

ZOZNAM POUŽITEJ LITERATÚRY

- [1] ABPA (Associação Brasileira de Proteína Animal). 2019. *Relatório Anual 2018* [online] [cit. 2020-11-06]. Dostupné na: <<https://abpa-br.com.br/storage/files/relatorio-anual-2018.pdf>>.
- [2] AL-HAYANI, W. K. A. 2017. Effect of Threonine Supplementation on Broiler Chicken Productivity Traits. In *International Journal of Poultry Science* [online], vol. 16, pp. 160-168 [cit. 2020-11-28]. ISSN 1028-8880. Dostupné na: <<https://doi.org/10.3923/ijps.2017.160.168>>.
- [3] ALBRECHT, A. – HERBERT, U. – MISKEL, D. – HEINEMANN, C. – BRAUN, C. – DOHLEN, S. – ZEITZ, J. O. – EDER, K. – SAREMI, B. – KREYENSCHMIDT, J. 2017. Effect of methionine supplementation in chicken feed on the quality and shelf life of fresh poultry meat. In *Poultry Science* [online], vol. 96, no. 8, pp. 2853-2861 [cit. 2020-11-06]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.3382/ps/pex071>>.
- [4] AMES, J. M. – DEFAYE, A. B. – BATES, L. 1997. The effect of pH on the volatiles formed in an extruded starch-glucose-lysine model system. In *Food Chemistry* [online], vol. 58, no. 4, pp. 323-327 [cit. 2020-12-08]. Dostupné na: <[https://doi.org/10.1016/S0308-8146\(96\)00171-9](https://doi.org/10.1016/S0308-8146(96)00171-9)>.
- [5] ANGELOVIČOVÁ, M. – SEMIVANOVÁ, M. 2013. The effect of iodine in production of broiler chickens and selected quality indicators of breast muscles. In *Potravinárstvo*, vol. 7, 2013, no. 1, pp. 111-119. Dostupné na: <<https://doi.org/10.5219/297>>.
- [6] ANTHONY, J. C. – YOSHIZAWA, F. – ANTHONY, T. G. – VARY, T. C. – JEFFERSON, L. S. – KIMBALL, S. R. 2000. Leucine stimulates translation initiation in skeletal muscle of postabsorptive rats via a rapamycin-sensitive pathway. In *Journal of Nutrition* [online], vol. 130, pp. 2413-2419 [cit. 2020-12-05]. Dostupné na: <<https://doi.org/10.1093/jn/130.10.2413>>.
- [7] Antioxidant Potential of Essential Oil from *Citrus reticulata* Fruit Peels. In *Advances in Research*, vol. 15, no. 2, pp. 1-9. ISSN 2348-0394. Dostupné na: <<https://doi.org/10.9734/AIR/2018/41981>>.
- [8] ARC (Agricultural Research Council), 1975. *The nutrient requirements of poultry farm livestock*, no. 1. London. 154 p.
- [9] ARSHAD, M. S. 2018. *Meat Science and Nutrition* [online]. Pakistan: IntechOpen [cit. 2020-11-21]. 86 p. ISBN 978-1-83881-633-9. Dostupné na: <<https://doi.org/10.5772/intechopen.71954>>.
- [10] ASAO, T. 2017. *Amino Acid* [online]. Pakistan : IntechOpen [cit. 2020-11-22]. 86 p. ISBN 978-953-51-3242-4. Dostupné na: <<https://doi.org/10.5772/intechopen.68932>>.

- [11] ASTRUP, A. – RABEN, A. – GEIKER, N. 2014. The role of higher protein diets in weight control and obesity-related comorbidities. In *International Journal of Obesity* [online], vol. 39, no. 5, pp. 721-726 [cit. 2020-11-16]. ISSN 2554-0980. Dostupné na: <<https://doi.org/10.1038/ijo.2014.216>>.
- [12] AYSAN, T. – OKAN, F. 2014. The effect of choice feeding based on threonine on performance and carcass parameters of male broiler chicks. In *Turkish Journal of Agriculture - Food Science and Technology*, vol. 2, pp. 190-196. Dostupné na: <<https://doi.org/10.24925/turjaf.v2i4.190-196.117>>.
- [13] AZZAM, M. M. M. – DONG, X. Y. – XIE, P. – WANG, C. – ZOU, X. T. 2011. The effect of supplemental L-threonine on laying performance, serum free amino acids, and immune function of laying hens under high-temperature and high-humidity environmental climate. In *Journal of Applied Poultry Research*, vol. 20, pp. 361-370. Dostupné na: <<https://doi.org/10.3382/japr.2010-00308>>.
- [14] AZZAM, M. M. M. – DONG, X. Y. – XIE, P. – ZOU, X. T. 2012. Influence of L-threonine supplementation on goblet cell numbers, histological structure and antioxidant enzyme activities of laying hens reared in a hot and humid climate. In *British Poultry Science* [online], vol. 53, no. 5, pp. 640-645 [cit. 2020-11-20]. ISSN 1466-1799. Dostupné na: <<https://doi.org/10.1080/00071668.2012.726707>>.
- [15] BAILEY, R. A. – WATSON, K. A. – BILGILI, S. F. – AVENDANO, S. 2015. The genetic basis of pectoralis major myopathies in modern broiler chicken lines. In *Poultry Science* [online], vol. 94, no. 12, pp. 2870-2879 [cit. 2020-11-11]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.3382/ps/pev304>>.
- [16] BAK, D. W. – BECHTEL, T. J. – FALCO, J. A. – WEERAPANA, E. 2019. Cysteine reactivity across the subcellular universe. In *Current Opinion in Chemical Biology* [online], vol. 48, pp. 96-105 [cit. 2020-11-28]. Dostupné na: <<https://doi.org/10.1016/j.cbpa.2018.11.002>>.
- [17] BALL, R. O. – URSCHEL, K. L. – PENCHARZ, P. B. 2007. Nutritional consequences of interspecies differences in arginine and lysine metabolism. In *Journal of Nutrition*, vol. 137, no. 6, pp. 1626-1641. Dostupné na: <<https://doi.org/10.1093/jn/137.6.1626S>>.
- [18] BALNAVE, D. – BRAKE, J. 2002. Re-evaluation of the classical dietary arginine: lysine interaction for modern poultry diets: a review. In *Worlds Poultry Science Journal*, vol. 58, pp. 275-289. Dostupné na: <<https://doi.org/10.1079/WPS20020021>>.
- [19] BANG-YUAN, W. – HENG-MIN, C. – PENG, X. – FANG, J. – CUI, W. – XIAO-DONG, L. 2012. Effect of Methionine Deficiency on the Thymus and the Subsets and Proliferation of Peripheral Blood T-Cell, and Serum IL-2 Contents in Broilers. In *Journal of Integrative Agriculture* [online], vol. 11, no. 6, pp. 1009-1019 [cit. 2020-11-18].

ISSN 2095-3119. Dostupné na: <[https://doi.org/10.1016/S2095-3119\(12\)60093-8](https://doi.org/10.1016/S2095-3119(12)60093-8)>.

- [20] BANU, Y. – TURGAY, T. 2018. *Animal Husbandry and Nutrition* [online]. London : IntechOpen [cit. 2020-11-07]. 200 p.
- [21] BARRON-HOYOS, J. M. – ARCHULETA, A. R. – DEL REFUGIO, F. V. M. – CANETT-ROMERO, R. – CINCO-MOROYOQUI, F. J. – ROMERO-BARANCINI, A. L. – RUEDA-PUENTE, E. O. 2013. Protein quality evaluation of animal food proteins by *in vitro* methodologies. In *Food Science & Nutrition*, vol. 4, pp. 376-384. Dostupné na: <<https://doi.org/10.4236/fns.2013.44048>>.
- [22] BELLO, A. U. – IDRUS, Z. – MENG, G. Y. – NARAYAN, E. J. – FARJAM, A. S. 2018. Dose-response relationship of tryptophan with large neutral amino acids, and its impact on physiological responses in the chick model. In *General and Comparative Endocrinology* [online], vol. 260, pp. 146-150 [cit. 2020-11-21]. ISSN 0016-6480. Dostupné na: <<https://doi.org/10.1016/j.ygcen.2018.01.012>>.
- [23] BI, Y. – NAN, Y. M. – ZHENG, S. S. – JIANG, L. S. – XIONG, B. H. 2018. Effects of dietary threonine and immune stress on growth performance, carcass trait, serum immune parameters, and intestinal muc2 and NF- κ b gene expression in Pekin ducks from hatch to 21 days. In *Poultry Science* [online], vol. 97, pp. 177-187 [cit. 2020-12-02]. Dostupné na: <<https://doi.org/10.3382/ps/pex283>>.
- [24] BIN, P. – HUANG, R. – ZHOU, X. 2017. Oxidation resistance of the sulfur amino acids: Methionine and cysteine. In *BioMed Research International* [online], vol. 9, 6 p. [cit. 2020-11-28]. Dostupné na: <<https://doi.org/10.1155/2017/9584932>>.
- [25] BOLDIZSAR, H. K. – BOORMAN K. N. – BUTTERY P. J. 1973. The effect of excess leucine on valine catabolism in the chick. In *British Journal of Nutrition*, vol. 30, pp. 501-510. Dostupné na: <<https://doi.org/10.1079/bjn19730056>>.
- [26] BRASIL, R. J. M. – LIMA, C. A. R. – MACHADO, N. J. B. – CURVELLO, F. A. – QUARESMA, D. V. – VIEITES, F. M. – SOUSA, F. D. R. 2018. Digestible Lysine Requirements the Performance, Carcass Traits and Breast Meat Quality of Slow-Growing Broilers. In *Brazilian Journal of Poultry Science* [online], vol. 20, no. 3, pp. 555-564 [cit. 2020-12-06]. ISSN 1806-9061. Dostupné na: <<https://doi.org/10.1590/1806-9061-2017-0676>>.
- [27] BUNCHASAK, C. R2009. Role of dietary methionine in poultry production. In *Journal of Poultry Science*, vol. 46, pp. 169-179. Dostupné na: <<https://doi.org/10.2141/jpsa.46.169>>.
- [28] BURNHAM, D. – EMMANS, G. C. – GOUS, R. M. 1992. Isoleucine requirements of the chicken: the effect of excess leucine and valine on the response to isoleucine. In *British Poultry Science*, vol. 33, pp. 71-87. <<https://doi.org/10.1080/00071669208417445>>.

