

DAFTAR PUSTAKA

- Abudabos, A.M., E.M. Samara, E.O.S. Hussein, and M.Q Al-Ghadi. 2013a. Impacts of stocking density on the performance and welfare of broiler chickens. *Ital. J. Anim. Sci.* 12(e11): 66 - 71.
- Abudabos, A.M., M.M. Abdelrahman, H.M. Yehia, M.Q. Al-Gadhi, and I.A. Alhidary. 2013b. Effect on intestinal histology and ileal bacterial count in broilers. *Asian J. Anim. Vet. Adv.* 8(5): 740 - 746.
- Abudabos, A.M., E. Samara, E.O.S. Hussein, R.M. Al-Atiyat and A. Al-Haidary. 2013c. Influence of stocking density on welfare Indices of broilers. *Ital. J. Anim. Sci.* 12(e35): 213 - 218.
- Adeyemo, G., O. Fashola, and T. Ademulegun. 2016. Effect of stocking density on the performance, carcass yield and meat composition of broiler chickens. *Br. Biotechnol. J.* 14(1): 1 - 7.
- Aliakbarpour, H.R., M. Chamani, G. Rahimi, A.A. Sadeghi, and D. Qujeq. 2012. The bacillus subtilis and lactic acid bacteria probiotics influences intestinal mucin gene expression, histomorphology and growth performance in broilers. *Anim. Sci. J.* 25 (9): 1285 - 1293.
- Alfaro, D.M., A.V.F. Silva, S.A. Borges, F.A. Maiorka, S. Vargas, and E. Santin. 2007. Use of yucca schidigera extract in broiler diets and its effects on performance results obtained with different coccidiosis control methods. *J. Appl. Poult. Res.* 16: 248 - 254.
- Ali, M.I., S.A. Azmal, A. Ali and M.O. Faruque. 2012. Effect of density and flock size on growth performance of native chicken. *J. Bangladesh Agril.* 10 (1): 55 - 59.
- Al-Homidan I.H. and J. F. Robertson. 2003. Effect of litter type and stocking density on ammonia, dust concentrations and broiler performance. *Br. Poult. Sci.* 44:S7-S8.
- Alimon, A.R., Wihandoyo, and H. Kasim. 2005. Control of Ammonia Emission and House Fly Population in Poultr Houses : 2. Effect of Dietary Zeolite and Direct Application to Chicken Manure. *Malays. J. Anim. Sci.* 10(1): 82-89.
- Anonim. 2018. *Statistik Peternakan dan Kesehatan Hewan 2018*. Direktorat Peternakan dan Kesehatan Hewan. Kementerian Pertanian, Republik Indonesia. Jakarta.
- Anonymous. 2007. Council directive 2007/43/EC of 28 June 2007 laying down minimum rules for the protection of chickens kept for meat production. *Official Journal of the European Union.* 182: 119 - 128.
- Anonymous. 2018. *Philippine National Standard Free range chicken*. Bureau Of Agriculture and Fishries Standards. Departement of Agriculture Philippines. Quezon City.
- Appleby, M.C., J.A. Mench, and B.O. Hughes. 2004. *Poultry Behavior and Welfare*. Cabi Production. USA.
- AOAC. 2005. *Official Methods of Analysis*. Association of Official Analytical Chemists. Benjamin Franklin Station, Washington.

- Astuti, P., B. Al Fajar., M. Mauludin., A. Hana., C. Mona-Airin., S. Sarmin and S. Harimurti. 2015. Corticosterone levels, heterophil/lymphocyte ratios and growth rates in Lohmann Indian river chickens raised under monochromatic blue light. *Int. J. Poult. Sci.* 14(12): 639 - 643.
- Atapattu, M.S and K.P. Wikramasinghe. 2007. The use refused tea as litter material for broiler chickens. *Poult. Sci.* 86(5): 968 - 972.
- Awad, W.A., K. Ghareeb, S. Nitch, S. Pasteiner, S.A. Raheem, and J. Bohm, 2008. Effect of dietary inclusion of probiotic, prebiotic and symbiotic on intestinal glucose absorbtion of broiler chickens. *Poult. Sci.* 7: 688 - 691.
