## IEC SCIENTIFIC REFERENCES AVAILABLE

- 1. Aarnink, A.J.A. et al. (2006). Ammonia emission and nutrient load in outdoor runs of laying hens. NJAS Wageningen Journal of Life Sciences <u>54:</u> 223-234
- 2. Abeyesinghe, S. et al. (2009). Investigating social discrimination of group members of laying hens. Behavioural Processes 81: 1-13
- 3. Abrahamsson, P. et al. (1998). Performance and egg quality of laying hens in an aviary system. J. Appl. Poultry Res. 7: 225-232
- 4. Adrizal et al. (2008). The potential for plants to trap emissions from farms with laying hens. 2. Ammonia and dust. J. Appl. Poultry Res. <u>17:</u> 398-411
- 5. Aerni, V. et al. (2005). Productivity and mortality of laying hens in aviaries: a systematic review. World's Poultry Science Journal 61: 130-142
- 6. Aggrey, S.E (2010). Modification of animals versus modifications of the production environment to meet welfare needs. Poultry Science 89: 852-854
- 7. Aiking, H (2011). Future protein supply. Trends in Food Science & Technology **22**: 112-120
- 8. Albentosa, M.J. et al. (2003). An evaluation of response to novelty as a predictor of pecking tendency in laying hens. Applied Animal Behaviour Science 82: 313-328
- 9. Albentosa, M.J. et al. (2007). Evaluation of the effects of cage height and stocking density on the behavior of laying hens in furnished cages. Br. Poultry Science <u>48:</u> 1-11
- 10. Alders, R.G. et al. (2009). Village poultry: still important to millions, eight thousand years after domestication. World's Poultry Science Journal 65: 181-190
- 11. Alvarez-Fernandez, E. et al. (2012). Influence of housing systems on microbial load and antimicrobial resistance patterns of *Escherichia coli* isolates from eggs produced for human consumption. Journal of Food Protection <u>75:</u> 847-853
- 12. Al-Saffar, A.A. et al. (2002). The response of laying hens to dietary amino acids. World's Poultry Science Journal <u>58</u>: 209-234

- 13. Ameji, O.N. et al (2012). Awareness, knowledge, readiness to report outbreak and biosecurity practices towards highly pathogenic avian influenza in Kogi State, Nigeria. International Journal of Poultry Science 11: 11-15
- 14. Anderson, K.E. et al. (2004). Effects of bird age, density, and molt on behavior profiles of two commercial layer strains in cages. Poultry Science 83: 15-23
- 15. Anderson, K.E. et al. (2007). Effects of genetic selection on behavioral profiles of Single Comb White Leghorn hens through two production cycle. Poultry Science 86: 1814-1820
- 16. Anderson, K.E. (2011). Comparison of fatty acid, cholesterol, and vitamin A and E composition in eggs from hens housed in conventional cage and range production facilities. Poultry Science 90: 1600-1608
- 17. Anderson, K.E. et al. (2011). Effect of rearing dietary regimen, feeder space and density on egg production, quality and size distribution in two strains of Brown egg layers. International Journal of Poultry Science 10: 169-175
- 18. Anderson, K.E. et al. (2012). Effect of genetic selection on growth parameters and tonic immobility in Leghorn pullets. Poultry Science 91: 765-770
- 19. Angevaare, M.J. et al. (2012). The effect of maternal care and infrared beak trimming on development, performance and behavior of Silver Nick hens. Applied Animal Behaviour Science 140: 70-84
- 20. Anonymous (1992). FAWC updates the five freedoms. Veterinary Record <u>131:</u> 357
- 21. Appleby, M.C. (1984). Factors affecting floor laying by domestic hens: a review. World's Poultry Science Journal <u>40</u>: 241-249
- 22. Appleby, M.C. et al. (1989). Behaviour of laying hens in a deep litter house. Br. Poultry Science <u>30:</u> 545-553
- 23. Appleby, M.C. (1998a). Modification of laying hen cages to improve behavior. Poultry Science <u>77</u>: 1828-1832
- 24. Appleby, M.C. (1998b). The Edinburgh modified cage: effects of group size and space allowance on Brown laying birds. J. Appl. Poultry Res. <u>7:</u> 152-161
- 25. Appleby, M.C. (2003). The European Union ban on conventional cages for laying hens: History and prospects. J. Applied Animal Welfare Science <u>6</u>: 103-121

- 26. Appleby, M.C. (2005). Sustainable agriculture is humane, humane agriculture is sustainable. Journal of Agricultural and Environmental Ethics <u>18:</u> 293-303
- 27. Appleby, M.C et al. (1991). Welfare of laying hens in cages and alternative systems: environmental, physical and behavioural aspects. World's Poultry Science Journal <u>47</u>: 109-128
- 28. Appleby, M.C. et al. (2002). Development of furnished cages for laying hens. Br. Poultry Science 43: 489-500
- 29. Appleby, M.C. et al. (2003). What price cheap food? Journal of Agricultural and Environmental Ethics <u>16:</u> 395-408
- 30. Applegate, E. (2000). Introduction: Nutritional and functional roles of eggs in the diet. J. of the American College of Nutrition <u>19:</u> 495S-498S
- 31. Arbona, D.V. et al. (2011). A comparison of humoral immune function in response to a killed Newcastle's vaccine challenge in caged vs. free-range Hy-line Brown layers. International Journal of Poultry Science 10: 315-319
- 32. Asghar Saki, A. et al. (2012). The effect of cage density on laying hen performance, egg quality, and excreta minerals. Journal of Applied Poultry Research 21: 467-475
- 33. Balnave, D. et al. (2005). Nutrition and management of heat-stressed pullets and laying hens. World's Poultry Science Journal <u>61</u>: 399-406
- 34. Barbosa Fihlo, J.A.D. et al. (2005). Egg quality in layers housed in different production systems and submitted to two environmental conditions. Brazilian Journal of Poultry Science 8: 23-28
- 35. Barbour, E. et al. (2001). Preliminary attempts towards production of table egg free from *Salmonella enteritidis*. Journal of Cleaner Production <u>9:</u> 69-73
- 36. Barnett, J.L. et al. (2009a). The effects of a perch, dust bath, and nest box, either alone or in combination as used in furnished cages, on the welfare of laying hens. Poultry Science 88: 456-470
- 37. Barnett, J.L. et al. (2009b). Welfare monitoring schemes: using research to safeguard welfare of animals on the farm. J. Applied Animal Welfare Science 12: 114-131
- 38. Barrow, P. (2007). Salmonella infections: immune and non-immune protection with vaccines. Avian Pathology <u>36:</u> 1-13