- [29] CAMPESTRINI, E. – BARBOSA, M. J. B. – NUNES, R. V. 2010. Níveis de lisina digestível com dois balanços eletrolíticos para pintos de corte na fase inicial, de 1 a 21 dias de idade. In *Revista Brasileira de Zootecnia*, vol. 39, no. 1, pp. 151-157. Dostupné na: <<https://doi.org/10.1590/S1516-35982010000100020>>.
- [30] CERCEL, F. – STROIU, M. – ALEXE, P. – IANITCHI, D. 2015. Characterization of Myofibrillar Chicken Breast Proteins For Obtain Protein Films and Biodegradable Coatings Generation. In *Agriculture and Agricultural Science Procedia* [online], vol. 6, pp. 197-205 [cit. 2020-12-06]. ISSN 2210-7843. Dostupné na: <<https://doi.org/10.1016/j.aaspro.2015.08.059>>.
- [31] COHEN, J. 1988. *Statistical power analysis for the behavioral sciences*, 2nd ed. New York : Academic Press. 590 p. ISBN-13: 978-0805802832.
- [32] CONG, J. – ZHANG, L. – LI, J. – WANG, S. – GAO, F. – ZHOU, G. 2017. Effects of dietary supplementation with carnosine on growth performance, meat quality, antioxidant capacity and muscle fiber characteristics in broiler chickens. In *Journal of the Science of Food and Agriculture*, vol. 97, pp. 3733-3741. Dostupné na: <<https://doi.org/10.1002/jsfa.8236>>.
- [33] CONG, J. – ZHANG, L. – LI, J. – WANG, S. – GAO, F. – ZHOU, G. 2016. Effects of dietary supplementation with carnosine on meat quality and antioxidant capacity in broiler chickens. In *British Poultry Science*, vol. 58, pp. 69-75. Dostupné na: <<https://doi.org/10.1080/00071668.2016.1237767>>.
- [34] CORSO, A. – DOZIER, W. A. – LOAR, R. E. – KISS, M. T. – TILLMAN, P. B. 2010. Dietary limitation of isoleucine and valine in diets based on maize, soybean meal, and meat and bone meal for broiler chickens. In *British Poultry Science* [online], vol. 51, no. 4, pp. 558-563 [cit. 2020-11-21]. ISSN 1466-1799. Dostupné na: <<https://doi.org/10.1080/00071668.2010.507242>>.
- [35] CORSO, A. – KIDD, M. T. – BURNHAM, D. J. – MILER, E. R. – BRANTON, S. L. – GONZALEZ-ESQUERRA, R. 2005. Dietary Amino Acid Density Effects on Growth and Carcass of Broilers Differing in Strain Cross and Sex. In *Journal of Applied Poultry Research* [online], vol. 14, no. 1, pp. 1-9 [cit. 2020-12-18]. ISSN 1056-6171. Dostupné na: <<https://doi.org/10.1093/japr/14.1.1>>.
- [36] CORZO, A. – MORAN, J. R. – E. T. – HOEHLER, D. 2004. Valine needs of male broilers from 42 to 56 days of age. In *Poultry Science*, vol. 83, no. 6, pp. 946-951. Dostupné na: <<https://doi.org/10.1093/ps/83.6.949>>.
- [37] CORZO, A. – KIDD, M. T. – DOZIER, W. A. – VIEIRA, S. L. 2007. Marginality and needs of dietary valine for broilers fed certain all-vegetable diets. In *The Journal Applied of Poultry Research*, vol. 16,

- no. 4, pp. 546-554. Dostupné na: <<https://doi.org/10.3382/japr.2007-00025>>.
- [38] D'MELLO, J. P. F. 1970. Lewis D. Amino acid interactions in chick nutrition. 2. Interrelationships between leucine, isoleucine, and valine. In *British Poultry Science*, vol. 11, pp. 313-323. Dostupné na: <<https://doi.org/10.1080/00071667008415821>>.
- [39] D'MELLO, J. P. F. 2003. *Amino acids in animal nutrition*. 2 ed CABI Publishing, Edinburgh. pp. 187-202. ISBN 0 85199 654 X.
- [40] DASGUPTA, M. – SHARKEY, J. R. – WU, G. 2005. Inadequate intakes of indispensable amino acids among homebound older adults. In *Journal of Nutrition for the Elderly*, vol. 24, pp. 85-99. Dostupné na: <https://doi.org/10.1300/J052v24n03_07>.
- [41] DAWKINS, M. S. 2017. Animal Welfare and efficient farming is conflict inevitable? In *Animal Production Science*, vol. 57, pp. 201-208. Dostupné na: <<https://doi.org/10.1071/AN15383>>.
- [42] DE SMET, S. – VOSSSEN, E. 2016. Meat: The balance between nutrition and health: A review. In *Meat Science*, vol. 120, pp. 145-156. <<https://doi.org/10.1016/j.meatsci.2016.04.008>>.
- [43] DEL VESCO, A. P. – GASPARINO, E. – GRIESER, D. O. – ZANCANELA, V. – SOARES, M.A. M. – NETO, A. R. O. 2015. Effects of methionine supplementation on the expression of oxidative stress-related genes in acute heat stress-exposed broilers. In *British Journal of Nutrition* [online], vol. 113, no. 4, pp. 549-559 [cit. 2020-12-06]. ISSN 0007-1145. Dostupné na: <<https://doi.org/10.1017/S0007114514003535>>.
- [44] Dissecting a Whole Chicken Krieger Science, May 10, 2019 [online],
- [45] DONG, X. Y. – AZZAM, M. M. M. – ZOU, X. T. 2017. Effects of dietary threonine supplementation on intestinal barrier function and gut microbiota of laying hens. In *Poultry Science*, vol. 96, pp. 3654-3663. Dostupné na: <<https://doi.org/10.3382/ps/pex185>>.
- [46] EFSA NDA Panel (EFSA Panel on Dietetic Products, Nutrition and Allergies), 2013. Scientific Opinion on Dietary Reference Values for Energy. In *EFSA Journal*, vol. 11, no. 1 112 p. Dostupné na: <<https://doi.org/10.2903/j.efsa.2013.3005>>.
- [47] EFSA. 2017. Dietary Reference Values for nutrients Summary report. In *European Food Safety Authority* [online], vol. 14, no. 12, pp. 151 [cit. 2020-11-16]. ISSN 2397-8325. Dostupné na: <<https://doi.org/10.2903/sp.efsa.2017.e15121>>.
- [48] EL-WAHAB, A. A. – AZIZA, A. – EL-ADI, M. 2015. Impact of Dietary Excess Methionine and Lysine with or without Addition of L-Carnitine on Performance, Blood Lipid Profile and Litter Quality in Broilers. In *Asian Journal of Animal and Veterinary Advances* [online], vol. 10, no. 5, pp. 191-202 [cit. 2020-12-18]. ISSN 1996-3289. Dostupné na: <<https://doi.org/10.3923/ajava.2015.191.202>>.

- [49] ESTALKHZIR, F. M. – KHOJASTEH, S. – JAFARI, M. 2013. The Effect of Different Levels of Threonine on Performance and Carcass Characteristics of Broiler Chickens. In *Journal of Novel Applied Sciences* [online], vol. 9, no. 2, pp. 382-386 [cit. 2020-12-20]. ISSN 2322-5149. Dostupné na: <<https://jnasoci.org/wp-content/uploads/2013/09/382-386.pdf>>.
- [50] FALUYI, O. B. – AGBEDE, J. O. – ADEBAYO, I. A. 2015. Growth performance and immunological response to Newcastle disease vaccinations of broiler chickens fed lysine supplemented diets. In *Journal of Veterinary Medicine and Animal Health* [online], vol. 7, no. 3, pp. 77-84 [cit. 2020-12-18]. ISSN 2141-2529. Dostupné na: <<https://doi.org/10.5897/JVMAH2014.0328>>.
- [51] FAO, WHO/UNU (Food and Agriculture Organization of the United Nations, World Health Organization and United Nations University), 2007. *Protein and amino acid requirements in human nutrition: report of a joint FAO/WHO/UNU expert consultation*. [online]. World Health Organization [cit. 2020-12-14]. Dostupné na: <<https://apps.who.int/iris/handle/10665/43411>>.
- [52] FAO. 2013. Dietary protein quality evaluation in human nutrition. In *Food and Nutrition Paper* [online], vol. 92, pp. 66 [cit. 2020-12-21]. ISSN 0254-4725. Dostupné na: <<https://www.fao.org/documents/card/en/c/ab5c9fca-dd15-58e0-93a8-d71e028c8282/>>.
- [53] FAO/WHO, 1991. *Protein Quality Evaluation : Report of the Joint FAO/WHO Expert Consultation*, FAO Food and Nutrition Paper 51. Rome : FAO.
- [54] FARRAN, M. T. – THOMAS, O. P. 1992 b. Valine deficiency. 2. The effect of feeding a valine-deficient diet during the start period on performance and leg abnormalities of male broiler chicks. In *Poultry Science*, vol. 71, no. 11, pp. 1885-1890. Dostupné na: <<https://doi.org/10.3382/ps.0711885>>.
- [55] FARRAN, M. T. – THOMAS, O. P. 1992a. Valine deficiency. 1. The effect of feeding a valine-deficient diet during the starter period on performance and feather structure of male broiler chicks. In *Poultry Science*, vol. 71, no. 11, pp. 1879-1884. Dostupné na: <<https://doi.org/10.3382/ps.0711879>>.
- [56] FARRAN, M. T. 1987. *Branched-chain amino acids: requirements and antagonism in the male broiler chick* : Dissertation. Maryland: University of Maryland, College Park, MD.
- [57] FARRELL, D. 2013. *Poultry development review* [online]. Roma : FAO [cit. 2020-12-14]. 127 p. ISBN 978-92-5-108067-2. Dostupné na: <<https://www.fao.org/3/i3531e/i3531e.pdf>>.
- [58] FERNANDES, J. I. M. – MURAKAMI, A. E. 2010. Arginine metabolism in uricotelic species. In *Acta Scientiarum Animal Sciences*, vol. 32, pp. 357-366. Dostupné na: <<https://doi.org/10.4025/actascianimsci.v32i4.10990>>.

- [59] FERNANDEZ, S. R. – AOYAGI, S. – HAN, Y. – PARSONS, C. M. – BAKER, D. H. 1994. Limiting order of amino acids in corn and soybean meal for growth of the chick. In *Poultry Science*, vol. 73, no. 12, pp. 1887-1896. Dostupné na: <<https://doi.org/10.3382/ps.0731887>>.
- [60] FIOLA, N. 2008. Meeting the demand: An estimation of potential future greenhouse gas emissions from meat production. In *Ecological Economics*, vol. 67, pp. 412-419. Dostupné na: <<https://doi.org/10.1016/j.ecolecon.2007.12.021>>.
- [61] FOUAD, A. M. – EL-SENOUSEY, H. K. – YANG, X. J. – YAO, J. H. 2012. Role of dietary L-arginine in poultry production. In *International Journal of Poultry Science*, vol. 11, pp. 718-729. Dostupné na: <<https://doi.org/10.3923/ijps.2012.718.729>>.
- [62] FOUAD, A. M. – ZHANG, H. X. – CHEN, W. – XIA, W. G. – RUAN, D. – WANG, S. – ZHENG, C. T. 2017. Estimation of L-threonine requirements for Longyan laying ducks. In *Asian-Australasian Journal of Animal Sciences*, vol. 30, pp. 206-210. Dostupné na: <<https://doi.org/10.5713/ajas.16.0235>>.
- [63] GALLI, F. 2007. Amino acid and protein modification by oxygen and nitrogen species. In *Amino Acids*, vol. 32, pp. 497-499. Dostupné na: <<https://doi.org/10.1007/s00726-006-0467-y>>.
- [64] GARG, A. – SHARMA, A. – KRISHNAMOORTHY, P. – GARG, J. – VIRMANI, D. – SHARMA, T. – STEFANINI, G. – KOSTIS, J. B. – MUKHERJEE, D. – SIKORSKAYA, E. 2017. Role of Niacin in Current Clinical Practice: A Systematic Review. In *American Journal of Medicine* [online], vol. 130, no. 2, pp. 173-187 [cit. 2020-12-16]. ISSN 2779-3642. Dostupné na: <<https://doi.org/10.1016/j.amjmed.2016.07.038>>.
- [65] GAVELLE, E. – HUNEAU, J. F. – BIANCHI, C. M. – VERGER, E. O. – MARIOTTI, F. 2017. Protein Adequacy Is Primarily a Matter of Protein Quantity, Not Quality: Modeling an Increase in Plant: Animal Protein Ratio in French Adults. In *Nutrients* [online], vol. 9, no. 12, pp. 1333 [cit. 2020-12-21]. ISSN 2929-2749. Dostupné na: <<https://doi.org/10.3390/nu9121333>>.
- [66] GERAERT, P. – MERCIER, Y. 2016. *Advances in Sulphur Amino Acid Nutrition Through Recent Metabolic and Physiological Research*. SAS., France.
- [67] GHOREYSHI, S. M. – OMRI, B. – CHALGHOUMI, R. – BOUYEH, M. – SEIDAVI, A. – DADASHBEIKI, M. – LUCARINI, M. – DURAZZO, A. – HOVEN, R. – SANTINI, A. 2019. Effects of Dietary Supplementation of L-Carnitine and Excess Lysine-Methionine on Growth Performance, Carcass Characteristics, and Immunity Markers of Broiler Chicken. In *Animals* [online], vol. 9, no. 6, pp. 362-363 [cit. 2020-11-18]. ISSN 3120-8135. Dostupné na: <<https://doi.org/10.3390/ani9060362>>.
- [68] GOYAL, L. – KAUSHAL, S. 2018. Evaluation of Chemical Composition and Antioxidant Potential of Essential Oil from *Citrus reticulata*