- Balqis, U., T. Risa, B.P. Pontjo, dan Darmawi. 2007. Proliferasi sel goblet duodenum, jejunum, dan ileum ayam petelur yang diimunisasi dengan protein eksretori/sekretori *ascaridia galli*. *J. Kedokt. Hewan.* 1(2): 70 - 75.
- Balqis, U., M. Hanafiah, C. Januari, M. N. Salim, S. Aisyah, dan Y. Fahrimal. 2015. Jumlah sel goblet pada usus halus ayam kampung (*gallus domesticus*) yang terinfeksi *ascaridia galli* secara alami. *J. Med. Vet.* 9(1): 64 - 67.
- Bell, D.D and W.D Weaver. 2002. *Commercial Chicken Meat and Egg Production*. 5Th edition. Springer-Verlag. New York.
- Benerjee, G.C. 1976. *A Textbook of Animal Husbandry*, 4th Cd. Oxford and IBH Publ., Co. New Delhi. Bombay. Calcuta.
- Bessei, W. 2006. Welfare of broilers: a review. *Worlds Poult. Sci. J.* 62(03): 455 - 466.
- Boleli, I.C., A. Maiorka, and M. Macari. 2002. Development and Repair of the Intestinal Mucosa. In: *Applied Physiology*, Macari, M. (Ed.). Funep Publ., Jaboticabal, Sao Paulo. Brazil.
- Boonstra, R. 2005. Coping with changing northern environments : the role of the stress axis in birds and mammals. *Integr. Comp. Biol.* 44: 95 - 108.
- Borrel, E.H. 2001. The biology of stress and its application to livestock housing transportation assesment. *Anim. Sci. J.* 5: 16 - 21.
- Budiarta, D.H., E. Sudjarwo dan N. Cholis. 2014. Pengaruh kepadatan kandang terhadap konsumsi pakan, penambahan bobot badan dan konversi pakan pada ayam pedaging. *J. Ternak Tropika.* 15(2): 31 - 35.
- Burkholder, K.M., K.L. Thompson, M.E. Einstein, T.J. Applegate, and J.A. Patterson. 2008. Influence of stressors on normal intestinal microbiota, intestinal morpholog and susceptibility to salmonella enteritidis colonization in broilers. *Poult. Sci.* 87:1734 - 1741.
- Cengiz, O., B.H. Koksal, O. Tatli, O. Sevim, U. Ahsan, A.G. Uner, P.A. Ulutas, D. Beyaz, S. Buyukyoruk, and A. Yakan. 2015. Effect of dietary probiotic and high stocking density on the performance, carcass yield, gut microflora, and stress indicators of broilers. *Poult. Sci.* 94: 2395 - 2403.
- Cockrem, J.F. and B. Silverin. 2002. Sight of a predator can stimulate a corticosterone response in the great tit (*Parus major*). *Gen. Comp. Endocrinol.* 125(2): 248 - 255.

- Dahlke, F., A.M.L. Ribeiro, A.M. Kessler, A.R. Lima, and A. Maiorka. 2003. Effect of corn particle size and physical form of the diet on the gastrointestinal structures of broiler chickens. *Braz. J. Poultry Sci.* 5: 61 - 67.
- Dunlop, M.W., J. McAuley, P.J. Blackall, and R.M. Stuetz. 2016. Water activity of poultry litter: Relationship to moisture content during a grow-out. *J. Environ. Manage.* 172: 201 - 206.
- Dehnhard, M., A. Schreer, O. Krone, K. Jewgenow, M. Krause, and R. Grossmann. 2003. Measurement of plasma corticosterone and fecal glucocorticoid metabolites in the chicken (*Gallus domesticus*), the great cormorant (*phalacrocorax carbo*), and the goshawk (*Accipiter gentilis*). *Gen. Compar. Endocrinol.* 131: 345 - 352
- Dozier, W.A., J.P. Thaxton, S.L. Branton, G.W. Morgan, D.M. Miles, W.B. Roush, B.D. Lott, and Y. Vizzier-Thaxton. 2005. Stocking density effects on growth performance and processing yields of heavy broilers. *Poult. Sci.* 84: 1332 - 1338.
