

## Staff Handbook

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| Name  | <i>Prof. Ir. Ismaya, M.Sc., Ph.D.</i>  |   |                     |
| Post  | <i>Livestock Reproduction</i>  |   |                     |
| Academic career   | <i>Professor (Prof)</i>  | <i>Universitas Gadjah Mada</i>                  | <i>2007</i>         |
|   | <i>Doctorate</i>   | <i>James Cook University I<br/>Australia</i>    | <i>2003</i>         |
|   | <i>Graduate degree</i>   | <i>University Putra Malaysia I<br/>Malaysia</i> | <i>1987</i>         |
|   | <i>Undergraduate degree</i>  | <i>Universitas Gadjah Mada</i>                  | <i>1979</i>         |
| Employment  | <i>Professor</i>   | <i>Universitas Gadjah Mada</i>                  | <i>2007-present</i> |
|   | <i>Associate Professor</i>   | <i>Universitas Gadjah Mada</i>                  | <i>2001-2007</i>    |
|   | <i>Assistant Professor</i>   | <i>Universitas Gadjah Mada</i>                  | <i>1992-2001</i>    |
| Research and development projects over the last 5 years | <p><i>Research project:</i></p> <ol style="list-style-type: none"> <li>1. <i>Evaluation of Blood Metabolites and Estrogen in Lactation Dairy Cattle with Energy and Protein Supplementation (2020)</i><br/><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></li> <li>2. <i>DNA Integrity Test of Post thawing Spermatozoa from Frozen Semen Sexing and Unsexing of Exotic Cows (2019)</i><br/><i>Source of Funds: Research by Young Lecturers, Universitas Gadjah Mada</i></li> <li>3. <i>Local Estrus Response With Controlled Internal Drug Release Intravaginal Treatment and Prostaglandin Hormone (2019)</i><br/><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></li> <li>4. <i>Engineering Sheep Sperm Freezing Techniques (Ovis aries) With the Help of a Micro Controller (2018)</i><br/><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></li> <li>5. <i>Natural Bioactives as Feed Additive for Animal Feed: Production and Extraction of Natural Bioactives as Feed Additive for Sheep Animal Feed (Member of 5 Researchers) (2017)</i><br/><i>Source of Funds: PUPT, DIKTI</i></li> <li>6. <i>Increasing Turkey Livestock Productivity: The Effect of Male and Female Balance on Mating Behavior, Fertility and Egg Hatching (Year I) (Leader of 5 Researchers) (2017)</i><br/><i>Source of Funds: PUPT, DIKTI</i></li> <li>7. <i>Utilization of Moist Ratio Based on Lactic Acid Bacterial Fermentation in Ruminant Livestock Development (Member of 7 Researchers) (2017)</i></li> </ol> |   |                     |