- Fruit Peels. In *Advances in Research* [online], vol. 15, no. 2, pp. 1-9 [cit. 2020-12-18]. ISSN 2348-0394. Dostupné na: <<https://doi.org/10.9734/AIR/2018/41981>>.
- [69] GRANVOGL, M. – BEKSAN, E. – SCHIEBERLE, P. 2012. New insights into the formation of aroma-active Strecker aldehydes from 3-oxazolines as transient intermediates. In *Journal of Agricultural and Food Chemistry* [online], vol. 60, no. 25, pp. 6312-6322 [cit. 2020-11-28]. Dostupné na: <<https://doi.org/10.1021/jf301489j>>.
- [70] GROPPER, S. S. – SMITH, J. L. 2012. *Advanced nutrition and human metabolism*, 6th ed., Cengage Learning. pp. 186-233. ISBN13: 978-1-133-10405.
- [71] GU, Shuqing, Lina ZHAN, Chaomin ZHAO, Jiang ZHENG, Yicun CAI a Xiaojun DENG, 2018. Identification of meat marker peptides and detection of adulteration by liquid chromatography-tandem mass spectrometry. *Chinese Journal of Chromatography* [online]. 2018, vol. 36, pp. 12, s. 1269. Dostupné na: <[doi:10.3724/sp.j.1123.2018.08005](https://doi.org/10.3724/sp.j.1123.2018.08005)>.
- [72] HAN, F. – HAN, F. – WANG, Y. – FAN, L. 2019. Digestible indispensable amino acid scores of nine cooked cereal grains. In *British Journal of Nutrition* [online], vol. 121, no. 1, pp. 30-41 [cit. 2020-12-20]. ISSN 1475-2662. Dostupné na: <<https://doi.org/10.1017/S0007114518003033>>.
- [73] HARPER, A. E. – BENEVENGA, N. J. – WOHLHEUTER, R. M. 1970. Effects of ingestion of disproportionate amounts of amino acids. In *Physiological Reviews*, vol. 50, no. 3, pp. 428-558. Dostupné na: <<https://doi.org/10.1152/physrev.1970.50.3.428>>.
- [74] HARPER, A. E. – MILLER, R. H. – BLOCK, K. P. 1984. Branched-chain amino acid metabolism. In *Annual Review of Nutrition* [online], vol. 4, pp. 409-454 [cit. 2020-12-15]. Dostupné na: <<https://doi.org/10.1146/annurev.nu.04.070184.002205>>.
- [75] HAŠČÍK, P. – ELIMAN, I. O. E. – GARLÍK, J. – KAČÁNIOVÁ, M. – BOBKO, M. – KŇAZOVICKÁ, V. – VAVRIŠINOVÁ, K. – ARPÁŠOVÁ, H. – BUČKO, O. 2012. Chemical composition of muscle after pollen application in nutrition of broiler chickens. In *Potravinárstvo*, vol. 6, no. 2, pp. 26-32. Dostupné na: <<https://doi.org/10.5219/190>>.
- [76] HAŠČÍK, P. – KAČÁNIOVÁ, M. – NOVÁKOVÁ, I. – FIXELOVÁ, M. – KULÍŠEK, V. – VAVRIŠINOVÁ, K. – ARPÁŠOVÁ, H. 2009. Effect of probiotics on protein production in fattening chicken meat. In *Slovak Journal of Animal Science*, vol. 42, pp. 22-26.
- [77] HESS, J. – SLAVIN, J. 2016. Defining „Protein“ Foods. In *Nutrition Today* [online], vol. 51, no. 3, pp. 117-120 [cit. 2020-12-20]. ISSN 2734-0301. Dostupné na: <<https://doi.org/10.1097/NT.000000000000157>>.
- [78] HYDE, R. – TAYLOR, P. M. – HUNDAL, H. S. 2003. Amino acid transporters: Roles in amino acid sensing and signalling in animal cells.

- In *Biochemical Journal*, vol. 373, pp. 1-18. Dostupné na: <<https://doi.org/10.1042/bj20030405>>.
- [79] CHEN, Y. – QIAO, Y. – XIAO, Y. – CHEN, H. – ZHAO, L. – HUANG, M. – ZHOU, G. 2016a. Differences in Physicochemical and Nutritional Properties of Breast and Thigh Meat from Crossbred Chickens, Commercial Broilers, and Spent Hens. In *Asian-Australasian Journal of Animal Sciences* [online], vol. 29, no. 6, pp. 855-864 [cit. 2020-12-12]. ISSN 2695-4114. <<https://doi.org/10.5713/ajas.15.0840>>.
- [80] CHEN, Y. P. – CHENG, Y. F. – LI, X. H. – YANG, W. L. – WEN, C. – ZHUANG, S. – ZHOU, Y. M. 2017. Effects of threonine supplementation on the growth performance, immunity, oxidative status, intestinal integrity, and barrier function of broilers at the early age. In *Poultry Science* [online], vol. 96, no. 2, pp. 405-413 [cit. 2020-12-20]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.3382/ps/pew240>>.
- [81] CHEN, Y. P. – CHENG, Y. F. – LI, X. H. – YANG, W. L. – WEN, C. – ZHUANG, S. – ZHOU, Y. M. 2016 b. Effects of threonine supplementation on the growth performance, immunity, oxidative status, intestinal integrity and barrier function of broilers at the early age. In *Poultry Science*, vol. 96, pp. 405-413. Dostupné na: <<https://doi.org/10.3382/ps/pew240>>.
- [82] CHERIF, M. 2012. Biological stoichiometry: the elements at the heart of biological interactions. In INNOCENTI, A.: *Stoichiometry and research – the importance of quantity in biomedicine* [online]. Montreal, Quebec Canada : Tech. 376 p [cit. 2020-12-20]. ISBN 978-953-51-0198-7. Dostupné na: <<https://www.intechopen.com/books/stoichiometry-and-research-the-importance-of-quantity-in-biomedicine/ecological-stoichiometry-the-elements-at-the-heart-of-ecological-interactions>>.
- [83] CHMIEL, M. – ROSZKO, M. – ADAMCZAK, L. – FLOROWSKI, T. – PIETRZAK, D. 2019. Influence of storage and packaging method on chicken breast meat chemical composition and fat oxidation. In *Poultry Science* [online], vol. 98, no. 6, pp. 2679-2690 [cit. 2020-12-07]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.3382/ps/pez029>>.
- [84] IMIK, H. – HAYIRLI, A. – TURGUT, L. – LACIN, E. – CELEBI, S. – KOC, F. – YILDIZ, L. 2006. Effects of additive on laying performance, metabolic profile, and egg quality of hens fed a high level sorghum (*Sorghum vulgare*) during the peak laying period. In *Asian-Australasian Journal of Animal Sciences*, vol. 19, pp. 573-581. Dostupné na: <<https://doi.org/10.5713/ajas.2006.573>>.
- [85] ISBN 978-1-83881-445-8. Dostupné na: <<https://doi.org/10.5772/intechopen.72865>>.
- [86] ISHII, C. – AKITA, T. – MITA, M. – IDE, T. – HAMASE, K. 2018. Development of an online two-dimensional high-performance liquid

- chromatographic system in combination with tandem mass spectrometric detection for enantiomeric analysis of free amino acids in human physiological fluid. In *Journal of Chromatography* [online], vol. 1570, pp. 91-98 [cit. 2020-12-06]. ISSN 3010-4059. Dostupné na: <<https://doi.org/10.1016/j.chroma.2018.07.076>>.
- [87] ISMAIL, I. – JOO, S. T. 2017. Poultry Meat Quality in Relation to Muscle Growth and Muscle Fiber Characteristics. In *Korean Journal for Food Science of Animal Resources* [online], vol. 37, no. 6, pp. 873-883 [cit. 2020-12-07]. ISSN 2972-5209. Dostupné na: <<https://doi.org/10.5851/kosfa.2017.37.6.87>>.
- [88] JANKOWSKI, J. – KUBINSKA, M. – ZDUNCZYK, Z. 2014. Nutritional and immunomodulatory function of methionine in poultry diets – a review. In *Annal of Animal Science* [online], vol. 14, no. 1, pp. 17-31 [cit. 2020-12-18]. ISSN 0104-0818. Dostupné na: <<https://doi.org/10.2478/aoas-2013-0081>>.
- [89] JATURASITHA, S. – SRIKANCHAI, T. – KREUZER, M. – WICKE, M. 2008. Differences in Carcass and Meat Characteristics Between Chicken Indigenous to Northern Thailand (Black-boned and Thai Native) and Imported Extensive Breeds (Bresse and Rhode Island Red). In *Poultry Science* [online], vol. 87, no. 1, pp. 160-169 [cit. 2020-12-06]. ISSN 1807-9466. Dostupné na: <<https://doi.org/10.3382/ps.2006-00398>>.
- [90] JI, S. – QI, X. – LIU, X. – MIN, Y. 2019. Effects of Dietary Threonine Levels on Intestinal Immunity and Antioxidant Capacity Based on Cecal Metabolites and Transcription Sequencing of Broiler. In *Animals* [online], vol. 9, no. 10, pp. 739 [cit. 2020-12-20]. ISSN 3126-9385. Dostupné na: <<https://doi.org/10.3390/ani9100739>>.
- [91] JIANG, G. – LI, C. – HUANG, X. – ZHANG, X. – HU, Y. – WANG, X. – WU, D. – DAI, Q. 2018. The Effects of Threonine on Performance Parameters, Carcass Traits, Visceral Organ Indices and Serum Biochemical Parameters of Linwu Ducks, Aged 4 to 8 Weeks. In *Brazilian Journal of Poultry Science* [online], vol. 20, no. 2, pp. 151 [cit. 2020-12-20]. ISSN 1806-9061. Dostupné na: <<https://doi.org/10.1590/1806-9061-2017-0614>>.
- [92] JOBGEN, W. S. – FRIED, S. K. – FU, W. J. – MEININGER, C. F. – WU, G. 2006. Regulatory role for the arginine-nitric oxide pathway in metabolism of energy substrates. In *Journal of Nutritional Biochemistry*, vol. 17, pp. 571-588. Dostupné na: <<https://doi.org/10.1016/j.jnutbio.2005.12.001>>.
- [93] JOO, S. T. – HWANG, Y. H. – FRANK, D. 2017. Characteristics of Hanwoo cattle and health implications of consuming highly marbled Hanwoo beef. In *Meat Science* [online], vol. 132, pp. 45-51 [cit. 2020-12-11]. ISSN 0309-1740. Dostupné na: <<https://doi.org/10.1016/j.meatsci.2017.04.262>>.