- Elisa. W., E. Widiastuti dan T.A. Sarjana. 2017. Bobot relatif organ limfoid dan usus halus ayam broiler yang disuplementasi probiotik bacillus plus. Halaman 297-301. *Prosiding Seminar Teknologi dan Agribisnis Peternakan V. Fakultas Peternakan Universitas Jenderal Soedirman. Purwokerto.*
- Esmay, M.L. 1978. *Principles of Animal Environment.* Avi Publishing Company, Inc. Westport. Connecticut.
- Estevez I. 2007. Density allowances for broilers: Where to set the line. *Poult. Sci.* 86:1265 - 1272.
- Frandsen, R.D. 1996. *Anatomi dan Fisiologi Ternak Edisi IV.* Gadjah Mada University Press. Yogyakarta.
- Franco J.R.G., A.E. Murakami, M.R.M. Natali, E.R.M. Garcia, and A.C Furlan. 2006. Influence of delayed placement and dietary lysine levels on small intestine morphometrics and performance of broilers. *Braz. J. Poult. Sci.* 8: 233 - 241.
- Garces, P.J.T.G., S.M.S. Afonso, A. Chilundo, and C. T. S. Jairoce. 2013. Evaluation of different litter materials for broiler production in a hot and humid environment: 1. Litter characteristics and quality. *J. Appl. Poult. Res.* 22 :168 - 176.
- Garces, P.J.T.G., S.M.S. Alfonso, A. Chulindo, and C.T.S. Jairoce. 2016. Evaluation of different litter materials for broiler production in a hot and humid environment: 2. Productive performance and carcass characteristics. *Trop. Anim. Health. Prod.* 1 - 6.
- Garcia, R.G., A. Paz, F.R. Caldara, I.A. Naas, D.F. Pereira, and Ferreira. 2012. Selecting the most adequate bedding material for broiler production in Brazil. *Braz. J. Poultry. Sci.* 14(2): 151 - 158.
- Geng, A. L., H.G. Liu., Y. Zhang., J. Zhang., H.H. Wang., Q. Chu and Z.X. Yan. 2019. Effects of indoor stocking density on performance, egg quality, and welfare status of a native chicken during 22 to 38 weeks. *Poultry Science.*

- Goo, D., J.H. Kim, H.S. Choi, G.H. Park, G.P. Han, and D.Y. Kil. 2019. Effect of stocking density and sex on growth performance, meat quality, and intestinal barrier function in broiler chickens. *Poult. Sci.* 98(3): 1153 - 1160.
- Guardia, S., B. Konsak, S. Combes, F. Levenez, L. Cauquil, J.F. Guillot, C. Moreau-Vauzelle, M.Lessire, H. Juin and I. Gabriel. 2011. Effects of stocking density on the growth performance and digestive microbiota of broiler chickens. *Poult. Sci.* 90: 1878 - 1889.
- Gunal, M., G. Yayli, O. Kaya, N. Karahan, and O. Sulak. 2006. The effect of antibiotik growth promoter, probioticc or organic acid supplementation of performance, intestinal microflora and tissue of broilers. *Poult. Sci.* 5 (2): 149 - 155.
- Gunawan. 2002. Evaluasi model pengembangan usaha ternak ayam buras dan upaya perbaikannya. Disertasi. Insitut Pertanian Bogor. Bogor.
- Hafeez, A., S.M. Suhail, F.R Durrani, D. Jan, I. Ahmad, N. Chand, and A. Rehman. 2009. Effect of different types of locally available litter materials on the performance of broiler chicks. *Sarhad J. Agric.* 25(4): 581 - 586.
- Hetland, H., M. Choct, dan B. Svihus. 2004. Role of insoluble non-starch polysaccharides in poultry nutrition. *Worlds Poult. Sci. J.* 60: 415 - 422.
- Hidayat. C and S. A. Asmarasari. 2015. Native Chicken Production in Indonesia: A Review. *Indonesian Journal of Animal Science.* 17(1): 1 - 11.
- Hidayatun. R. 2007. Produksi ammonia dan hidrogen sulfida ekskreta ayam broiler yang diberi tepung kemangi (*ocimum basilicum*) dalam pakan. Skripsi. Insitut Pertanian Bogor. Bogor.