- 39. Barrow, P. et al. (2011). Pullorum disease and fowl typhoid new thoughts on old diseases: a review. Avian Pathology <u>40</u>: 1-13
- 40. Barrow, P.A. et al. (2012). The long view: *Salmonella* the last forty years. Avian Pathology 41: 413-420
- 41. Bartussek, H. (1999). A review of the animal needs index (ANI) for the assessment of animals' well-being in the housing systems for Austrian proprietary products and legislation. Livestock Production Science 61: 179-192
- 42. Beaumont, C. et al. (2010). The European experience in poultry welfare A decade ahead. Poultry Science 89: 825-831
- 43. Bell, D.D. (2003). Historical and current molting practices in the U.S. table egg industry. Poultry Science <u>82</u>: 965-970
- 44. Bell, D.D. et al. (1998). Environment enrichment devices for cages laying hens. J. Appl. Poultry Res. 7: 19-26
- 45. Bell, J.G (2009). Factors limiting production efficiency and profitability from smallholder poultry production. World's Poultry Science Journal <u>65:</u> 207-210
- 46. Besbes, B. (2009). Genotype evaluation and breeding of poultry for performance under sub-optimal village conditions. World's Poultry Science Journal <u>65:</u> 260-271
- 47. Bestman, M. et al. (2003). Farm level factors associated with feather pecking in organic laying hens. Livestock Production Science <u>80:</u> 133-140
- 48. Bestman, M. et al. (2009). Influence of farm factors on the occurrence of feather pecking in organic reared hens and their predictability for feather pecking in the laying period. Applied Animal Behaviour Science <u>121</u>: 120-125
- 49. Biggs, P.E. et al. (2003). Evaluation of nonfeed removal methods for molting programs. Poultry Science 82: 749-753
- 50. Binnekamp, M.H.A. et al. (2006). Market barriers for welfare product innovations. NJAS Wageningen Journal of Life Sciences <u>54:</u> 169-178
- 51. Blokhuis, H.J. (2004). Recent developments in European and international welfare regulations. World's Poultry Science Journal <u>60</u>: 469-477
- 52. Blokhuis, H.J. et al. (2007). The LayWel project: welfare implications of changes in production systems for laying hens. World's Poultry Science Journal <u>63</u>: 101-114

- 53. Blockhuis, H.J et al. (2008). Animal welfare's impact on the food chain. Trends in Food Science & Technology <u>19</u>: S79-S87
- 54. Boer, de, I.J.M. (2003). Environmental impact assessment of conventional and organic milk production. Livestock Production Science <u>80:</u> 69-77
- 55. Boer, de, I.J.M. et al. (2002). A method using sustainability indicators to compare conventional and animal-friendly egg production systems. Poultry Science <u>81</u>: 173-181
- 56. Bokkers, E. et al. (2009). Economic, ecological, and social performance of conventional and organic broiler production in the Netherlands. Br. Poultry Science 50: 546-557
- 57. Bonney, R.J. (2006). Farm animal welfare at work. Applied Animal Behaviour Science 100: 140-147
- 58. Borell, von, E. et al. (2004). Organic livestock production in Europe: aims, rules and trends with special emphasis on animal health and welfare. Livestock Production Science 90: 3-9
- 59. Bourre, J-M. (2005). L'oeuf naturel multi-enrichi: des apports élevés en nutriments, notamment acides gras omega-3, en vitamins, minéraux et caroténoïdes. Médicine et Nutrition 41: 116-134
- 60. Bozkurt, M. et al. (2012). Performance, egg quality, and immune response of laying hens fed diets supplemented with mannan-oligosaccharide or an essential oil mixture under moderate and hot environmental conditions. Poultry Science 91: 1379-1386
- 61. Bracke, M.B.M. et al. (2005). Qualitative stakeholder analysis for the development of sustainable monitoring systems for farm animal welfare. Journal of Agricultural and Environmental Ethics <u>18:</u> 27-56
- 62. Bradley, A. et al (2011). Legitimacy & Canadian farm animal welfare standards development: the case of the National Farm Animal Care Council. Journal of Agricultural and Environmental Ethics <u>24:</u> 19-47
- 63. Breitsameter, L. et al. (2014). Sward botanical composition and sward quality affect the foraging behavior of free-range laying hens. Applied Animal Behaviour Science <u>150:</u> 27-36

- 64. Bright, A. (2007). Plumage colour and feather pecking in laying hens, a chicken perspective? Br. Poultry Science <u>48:</u> 253-263
- 65. Broom, D.M. (1990). Effects of handling and transport on laying hens. World's Poultry Science Journal <u>46</u>: 48-50
- 66. Brumberg, E. at al. (2011). Fearther pecking behavior in laying hens: Hypothalamic gene expression in birds performing and receiving pecks. Poulry Science 90: 1145-1152
- 67. Brussaard, L. et al. (2010). Reconciling biodiversity conservation and food security: scientific challenges for a new agriculture. Current Opinion in Environmental Sustainability <u>2:</u> 34-42
- 68. Bubier, N.E. et al. (1998). Movement of flocks of laying hens in and out of the hen house in four free range systems. Br. Poultry Science <u>39</u>: S5-S6
- 69. Buchwalder, T. et al. (2011). Assessment of colony nests for laying hens in conjunction with the authorization procedure. Applied Animal Behaviour Science 134: 64-71
- 70. Buitenhuis, A.J. et al. (2004). Genetic and phenotypic correlations between feather pecking behavior, stress response, immune response, and egg quality traits in laying hens. Poultry Science <u>83</u>: 1077-1082
- 71. Buitenhuis, A.J. et al. (2008). Long term selection for reduced or increased pecking behavior in laying hens. World's Poultry Science Journal <u>64:</u> 477-487
- 72. Buller, H. et al. (2014). Modifying and commodifying farm animal welfare: The economisation of layer chickens. Journal of Rural Studies <u>33:</u> 141-149
- 73. Bulmer, E. et al. (2008). Chronic stress in battery hens: measuring corticosterone in laying hen eggs. International J. of Poultry Science <u>7:</u> 880-883
- 74. Burgos Cáceres, S. (2012). A case study on the roles of nongovernmental organizations in influencing decisions regarding highly pathogenic avian influenza in Cambodia. World's Poultry Science Journal <u>68:</u> 281-291
- 75. Burley, H. et al. (2011). The potential of vegetative buffers to reduce dust and respiratory virus transmission from commercial poultry farms. Journal of Applied Poultry Research 20: 210-222
- 76. Cadiri, S. et al. (1999). Use of colour cue to determine the appetite of laying hens for methionine in drinking water. Br. Poultry Science <u>40:</u> S7-8