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|  | <p><i>Source of Funds: Prospective Technology-Based Startup Company (CPPBT)</i></p> <p>8. <i>Biochemical Profile of Beef Cattle Blood Experiencing Interbreeding (Member of 3 Researchers) (2017)</i></p> <p><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></p> <p>9. <i>Effect of Ethanol and Tween 80 as Vitamin E Solvents in Andromeda Diluents in the Production of Fat-tailed Sheep Frozen Semen (Member of 5 Researchers) (2017)</i></p> <p><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></p> <p>10. <i>Total Silage Concentrate Mixture (STCK) Based by Food Industry Products: STCK Engineering and Its Application to the Performance of Goats, Parent and Fattening Goats Bligon Bligon (Member of 3 Researchers) (2016)</i></p> <p><i>Source of Funds: HIKOM DIKTI</i></p> <p>11. <i>Improving Turkey Livestock Productivity: The Effect of Male and Female Balance on Mating Behavior, Fertility and Egg Hatchability (Leader of 2 Researchers) (2016)</i></p> <p><i>Source of Funds: PMDSU DIKTI</i></p> <p>12. <i>The Effect of Male and Female Turkey Balance in the Mating System on Egg Fertility (Leader of 4 Researchers) (2016)</i></p> <p><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></p> <p><i>Community Service over the last 5 years</i></p> <p>1. <i>Assistance and Improvement of Feed Management during the Transition Period to Improve Reproductive Performance of Dairy Cattle in the Ploso Kerep Dairy Cattle Group, Cangkringan, Sleman (2020)</i></p> <p><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></p> <p>2. <i>Improving Livestock Reproductive Performance Through Improving Feed Quality in the Sidomukti Sheep Group, Murangan, Triharjo, Sleman (2019)</i></p> <p><i>Source of Funds: Faculty of Animal Science, Universitas Gadjah Mada</i></p> <p>3. <i>Strengthening PE Goat Farmer Groups through Improvement of Reproductive Recording and Introduction of Estrus Detection (2018)</i></p> <p><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></p> <p>4. <i>Plot Demonstration of Mating Management and Feed Engineering on Ruminant Cattle to Produce Healthy and Twins in Duwet Rejo, Karang Tengah Village, Gunung Kidul (2017)</i></p> |
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|   | <p><i>Source of Funds: TTG BOPTN</i></p> <p>5. <i>Strengthening of Dairy Farmers Groups through Improvement of Reproductive Records (2017)</i></p> <p><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></p> <p>6. <i>Improving Goat Reproductivity in Taruna Al Quran Islamic Boarding School Jogjakarta (2016)</i></p> <p><i>Source of Funds: Laboratory Thematic Research Grants, Faculty of Animal Science Universitas Gadjah Mada</i></p> <p>7. <i>Increasing Goat Productivity and Reproductivity at Taruna Al Quran Islamic Boarding School (PPTA) Sleman, Yogyakarta (2016)</i></p> <p><i>Source of Funds: IbM (Science and Technology for the Community), DIKTI</i></p>  |
| Industry collaborations over the last 5 years | -   |
| Patents and proprietary rights                | -   |
| Important publications over the last 5 years  | <p><i>Total number of publications: 35</i></p> <p>1. <i>Nitrogen Supplementary Feeding with Energy Sources Concentrated in Ettawa Crossbreed Does (Kustantinah, R N Khoirunnisa, Diah Tri Widayati, <b>Ismaya Ismaya</b>, Ristiano Utomo, Fajar Ajimukti Atmojo) (2021)</i></p> <p><i>Publisher: Advances in Biological Sciences Research, Volume 18 Proceedings of the 9th International Seminar on Tropical Animal Production (ISTAP 2021)</i></p> <p>2. <i>Storage Period of Liquid Semen Eligible for Insemination in Thin Tail Sheep Semen Diluted with Egg Yolk Citrate with the Addition of Noni (<i>Morinda citrifolia</i> Linn) Fruit Extract (Sigit Bintara, <b>Ismaya Ismaya</b>, Diah Tri Widayati, Riyan Nugroho Aji, Widya Asmarawati) (2021)</i></p> <p><i>Publisher: Advances in Biological Sciences Research, Volume 18 Proceedings of the 9th International Seminar on Tropical Animal Production (ISTAP 2021)</i></p> <p>3. <i>Effect of Different Bovine Serum Albumin (BSA) Levels on the Sperm Viability of Ongole Cross Bred Bull during 5°C Storage (Rachmawati, A., <b>Ismaya</b>, Widyobroto, B.P., Bintara, S., Susilawati, T.) (2020)</i></p> <p><i>Publisher: IOP Conference Series: Earth and Environmental Science, 2020, 478(1), 012068</i></p> <p>4. <i>The genotype of growth hormone gene that affects the birth weight and average daily gain in crossbred beef cattle (Hartatik, T., Fathoni, A., Bintara, S., <b>Ismaya</b>, Panjono, Widyobroto, B.P., Agus, A., Budisatria, I., Leroy, P.) (2020)</i></p> |

*Publisher: Biodiversitas, 2020, 21(3), pp. 941–945*

5. *Morphometry of Male Reproductive Organ and Sperm Evaluation of Belgian Blue Crossbred Cattle as a Candidate of Superior Bull (Riyan Nugroho Aji, Panjono, Ali Agus, Budi Prasetyo Widyobroto, Tety Hartatik, I Gede Suparta Budisatria, **Ismaya**, Akhmad Fathoni, Dwi Astuti, and Sigit Bintara) (2020)*