- Houshmand. M M., K. Azhar, I. Zulkifli, M.H. Bejo, and A. Kamyab. 2012. Effects of prebiotic, protein level, and stocking density on performance, immunity, and stress indicators of broilers. *Poult. Sci.* 91(2): 393 - 401.
- Hossain. B.M.S. 2014. Performance of probiotic: an alternative to antibiotic in broiler. *Int. J. Biol. Sci.* 1: 48 - 62.
- Ibrahim, S dan Allaily. 2012. Pengaruh berbagai bahan litter terhadap konsentrasi ammonia udara ambient kandang dan performan ayam broiler. *J. Agripet.* 12(1) : 47 - 52.
- Iskandar, S., S.D. Setyaningrum, Y. Amanda dan H.S. Rahayu 2009. Pengaruh kepadatan kandang terhadap pertumbuhan dan perilaku ayam Wareng Tangerang dara. *J. Ilmu Ternak Veteriner.* 14(1): 19 - 24.
- Jayalakshmi. T., R. Kumararaj, T. Sivakumar, T.T. Vanan, and D. Thiagarajan. 2009. Influence of stocking densities on litter moisture, microbial load, air ammonia concentration and broiler performance. *Tamilnadu Journal of Veterinary and Animal Science.* 5(6): 80 - 86.
- Kang, H.K., S.B. Park, S.H. Kim and C.H. Kim. 2016. Effects of stock density on the laying performance, blood parameter, corticosterone, litter quality, gas emission and bone mineral density of laying hens in floor pens. *Poult. Sci.* 95: 2764 - 2770.
- Knizatova. M., S. Mihina, J. Broucek, I. Karandusovska, and J. Macuhova. 2010. The influence of litter age, litter temperature and ventilation rate on ammonia

- emissions from a broiler rearing facility. *Czech. J. Anim. Sci.* 55(8): 337 - 345.
- Kompiang, I.P., Supriyati, M.H. Togatorop dan S.N. Jarmani. 2001. Kinerja ayam kampung dengan sistem pemberian pakan secara memilih dengan bebas. *J. Ilmu Ternak dan Veteriner.* 6:2.
- Kususiyah. 1992. Pengaruh penggunaan zeolit dalam litter terhadap kualitas lingkungan kandang dan performans broiler pada kepadatan kandang yang berbeda. Tesis. Pasca Sarjana Institut Pertanian Bogor. Bogor.
- Leeson, S. dan J. D. Summer. 2000. *Broiler Breeder Production.* University Books. Guelph, Ontario, Canada.
- Leeson, S. dan J. D. Summer. 2001. *Nutrition of the chicken.* 4th edition. Nottingham University Press, Canada.
- Lin, H., H.F. Zhang, R. Du, X.H. Gu, Z.Y. Zhang, J. Buyse, and E. Decupere. 2005. Thermoregulation responses of broiler chickens to humidity at different ambient temperatures. II. Four weeks of age. *Poult. Sci.* 84: 1173 - 1178.
- Lisnahan, C.V. 2018. Penentuan kebutuhan nutrien ayam kampung fase pertumbuhan yang dipelihara secara intensif dengan metode kafetaria. Disertasi. Universitas Gadjah Mada. Yogyakarta.
- Lisnahan, C.V., Wihandoyo., Zuprizal dan Sri Harimurti. 2019. Morfologi usus ayam kampung umur 20 minggu yang disuplementasi dl-metionin dan l-lisin hcl dalam pakan. *Journal of Tropical Animal Science and Technology.* 1(1): 14 - 21.
- Liu, Z., L. Wang and D. Beasley. 2007. Effect of moisture content on ammonia emissions from broiler litter: A laboratory study. *J. Atmos. Chem.* 58: 41 - 53.
- Lu, J., U. Idris., B. Harmon., C. Hofacre., J.J. Maurer and M.D. Lee. 2003. Diversity and succession of the intestinal bacterial community of the maturing broiler chicken. *Appl. Environ. Microbiol.* 69(11): 6816-6824.
- Mahmud, A.T.B.A., R. Afnan, D.R. Ekastuti dan I.I. Arief. 2017. Profil darah, performans dan kualitas daging ayam persilangan kampung broiler pada kepadatan kandang berbeda. *J. Veteriner.* 18(2) : 247 - 256.