- 77. Canadell, J.G. et al. (2010). Interactions of the carbon cycle, human activity, and the climate system: a research portfolio. Current Opinion in Environmental Sustainability <u>2:</u> 301-311
- 78. Carlsson-Kanyama, A. et al. (2009). Potential contributions of food consumption patterns to climate change. American Journal of Clinical Nutrition 89 (Suppl.): 1704S-1709S
- 79. Carmichael, N.L. et al. (1999). Laying hens in large flocks in a perchery system: influence of stocking density on location, use of resources and behaviour. Br. Poultry Science 40: 165-176
- 80. Carrique-Mas, J. et al. (2009). A comparison of the efficacy of cleaning and disinfection methods in eliminating *Salmonella spp*. from commercial egg laying houses. Avian Pathology 38: 429-424
- 81. Carruthers, C. et al. (2012). On-farm survey of beak characteristics in White Leghorns as a result of hot blade trimming or infrared beak treatment. Journal of Applied Poultry Research 21: 645-650
- 82. Centner, T.J. (2010). Limitations on the confinement of food animals in the Unites States. Journal of Agricultural and Environmental Ethics. DOI 10.1007/s10806-009-9225-y
- 83. Chadwick, D. et al. (2011). Manure management: Implications for greenhouse gas emission. Animal Feed Science and Technology <u>166-167</u>: 514-531
- 84. Chandra, R.K. (2004). Impact of nutritional status and nutrient supplements on immune responses and incidence of infection in older individuals. Ageing Research Reviews <u>3:</u> 91-104
- 85. Channing, C.E., et al. (2001). Spatial distribution and behaviour of laying hens housed in an alternative system. Applied Animal Behaviour Science 72: 335-345
- 86. Chen, D-H. et al. (2014). Choice of perch characteristics by laying hens in cages with different group size and perching behaviours. Applied Animal Behaviour Science 150: 37-43
- 87. Cheng, H. (2006). Morphopathological changes and pain in beak trimmed laying hens. World's Poultry Science Journal <u>62</u>: 41-52

- 88. Cheng, H.W. et al. (2002). Social stress in laying hens: differential dopamine and corticosterone responses after intermingling different genetic strains of chickens. Poultry Science <u>81</u>: 1265-1272
- 89. Cheng, H.W (2010). Breeding of tomorrow's chickens to improve well-being. Bokkers, E. et al. (2009). Poultry Science 89: 805-813
- 90. Chousalkar, K.K. et al. (2012). Recovery of *Salmonella* from eggshell wash, eggshell crush, and egg internal contents of unwashed commercial shell eggs in Australia. Poultry Science <u>91:</u> 1739-1741
- 91. Christmas, R.B. et al. (1996). Effect of light stimulation on pullets. J. Appl. Poultry Res. <u>5:</u> 173-179
- 92. Cloutier, S. et al. (2002). A note on aggression and cannibalism in laying hens following re-housing and re-grouping. Applied Animal Behaviour Science <u>76:</u> 157-163
- 93. Collins, S. et al. (2011). Investigating the importance of vision in poultry: Comparing behavior of blind and sighted chickens. Applied Animal Behaviour Science 133: 60-69
- 94. Colson, S. et al. (2008). Influence of rearing conditions of pullets on space use and performance of hens in aviaries at the beginning of the laying period. Applied Animal Behaviour Science 111: 286-300
- 95. Cooper, J.J. et al. (1996). Demand for nest boxes in laying hens. Behaviour processes <u>36:</u> 171-182
- 96. Cordiner, L.S. et al. (2001). Use of perches and nestboxes by laying hens in relation to social status, based on examination of consistency of ranking orders and frequency of interaction. Applied Animal Behaviour Science 71: 305-317
- 97. Cowell, S.J. et al. (2003). Localisation of UK food production: an analysis using land area and energy as indicators. Agriculture, Ecosystems and Environment <u>94:</u> 221-236
- 98. Cufadar, Y. et al. (2011). The effect of dietary calcium concentration and particle size on performance, eggshell quality, bone mechanical properties and tibial mineral contents in moulted laying hens
- 99. Cunningham, D.L. (1992). Beak trimming effects on performance, behavior and welfare of chickens: a review. J. Appl. Poultry Res. <u>1:</u> 129-134

- 100. Cunningham, D.L. et al. (1996). Cage housing, beak trimming, and induced molting of layers: a review of welfare and production issues. J. Appl. Poultry Res. 5: 63-69
- 101. Daigle, C.L. et al. (2012). Noncaged laying hens reamin unflappable while wearing body-mounted sensors: Levels of agonistic behaviors remain unchanged and resource use is not reduced after habituation. Poultry Science 91: 2415-2423
- 102. Dämmgen, U. et al. (2006). The development of the EMEP/CORINAIR guidebook with respect to the emissions of different nitrogen and carbon species from animal production. Agriculture, Ecosystems and Environment 112: 241-248
- 103. Dana, N. et al. (2011). Genetic and phenotypic parameter estimates for body weights and egg production in Horro chicken of Ethiopia. Tropical Animal Health and production 43: 21-28
- 104. Davidson, I. et al. (2010). Avian influenza virus H9N2 survival at different temperatures and pHs. Avian Diseases <u>54:</u> 725-728
- 105. Davies, R. et al. (2004). Observations on *Salmonella* contamination of eggs from infected commercial laying flocks where vaccination for *Salmonella enterica* serovar Enteritidis had been used. Avian Pathology 33: 133-144
- 106. Dawkins, M.S. (2012). Commercial scale research and assessment of Poultry welfare. British Poultry Science <u>53:</u> 1-6
- 107. Deblonde, M. et al. (2007). An ethical toolkit for food companies: Reflections on its use. Journal of Agricultural and Environmental Ethics <u>20:</u> 99-118
- 108. Dennis, R et al. (2009). Infrared beak treatment method compared with conventional hot-blade trimming in laying hens. Poultry Science <u>88</u>: 38-43
- 109. Dennis, R. et al. (2010). A comparison of infrared and hot blade beak trimming in laying hens. International Journal of Poultry Science 9: 716-719
- 110. Dennis, R. et al. (2011). The dopaminergic system and aggression in laying hens. Poultry Science <u>90:</u> 2440-2448
- 111. Dennis, R.L. et al. (2012). Effects of different infrared beak treatment protocols on chicken welfare and physiology. Poultry Science <u>91:</u> 1499-1505
- 112. Dessie, t. et al. (2012). Current state of knowledge on indigenous chicken genetic resource of the tropics: domestication, distribution and documentation of information on the genetic resources. World's Poultry Science Journal <u>68</u>: 11-20