- [94] JOYE, I. 2019. Protein Digestibility of Cereal Products. In *Foods* [online], vol. 8, no. 6, pp. 199-201 [cit. 2020-12-20]. ISSN 2304-8158. Dostupné na: <<https://doi.org/10.3390/foods8060199>>.
- [95] KAHIRA, J. – WELDESEMAYAT SILESHI, G. – NZIGUHEBA, G. – KINYUA, M. – ZINGORE, S. – SOMMER, R. 2017. Application of secondary nutrients and micronutrients increases crop yields in sub-Saharan Africa. In *Agronomy for Sustainable Development*, vol. 37, no. 4. <<https://doi.org/10.1007/s13593-017-0431-0>>.
- [96] KEENE, D. – PRICE, C. – SHUN-SHIN, M. J. – FRANCIS, D. P. 2014. Effect on cardiovascular risk of high density lipoprotein targeted drug treatments niacin, fibrates, and CETP inhibitors: meta-analysis of randomised controlled trials including 117 411 patients. In *British Medical Journal* [online], vol. 349 [cit. 2020-12-16]. ISSN 1756-1833. Dostupné na: <<https://doi.org/10.1136/bmj.g4379>>.
- [97] KHAJALI, F. – WIDEMAN, R. F. 2010. Dietary arginine: metabolic, environmental, immunological and physiological interrelationships. In *Worlds Poultry Science Journal*, vol. 66, pp. 751-66. <<https://doi.org/10.1017/s0043933910000711>>.
- [98] KHAKSEFIDI, A. – RAHIMI, S. 2005. Effect of probiotic inclusion in the diet of broiler chickens on performance, feed efficiency and carcass quality. In *Asian-Australasian Journal of Animal Sciences*, vol. 18, pp. 1153-1156. Dostupné na: <<https://doi.org/10.5713/ajas.2005.1153>>.
- [99] KHAN, M.A. – ALI, S. – ABID, M. – AHMAD, H. – ZHANG, L. X. – TUME, R. K. – ZHOU, G. H. 2014. Enhanced texture, yield and safety of a ready-to-eat salted duck meat product using a high pressure-heat process. In *Innovative Food Science & Emerging Technologies* [online], vol. 21, pp. 50-57 [cit. 2020-11-09]. Dostupné na: <<https://doi.org/10.1016/j.ifset.2013.10.008>>.
- [100] KHWATENGE, C. N. – KIMATHI, B. M. – TAYLOR-BOWDEN, T. – NAHASHON, S. N. 2019. Expression of lysine-mediated neuropeptide hormones controlling satiety and appetite in broiler chickens. In *Poultry Science* [online], vol. 1, pp. 21-22 [cit. 2020-12-18]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.1016/j.psj.2019.10.053>>.
- [101] KIDD, M. – FANCHER, B. I. 2001. Lysine needs of starting chicks and subsequent effect during the growing period. In *Journal of Applied Poultry Research*, vol. 10, pp. 385-393. Dostupné na: <<https://doi.org/10.1093/japr/10.4.385>>.
- [102] KIDD, M. T. – CORSO, A. – HOEHLER, D. – MILLER, E. R. – DOZIER, W. A. 2005. Broiler responsiveness (Rossx708) to diets varying in amino acid density. In *Poultry Science* [online], vol. 84, no. 9, pp. 1389-1396 [cit. 2020-12-18]. ISSN 1620-6560. Dostupné na: <<https://doi.org/10.1093/ps/84.9.1389>>.

- [103] KIDD, M. T. – KERR, B. J. 1996. L-threonine for poultry: A review. In *Journal of Applied Poultry Research* [online], vol. 5, no. 4, pp. 358-367 [cit. 2020-12-06]. ISSN 1056-6171. Dostupné na: <<https://doi.org/10.1093/japr/5.4.358>>.
- [104] KIDD, M. T. – ZHANG, Q. – XU, L. – DOSTER, A. – MURDOCH, R. – COTTER, P. – GARDNER, A. – APPLGATE, T. J. 2014. Dietary threonine requirement of Pekin ducks from 15 to 35 days of age based on performance, yield, serum natural antibodies, and intestinal mucin secretion. In *Poultry Science*, vol. 93, pp. 1972-1980. Dostupné na: <<https://doi.org/10.3382/ps.2013-03819>>.
- [105] KIM, GAP-DON, JIN-KYU SEO, HYEON-WOONG YUM, JIN-YEON JEONG A HAN-SUL YANG, 2017. Protein markers for discrimination of meat species in raw beef, pork and poultry and their mixtures. *Food Chemistry* [online]. 2017, vol. 217, pp. 163–170. Dostupné na: <<https://doi.org/10.1016/j.foodchem.2016.08.100>>.
- [106] KIM, H. J. – KIM, H. J. – JEON, J. J. – NAM, K. CH. – SHIM, K. S. – JUNG, J. H. – KIM, K. S. – CHOI, Y. – KIM, S-H. – JANG, A. 2020. Comparison of the quality characteristics of chicken breast meat from conventional and animal welfare farms under refrigerated storage. In *Poultry Science* [online], vol. 99, pp. 1788-1796 [cit. 2020-11-06]. Dostupné na: <<https://doi.org/10.1016/j.psj.2019.12.009>>.
- [107] KIM, M. J. – PARVIN, R. – MUSHTAQ, M. M. H. – HWANGBO, J. – KIM, J. H. – NA, J. C. – KIM, D. W. – KANG, H. H. – KIM, C. D. – CHO, K. O. – YANG, C. B. – CHOI, H. C. 2013. Influence of monochromatic light on quality traits, nutritional, fatty acid, and amino acid profiles of broiler chicken meat. In *Poultry Science*, vol. 92, pp. 2844-2852. Dostupné na: <<https://doi.org/10.3382/ps.2013-03159>>.
- [108] KIM, Y. J. – JIN, S. K. – YANG, H. S. 2009. Effect of dietary garlic bulb and husk on the physicochemical properties of chicken meat. In *Poultry Science*, vol. 88, 2009, pp. 398-405. Dostupné na: <<https://doi.org/10.3382/ps.2008-00179>>.
- [109] KOPEC, W. – JAMROZ, D. – WILICZKIEWICZ, A. – BIAZIK, E. – HIKAWCZUK, T. – SKIBA, T. – PUDŁO, A. – ORDA, J. 2012. Antioxidation status and histidine dipeptides content in broiler blood and muscles depending on protein sources in feed. In *Journal of Animal Physiology and Animal Nutrition*, vol. 97, pp. 586-598. Dostupné na: <<https://doi.org/10.1111/j.1439-0396.2012.01303.x>>.
- [110] KOPEC, W. – JAMROZ, D. – WILICZKIEWICZ, A. – BIAZIK, E. – PUDŁO, A. – KORZENIOWSKA, M. – HIKAWCZUK, T. – SKIBA, T. 2020. Antioxidative Characteristics of Chicken Breast Meat and Blood after Diet Supplementation with Carnosine, L-histidine, and β -alanine. In *Antioxidants*, vol. 9, no. 11, pp. 1093. Dostupné na: <<https://doi.org/10.3390/antiox9111093>>.

- [111] LAI, A. – DONG, G. – SONG, D. – YANG, T. – ZHANG, X. 2018. Responses to dietary levels of methionine in broilers medicated or vaccinated against coccidia under *Eimeria tenella*-challenged condition. In *BMC Veterinary Research* [online], vol. 14, pp. 140-145 [online], [cit. 2020-12-18]. ISSN 2969-9573. Dostupné na: <<https://doi.org/10.1186/s12917-018-1470-8>>.
- [112] LEDOUX, D. R. 2016. Breast myopathies in commercial broilets [online], [cit. 2020-10-18]. Dostupné na: <https://www.ciabcr.com/charlas/Nutrici%C3%B3n%20Animal%202016/monogastricos_1mi_nopatiasprofundas_davidledoux.pdf>.
- [113] LEMME, A. – RAVINDRAN, V. – BRYDEN, W. L. 2004. Ileal digestibility of amino acids in feed ingredients for broilers In *Worlds Poultry Science Journal* [online], vol. 60, no. 4, pp. 423-438 [cit. 2020-02-19]. ISSN 1743-4777. Dostupné na: <<https://doi.org/10.1079/WPS200426>>.
- [114] LEVINE, M. E. – SUARES, J. A. – BRANDHORST, S. – BALASUBRAMANIAN, P. – CHENG, C. W. – MADIA, F. – FONTANA, L. – MIRISOLA, M. G. – GUEVARA-AGUIRRE, J. – WAN, J. – PASSARINO, G. – KENNEDY, B. K. – WEI, M. – COHEN, P. – CRIMMINS, E. M. – LONGO, V. D. 2014. Low protein intake is associated with a major reduction in IGF-1, cancer, and overall mortality in the 65 and younger but not older population. In *Cell Metabolism* [online], vol. 19, no. 3, pp. 407-417 [cit. 2020-12-06]. ISSN 2460-6898. Dostupné na: <<https://doi.org/10.1016/j.cmet.2014.02.006>>.
- [115] LI, Y. – LUO, CH. – WANG, J. – GUO, F. 2017. Effects of different raising systems on growth performance, carcass, and meat quality of medium-growing chickens. In *Journal of Applied Animal Research* [online], vol. 45, no. 1, pp. 326-330 [cit. 2020-12-16]. ISSN 0007-1145. Dostupné na: <<https://doi.org/10.1080/09712119.2016.1190735>>.
- [116] LIAO, S. F. – WANG, T. – REGMI, N. 2015. Lysine nutrition in swine and the related monogastric animals: muscle protein biosynthesis and beyond. In *SpringerPlus* [online], vol. 4, pp. 147-158 [cit. 2020-12-18]. ISSN 2193-1801. Dostupné na: <<https://doi.org/10.1186/s40064-015-0927-5>>.
- [117] LIBURN, M. S. – GRIFFIN, J. R. – WICK, M. 2019. From muscle to food: oxidative challenges and developmental anomalies in poultry breast muscle. In *Poultry Science* [online], vol. 98, no. 10, pp. 4255-4260 [cit. 2020-12-11]. ISSN 0032-5791. Dostupné na <<https://doi.org/10.3382/ps/pey409>>.
- [118] LISNAHAN, CH. V. – ZUPRIZAL, W. – HARIMURTI, S. 2017. Effect of Addition of Methionine and Lysine into Diets Based on Cafeteria Standards on the Growth Performance of Native Chickens at Starter Phase. In *International Journal of Poultry Science* [online], vol. 16,

no. 12, pp. 506-510 [cit. 2020-12-24]. ISSN 1994-7992. Dostupné na: <<https://doi.org/10.3923/ijps.2017.506.510>>.