- Ma'ruf, A., B. Pramudono, and N. Aryanti. 2017. Lignin isolation process from rice husk by alkaline hydrogen peroxide : lignin and silica extracted. *International Conference on Chemistry. Chem. Eng. Process.* (1): 1 – 5
- Martin, B.L and R.D. Rubenstein. 2008. Stress hormones in tropical birds: Pattern and Future Directions. *Ornitol. Neotrop.* 19: 207 - 218.
- Mashaly, M.M. 2004. Effect of heat stress on production parameters and immune responses of commercial laying hens. *Poult. Sci.* 83: 889 - 894.
- Maradon G.G., Sumiati, R. Mutia dan W. Winarsih. 2017. Evaluasi penggunaan silika+® sebagai feed additive terhadap metabolisme mineral, status kesehatan dan kualitas ekskreta broiler. *Buletin Peternakan.* 41(3): 285 - 297.
- Mcward. G.W., D.R. Taylor. 2000. Acidified clay litter amendment. *J Appl. Poult. Res.* 9: 518 - 529.

- Metasari, T., D. Septinova dan V. Wanniatie. 2014. Pengaruh penggunaan litter sekam, serutan kayu, dan jerami padi terhadap performa broiler di closed house. *J. Ilmiah Peternakan Terpadu*. 2(3) : 23 - 29.
- Mile, R.D., G.D. Butcher, P.R. Henry and R.C. Littell. 2006. Effect of antibiotic growth promoters on broiler performance, intestinal growth parameters, and quantitative morphology. *Poult. Sci.* 85: 476 -485.
- Mench, J.A. and I.J.H. Duncan, 1998. Poultry welfare in North America: Opportunities and challenges. *Poult. Sci.* 77: 1763 - 1765
- Monira. K.N., M.A. Islam, M.J. Alam, and M.A. Wahid. 2003. Effect of Litter Materials on Broiler Performance and Evaluation of Manure Value of Used Litter in Late Autumn. *Asian-Aust. J. Anim. Sci.* 16(4): 555 - 559.
- Moore, P.A., T.C. Daniel, D.R. Edwards, and D.M. Miller. 1996. Evaluation of chemical amendments to reduce ammonia volatilization from poultry litter. *Poult. Sci.* 75: 315 - 320.
- Mountney, G.J and C. R. Parkhurst. 1994. *Poultry Products Technology*. Third edition. Food Products Press, an imprint of the Haworth Press. New York.
- Muharlieni M., A. Achmanu and R. Rachmawati. Meningkatkan produksi ayam pedaging melalui pengaturan proporsi sekam, pasir dan kapur sebagai litter. *Trop. Anim. Sci. J.* 12(1): 38 - 45
- Mumma J.O., J.P. Thaxton, Y. Vizzier-Thaxton, and W.L. Dodson. 2006. Physiological stress in laying hens. *Poult. Sci.* 85: 761 - 769.
- North, M.O. dan D.D. Bell. 1990. *Commercial Chicken Production Manual*. 4 th Ed. An Avi Book. Van Nostrand Reinhold, New York
- Nahashon S. N., N. Adefope, A. Amenyenu, J. Tyus, and D. Wright 2009. The effect of floor density on growth performance and carcass characteristics of French guinea broilers. *Poult. Sci.* 88 : 2461 - 2467.
- Naseem, S and A. J. King. 2018. Ammonia production in poultry houses can affect health of humans, birds, and the environment-techniques for its reduction during poultry production. *Environ. Sci. Pollut Res. Int.* 25(16): 15269 - 15293.
- Natasasmita, AG. 2000. The native of chicken of Indonesia. *Buletin Plasma Nutfah*. 6 (1) : 21 - 28.
- National Research Council (NRC). 1994. *Nutrient Requirement Of Poultry*, 9th Revised Edition. National Academy Press, Washington DC.
- Nurawallah S. 2014. Penggunaan ampas penyulingan daun nilam dan cengkeh sebagai bahan litter terhadap performan ayam broiler dan penurunan infeksi koksidiosis. Tesis. Universitas Gadjah Mada. Yogyakarta.