- 113. Dev, S. et al. (2008). Dielectric properties of egg components and microwave heating of in-shell pasteurization of eggs. Journal of Food Engineering 86: 207-214
- 114. Dewaele, I et al. (2012). Persistent *Salmonella enteritidis* environmental contamination on layer farms in the context of an implemented national control program with obligatory vaccination. Poultry Science <u>91:</u> 282-291
- 115. Dewaele, I et al. (2012). Polyphasic characterization of *Salmonella enteritidis* isolates on persistently contaminated farms during the implementation of a national control program with obligatory vaccination: A longitudinal study. Poultry Science 91: 2727-2735
- 116. Dickey, E.R. et al. (2010). Effects of a premolt calcium and low-energy molt program on laying hen behavior and heterophil-to-lymphocyte ratios. Poultry Science 89: 2317-2325
- 117. Dickey, E. et al. (2012). Effects of a premolt calcium and low-energy molt program on laying hen performance, egg quality, and economics. Poultry Science 91: 292-303
- 118. Dixon, G. et al. (2006). Effect of diet change on the behavior of chicks of an egglaying strain. J. Applied Animal Welfare Science 9: 41-58
- 119. Dixon, G. et al. (2010). Changes in substrate access did not affect early feather-pecking behavior in two strains of laying hen chicks. J. Applied Animal Welfare Science 13: 1-14
- 120. Djoussé, L. et al. (2008). Egg consumption in relation to cardiovascular disease and mortality: the Physicians' Health Study. American Journal of Clinical Nutrition 87: 964-969
- 121. Donaldson, C. et al. (2012). Aerial perches and free-range laying hens: The effect of access to aerial perches and of individual bird parameters on keel bone injuries in commercial free-range laying hens. Poultry Science 91: 304-315
- 122. Donaldson, C. et al. (2012). The influence of access to aerial perches on fearfulness, social behavior and production parameters in free-range laying hens. Applied Animal Behaviour Science 141: 51-60
- 123. Drake, K.A. et al. (2010). Influence of rearing and lay risk factors on propensity for feather damage in laying hens. Br. Poultry Science <u>51:</u> 725-733

- 124. Duncan, I.J.H. (2001a). Animal welfare issues in the Poultry industry: Is there a lesson to be learned? J. Applied Animal Welfare 4: 207-221
- 125. Duncan, I.J.H. (2001b). The pros and cons of cages. World's Poultry Science Journal <u>57</u>: 381-390
- 126. Dunkley, C.S. et al. (2008). Behavior of laying hens on alfalfa crumble molt diets. Poultry Science 87: 815-822
- 127. Duvauchelle, A. et al. (2013). Risk factors for the introduction of avian influenza virus in breeder duck flocks during the first 24 weeks of laying. Avian Pathology 42: 447-456
- 128. Ellen, H.H. (2005). Emissions, regulations and impact in the European Union and The Netherlands. J. Appl. Poultry Res. <u>14:</u> 651-655
- 129. Eath, D', R.B. (2003). Social discrimination and aggression by laying hens in large groups: from peck orders to social tolerance. Applied Animal Behaviour Science 84: 197-212
- 130. Edge M. et al. (2009). Development of animal welfare standards for the livestock transportation industry: process, challenges, and implementation. Journal of Veterinary Behavior <u>4</u>: 187-192
- 131. Eilander, A. et al. (2007). Effects of n-3 long chain polyunsaturated fatty acid supplementation on visual and cognitive development throughout childhood: A review of human studies. Prostaglandins, Leukotrienes and Essential Fatty Acids 76: 189-203
- 132. Enneking, S.A. et al. (2012). Early access to perches in caged White Leghorn pullets. Poultry Science 91: 2114-2120
- 133. Er, D. et al. (2007). Effect of monochromatic light on the egg quality of laying hens. J. Appl. Poultry Res. <u>16:</u> 605-612
- 134. Ernst, R.A. et al. (1992). Effect of lighting and moving age on performance of Leghorn pullets. J. Appl. Poultry Res. 1: 291-295
- 135. Esaki, H. et al. (2012). National surveillance of *Salmonella enteritidis* in commercial eggs in Japan. Epidemiology and Infection doi:10.1017/S0950268812001355
- 136. Fabre de Loye, A. (2006). Bien-être des poules pondeuses: biologie et réglementation. Bull. Acad. Vét. France <u>159:</u> 219-225

- 137. Fahey, A.G. et al. (2007). Relationship between body weight and beak characteristics in one-day old White Leghorn chicks: its implications for beak trimming. Poultry Science <u>86</u>: 1312-1315
- 138. FAO (2008). Briefing paper: Hunger on the rise. FAO website www.fao.org/newsroom/en/news/2008/1000923 accessed 01/09/2009
- 139. FAO (2009). Food Security Statistics. FAO website <a href="http://www.fao.org/economic/ess/food-security-statistics/en/">http://www.fao.org/economic/ess/food-security-statistics/en/</a> accessed 01/09/2009
- 140. Farrell, D.J. (2005). Matching poultry production with available feed resources: issues and constraints. World's Poultry Science Journal 61: 298-307
- 141. Ferrante, V. (2009). Welfare issues of modern laying hen farming. Ital. J. Anim. Sci. 8 (Suppl. 1): 175-189
- 142. Fiorentin, L. et al. (2005). Oral treatment with bacteriophages reduces the concentration of *Salmonella enteritidis* PT4 in caecal contents of broilers. Avian Pathology <u>34:</u> 258-263
- 143. Fisher A. et al. (2009). The influence of land transportation on animal welfare in extensive farming systems. Journal of Veterinary Behavior <u>4</u>: 157-162
- 144. Flachowsky, G. et al. (2009). CO<sub>2</sub> footprint for food of animal origin Present stage and open questions. J. Verbr. Lebensm. 4: 190-198
- 145. Fleming, R.H. et al. (2004). Incidence, pathology and prevention of keel bone deformities in the laying hen. Br. Poultry Science <u>45</u>: 320-330
- 146. Fraisse, F. et al. (2006). Corticosterone and fear behaviour in white and brown caged laying hens. Br. Poultry Science <u>47:</u> 110-119
- 147. Franco-Jimenez, D.J. et al. (2007). Physiological changes to transient exposure to heat stress observed in laying hens. Poultry Science 86: 538-544
- 148. Freire, R. et al. (1999). The relationship between trough height, feather cover and behaviour of laying hens in modified cages. Applied Animal Behaviour Science 63: 55-64
- 149. Freire, R. et al. (2003). Behaviour and welfare of individual laying hens in a non-cage system. Br. Poultry Science <u>44:</u> 22-29