- [119] LISTRAT, A. – LEBRET, B. – LOUVEAU, I. – ASTRUC, T. – BONNET, M. – LEFAUCHEUR, L. – PICARD, B. – BUGEON, J. 2016. How Muscle Structure and Composition Influence Meat and Flesh Quality. In *The Scientific World Journal* [online], vol. 16, pp. 14 [cit. 2020-12-11]. ISSN 3182746. Dostupné na: <<https://doi.org/10.1155/2016/3182746>>.
- [120] LITWACK, G. 2018. *Human Biochemistry* [online]. Cambridge: Academic Press [cit. 2020-12-14]. 778. ISBN 978-0-12-383864-3. Dostupné na: <<https://doi.org/10.1016/C2009-0-63992-1>>.
- [121] LIU, X. D. – JAYASENA, D. D. – JUNG, Y. – JUNG, S. – KANG, B. S. – HEO, K. N. – LEE, J. H. – JO, CH. 2012. Differential Proteome Analysis of Breast and Thigh Muscles between Korean Native Chickens and Commercial Broilers. In *Asian-Australasian Journal of Animal Science*, vol. 25, no. 6, pp. 895-902. Dostupné na: <<https://doi.org/10.5713/ajas.2011.11374>>.
- [122] LIU, Y. L. – SONG, G. L. – YI, G. F. – HOU, Y. Q. – HUANG, J. W. – KNIGHT, C. D. 2006. Effect of Supplementing 2-Hydroxy-4-(Methylthio) Butanoic Acid and DL-methionine in Corn-soybean-cottonseed Meal Diets on Growth Performance and Carcass Quality of Broilers. In *Asian-Australasian Journal of Animal Sciences* [online], vol. 19, no. 9, pp. 1197-1205 [cit. 2020-12-06]. ISSN 1976-5517. Dostupné na: <<https://doi.org/10.5713/ajas.2006.1197>>.
- [123] LUKASZEWICZ, E. – KOWALCZYK, A. 2014. Slaughter yield and breast meat quality of chicken broilers in relation to sex and level of dietary maize distillers dried grains with solubles (DDGS). In *Revue de Médecine Vétérinaire*, vol. 165, no. 5-6, pp. 176-182.
- [124] MACLEOD, G. 1998. The flavor of beef. In Shahidi, F.: *Flavor of meat and meat products and seafoods*, 2nd ed. pp. 5-81. London: Blackie Majcher, M., & Jeleń, H. H. (2007). Effect of cysteine and cystine addition on sensory profile and potent odorants of extruded potato snacks. In *Journal of Agricultural and Food Chemistry*, vol. 55, no. 14, pp. 5754-5760. Dostupné na: <<https://doi.org/10.1021/jf0703147>>.
- [125] MARANGONI, F. – CORSELLO, G. – CRICELI, C. – FERRARA, N. – GHISELLI, A. – LUCCHIN, L. – POLI, A. 2015. Role of poultry meat in a balanced diet aimed at maintaining health and wellbeing: an Italian consensus document. In *Food & Nutrition Research* [online], vol. 59, pp. 2760 [cit. 2020-12-21]. ISSN 1654-661X. Dostupné na: <<https://doi.org/10.3402/fnr.v59.27606>>.
- [126] MARANGONI, F. – CORSELLO, G. – CRICELLI, C. – FERRARA, N. – GHISELLI, A. – LUCCHIN, L. – POLI, A. 2015. Role of poultry meat in a balanced diet aimed at maintaining health and wellbeing: an Italian consensus document. In *Food & Nutrition Research* [online],

- vol. 59, pp. 101-122 [cit. 2020-12-12]. ISSN 2606-5493. Dostupné na: <<https://doi.org/10.3402/fnr.v59.27606>>.
- [127] MARANGONI, F. – CORSELLO, G. – CRINCELLI, C. – FERRARA, N. – GHISELLI, A. – LUCCHIN, L. – POLI, A. 2015. Role of poultry meat in a balanced diet aimed at maintaining health and wellbeing: an Italian consensus document. In *Food & Nutrition Research Nutrition* [online], vol. 59, pp. 64-69 [cit. 2020-12-06]. ISSN 2606-5493. Dostupné na: <<https://doi.org/10.3402/fnr.v59.27606>>.
- [128] MARINANGELI, CH. P. F. – HOUSE, J. D. 2017. Potential Impact of the Digestible Indispensable Amino Acid Score as a Measure of Protein Quality on Dietary Regulations and Health. In *Nutrition reviews* [online], vol. 75, no. 8, pp. 658-667 [cit. 2020-12-20]. ISSN 2896-9364. Dostupné na: <<https://doi.org/10.1093/nutrit/nux025>>.
- [129] MAROUFYAN, E. – KASIM, A. – HASHEMI, S. R. – LOH, T. CH. – BEJO, M. H. – HOMA, D. 2010. The Effect of Methionine and Threonine Supplementations on Immune Responses of Broiler Chickens Challenged with Infectious Bursal Disease. In *American Journal of Applied Sciences* [online], vol. 7, no. 1, pp. 44-50 [cit. 2020-12-06]. ISSN 1554-3641. Dostupné na: <<https://doi.org/10.3844/ajassp.2010.44.50>>.
- [130] MASTROTOTARO, L. – SPONDER, G. – SAREMI, B. – ASCHENBACH, J. R. 2016. Gastrointestinal methionine shuttle: Priority handling of precious goods. In *Journal of the International Union of Biochemistry and Molecular Biology*, vol. 68, pp. 924-934. Dostupné na: <<https://doi.org/10.1002/iub.1571>>.
- [131] MATEO, R. D. – WU, G. – BAZER, F. W. – PARK, J. C. – SHINZATO, I. – KIM, S. W. 2007. Dietary L-arginine supplementation enhances the reproductive performance of gilts. In *Journal of Nutrition*, vol. 137, pp. 652-656. Dostupné na: <<https://doi.org/10.1093/jn/137.3.652>>.
- [132] MATEOS, G. G. – MOHITI-ASLI, M. – BORDA, E. – MIRZAIE, S. – FRIKHA, M. 2013. Effect of inclusion of porcine mucosa hydrolysate in diets varying in lysine content on growth performance and ileal histomorphology of broilers. In *Animal Feed Science and Technology*, vol. 187, pp. 53-60.
- [133] MEHTA, N. – AHLAWAT, S. S. – SHARMA, D. P. – DABUR, R. S. 2015. Novel Trends in Development of Dietary Fiber Rich Meat Products-A Critical Review. In *Journal of Food Science and Technology* [online], vol. 52, no. 2, pp. 633-647 [cit. 2020-12-06]. ISSN 2569-4673. Dostupné na: <<https://doi.org/10.1007/s13197-013-1010-2>>.
- [134] MEINERT, L. – ANDERSEN, L. T. – BREDIE, W. L. P. – BJERGE-GAARD, CH. – AASLYNG, M. D. 2007. Chemical and sensory characterization of pan-fried pork flavor: Interaction between raw meat quality, ageing and frying temperature. In *Meat Science* [online], vol. 75, no. 2, pp. 229-242 [cit. 2020-11-28]. Dostupné na: <<https://doi.org/10.1016/j.meatsci.2006.07.004>>.

- [135] MEINERT, L. – SCHÄFER, A. – BJEREGGAARD, C. – AASLYNG, M. D. – BREDIE, W. L. P. 2009. Comparison of glucose, glucose 6-phosphate, ribose, and mannose as flavor precursors in pork; the effect of monosaccharide addition on flavor generation. In *Meat Science* [online], vol. 81, no. 3, pp. 419-425 [cit. 2020-12-03]. Dostupné na: <<https://doi.org/10.1016/j.meatsci.2008.08.018>>.
- [136] MENDES, A. S. – API, I. – SILVA, L. – SILVA, R. T. L. – SAUSEN, L. – MENEZES, L. F. G. – MORELLO, G. M. – CARVALHO, E. H. 2014. Effects of dietary lysine on broiler performance and carcass yield – Meta-analysis. In *Brazilian Journal of Poultry Science* [online], vol. 16, no. 4, pp. 425-430 [cit. 2020-12-06]. ISSN 1516-635X. Dostupné na: <<https://doi.org/10.1590/1516-635x1604425-430>>.
- [137] MÉTAYER-COUSTARD, S. – MAMERI, H. – SEILIEZ, I. – CROCHET, S. – CRÉPIEUX, P. – MERCIER, Y. – GERAERT, P.-A. – TESSERAUD, S. 2010. Methionine deprivation regulates the S6K1 pathway and protein synthesis in avian QM7 myoblasts without activating the GCN2/eIF2 α cascade. In *Journal of Nutrition*, vol. 140, pp. 1539-1545. Dostupné na: <<https://doi.org/10.3945/jn.110.122663>>.
- [138] MÉTAYER, S. – SEILIEZ, I. – COLLIN, A. – DUCHÈNE, S. – MERCIER, Y. – GERAERT, P. A. – TESSERAUD, S. 2008. Mechanisms through which sulfur amino acids control protein metabolism and oxidative status. In *The Journal of Nutritional Biochemistry* [online], vol. 19, no. 4, pp. 207-215 [cit. 2020-12-18]. ISSN 0955-2863. Dostupné na: <<https://doi.org/10.1016/j.jnutbio.2007.05.006>>.
- [139] MIN, Y. N. – LIU, S. G. – QU, Z. X. – MENG, G. H. – GAO, Y. P. 2017. Effects of dietary threonine levels on growth performance, serum biochemical indexes, antioxidant capacities, and gut morphology in broiler chickens. In *Poultry Science* [online], vol. 96, no. 5, pp. 1290-1297 [cit. 2020-12-20]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.3382/ps/pew393>>.
- [140] MIRANDA, M. – DELATORRE-HERRERA, J. – VEGA-GÁLVEZ, A. – JORQUERA, E. – QUISPE-FUENTES, I. – MARTÍNEZ, E. A. 2014. Antimicrobial potential and phytochemical content of six diverse sources of quinoa seeds (*Chenopodium quinoa* Willd.). In *Agricultural Sciences* [online], vol. 5, no. 11, pp. 1015-1024 [cit. 2020-12-06]. ISSN 2156-8553. Dostupné na: <<https://doi.org/10.4236/as.2014.511110>>.
- [141] MIRZAAGHATABAR, F. – SAKI, A. A. – ZAMANI, P. – ALIARABI, H. – MATIN, H. R. H. 2011. Effect of different levels of diet methionine and metabolisable energy on broiler performance and immune system. In *Food and Agricultural Immunology* [online], vol. 22, no. 2, pp. 93-103 [cit. 2020-12-18]. ISSN 0954-0105. Dostupné na: <<https://doi.org/10.1080/09540105.2010.530249>>.
- [142] MITROVIC, S. – DOSKOVIC, V. – BOGOSAVLJEVIC-BOSKOVIC, S. – DJOKOVIC, R. – DJERMANOVIC, V. 2010. Chemical composition

of chicken meat produced in extensive indoor and free range rearing systems. In *African Journal of Biotechnology* [online], vol. 9, no. 53, pp. 9069-9075 [cit. 2020-12-29]. ISSN 1684-5315. Dostupné na: <<https://www.academicjournals.org/AJB>>.