- Pauzenga,. 1991. Animal production in the 90's in harmony with nature : A case study in the Netherlands. In : *Biotechnology in The Feed Industry* (T.P.Lyons Eds.) Proc. Alltech's Seventh Annual Symposium. Nicholasville. Kentucky.
- Permana I., A. Mushawwir dan D. Latipudin. 2016. Profil sel goblet itik cihateup (*anas platyrhynchos javanica*) yang diberi fruktooligosakarida (fos) dalam kondisi pemeliharaan minim air. *Students e-journals*: 5(2).

- Person, E.G., S. Leavengood, and J.E. Reeb. 2000. Comparison of the absorptive capacity of shavings of western juniper, western redcedar and douglas-fir for animal bedding. *For. Prod. J.* Vol. 50(6): 57 - 60.
- Petek, M., H. Ustuner and Y. Derya. 2014. Effects of stocking density and litter type on litter quality and growth performance of broiler chicken. *Kafkas Univ. Vet. Fak. Derg.* 20(5): 743 - 748.
- Pointner, M., P. Kuttner, T. Obrlik, A.Jager and H. Kahr. 2014. Composition of corncobs as a substrate for fermentation of biofuels. *Agron. Res.* 12(2): 391 - 396.
- Purnomo, S.H dan K.A. Santosa. 2007. Analisis kelayakan investasi kandang tertutup pada peternak ayam broiler plasma PT Gema Usaha Ternak. *J. Sains Peternakan.* 5(1) : 43 - 52.
- Puvadolpiron S and Thaxton JP. 2000. Model of physiological stress in chickens 1. Response parameters. *Poult. Sci.* 79: 363 - 369.
- Rajab dan B.J. Papilaya. 2012. Sifat kuantitatif ayam kampung lokal pada pemeliharaan tradisional. *Agrinimal.* 2(2): 61 - 64.
- Rachmawati, S. 2000. Upaya pengelolaan lingkungan usaha peternakan ayam. *Wartazoa.* 9(2): 73 - 80.
- Ramadhan S.G.A and S. Elkhloya. 2017. Do alternative litter materials affect performance, welfare and immune response of broiler chicks? *Alex. J. Vet. Sci.* 52(1): 133 - 141.
- Resnawati, H and T. Sartika. 2010. The growth and productivity of selected kampung chicken. Pages 354 - 357. In *Prosiding The 5th International Seminar on Tropical Animal Production Community Empowerment and Tropical Animal Industry.* Yogyakarta.
- Ritz. C.W, B.D. Fairchild and M.P. Lacy. 2017. Litter Quality and Broiler Performance. *UGA Extension Bulletin* 1267: 1 - 5.
- Rozali U., Muharlien and S.P. Heni. 2017. Pengaruh kepadatan ayam didalam kandang terhadap konsumsi pakan, penambahan bobot badan, dan konversi pakan pada ayam arab (*gallus turcicus*) jantan periode grower. *J. Ternak Tropika.* 18 (2): 29 - 33.
- Sabuna, C., Wihandoyo, Sri-Harimurti and R.W. Nurcahyo. 2014. Analysis of Component and Water Holding Capacity from Distillate Waste of Citronella (*Cymbopogon nardus*) as A Litter Material. Pages 458–463 in *Proc. The 7th International Seminar on Tropical Animal Production Contribution of Livestock Production on Food Sovereignty in Tropical Countries.* Faculty of Animal Science, Universitas Gadjah Mada, Yogyakarta.
- Santos, F.B.O. 2006. Impact of poultry age, season, litter quality, and nutritional intervention strategies on Salmonella prevalence and populations, serotypes, genotypes, and antibiotic resistance profiles. PhD Thesis in Poultry Science. Faculty of North Carolina State University. USA
- Saputra, T.H., K. Nova dan D. Septinova. 2014. Pengaruh penggunaan berbagai jenis litter terhadap bobot hidup, karkas, giblet, dan lemak abdominal broiler fase finisher di closed house. *J. Ilmiah Peternakan Terpadu.* 3(1): 38 - 44.