- 150. Freeman, S.R. et al. (2009). Alternative method for disposal of spent laying hens: Evaluation of the efficacy of grinding, mechanical deboning, and of keratinase in the rendering process. Bioresource Technology <u>100:</u> 4515-4520
- 151. Gadema, Z. et al. (2011). The use and usefulness of carbon labeling food: A policy perspective from a survey of UK supermarket shoppers. Food Policy 36: 815-822
- 152. Gantois, I. et al. (2008). A comparative study on the pathogenesis of egg contamination by different serotypes of *Salmonella*. Avian Pathology <u>37:</u> 399-406
- 153. Gantois, I. et al. (2009). Mechanisms of egg contamination by *Salmonella enteritidis*. FEMS Microbiology Reviews <u>33:</u> 718-738
- 154. Garcia, C. et al. (2011). Assessment of *Salmonella spp.* in feces, cloacal swabs, and eggs (eggshell and content separately) from a laying hen farm. Poultry Science <u>90:</u> 1581-1585
- 155. Garcimartín, M.A. et al. (2007). Application of the sensible heat balance to determine the temperature tolerance of commercial poultry housing. World's Poultry Science Journal <u>63</u>: 575-584
- 156. Garner, J.P. et al. (2012). The effect of cage and house design on egg production and egg weight of White Leghorn hens: An epidemiological study. Poultry Science 91: 1522-1535
- 157. Garnett, T. (2009). Livestock-related greenhouse gas emissions: impacts and options for policy makers. Environmental Science & Policy 12: 491-503
- 158. Garnett, T. (2011). Where are the best opportunities for reducing greenhouse gas emissions in the food system (including the food chain)? Food Policy <u>36:</u> S23-S32
- 159. Gast, R.K. et al. (2011). Frequency and persistence of fecal shedding following exposure of laying hens to different oral doses of *Salmonella enteritidis*. International Journal of Poultry Science 10: 750-756
- 160. Gast, R.K et al. (2013). Salmonella enteritidis deposition in eggs after experimental infection of laying hens with different oral doses. Journal of Food Protection 76: 108-113
- 161. Gentle, M. (2011). Pain issues in poultry. Applied Animal Behaviour Science <u>135:</u> 252-258

- 162. Gerritzen, M. et al. (2007). A note on behaviour of poultry exposed to increasing carbon dioxide concentrations. J. Applied Animal Behaviour Science <u>108</u>: 179-185
- 163. Ghareeb, K. et al (2008). Stability of fear and sociality in two strains of laying hens. Br. Poultry Science 49: 502-508
- 164. Gilani, A-M. et al. (2012). The effect of dark brooders on father pecking on commercial farms. Applied Animal Behaviour Science <u>142</u>: 42-50
- 165. Gilani, A-M. et al. (2013). The effect of rearing environment on feather pecking in young and adult laying hens. Applied Animal Behaviour Science <u>148:</u> 54-63
- 166. Gilbert, L.C. (2000). The functional food trend: what's next and what Americans think about eggs. J. of the American College of Nutrition <u>19:</u> 507S-512S
- 167. Gjerris, M. et al. (2010). The price of responsibility: Ethics of animal husbandry in a time of climate change. Journal of Agricultural and Environmental Ethics DOI 10.1007/s10806-010-9270-6
- 168. Godfray, H.C.J. et al. (2010). Food security: the challenge of feeding 9 billion people. Science 327: 812-818
- 169. Golden, J.B. et al. (2012). A comparative examination of rearing parameters and layer production performance for brown egg-type pullets grown for either free-range or cage production. Journal of Applied Poultry Research 21: 95-102
- 170. Gongruttananum, N. et al. (2013). The effects of a short-term molt method using casssava meal, broken rice, or corn on ovarian regression, bone integrity, and postmolt egg production and quality in older (95 week) laying hens. Poultry Science 92: 2798-2807
- 171. Gooding, C. H. (2012). Data for the carbon footprint of rendering operations. Journal of Industrial Ecology <u>16:</u> 223-230
- 172. Gordon, R. et al. (2009). Performance and profitability of second-cycle laying hens as influenced by body weight and body weight reduction during molt. . J. Appl. Poultry Res. 18: 223-231
- 173. Graml, C. et al. (2008). Validation of tests for on-farm assessment of the henhuman relationship in non-cage systems. Applied Animal Behaviour Science 111: 301-310

- 174. Graml, C. et al. (2008). Reaction of laying hens to humans in the home or a novel environment. Applied Animal Behaviour Science <u>113:</u> 98-109
- 175. Granado, F. et al. (2003). Nutritional and clinical relevance of lutein in human health. British Journal of Nutrition <u>90:</u> 487-502
- 176. Gregory, N.G. et al. (1989). Broken bones in domestic fowl: handling and processing damage in end-of-lay battery hens. Br. Poultry Science <u>30</u> 555-562
- 177. Gregory, N.G. (2005). Recent concerns about stunning and slaughter. Meat Science 70: 481-491
- 178. Guan, J. et al. (2013). Aerosol transmission of an Avian Influenza H9N2 virus with a tropism for the respiratory track of chickens. Avian Diseases <u>57:</u> 645-949
- 179. Guerne Bleich, E. et al. (2009). Progress towards practical options for improving biosecurity of small-scale poultry producers. World's Poultry Science Journal <u>65</u>: 211-216
- 180. Guesdon, V. et al. (2004a). Laying performance and egg quality in hens kept in standard or furnished cages. Anim. Res. <u>53:</u> 45-57
- 181. Guesdon, V. et al. (2004b). Humeral quality and adrenal responsiveness in laying hens reared in standard and furnished cages. Anim. Res. 53: 235-243
- 182. Guesdon,. V. et al. (2006). Effects of beak trimming and cage design on laying hen performance and egg quality. Br. Poultry Science <u>47:</u> 1-12
- 183. Guinebretière, M. et al. (2012). Cage hygiene, laying location, and egg quality: The effects of linings and litter provision in furnished cages for laying hens. Poultry Science 91: 808-816
- 184. Gunawardana, P. et al. (2009). Effects of dietary energy, protein, and a versatile enzyme on hen performance, egg solids, egg consumption, and egg quality of Hy-Line W-36 hens during second cycle, phase two. . J. Appl. Poultry Res. <u>18:</u> 43-53
- 185. Grethe, H. (2007). High animal welfare standards in the EU and international trade How to prevent potential 'low animal welfare havens'? Food policy 32: 315-333
- 186. Groot Koerkamp, P.W.G et al. (1998). Litter composition and ammonia emission in aviary houses for laying hens. Part I: Performance of a litter drying system. J. Agric. Engng. Res. <u>70:</u> 375-382

- 187. Groot Koerkamp, P.W.G et al. (1999a). Litter composition and ammonia emission in aviary houses for laying hens. Part II: Modelling the evaporation of water. J. Agric. Engng. Res. <u>73:</u> 353-362
- 188. Groot Koerkamp, P.W.G et al. (1999b). Litter composition and ammonia emission in aviary houses for laying hens. Part III: Water flow to the litter through fresh droppings. J. Agric. Engng. Res. <u>73:</u> 363-371
- 189. Groot Koerkamp, P.W.G et al. (2008). Designing complex and sustainable agricultural production systems: an integrated and reflexive approach for the case of table egg production in the Netherlands. NJAS Wageningen Journal of Life Sciences <u>55</u>: 113-138
- 190. Guinée, J.B. et al. (2011). Life cycle assessment : Past, present, and future. Environmental Science & technology <u>45:</u> 90-96
- 191. González, A. et al. (2011). Protein efficiency per unti energy and per unti greenhouse gas emisions: Potential contribution of diet choices to climate mitigation. Food Policy 36: 562-570
- 192. Gorham, S. et al. (1991). Persistence of *Salmonella enteritidis* in young chickens. Avian Pathology <u>20:</u> 433-437
- 193. Haas, de E.N. et al. (2010). Selection on feather pecking affects response to novelty and foraging behaviour in laying hens. Applied Animal Behaviour Science 124: 90-96
- 194. Hammershøj, M. et al. (2012). The effects of kale (*Brassica oleracea* ssp. *Acephala*), basil (*Ocimum basilicum*) and thyme (*Thyme vulgaris*) as forage material in organic egg production on egg quality. British Poultry Science <u>53:</u> 245-256
- 195. Hannah, J. et al. (2011). Horizontal transmission of *Salmonella* and *Campylobacter* among caged and cage-free laying hens. Avian Diseases <u>55:</u> 580-587
- 196. Hannah, J. et al. (2011). Colonization of a marker and field strain of *Salmonella* enteritidis and a marker strain of *Salmonella typhimurium* in vancomycin-pretreated and nonpretreated laying hens. Avian Diseases <u>55:</u> 588-592
- 197. Hannah, J. et al. (2011). Comparison of shell bacteria from unwashed and washed table eggs harvested from caged laying hens and cage-free floor-housed laying hens. Poultry Science <u>90:</u> 1586-1893