- [143] MORAN-PALACIO, E. F. – TORTOLEDO-ORTIZ, O. – YANEZ-FARIAS, G. A. – SONANEZ-ORGANIS, J. G. – OCHOA-LOPEZ, L. M. – ROSAS-RODRIGUEZ, J. A. 2014. Determination of Amino Acids in Medicinal Plants from Southern Sonora, Mexico. In *Tropical Journal of Pharmaceutical Research*, vol. 13, no. 4, pp. 601-606. <[HTTPS://DOI.ORG/10.4314/tjpr.v13i4.17](https://doi.org/10.4314/tjpr.v13i4.17)>.
- [144] MORAN, E. T. Jr. – BILGILI, S. F. 1990. Processing losses carcass quality and meat yield of broiler chicks receiving diets marginally deficient to adequate in lysine prior to marketing. In *Poultry Science*, vol. 69, pp. 702-710. Dostupné na: <<https://doi.org/10.3382/ps.0690702>>.
- [145] MORENGA, L. T. – MANN, J. 2012. The role of high-protein diets in body weight management and health. In *British Journal of Nutrition* [online], vol. 108, no. 52, pp. 130-138 [cit. 2020-12-16]. ISSN 0007-1145. Dostupné na: <<https://doi.org/10.1017/S0007114512002437>>
- [146] MORTON, D. J. – CLERENS, S. – DYER, M. J. 2016. Cooking-Induced Protein Modifications in Meat. In *Comprehensive Reviews in Food Science and Food Safety*, vol. 16, no. 1, pp. 141-159. Dostupné na: <<https://doi.org/10.1111/1541-4337.12243>>.
- [147] MOTTET, A. – TEMPIO, G. 2017. Global poultry production: Current state and future outlook and challenges. In *World's Poultry Science Journal*, vol. 73, pp. 245-256. Dostupné na: <<https://doi.org/10.1017/S0043933917000071>>.
- [148] MOUSAVI, S. N. – AFSAR, A. – KHALAJI, S. – ABBASI, M. 2018. Estimation of digestible tryptophan:lysine ratios for maximum performance, egg quality and welfare of white-egg-laying hens by fitting the different non-linear models. In *Journal of Applied Animal Research* [online], vol. 46, no. 1, pp. 411-416 [cit. 2020-12-20]. ISSN 0974-1844. Dostupné na: <<https://doi.org/10.1080/09712119.2017.1316278>>.
- [149] NAKANO, Y. – TANIGUCHI, M. – UMAKOSHI, Y. – WATAI, D. – FUKUSAKI, E. 2019. High-Throughput LC-MS/MS Method for Chiral Amino Acid Analysis Without Derivatization. In *Methods in Molecular Biology* [online], vol. 2030, pp. 253-261 [cit. 2020-11-06]. ISSN 3134-7123. Dostupné na: <https://doi.org/10.1007/978-1-4939-9639-1_19>.
- [150] NAPOLITANO, F. – GIROLAMI, A. – BRAGHIERI, A. 2010. Consumer liking and willingness to pay for high welfare animal-based products. In *Trends in Food Science & Technology*, vol. 21, pp. 537-543. Dostupné na: <<https://doi.org/10.1016/j.tifs.2010.07.012>>.

- [151] NASR, J. – F. KHEIRI, 2012. Effects of lysine levels of diets formulated based on total or digestible amino acids on broiler carcass composition. In *Revista Brasileira Ciencia Avicola*, vol. 14, pp. 249-258. Dostupné na: <<https://doi.org/10.1590/S1516-635X2012000400004>>.
- [152] NASR, J. – KHEIRI, F. 2011. Effect of different lysine levels on Arian broiler performances. In *Italian Journal of Animal Science* [online], vol. 10, no. 3, pp. 22 [cit. 2020-12-18]. ISSN 1828-051X. Dostupné na: <<https://doi.org/10.4081/ijas.2011.e32>>.
- [153] NRC (National Research Council), 1994. *Nutrient Requirements of Poultry*. 9th Revised Edition. Washington DC : National Academies Press.
- [154] Obrázok na titulnej strane: Vznik peptidovej väzby [online], vol. 2, pp. 45-52 [cit. 2020-11-20]. ISSN 0032-5791. Dostupné na: <https://www.aldebaran.cz/bulletin/2010_16_enc.php>.
- [155] OECD/FAO, 2018. OECD-FAO agricultural outlook 2018-2027 [online]. Rome: OECD Publishing, Paris/Food and Agriculture Organization of the United Nations [cit. 2020-11-20]. Dostupné na: <<https://doi.org/10.1787/fa290fd0-en>>.
- [156] OGATA, H. Y. 2002. Muscle buffering capacity of yellowtail fed diets supplemented with crystalline histidine. In *Journal of Fish Biology*, vol. 61, pp. 1504-1512. Dostupné na: <<https://doi.org/10.1111/j.1095-8649.2002.tb02493.x>>.
- [157] PAPET, I. – RÉMOND, D. – DARDEVET, D. – MOSONI, L. – POLAKOF, S. – PEYRON, M.A. – SAVARY-AUZELOUX, I. 2019. Sulfur Amino Acids and Skeletal Muscle. In *Nutrition and Skeletal Muscle*. pp. 315- 343. Dostupné na: <<https://doi.org/10.1016/B978-0-12-810422-4.00020-8>>.
- [158] PEREIRA, R. N. – VICENTE, A. A. 2010. Environmental impact of novel thermal and non-thermal technologies in food processing. In *Food Research International* [online], vol. 43, pp. 1936-1943 [cit. 2020-11-18]. Dostupné na: <<https://doi.org/10.1016/j.foodres.2009.09.013>>.
- [159] PETRACCI, M. – MUDALAL, S. – SOGLIA, F. CAVANI, S. 2015. Meat quality in fast-growing broiler chickens. In *World Poultry Science Journal*, vol. 71, pp. 363-374. Dostupné na: <<https://doi.org/10.1017/S0043933915000367>>.
- [160] PETROVIC, V. – BUZADZIC, B. – KORAC, A. – VASILJEVIC, A. – JANKOVIC, A. – MICUNOVIC, K. – KORAC, B. 2008. Antioxidative defence alterations in skeletal muscle during prolonged acclimation to cold: role of L-arginine/NO-producing pathway. In *Journal of Experimental Biology*, vol. 211, pp. pp. 114-120. Dostupné na: <<https://doi.org/10.1242/jeb.012674>>.
- [161] PHILLIPS, S. M. 2017. Current Concepts and Unresolved Questions in Dietary Protein Requirements and Supplements in Adults. In

- Frontiers in Nutrition*, vol. 4, no. 13, pp. 20-21. Dostupné na: <<https://doi.org/10.3389/fnut.2017.00013>>.
- [162] POPOVA, T. 2017. Effect of probiotics in poultry for improving meat quality. In *Current Opinion in Food Science* [online], vol. 14, pp. 72-77 [cit. 2020-11-18]. Dostupné na: <<https://doi.org/10.1016/j.cofs.2017.01.008>>.
- [163] PUIGSERVER, P. 2018. *Hematology* [online]. 7. Philadelphia: Elsevier. [cit. 2020-12-14]. 2408 p. ISBN 978-0-323-35762-3. Dostupné na: <<https://doi.org/10.1016/B978-0-323-35762-3.00007-X>>.
- [164] QAISRANI, S. N. – AHMED, I. – AZAM, F. – BIBI, F. – PASHA, T. N. – AZAM, F. 2018. Threonine in broiler diets: an updated review. In *Annals of Animal Science* [online], vol. 18, no. 3, pp. 659-674 [cit. 2020-12-20]. ISSN 2300-8733. Dostupné na: <<https://doi.org/10.2478/aoas-2018-0020>>.
- [165] QI, B. – WANG, J. – MA, Y. B. – WU, S. G. – QI, G. – ZHANG, H. J. 2018. Effect of dietary β -alanine supplementation on growth performance, meat quality, carnosine content, and gene expression of carnosine-related enzymes in broilers. In *Poultry Science*, vol. 97, pp. 1220-1228. Dostupné na: <<https://doi.org/10.3382/ps/pex410>>.
- [166] RABELER, F. – FEYISSA, A. H. 2018. Kinetic modeling of texture and color changes during thermal treatment of chicken breast meat. In *Food and Bioprocess Technology* [online], vol. 11, pp. 1495-1504 [cit. 2020-02-14]. Dostupné na: <<https://doi.org/10.1007/s11947-018-2123-4>>.
- [167] RAJENDRAN, R. – PREEDY, V. R. – PATEL, V. B. 2015. *Branched chain amino acids in clinical nutrition*, vol. 2. New York, NY: Humana Press. 333 p. ISBN 978-1-4939-1913-0. Dostupné na: <<https://doi.org/10.1007/978-1-4939-1914-7>>.
- [168] RAMA, S. V. – RAO, M. V. L. N. – RAJU, A. K. – PANDA, N. S. – POONAM, O. K. – MOORTHY, T. – SHYAM SUNDER, G. 2011. Performance, carcass variables and immune responses in commercial broiler chicks fed graded concentrations of threonine in diet containing sub-optimal levels of protein. In *Animal Feed Science and Technology*, vol. 169, no. 1, pp. 218-223. Dostupné na: <<https://doi.org/10.1016/j.anifeedsci.2011.06.013>>.
- [169] RAMANE, K. – GALO BURDA, R. – KREICBERGS, V. –, VANAGA, I. 2011. Amino acid profile of sous vide cooks poultry breast meat products. In *11th International Congress on Engineering and Food (ICEF11) proceedings*. Food Process Engineering in a Changing World, Athens.
- [170] RAVINDRAN, V. 2014. Nutrition of meat animals, Poultry. In *Encyclopedia of Meat Sciences*. 2nd ed. pp. 463-470. Dostupné na: <<https://doi.org/10.1016/B978-0-12-384731-7.00024-6>>.
- [171] REEDS, P. J. – BURRIN, D. G. – STOLL, B. – VAN GOUDOEVER, J. B. 2000. Role of the gut in the amino acid economy of the host. In

Vevey/Karger A. G.: *Nestlé Nutrition workshop series. Clinical & performance programme*. Vol. 3. Karger; Basel, Switzerland. pp. 25-46. Dostupné na: <<https://doi.org/10.1159/000061799>>.