- Sarikhan, M., H. A. Shahryar, and B. Gholizadeh. 2010. Effects of insoluble fiber on growth performance, carcass traits and ileum morphological parameters on broiler chick males. *Intl. J. Agr. Biol.* 12: 531 - 536.
- Sartika, T. 2006. Studi keragaman fenotik dan genetika ayam kampung (*Gallus gallus domesticus*) pada populasi dasar seleksi. Laporan Penelitian, Balai Penelitian Ternak, Ciawi-Bogor.
- Sartika T., Desmayati, S. Iskandar, H. Resnawati, A.R. Setioko, A.P. Sumanto, Sinurat., Isbandi., B.Tiesnamurti dan E. Romjali. 2013. Ayam KUB-1. IAARD Press. Jakarta
- Sastrohamidjojo, Hardjono. 1995. Kimia Kayu: Dasar - Dasar dan Penggunaannya Edisi Kedua. Gadjah Mada University Press. Yogyakarta.
- Setyawati, S.J.A. 2004. Pengaruh penggunaan berbahaya macam bahan litter untuk pemeliharaan ayam broiler terhadap performans dan kaitannya dengan status darah dan kondisi litter. Tesis. Universitas Diponegoro. Semarang.
- Sims, M.D., K.A. Dawson, K.E. Newman, P.Spring and D.M. Hooge. 2004. Effects of dietary mannan oligosaccharide, bacitracin methylene disalicylate, or both on the live performance and intestinal microbiology of turkeys. *Poult. Sci.* 83: 1148 - 1154.
- Singh, K.M., T.M. Shah., B. Reddy., S. Deshpande., D.N. Rank, D.N and C.G. Joshi. 2014. Taxonomic and gene-centric metagenomics of the fecal microbiome of low and high feed conversion ratio (FCR) broilers. *Journal of Applied Genetics*, 55(1): 145-154.
- Sofwah, R. 2007. Pentingnya manajemen litter dalam meningkatkan produktivitas. *Buletin CP*. November 2007: 5 - 7.
- Sohail, M.U., A. Ijaz, M.S. Yousaf, K. Ashraf, H. Zaneb, M. Aleem and H. Rehman. 2010. Alleviation of cyclic heat stress in broilers by dietary supplementation of mannanoligosaccharide and Lactobacillus-based probiotic: Dynamics of cortisol, thyroid hormones, cholesterol, C-reactive protein, and humoral immunity. *Poult. Sci.* 89: 1934 – 1938.
- Sondakh, E.I., M. Najoran, L. Tangkau dan W. Utiah. 2015. Pengaruh tiga macam ransum komersial dan sistem alas kandang yang berbeda terhadap performans ayam pedaging. *J. Zootek.* 35(1) : 10 - 20.
- Sri-Harimurti dan E.S. Rahayu. 2009. Morfologi usus ayam broiler yang disuplementasi dengan probiotik strain tunggal dan campuran. *J. Agritech.* 29(3) : 179 - 183.
- Tabeeh, A. S. A., Al-moziel, M. S. G., and Saad, H. F. 2017. Effect of light color and stocking density on intestinal effect of light color and stocking density on intestinal morphology of broiler chickens. *Asian Journal of Science and Technology* Vol. 08(03): 4340 - 4344.
- Taherparvar, G., A. Seidavi¹, L. Asadpour, R. Payan-Carreira, V. Laudadio and V. Tufarelli. 2016. Effect of litter treatment on growth performance, intestinal development, and selected cecum microbiota in broiler chickens. *R. Bras. Zootec.* 45(5) : 257 - 264.
- Taiganides, R. E. 1977. *Animal Waste*. Applied Science Publisher Ltd: London.

- Tamzil, M.H., R.R. Noor, P.S. Hardjosworo, W. Manalu dan C. Sumantri. 2013a. Keragaman gen heat shock protein 70 ayam Kampung, ayam Arab dan ayam Ras. *J. Veteriner*. 14: 317 - 326.
- Tamzil, M.H., R.R. Noor, P.S. Hardjosworo, W. Manalu dan C. Sumantri. 2013b. Acute heat stress exposure on three lines of chickens with different heat shock protein (HSP)-70 genotypes. *Poult. Sci*. 12: 264 - 272.