- 198. Harlander-Matauschek, A. et al. (2006). The demand of laying hens for feathers and wood shavings. Applied Animal Behaviour Science 101: 102-110
- 199. Harlander-Matauschek, A. et al. (2009). Understanding feather eating behaviour in laying hens. Applied Animal Behaviour Science <u>117:</u> 35-41
- 200. Harlander-Matauschek, A. et al. (2010). Effect of an early bitter taste experience on subsequent feather-pecking behavior in laying hens. Applied Animal Behaviour Science 127: 108-114
- 201. Harlander-Matauschek, A. et al. (2011). Applying chemical stimuli on feathers to reduce feather pecking in laying hens. Applied Animal Behaviour Science <u>132:</u> 146-151
- 202. Harvey, M. et al. (2011). The new competition for land: Food, energy, and climate change. Food Policy <u>36:</u> S40-S51
- 203. Hassanien, H.H.M. (2011). Effect of force molting programs on egg production and quality of laying hens. Asian Journal of Poultry Science <u>5:</u> 13-20
- 204. Hegelund, L. et al. (2005). Use of the range area in organic egg production systems: effect of climatic factors, flock size, age and artirficial cover. Br. Poultry Science 46: 1-8
- 205. Hegelund, L. et al. (2006). Welfare and productivity of laying hens in commercial organic egg production systems in Denmark. NJAS Wageningen Journal of Life Sciences 54: 147-155
- 206. Heikkila, M. et al. (2006). Development of perching behaviour in chicks reared in enriched environment. Applied Animal Behaviour Science <u>99:</u> 145-156
- 207. Held, S.D.E. et al. (2011). Animal play and animal welfare. Animal Behaviour <u>81:</u> 891-899
- 208. Henning, J. et al. (2007). Village chicken production in Myammar purpose, magnitude and major constraints. World's Poultry Science Journal <u>63:</u> 308-322
- 209. Hermansen, J.E. et al. (2004). Integration of organic farming production into land use with special reference to swine and poultry. Livestock Production Science <u>90:</u> 11-26
- 210. Herrero, M. et al. (2009). Livestock, livelihoods and the environment: understanding the trade-offs. Current Opinion in Environmental Sustainability 1: 111-120

- 211. Hester, P.Y. (2005). Impact of science and management on the welfare of egg laying strains of hens. Poultry Science <u>84</u>: 687-696
- 212. Hester, P.Y. et al. (2003). Beak trimming egg-laying strains of chickens. World's Poultry Science Journal <u>59</u>: 458-474
- 213. Hester, P.Y. et al. (2011). Effect on lighting programs during the pullet phase on skeletal integrity of egg-laying strains of chickens. Poultry Science <u>90:</u> 1645-1651
- 214. Hetland, H. et al. (2007). Inclusion of dust bathing materials affects nutrient digestion and gut physiology of layers. J. Appl. Poultry Res. 16: 22-26
- 215. Hindle, V.A. et al. (2010). Animal welfare concerns during the use of the water bath for stunning broilers, hens and ducks. Poultry Science 89: 401-412
- 216. Hinkle, N.C. et al. (1999). California Caged layer Pest management evaluation. J. Appl. Poultry Res. <u>8:</u> 327-338
- 217. Hodges, J. (2009). Emerging boundaries for Poultry production: challenges, dangers and opportunities. World's Poultry Science Association <u>65:</u> 5-22
- 218. Hoffmann, I. (2005). Research and investment in poultry genetic resources challenges and options for sustainable use. World's Poultry Science Journal 61: 57-70
- 219. Hoffmann, I. (2009). The global plan of action for animal genetic resources and the conservation of poultry genetic resources. Word's Poultry Science Journal <u>65</u>: 286-297
- 220. Hoffmann, I. et al. (2011). The global plan of action for animal genetic resources The road to common understanding and agreement. Livestock Science <u>136</u>: 7-14
- 221. Holt, P.S. et al. (2011). The impact of different housing systems on egg safety and quality. Poultry Science 90: 251-262
- 222. Holt, P.S. et al. (2011). Changes in Peyer's patch and cecal tonsil B lymphocytes in laying hens following challenge with *Salmonella enteritica* serovar *enteritidis*. International Journal of Poultry Science 10: 231-237
- 223. Honaker, C.F. et al. (2004). The effect of claw and beak reduction on growth parameters and fearfulness of two leghorn strains. Poultry Science <u>83</u>: 873-881

- 224. Hoorebeke, van S. et al. (2010). The influence of the housing system on *Salmonella* infections in laying hens: A review. Zoonoses and Public Health. Doi:10.1111/j.1863-2378.2010.01372x
- 225. Horne, van, P.L.M. et al. (1998). Economics of controlling ammonia emission from commercial layer farms. J. Appl. Poultry Res. <u>7:</u> 61-68
- 226. Horne, van, P.L.M. et al. (2008). Animal welfare in poultry production systems: impact of EU standards on world trade. World's Poultry Science Journal <u>64</u>: 40-51
- 227. Horrocks, L.A. et al. (1999). Health benefits of docosahexaenoic acid (DHA). Pharmacological Research <u>40:</u> 211-225
- 228. Hovi, M. et al. (2003). Animal health and welfare in organic livestock production in Europe: current state and future challenges. Livestock Production Science <u>80</u>: 41-53
- 229. Howard, C.J. et al. (2010). Direct measurements of the ozone formation potential from livestock and Poultry waste emissions. Environmental Science & Technology 44: 2292-2298
- 230. Howard, Z.R. et al. (2012). *Salmonella enteritidis* in shell eggs: Current issues and prospects for control. Food Research International 45: 755-764
- 231. Hsu, S.M et al. (2012). Efficacy of Avian influenza vaccine in Poultry: a metaanalysis. Avian Diseases <u>54:</u> 1197-1209
- 232. Humphrey, T. (2006). Are happy chickens safer chickens? Poultry welfare and disease susceptibility. Br. Poultry Science 47: 379-391
- 233. Huneau-Salaűn, V. et al. (2010). Factors influencing bacterial eggshell contamination in conventional cages, furnished cages and free-range systems for laying hens under commercial conditions. Br. Poultry Science 51: 163-169
- 234. Huneau-Salaűn, V. et al. (2010). Evaluation of common cleaning and disinfection programmes in battery cage and on-floor layer houses in France. Br. Poultry Science 51: 204-212
- 235. Huneau-Salaűn, A. et al. (2011). Endotoxin concentration in poultry houses for laying hens kept in cages or in alternative housing systems. British Poultry Science 52: 523-530

