muhlisin**, Pertiwiningrum, A.) (2021)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2021, 686(1), 012060* 10. *The Estimation of Metabolizable Energy Using an Analysis of Ruminal Fermented Gas Production in Protected Lemuru Fish Oil (Kustantinah, Dewi, R.R., **Muhlisin**) (2021)*

	Publisher: IOP Conference Series: Earth and Environmental Science, 2021, 686(1), 012042 11. *Methane Production and Methanogens Diversity in Vitro Ruminal Fermentation with Mahogany Leaves Meal (Swietenia mahagoni) as Tannin Source (Hasanah, C., Kurniawati, A., Yusiati, L.M., Muhlisin, Bachruddin, Z.) (2020)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2020, 478(1), 012089* 12. *The effect of turmeric (Curcuma longa L.) powder addition as nata oral antibiotic on the quality of milk replacer for lamb during storage (Devi, H., Bachruddin, Z., Hanim, C., **Muhlisin**) (2020)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2020, 462(1), 012009* 13. *Antibacterial Activity of Maja Fruit Extract Against Escherichia coli and Its Potential as Urease Inhibitor for Reducing Ammonia Emission in Poultry Excreta (Fitriyanto, N.A., Lewa, N., Prasetyo, R.A., Kurniawati, A., Erwanto, Y., Bachruddin, Z., **Muhlisin**, Wihandoyo) (2020)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2020, 465(1), 012006* 14. *In vitro gas production kinetics as influenced by the combination of Leucaenaleucocephala, Swietenia mahagoni, and Artocarpus heterophyllus as a tannin source (Aanas, M., **Muhlisin**, Bachruddin, Z., Yusiati, L.M.) (2020)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2020, 465(1), 012036* 15. *Maja Fruit Extracts Inhibit Escherichia coli, Reduce Fly Larvae Population, and Ammonia Emission of Chicken Excreta (Bangkit Lutfiaji S, Yuny Erwanto, Wihandoyo, **Muhlisin**, Ragil Adi Prasetyo, Novita Kurniawati, Nanung Agus Fitriyanto) (2020)* *Publisher: Tropical Animal Science Journal, Volume 43(4), 2020: 369-376. ISSN: 2615-790X, 2615-787X http://journal.ipb.ac.id/index.php/tasj/article/view/29975/20790.* 16. *Evaluation of rumen microbial nitrogen supply in Batur sheep fed different ratios of concentrate-forage diets (Hanim, C., Yusiati, L.M., **Muhlisin**) (2019)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2019, 387(1), 012104* 17. *Effect of Leucaena leucocephala substitution on in vitro rumen fermentation and methane emission in thin tailed-sheep (**Muhlisin**, Yusiati, L.M., Hanim, C., Anas, M.A., Muktiari, B.N.) (2019)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2019, 387(1), 012124* 18. *Estimation of rumen microbial nitrogen supply using urinary purine*

	*derivatives excretion in merino sheep fed by peanut straw (Hanim C., Yusiati L.M., **Muhlisin**) (2018)* *Publisher: Proceedings of the 10th International Symposium on the Nutrition of Herbivores (ISNH 2018), Volume 9, Issue 3, ISSN: 2040-4700. 2-6 September 2018, Clermont-Ferrand, France, pp 401. https://symposium.inra.fr/isnh2018. Penerbit: Cambridge University Press* 19. *Effect of Dietary Nutmeg Oil Supplementation on Meat Characteristics of Indonesian Ettawah Crossbred Goat (**Muhlisin**) (2018)* *Publisher: Presented at the 32nd Biennial Conference of the Australian Society of Animal Production, New South Wales, Australia* 20. *Nutrient Intake and Digestibility in Merino Sheep Fed Peanut Straw (Hanim, C., **Muhlisin, M**.) (2018)* *Publisher: IOP Conference Series: Earth and Environmental Science, 2018, 119(1), 012005* 21. *Calliandra calothyrsus as Tannins Source for In Vitro Methane Production Inhibitor Agents (2017)* *Publisher: The 7th International Seminar on Tropical Animal Production (ISTAP), September 12-14, 2017, Yogyakarta, Indonesia. Pages: 133-136. ISBN: 978-979-1215-29-9* 22. *Nutrient Intake and Digestibility in Merino Fed Peanut Straw (2017)* *Publisher: International Ruminant Seminar, Universitas Diponegoro, Semarang, Indonesia, 24 October 2017* 23. *Potensi dan Produksi Hijauan Pakan Ternak di Lahan Pertanian Banyusoco Playen Gunung Kidul (Penulis ke-9 dari 9) (2016)* *Publisher: Prosiding Simposium Nasional Penelitian dan Pengembangan Peternakan Tropik Tahun 2016. Fakultas Peternakan Universitas Gadjah Mada, Yogyakarta. ISBN: 978-979-1215-28-2, hal: 82-93* 24. *The Effects of Coconut Meat waste as Feed Alternative in Sheep Ration on Cholesterol Content and Meat Quality (Penulis ke-1 dari 4) (2016)* *Publisher: Proceeding of the 17th AAAP Congress, Fukuoka, Japan* 25. *Digestibility of peanut straw and concentrate with addition of vitamin E in Female Bligon Goat (Penulis ke-4 dari 4) (2016)* *Publisher: Proceedings of the 1st UGM International Conference on Tropical Agriculture (ICTA), 25-26 October, 2016. Yogyakarta, Indonesia* 26. *Effects of Direct-fed Microbial and Pine Cone Extract on Carcass Traits and Meat Quality of Hanwoo (2016)* *Publisher: Asian-Australasian Journal of Animal Science, Vol. 29, No. 5, pages: 695-701.*

	27. *Antioxidant Enzyme Activity, Iron Content and Lipid Oxidation of Raw and Cooked Meat of Korean Native Chickens and Other Poultry. (2016)* *Publisher: Asian-Australasian Journal of Animal Science, Vol. 29, No. 5, pages:722-730*
Activities in specialist bodies over the last 5 years	-