- Tamzil, M.H. 2014. Stres panas pada unggas: metabolisme, akibat dan upaya penanggulangannya. *Wartazoa*. 24(2): 57 - 66.
- Tennenbaum, J. 1995. *Veterinary Ethics*. 2nd ed. Mosby-Year Book Inc., Saint Louis, MO.
- Terzich, M., M.J. Pope, T.E. Cherry, and J. Holinger. 2000. Survey of pathogens in poultry litter in the United States. *J. Appl. Poult Res*. 9:287 - 291.
- Theerawatanarisikul, S., N. Koomkrong, A. Kayan, and C. Boonkaewwan. 2017. Intestinal barrier and mucosal immunity in broilers, Thai Betong, and native Thai Praduhangdum chickens. *Turk J. Vet. Anim. Sci*. 41(3): 357 - 364.
- Thummabutr. S., S. Moratob., B. Gleawkamoltut and A. Thummabutr. 2003. *Raising Thai native chickens manual*. third ed. Department of Livestock Development, Bangkok, Thailand.
- Toghyani, M., A. Gheisari, M. Modenesi, S.A. Tabeidian and M.Toghyani. 2010. Effect of different litter material on performance and behaviour of broiler chickens. *Appl. Anim*. 122(1): 48 - 52.
- Tong H. B., J. Lu, J.M. Zou, Q. Wang and S.R. Shi. 2012. Effects of stocking density on growth performance, carcass yield, and immune status of a local chicken breed. *Poult. Sci*. 91: 667 - 673.
- Torok VA., R.J. Hughes, K. Opel-Keller, M. Ali and R. Macalpine. 2009. Influence of Different Litter Materials on Cecal Microbiota Colonization in Broiler Chickens. *Poult. Sci*. 88(12): 2478 - 2481.
- Tort, L and M. Teles. 2011. *The Endocrine Response to Stress- A Comparative View*. Dept. of Cell biology, Physiology and Immunology. Universitat Autònoma de Barcelona. Spain
- Trisiwi, H.F., Zuprizal dan Supadmo. 2004. Pengaruh level protein pakan dengan koreksi asam amino esensial dalam pakan terhadap penampilan dan nitrogen ekskreta ayam kampung. *Buletin Peternakan*. 28(3): 131 - 141.
- Turkyilmaz. M.K. 2008. The effect of stocking density on stress reaction in broiler chickens during summer. *Turk J. Vet. Anim. Sci*. 32(1): 31 - 36.
- Vanhonacker, F. 2008. Do citizens and farmers interpret the concept of farm animal welfare differently? *Livest. Sci*. 116: 126 - 136.
- Widodo, N. 2009. Pengaruh level dan frekuensi penyemprotan formalin (*formaldehid* 37%) pad litter terhadap kandungan ammonia, total bakteri litter dan performans pertumbuhan ayam broiler. Tesis. Universitas Gajah Mada. Yogyakarta.

- Wihandoyo, T., T. H. Wahyuni dan A.R. Alimon. 2001. Pengaruh penggunaan bentonit dan zeolit didalam pakan ayam broiler rendah fosfor terhadap prestasi dan karakteristik kotoran. *Animal Production*. 3 (1): 1 - 4.
- Yamauchi, K., K. Yamamoto, and Y. Ishiki. 1995. Morphological alterations of the intestinal villi and absorptive epithelial cells in each intestinal part in fasted chickens. *Jpn. Poult. Sci.* 32: 241 - 251.
- Yason, C. V., B. A. Summers and K. A. Schat. 1987. Pathogenesis of rotavirus infection in various age groups of chickens and turkeys: pathology. *Am. J. Vet. Res.* 6: 927 - 938.
- Zakaria, S. 2004. Pengaruh luas kandang terhadap produktivitas dan kualitas telur ayam buras yang dipelihara dengan system litter. *Bulletin Nutrisi dan Makanan Ternak*. 5(1): 1 - 11.
- Zuowei, S., L. Yan, L. Yuan, H. Jiao, Z. Song, Y. Guo and H. Lin. 2011. Stocking density affect the growth performance of broilers in a sex-dependent Fashion. *Poult. Sci.* 90: 1406 - 1415.