- 236. Icken, W. et al. (2008). Analysis of the free range behavior of laying hens and the genetic and phenotypic relationships with laying performance. Br. Poultry Science 49: 533-541
- 237. Icken, W. et al. (2012). New phenotypes for new breeding goals in layers. World's Poultry Science Journal. 68: 387-399
- 238. Ingenbleek, P.T.M et al. (2012). EU animal policy: Developing a comprehensive policy framework. Food Policy <u>37:</u> 690-699
- 239. James, C. et al. (2002). Surface pasteurization of shell eggs. Journal of Food Engineering <u>53:</u> 193-197
- 240. Jang, Y. et al. (2014). Evaluation of changes induced by temperature, contact time, and surface in the efficacies of disinfectants against avian influenza virus. Poultry Science <u>93:</u> 70-76
- 241. Jendral, M.J. et al. (2008). Bone mineral density and breaking strength of White Leghorns housed in conventional, modified, and commercially available colony battery cages. Poultry Science <u>87</u>: 828-837
- 242. Jones, R.B. (1996). Fear and adaptability in poultry: insights, implications and imperatives. World's Poultry Science Journal <u>52</u>: 131-174
- 243. Jones T, et al. (2007). Welfare and environmental benefits of integrating commercially viable free-range broiler chickens into newly planted woodland: A UK case study. Agricultural Systems 94: 177-188
- 244. Jones, D.R. et al. (2011). Comparison of environmental and egg microbiology associated with conventional and free-range laying hen management. Poultry Science 90: 2063-2068
- 245. Jones, D.R. et al. (2012). Prevalence of coliforms, *Salmonella, Listeria,* and *Campylobacter* associated with eggs and the environment of conventional cage and free-range egg production. Poultry Science 91: 1195-1202
- 246. Jong, de, I.C. et al. (2007). Strength of preference for dustbathing and foraging substrates in laying hens. Applied Animal Behaviour Science 104: 24-36
- 247. Jong, de, I.C et al. (2011). Major welfare issues in broiler breeders. World's Poultry Science Journal <u>67:</u> 73-82

- 248. Kalmendal, K. et al. (2012). Effects of a high oil and fibre diet and supplementary roughage on performance, injurious pecking and foraging activities in two layer hybrids. British Poultry Science <u>53:</u> 153-161
- 249. Käppeli, S. et al. (2011). Prevalence of keel bone deformities in Swiss laying hens. British Poultry Science <u>52:</u> 531-536
- 250. Käppeli, S. et al. (2011). Effects of housing, genetics, and 25-hydroxycholecalciferol on keel bone deformities in laying hens. Poultry Science 90: 1637-1644
- 251. Keshavarz, K. et al. (2002). An investigation of different molting techniques with an emphasis on animal welfare. J. Appl. Poultry Res. <u>11:</u> 54-67
- 252. Khan, R.U. et al. (2011). Zinc-induced moulting: production and physiology <u>67:</u> 497-505
- 253. Kiess, A.S. et al. (2012). A standardized cage measurement system : A versatile tool for calculating usable cage space. Journal of Applied Poultry Research <u>21:</u> 657-668
- 254. Kijlstra, A. et al. (2006). Animal health in organic livestock production systems: a review. NJAS Wageningen Journal of Life Sciences <u>54:</u> 77-94
- 255. Kim, B. et al. (2009). Measurement and communication of greenhouse gas emissions from U.S. food consumption via carbon calculators. Ecological Economics <u>69:</u> 186-196
- 256. Kim, W.K. et al. (2005). Comparisons of molting diets on skeletal quality and eggshell parameters in hens at the end of the second egg-laying cycle. Poultry Science 84: 522-527
- 257. Kim, W.K. et al. (2012). Concepts and methods for understanding bone metabolism in laying hens. World's Poultry Science Journal <u>68:</u> 71-82
- 258. Kitzes, J. et al. (2008). Shrink and share: humanity's present and future ecological footprint. Philosophical Transactions of the Royal Society B <u>363:</u> 467-475
- 259. Kitzes, J. et al. (2009). Answers to common questions in Ecological footprint accounting. Ecological Indicators <u>9:</u> 812-817
- 260. Kjaer, J.B. et al. (2011). Reducing stress during welfare inspection: validation of a non-intrusive version of the LayWel plumage scoring system for laying hens. British Poultry Science 52: 149-154

- 261. Knierim, U. (2006). Animal welfare aspects of outdoor runs for laying hens: a review. NJAS Wageningen Journal of Life Sciences <u>54:</u> 133-145
- 262. Koelkebeck, K.W. et al. (1999). Performance of laying hens provided water from two sources. J. Appl. Poultry Res. <u>8:</u> 374-379
- 263. Koelkebeck, K.W. et al. (2006). Nonwithdrawal molting programs. J. Appl. Poultry Res. 15: 483-491
- 264. Koning, N. et al. (2009). Will the world have enough to eat? Current Opinion in Environmental Sustainability 1: 77-82
- 265. Kriegseis, I. et al. (2012). Feather-pecking response of laying hens to feather and cellulose-based rations fed during rearing. Poultry Science 91: 1514-1521
- 266. Krimpen, van, M.M. et al. (2005). Impact of feeding management on feather pecking in laying hens. World's Poultry Science Journal 61: 663-686
- 267. Kristensen, H.H. et al. (2000). The preferences of laying hens for different concentrations of atmospheric ammonia. Applied Animal Behaviour Science <u>68:</u> 307-318
- 268. Kristensen, H.H. et al. (2009). Light intensity and social communication between hens. Br. Poultry Science <u>50:</u> 649-656
- 269. Kruschwitz, A. et al. (2008). Nest preference of laying hens (*Gallus gallus domesticus*) and their motivation to exert themselves to gain nest access. Applied Animal Behaviour Science <u>112:</u> 321-330
- 270. Kuenzel, W.J. (2007). Neurobiological basis of sensory perception: welfare implications of beak trimming. Poultry Science <u>86</u>: 1273-1282
- 271. Kuenzel, W.J. et al. (2010). Molecular neuroendocrine events during stress in poultry. Poultry Science 89: 832-840
- 272. Kuhne, F. et al. (2011). Redirected behavior in learning tasks: The commercial laying hen (*Gallus gallus domesticus*) as model. Poultry Science <u>90:</u> 1859-1866
- 273. Kuhne, F. et al. (2013). The discrimination-learning task determines the kind of frustration-related behaviours in laying hens (*Gallus gallus domesticus*). Applied Animal Behaviour Science <u>148:</u> 192-200