*Publisher: Buletin Peternakan 44 (4): 200-202, November 2020*

6. *Single Nucleotide Polymorphism of Sex Determining Region-Y Gene Coding Sequences in Belgian Blue Bull and Wagyu Bull Crossbred Cattle (Hartatik, T., Bintara, S., **Ismaya**, I., Panjono, P., Widyobroto, B.P., Agus, A., Budisatria, I.G.S., Leroy, P.) (2020)*

*Publisher: IOP Conference Series: Earth and Environmental Science, 2020, 478(1), 012020*

7. *The effect of 0.6 and 0.8% Bovine Serum Albumin (BSA) levels in the Cauda Epididymal Plasma-2 (CEP-2) diluent to maintain Ongole Crossbred post-Thawing motility sperm (Rachmawati, A., **Ismaya**, Widyobroto, B.P., Bintara, S., Susilawati, T.) (2019)*

*Publisher: IOP Conference Series: Earth and Environmental Science, 2019, 387(1), 012034*

8. *Fertility duration of commercial laying hen inseminated with native chicken semen (Asmarawati, W., Kustono, Widayati, D.T., Bintara, S., Aji, R.N., **Ismaya**) (2019)*

*Publisher: IOP Conference Series: Earth and Environmental Science, 2019, 387(1), 012063*

9. *Phenotypic characteristics of Belgian Blue x Brahman Cross and Wagyu x Brahman Cross crossbred population (Adi, L.L.N., Agus, A., Panjono, Widyobroto, B.P., Budisatria, I.G.S., **Ismaya**, Bintara, S., Hartatik, T.) (2019)*

*Publisher: IOP Conference Series: Earth and Environmental Science, 2019, 387(1), 012036*

10. *The effect of Andromed® and coconut water + 20% egg yolk as a diluent on semen motility of Belgian Blue cattle (Aji, R.N., Panjono, Agus, A., Widyobroto, B.P., Hartatik, T., Budisatria, I.G.S., **Ismaya**, Fathoni, A., Kumala, S., Bintara, S.) (2019)*

*Publisher: IOP Conference Series: Earth and Environmental Science, 2019, 387(1), 012127*

11. *Association of IGFBP-3 gene polymorphism g. 3.930 G>A with birth size and birth weight in crossbred beef cattle (Hartatik, T., Priyadi, D.A., Panjono, P., Bintara, S., **Ismaya**, I., Budisatria, I.G.S., Widyobroto, B.P., Agus, A.) (2019)*

*Publisher: Journal of the Indonesian Tropical Animal Agriculture, 2019, 44(4), pp. 356–363*

12. *The Effects of Different DMA Level on Sperm Quality of Bangkok*

*Chicken Offspring* (YLRE Nugraheni, **I. Ismaya**, S Harimurti) (2019)

Publisher: *Journal of Livestock Science and Production* 3 (1), 131-135

13. *Pre-Weaning Growth of Calves of Brahman Cross Cows Sired with Wagyu and Belgian Blue Bulls* (Panjono, A. Agus, T. Hartatik, S. Bintara, **I. Ismaya**, B.P. Widyobroto, I.G.S. Budisatria, D.A. Priyadi, P. Leroy and N. Antoine-Moussiaux) (2018)

Publisher: *Book of Abstracts of the 69th Annual Meeting of the European Federation of Animal Science, Dubrovnik, Croatia, 27-31 August 2018*. eISBN: 978-90-8686-871-1 | ISBN: 978-90-8686-323-5. <https://doi.org/10.3920/978-90-8686-871-1> Volume 24. Wageningen Academic Publishers. pp. 384

14. *Evaluation of Etawah Grade Doe Fertility Based on Milk Urea Nitrogen Levels* (Diah Tri Widayati, Diwari Ikasari, Sigit Bintara, **Ismaya** Natawihardja, Kustono o and Yustina Yuni Suranindyah) (2018)

Publisher: *International Journal of Dairy Science*. Vol. 12 No. 4 Page 295-300.