- [172] REVERTER, A. – OKIMOTO, R. – SAPP, R. – BOTTJE, W. G. – HAWKEN, R. – HUDSON, N. J. 2017. Chicken muscle mitochondrial content appears co-ordinately regulated and is associated with performance phenotypes. In *Biology Open* [online], vol. 6, pp. 50-58 [cit. 2020-12-11]. ISSN 2046-6390. Dostupné na: <<https://doi.org/10.1242/bio.022772>>.
- [173] RIBEIRO, D. M. – MOURATO, M. P. – ALMEIDA, A. M. 2019. Assessing mineral status in edible tissues of domestic and game animals: a review with a special emphasis in tropical regions. In *Tropical Animal Health and Production* [online], vol. 51, pp. 1019-1032 [cit. 2020-12-02]. ISSN 1573-7438. Dostupné na: <<https://doi.org/10.1007/s11250-019-01848-8>>.
- [174] RODRÍGUEZ, F. I. – SALINAS-CHAVIRA, J. – MONTANO-GOMEZ, M. F. – MANRÍQUEZ-NUNEZ, O. M. – GONZÁLEZ-VIZCARRA, V. M. – GUEVARA-FLORENTINO, O. F. – RAMÍREZ DE LEÓN, J. A. 2016. Effect of Diets With Different Energy Concentrations on Growth Performance, Carcass Characteristics and Meat Chemical Composition of Broiler Chickens in Dry Tropics. In *SpringerPlus* [online], vol. 5, no. 1, pp. 1937 [cit. 2020-12-06]. ISSN 2791-7336. Dostupné na: <<https://doi.org/10.1186/s40064-016-3608-0>>.
- [175] RUTHERFURD, S. M. – FANNING, A. C. – MILLER, B. J. – MOUGHAN, P. J. 2015. Protein Digestibility-Corrected Amino Acid Scores and Digestible Indispensable Amino Acid Scores Differentially Describe Protein Quality in Growing Male Rats. In *The Journal of nutrition* [online], vol. 145, no. 2, pp. 372-379 [cit. 2020-12-21]. ISSN 2564-4361. Dostupné na: <<https://doi.org/10.3945/jn.114.195438>>.
- [176] SALEH, A. A. – RAGAB, M. M. – AHMED, E. A. M. – ABUDABOS, A. M. – EBEID, T. A. 2018. Effect of dietary zinc-methionine supplementation on growth performance, nutrient utilization, antioxidative properties and immune response in broiler chickens under high ambient temperature. In *Journal of Applied Animal Research* [online], vol. 46, no. 1, pp. 820-827 [cit. 2020-12-18]. ISSN 0971-2119. Dostupné na: <<https://doi.org/10.1080/09712119.2017.1407768>>.
- [177] SALEHIFAR, E. – SHIVAZAD, M. – FOROUDI, F. – CHAMANI, M. – KASHANI, R. B. 2012. Reevaluation of digestible amino acid requirements of male and female broilers based on different ideal amino acids ratios in starter period. In *Livestock Science*, vol. 147, no. 1/3, pp. 154-158. Dostupné na: <<https://doi.org/10.1016/j.livsci.2012.04.016>>.
- [178] SAMEEM, B. – KHAN, F. – NIAZ, K. 2019. L-Cysteine. In *Nonvitamin and Nonmineral Nutritional Supplements*, pp. 53-58. Dostupné na: <<https://doi.org/10.1016/B978-0-12-812491-8.00007-2>>.

- [179] SEMJON, B. – MARCINČAKOVÁ, D. – KORENEKOVÁ, B. – BARTKOVSKY, M. – NAGY, J. – TUREK, P. – MARCIN, S. 2020. Multiple factorial analysis of physicochemical and organoleptic properties of breast and thigh meat of broilers fed a diet supplemented with humic substances. In *Poultry Science* [online], vol. 99, pp. 1750-1760 [cit. 2020-12-18]. Dostupné na: <<https://doi.org/10.1016/j.psj.2019.11.012>>.
- [180] SENTANDREU, M.A. – ARMENTERO, M. – CALVETE, J. J. – OUALL, A. – ARISTOY, M. C. – TOLDRA, F. 2007. Proteomic identification of actin derived oligopeptides in dry cured ham. In *Journal of Agricultural and Food Chemistry*, vol. 55, pp. 3613-3619.
- [181] SHAHEEN, N. – ISLAM, S. – MUNMUN, S. – MOHIDUZZAMAN, M. – LONGVAH, T. 2016. Amino Acid Profiles and Digestible Indispensable Amino Acid Scores of Proteins From the Prioritized Key Foods in Bangladesh. In *Food Chemistry*, vol. 213, pp. 83-89. ISSN 2745-1158. <<https://doi.org/10.1016/j.foodchem.2016.06.05>>.
- [182] SHI, L. – HAO, G. – CHEN, J. – MA, S. – WENG, W. 2020. Nutritional evaluation of Japanese abalone (*Haliotis discus hannai Ino*) muscle: Mineral content, amino acid profile and protein digestibility. In *Food Research International* [online], vol. 129, pp. 108-176 [cit. 2020-12-20]. ISSN 0963-9969. Dostupné na: <<https://doi.org/10.1016/j.foodres.2019.108876>>.
- [183] SHIBUYA, N. – KIMURA, H. 2013. Production of Hydrogen Sulfide from D-Cysteine and Its Therapeutic Potential. In *Frontiers in Endocrinology*, vol. 4, no. 87, pp. 14-20. ISSN 2388-2260. Dostupné na: <<https://doi.org/10.3389/fendo.2013.00087>>.
- [184] SHIRISHA, R. – UMESH, B. U. – PRASHANTH, K. 2018. Effect of L-Threonine supplementation on broiler chicken: A review. In *The Pharma Innovation* [online], vol. 7, no. 3, pp. 490-493 [cit. 2020-12-20]. ISSN 2277-7695. Dostupné na: <<https://doi.org/10.22271/tpi>>.
- [185] SCHUTTE, J.B. – PACK, M. 1995. Sulphur amino acid requirement of broiler chicks from fourteen to thirty eight days of age. 1. Performance and carcass yield. In *Poultry Science*, vol. 74, pp. 480-487.
- [186] SI, J. – FRITTS, C. A. – WALDROUP, P. W. – BURNHAM, D. J. 2004. Effect of excess methionine from meeting needs for total sulfur amino acids on utilization of diets low in crude protein by broiler chicks. In *Journal of Applied Poultry Research*, vol. 13, pp. 579-587. Dostupné na: <<https://doi.org/10.3382/ps.0740480>>.
- [187] SIGOLO, S. – DELDAR, E. – SEIDAVI, A. – BOUYEH, M. – GALLO, A. – PRANDINI, A. 2018. Effects of dietary surpluses of methionine and lysine on growth performance, blood serum parameters, immune responses, and carcass traits of broilers. In *Journal of Applied Animal Research* [online], vol. 47, no. 1, pp. 146-153 [cit. 2020-12-18]. ISSN 0974-1844. Dostupné na: <<https://doi.org/10.1080/09712119.2019.1583571>>.

- [188] SKLAN, D. – NOY, Y. 2004. Catabolism and Deposition of Amino Acids in Growing Chicks: Effect of Dietary Supply. In *Poultry Science* [online], vol. 83, no. 6, pp. 952-961 [cit. 2020-11-06]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.1093/ps/83.6.952>>.
- [189] SMITH, T. K. – AUSTIC, R. E. 1978. The branched-chain amino acid antagonism in chicks. In *Journal of Nutrition*, vol. 108, pp. 1180-1191. <<https://doi.org/10.1093/jn/108.7.1180>>.
- [190] SOLADOYE, O. P. – JUÁREZ, L. M. – AALHUS, L. J. – SHAND, P. – ESTÉVEZ, M. 2015. Protein Oxidation in Processed Meat: Mechanisms and Potential Implications on Human Health. *Comprehensive: A Reviews*. In *Food Science and Food Safety*, vol. 14, no. 2, pp. 106-122. Dostupné na: <<https://doi.org/10.1111/1541-4337.12127>>.
- [191] SORIANO-SANTOS, J. 2010. Chemical composition and nutritional content of raw poultry meat. In Guerrero-Legarreta, I.: *Handbook of poultry science and technology*, vol. 1. Hoboken : John Wiley & Sons. pp. 467-491. Dostupné na: <<https://doi.org/10.1002/9780470504451.ch25>>.
- [192] SPANIER, A. M. – FLORES, M. – TOLDRA, F. – ARISTOY, M. C. – BETT, K. L. – BYSTRICKY, P. – BLAND, J. M. 2004. Meat flavor: contribution of proteins and peptides to the flavor of beef. In *Advances in Experimental Medicine and Biology*, vol. 542, pp. 33-49. Dostupné na: <https://doi.org/10.1007/978-1-4419-9090-7_3>.
- [193] STRAKOVÁ, E. – VITULA, F. – SUCHÝ, P. – VEČEREK, V. 2006. Differences in the amino acid composition of muscles from pheasant and broiler chickens. In *Archiv fur Tierzucht* [online], vol. 49, no. 5, pp. 508-514 [cit. 2020-12-21]. ISSN 0003-9438. Dostupné na: <<https://doi.org/10.5194/aab-49-508-2006>>.
- [194] SUCHÝ, P. – JELÍNEK, P. – STRAKOVÁ, E. – HUCL, J. 2002. Chemical composition of muscles of hybrid broiler chickens during prolonged feeding. In *Czech Journal of Animal Science*, vol. 47, 2002, pp. 511-518.
- [195] SWENNEN, Q. – LAROYE, C. – JANSSENS, G. – VERBEKE, K. – DECUYPERE, E. – BUYSE, J. 2007. Rate of metabolic decarboxylation of leucine as assessed by a L[1-¹³C]leucine breath test combined with indirect calorimetry of broiler chickens fed isocaloric diets with different protein:fat ratio. In *Journal of Animal Physiology and Animal Nutrition*, vol. 91, pp. 347-354. Dostupné na: <<https://doi.org/10.1111/j.1439-0396.2006.00661.x>>.
- [196] TAMIR, H. – RATNER, S. 1963. Enzymes of arginine metabolism in chicks. In *Archives of Biochemistry and Biophysics*, vol. 102, pp. 249-258. Dostupné na: <[https://doi.org/10.1016/0003-9861\(63\)90178-4](https://doi.org/10.1016/0003-9861(63)90178-4)>.
- [197] TESSARI, P. – LANTE, A. – MOSCA, G. 2016. Essential amino acids: master regulators of nutrition and environmental footprint?