15. *Reproductive Efficiency on Beef Cow using Ongole Cross Bred Liquid Semen with CEP-2 Diluent +0.6% Bovine Serum Albumin (BSA)* (Rachmawati, A., **Ismaya**, Widyobroto, B.P., Bintara, S., Susilawati, T. & Anggraini, L.J.) (2018)

Publisher: *E-Proceedings 18th AAAP Congress 2018, 1-5 Aug. 2018, Kuching, Malaysia*. pp. 64

16. *Pengamatan Visual Vulva Dan Perubahan Behavior Sapi Estrus Pada Pemeliharaan Di Tingkat Peternak* (Endang Baliarti, Prabowo Priambodo, **Ismaya**, Agung Budiyanto, M. Danang Eko Yulianto) (2018)

Publisher: *Dipresentasikan di Seminar Nasional Teknologi dan Agribisnis Peternakan, UNSOED*

17. *Motilitas Post-Thawing Spermatozoa Sapi Peranakan Ongole dalam Pengencer Cauda Epididymal Plasma-2 Dengan Level Bovine Serum Albumin yang Berbeda* (Achadiyah Rachmawati, **Ismaya**, Budi Prasetyo Widyobroto, Sigit Bintara dan Trinil Susilawati) (2018)

Publisher: *Prosiding Simposium Nasional Penelitian dan Pengembangan Peternakan Tropik 2018 "Inovasi Teknologi Peternakan Menyongsong Era Industri 4.0"*. Fakultas Peternakan Universitas Gadjah Mada, Yogyakarta, 5 November 2018. Hal. 167-172. ISBN: 978-979-1215-33-6

18. *The Effect of Age on the Quality of Semen Turkeys (Meleagris gallopavo)* (Riyan Nugroho Aji, **Ismaya**, Sri Harimurti, Heru Sasongko, Sigit Bintara, Widya Asmarawati) (2018)

Publisher: *Buletin Peternakan* Vol. 42 No. 4, hal. 290-294, 2018. ISSN-0126-4400/E-ISSN-2407-876X.

<https://journal.ugm.ac.id/buletinpeternakan/article/view/31372/22950>

19. *Aplikasi Inseminasi Buatan pada Induk Sapi Potong Menggunakan Se-*

men Cair Sapi Peranakan Ongole dengan Pengencer Cauda Epididymal Plasma-2+ 0, 6% Bovine Serum Albumin (A Rachmawati, I Ismaya, BP Widyobroto, S Bintara, T Susilawati) (2018)

Publisher: Jurnal Ilmu-Ilmu Peternakan (Indonesian Journal of Animal Science) 28 (3): 247-258

20. Evaluation of Etawah Grade Die Fertility Based on Milk Urea Nitrogen Levels (2017)

Publisher: International Journal of Dairy Science Vol. 12 No 4, 2017. Pages: 295-300 eISSN: 1811-9751, pISSN: 1811-9743. DOI:10.3923/ijds.2017.295.300.

[URL:http://scialert.net/abstract/?doi=ijds.2017.295.300.](http://scialert.net/abstract/?doi=ijds.2017.295.300)

21. Estradiol Concentration and Estrous Behaviour in Tropical Heifers Supplemented with Undegradable Protein (2017)

Publisher: Journal of Animal and Veterinary Advances, 2017, Vol. 16,| Issue: 1. Page No.: 24-31. ISSN: 1680-5593. DOI: 10.3923/javaa.2017.24.31.

[URL:http://medwelljournals.com/abstract/?doi=javaa.2017.24.31.](http://medwelljournals.com/abstract/?doi=javaa.2017.24.31)

22. Effect of Different Levels of Dimethylacetamide (DMA) on Sperm Quality of Bangkok Rooster Chicken and Sperm Survivability in Reproductive Tract of Hen (2017)

Publisher: Pakistan Journal of Nutrition Vol. 16 (3): 144-147, 2017. ISSN: 1680-5194. DOI: 10.3923/pjn.2017.144.147

23. The effect of different bovine albumin serum in cauda epididymal plasma-2 diluter to Ongole filial sperm motility during chilling storage (2017)

Publisher: Program and Abstract Book of the Sixth SAADC Conference, Batu 16 – 19 October 2017“Wisdom of Using Local Resources for Development of Sustainable Animal Production in Developing Countries”. Batu City, Indonesia. Page: 128

24. The Effect of Bacteriocins Producing Mix culture of Lactic Acid Bacteria on Staphylococcus aureus and Escherichia coli Growth (2017)