- In *Scientific Reports* [online], vol. 6, pp. 26-74 [cit. 2020-12-14]. ISSN 2722-1394. Dostupné na: <<https://doi.org/10.1038/srep26074>>.
- [198] TESSERAUD, S. – EVERAERT, N. – BOUSSAID-OMEZZINE, S. 2011. Manipulating tissue metabolism by amino acids. In *World's Poultry Science Journal*, vol. 67, pp. 243-252. Dostupné na: <<https://doi.org/10.1017/S0043933911000274>>.
- [199] TESSERAUD, S. – MÉTAYER COUSTARD, S. – COLLIN, A. – SEILIEZ, I. 2009. Role of sulfur amino acids in controlling nutrient metabolism and cell functions: implications for nutrition. In *British Journal of Nutrition*, vol. 101, pp. 1132-1139. Dostupné na: <<https://doi.org/10.1017/S0007114508159025>>.
- [200] TEUFEL, M. – SAUDEK, V. – LEDIG, J. P. et al. 2002. Sequence Identification and Characterization of Human Carnosinase and a Closely Related Non-specific Dipeptidase. In *Journal of Biological Chemistry*, vol. 278, pp. 6521-6531. Dostupné na: <<https://doi.org/10.1074/jbc.M209764200>>.
- [201] THORNTON, S. A. – CORZO, A. – PHARR, G. T. – DOZIER III, W. A. – MILES, D. M. – KIDD, M. T. 2006. Valine requirements for immune and growth responses in broilers from 3 to 6 weeks of age. In *British Poultry Science*, vol. 47, no. 2, p. 190-199. Dostupné na: <<https://doi.org/10.1080/00071660600610989>>.
- [202] TOLIMIR, N. – PAVLOVSKI, Z. – MITROVIĆ, S. – BLAGOJEVIĆ, M. – ANOKIĆ, N. 2007. Quality of meat from broilers fed concentrate mixtures with different chromium source and level. In *Biotechnology in Animal Husbandry*, vol. 23, 2007, no. 5-6, pp. 311-321. Dostupné na: <<https://doi.org/10.2298/BAH0702311T>>.
- [203] TOMA, L. – STOTT, A. W. – REVOREDO-GIHA, C. – KUPIEC-TEAHAN, B. 2012. Consumers and animal welfare, a comparison between European Union countries. In *Appetite*, vol. 58, pp. 597-607. Dostupné na: <<https://doi.org/10.1016/j.appet.2011.11.015>>.
- [204] TOMÉ, D. – BOS, C. 2007. Lysine Requirement through the Human Life Cycle. In *The Journal of Nutrition* [online], vol. 137, no. 6, pp. 1642-1645 [cit. 2020-12-18]. ISSN 0022-3166. Dostupné na: <<https://doi.org/10.1093/jn/137.6.1642S>>.
- [205] TOMONAGA, S. – FURUSE, M. 2020. Nutritional Characteristics and Functions of D-Amino Acids in the Chicken. In *Japan Poultry Science* [online], vol. 57, pp. 18-27 [cit. 2020-12-06]. ISSN 0029-0254. Dostupné na: <<https://doi.org/10.2141/jpsa.0190062>>.
- [206] TRINDADE NETO, M.A. – KOBASHIGAWA, E. – NAMAZ, L. B. 2010. Lisina digestível e zinco orgânico para frangos de corte machos na fase de 22 a 42 dias de idade. In *Revista Brasileira de Zootecnia*, vol. 39, pp. 2460-2470. Dostupné na: <<https://doi.org/10.1590/S1516-35982010001100020>>.

- [207] USDA. 2019. *National Nutrient Database for Standard Reference* [online]. [cit. 2020-12-22]. Dostupné na: <<https://fdc.nal.usda.gov/>>.
- [208] VAN BUUREN, S. – SCHÖNBECK, Y. – VAN DOMMELEN, P. 2012. Collection, collation and analysis of data in relation to reference heights and reference weights for female and male children and adolescents (0-18 years) in the EU, as well as in relation to the age of onset of puberty and the age at which different stages of puberty are reached in adolescents in the EU. Project developed on the procurement project CT/EFSA/NDA/2010/01. In *EFSA Supporting publication 2012: EN-255*, 59 p. Dostupné na: <<https://doi.org/10.2903/sp.efsa.2012.EN-255>>.
- [209] VAN HOUWELINGEN, H. C. – ARENDS, L. R. – STIJNEN, T. 2002. Advanced methods in meta-analysis: Multivariate approach and meta-regression. In *Statistics Medicine*, vol. 21, pp. 589-624. Dostupné na: <<https://doi.org/10.1002/sim.1040>>.
- [210] VIEIRA, S. L. – ANGEL, C. R. 2012. Optimizing broiler performance using different amino acid density diets: What are the limits? In *Journal of Applied Poultry Research* [online], vol. 21, no. 1, pp. 149-155 [cit. 2020-12-21]. ISSN 1056-6171. Dostupné na: <<https://doi.org/10.3382/japr.2011-00476>>.
- [211] VIEIRA, S. L. – STEFANELLO, C. – CEMIN, H. S. 2016. Lowering the dietary protein levels by the use of synthetic amino acids and the use of a mono component protease. In *Animal Feed Science and Technology* [online], vol. 221, pp. 262-266 [cit. 2020-12-20]. ISSN 0377-8401. Dostupné na: <<https://doi.org/10.1016/j.anifeedsci.2016.07.001>>.
- [212] VILLALOBOS, P. – PADILLA, C. – PONCE, C. – ROJAS, A. 2010. Beef consumer preferences in Chile: importance of quality attribute differentiators on the purchase decision. In *Chilean Journal of Agricultural Research*, vol. 70, pp.85-94. Dostupné na: <<https://doi.org/10.4067/S0718-58392010000100009>>.
- [213] WANG, B. – MIN, Z. – YUAN, J. 2016a. Apparent ileal digestible tryptophan requirements of 22- to 42-day-old broiler chicks. In *Journal of Applied Poultry Research* [online], vol. 25, no. 1, pp. 54-61 [cit. 2020-12-21]. ISSN 1056-6171. Dostupné na: <<https://doi.org/10.3382/japr/pfv061>>.
- [214] WANG, B. – YANG, W. – MCKITTRICK, J. – MEYERS, M.A. 2016b. Keratin: Structure, mechanical properties, occurrence in biological organisms, and efforts at bioinspiration. In *Progress in Materials Science* [online], vol. 76, pp. 229-318 [cit. 2020-11-28]. Dostupné na: <<https://doi.org/10.1016/j.pmatsci.2015.06.001>>.
- [215] WATERLAND, R. A. – MICHELS, K. B. 2007. Epigenetic epidemiology of the developmental origins hypothesis. In *Annual Review of Nutrition*, vol. 27, pp. 363-388. Dostupné na: <<https://doi.org/10.1146/annurev.nutr.27.061406.093705>>.

- [216] WATERLAND, R. A. 2006. Assessing the effects of high methionine intake on DNA methylation. In *Journal of Nutrition*, vol. 136, pp. 1706S-1710S. Dostupné na: <<https://doi.org/10.1093/jn/136.6.1706S>>.
- [217] WHO (World Health Organization), Multicentre Growth Reference Study Group 2006. WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age: Methods and development. 312 p.
- [218] WU, B. – CUI, H. – PENG, X. – FANG, J. – LIU, X. D. 2012. Effect of Methionine Deficiency on the Thymus and the Subsets and Proliferation of Peripheral Blood T-Cell, and Serum IL-2 Contents in Broilers. In *Journal of Integrative Agriculture*, vol. 11, pp. 1009-1019. Dostupné na: <[https://doi.org/10.1016/S2095-3119\(12\)60093-8](https://doi.org/10.1016/S2095-3119(12)60093-8)>.
- [219] WU, G. – BAZER, F. W. – DAI, Z. – LI, D. – WANG, J. – WU, Z. 2014. Amino Acid Nutrition in Animals: Protein Synthesis and Beyond. In *Annual Review of Animal Biosciences* [online], vol. 2, pp. 387-417 [cit. 2020-12-17]. ISSN 2538-4149. Dostupné na: <<https://doi.org/10.1146/annurev-animal-022513-114113>>.
- [220] WU, G. 2009. Amino acids: Metabolism, functions, and nutrition. In *Amino Acids*, vol. 37, pp. 1-17. Dostupné na: <<https://doi.org/10.1007/s00726-009-0269-0>>.
- [221] WU, G. 2013. Functional amino acids in nutrition and health. In *Amino Acids*, vol. 45, pp. 407-411. Dostupné na: <<https://doi.org/10.1007/s00726-013-1500-6>>.
- [222] WU, G. 2014. Dietary requirements of synthesizable amino acids by animals: A paradigm shift in protein nutrition. In *Journal of Animal Science and Biotechnology*, vol. 5, pp. 34. Dostupné na: <<https://doi.org/10.1186/2049-1891-5-34>>.
- [223] XING, L. – CHEE, M. E. – ZHANG, H. – ZHANG, W. – MINE, Y. 2019. Carnosine - a natural bioactive dipeptide: Bioaccessibility, bioavailability and health benefits. In *Journal of Food Bioactives*, vol. 5, pp. 8-7. Dostupné na: <<https://doi.org/10.31665/JFB.2019.5174>>.
- [224] YIN, D. – CHRYSTAL, P. V. – MOSS, A. F. – CHOY, K. Y. E. – LIU, S. Y. – SELLE, P. H. 2019. Extending daily feed access intervals does not influence lysine HCl utilization but enhances amino acid digestibilities in broiler chickens. In *Poultry Science* [online], vol. 98, no. 10, pp. 4801-4814 [cit. 2020-12-18]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.3382/ps/pez200>>.
- [225] ZAMBONELLI, P. – ZAPPATERA, M. – SOGLIA, F. – PETRACCI, M. – SIRRI, F. – CAVANI, C. – DAVOLI, R. 2016. Detection of differentially expressed genes in broiler pectoralis major muscle affected by White Striping – Wooden Breast myopathies. In *Poultry Science* [online], vol. 95, no. 12, pp. 2771-2785 [cit. 2020-12-13]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.3382/ps/pew268>>.

- [226] ZAMPIGA, M. – LAGHI, L. – PETRACCI, M. – ZHU, CH. – MELUZZI, A. – DRIDI, S. – SIRRI, F. 2018. Effect of dietary arginine to lysine ratios on productive performance, meat quality, plasma and muscle metabolomics profile in fast-growing broiler chickens. In *Journal of Animal Science and Biotechnology*, vol. 9, pp. 79. Dostupné na: <<https://doi.org/10.1186/s40104-018-0294-5>>.
- [227] ZELENKA, J. – HEGER, J. – ZEMAN, L. 2007. *Doporučený obsah živin v krmných směsích a výživná hodnota krmiv pro drůbež*. Brno: Česká akademie zemědělských věd. 78 s. ISBN 978-80-7375-091-6.
- [228] ZELENKA, J. 2014. *Výživa a krmení drůbeže*. 1. Olomouc: Agriprint. 160 p. ISBN 978-80-87091-53-1.
- [229] ZHAI, W. – PEEBLES, E. D. – SCHILLING, M. W. – MERCIER, Y. 2016. Effects of dietary lysine and methionine supplementation on Ross 708 male broilers from 21 to 42 d of age (I): growth performance, meat yield, and cost effectiveness. In *Journal of Applied Poultry Research* [online], vol. 25, no. 2, pp. 197-211 [cit. 2020-12-18]. ISSN 1056-6171. Dostupné na: <<https://doi.org/10.3382/japr/pfw002>>.
- [230] ZHANG, Q. – XU, L. – DOSTER, A. – MURDOCH, R. – COTTER, P. – GARDNER, A. – APPLGATE, T. J. 2014. Dietary threonine requirement of Pekin ducks from 15 to 35 days of age based on performance, yield, serum natural antibodies, and intestinal mucin secretion. In *Poultry Science*, vol. 93, pp. 1972-1980. Dostupné na: <<https://doi.org/10.3382/ps.2013-03819>>.
- [231] ZOTTE, A. D. – RICCI, R. – CULLERE, M. – SERVA, L. – TENTI, S. – MARCHESINI, G. 2020. Research Note: Effect of chicken genotype and white striping-wooden breast condition on breast meat proximate composition and amino acid profile. In *Poultry Science* [online], vol. 2, pp. 45-52 [cit. 2020-12-20]. ISSN 0032-5791. Dostupné na: <<https://doi.org/10.1016/j.psj.2019.10.066>>.