Publisher: International Ruminant Seminar, Universitas Diponegoro, Semarang, Indonesia, 24 October 2017

25. Profile of progesterone hormone on Ongole grade cattle does after synchronization of estrus with implant controlled internal drug release (CIDR) on pregnancy rate (2017)

Publisher: The 2nd International Conference on Tropical Agriculture (ICTA), 2017. Program and Abstract Book. UGM, Yogyakarta, Indonesia, 26–27 October 201. Page: 126

26. The Effect of Bull (Bos indicus) and Extender Medium to Additional Antioxidant  $\alpha$ -tocopherol of Cryopreservation Sperm Post-Thawing to Minimize of Repeat Breeding (2017)

Publisher: Proceedings of The 2nd International Conference on Animal

*Nutrition and Environment (ANU-NUE2017). Volume II. Khon Kaen, Thailand, November 1-4, 2017 "Towards the Betterment of Animal Productivity, Conserving Resources and Environment" Pages: 312-318. ISBN: 978-616-438-084-4*

27. *The Proportion of X and Y Sperm, Viability and Motility of Ram Spermatozoa After Separated with White Egg Albumin (2017)*

*Publisher: Buletin Peternakan Vol. 41 (1) Februari 2017, hal. 1-7. DOI:<https://doi.org/10.21059/buletinpeternak.v41i1.9130>.*

*[URL:http://journal.ugm.ac.id/buletinpeternakan/pages/view/Publication%20Ethics%20and%20Malpractice%20Statement](http://journal.ugm.ac.id/buletinpeternakan/pages/view/Publication%20Ethics%20and%20Malpractice%20Statement).*

28. *Bioteknologi Inseminasi Buatan pada Sapi dan Kerbau (2017)*

*Publisher: Buku. Penerbit: Gadjah Mada University Press. 117 hal. . ISBN: 979-420-848-5. eISBN; 979-420-848-5.Cet. 2. 2017*

29. *Libido and Semen Quality of Bligon and Ettawa Cross-Bred Bucks (2016)*

*Publisher: IGA 2016 12th International Conference on Goats, Antalya, Turkey. 25-30 September 2016*

30. *In Vivo Sperm Capacitation in the Female Reproductive Tract of Merino Ewes (2016)*

*Publisher: 12th International Scientific Conference of Agricultural, Animal and Veterinary Research, United Arab Emirates. 10-11 September 2016*

31. *Effect of High Rumen Undegraded Protein (HRUP) Supplementation on Estrous Response and Progesterone Hormone Profile in Dairy Cows Raised under Indonesia Tropical Environmental Condition (Penulis ke-3 dari 3) (2016)*

*Publisher: Asian Journal of Animal Sciences Volume 10, Issue 3, 2016, Pages 1-7. ISSN: 1819-1878*

32. *The Impact of Balanced Energy and Protein Supplementation to Milk Production and Quality in Early Lactating Dairy Cows (Penulis ke-3 dari 5) (2016)*

*Publisher: Journal of the Indonesian Tropical Animal Agriculture Vol. 41(2):83-90. ISSN: 2460-6278*

33. *Impact of High Rumen Undegraded Protein (HRUP) Supplementation to Blood Urea Nitrogen and Reproduction Performance in Early Lactation Dairy Cows (Penulis ke-3 dari 3) (2016)*

*Publisher: International Journal of Dairy Science 11(1): 28-34*

34. *Identification of Reproductive Performance of Ettawa crossed Breed Goats on Different Body Condition Score Using Vaginal Smear (Penulis ke-4 dari 6) (2016)*

*Publisher: Proceedings of The 17th Asian-Australasian Association of Animal Production Societies Animal Science Congress, 22-25 August*

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|  | <p><i>2016, Fukuoka Japan</i></p> <p><i>35. The Effect of Level Vitamin E Addition in the Diet on Blood Profile of Bligon Goat (Penulis ke-2 dari 4) (2016)</i></p> <p><i>Publisher: Proceedings of the 1st UGM International Conference on Tropical Agriculture (ICTA), 25-26 October 2016. Yogyakarta, Indonesia</i></p> |
| <p>Activities in specialist bodies over the last 5 years</p> | -  |