- 274. Lagerkvist, C. et al. (2011). Provision of Farm Animal Welfare: Integrating productivity and non-use values. Applied Economic Perspectives and Policy 33: 484-509
- 275. Lambton, S.L. et al. (2010). The risk factors affecting the development of gentle and severe feather pecking in loose housed laying hens. Applied Animal Behaviour Science 123: 32-42
- 276. Landers, K.L. et al. (2005). Potential of alfalfa as an alternative miolt induction diet for laying hens: egg quality and consumer acceptability. Bioresource Technology 96: 907-911
- 277. Lapuz, R.R.S.P. et al. (2012). Comparison of the prevalence of *Salmonella* infection in layer hens from commercial layer farms with high and low rodent densities. Avian Diseases 56: 29-34
- 278. Lawrence, A.B. (2008). Applied animal behaviour science: Past, persent and future prospects. Applied Animal Behaviour Science 115: 1-24
- 279. Lay, D.D. et al. (2011). Hen welfare in different housing systems. Poultry Science 90: 278-294
- 280. Le Bouqin, S. et al. (2013). Aerial dust concentration in cage-housed, floor-housed, and aviary facilities for laying hens. Poultry Science <u>92:</u> 2837-2833
- 281. Lee, S-K. et al. (2013). Prevalence, characterization, and antimicrobial susceptibility of *Salmonella gallinarum* isolated from eggs produced in conventional or organic farms in South Korea. Poultry Science <u>92:</u> 2789-2797
- 282. Leeson, S. et al. (2004). Changes in light intensity during the rearing period can influence egg production in domestic fowl. Br. Poultry Science <u>45</u>: 316-319
- 283. Leinonen, I. et al. (2012). Predicting the environmental impacts of chicken systems in the United Kingdom through a life cycle assessment: Broiler production systems. Poultry Science 91: 8-25
- 284. Leinonen, I. et al. (2012). Predicting the environmental impacts of chicken systems in the United Kingdom through a life cycle assessment; Egg production systems. Poultry Science <u>91:</u> 26-40
- 285. Leinonen, I. et al. (2014). The effects of welfare-enhancing system changes on the environmental impacts of broiler and egg production. Poultry Science <u>93:</u> 256-266

- 286. Leemans, R. et al. (2013). Redefining environmental sustainability. Current Opinion in Environmental Sustainability <u>5:</u> 272-277
- 287. Lentfer, T. et al. (2011). Influence of nest site on the behavior of laying hens. Applied Animal Behaviour Science <u>135:</u> 70-77
- 288. Lewis, P.D. et al. (1999). Light intensity and performance of domestic pullets. World's Poultry Science Journal 55: 241-250
- 289. Leyendecker, M. et al. (2005). Keeping laying hens in furnished cages and an aviary housing system enhances their bone stability. Br. Poultry Science <u>46:</u> 536-544
- 290. Li, H. et al. (2008). Reduction of ammonia emission from stored laying hens manure through topical application of zeolite, Al+Clear, Ferix-3, or poultry litter treatment. J. Appl. Poultry Res. <u>17:</u> 421-431
- 291. Li, X. et al. (2012). Surveillance of *Salmonella* prevalence in animal feeds and characterization of the *Salmonella* isolates by serotyping and antimicrobial susceptibility. Foodborne pathogens and Disease 9: 692-698
- 292. Lim, T-H. et al. (2011). Efficacy of bacteriophage therapy on horizontal transmission of *Salmonella gallinarum* on commercial layer chickens. Avian Diseases <u>55:</u> 435-438
- 293. Lima, A.M.C et al. (2005). Evaluating two systems of poultry production: conventional and free-range. Brazilian Journal of Poultry Science <u>7:</u> 215-220
- 294. Lindgreen, A. et al. (2003). The impact of food safety and animal welfare policies on supply chain management. The case of the Tesco meat supply chain. British Food Journal 105: 328-349
- 295. Lindqvist, C. et al. (2009). Effects of domestication on food depravation-induced behaviour in red junglefowl, *Gallus gallus*, and White Leghorn layers. Animal Behaviour 77: 893-899
- 296. Lund, V. et al. (2004). Natural behavior, animal rights, or making money a study of Swedish organic farmers' view of animal issues. Journal of Agricultural and Environmental Ethics <u>17:</u> 157-179
- 297. Lundberg, A. et al. (1999). The impact of social factors on nesting in laying hens (*Gallus gallus domesticus*). Applied Animal Behaviour Science <u>64:</u> 57-69

- 298. Lukiw, W.J. et al. (2008). Docosahexaenoic acid and the aging brain. Journal of Nutrition
- 299. Lusk, J. et al. (2011). Animal Welfare Economics. Applied Economic and Policy 33: 463-483
- 300. Mahboub, H.D.H. et al. (2004). Outdoor use, tonic immobility, heterophil/lymphocyte ratio and feather condition in free-range laying hens of different genotype. Br. Poultry Science <u>45:</u> 738-744
- 301. Main D.C (2009). Application of welfare assessment to commercial livestock production. J. Applied Animal Welfare Science 12: 97-104
- 302. Maizama, D.G. et al. (1994). Effect of beak trimming, blade temperature, and age at beak trimming on performance of two strains of egg layers. J. Appl. Poultry Res. 3: 69-73
- 303. Mallet, S. et al. (2006). Comparison of eggshell hygiene in two housing systems: Standard and furnished cages. Br. Poultry Science <u>47:</u> 30-35
- 304. Martelli, F. et al. (2012). *Salmonella* serovars isolated from table eggs: An overview. Food Research International <u>45:</u> 745-754
- 305. Martins, N. et al. (2012). An overview on Avian Influenza. Brazilian Journal of Poultry Science 14: 71-85
- 306. Mashaly, M.M. et al. (2004). Effect of heat stress on production parameters and immune responses of commercial laying hens. Poultry Science <u>83</u>: 889-894
- 307. Matheny, G. et al. (2005). Human diets and animal welfare: the illogic of the larder. Journal of Agricultural and Environmental Ethics. 18: 579-594
- 308. Mathlouthi, N. et al. (2011). Effects of yeast extract addition in diet on performances and feather pecking of pullets when raising under feed restriction and litter removal. International Journal of Poultry Science 10: 284-286
- 309. Mazzuco, H. et al. (2011). Comparison of the effect of different methods of molt: Production and welfare evaluation. Poultry Science 90: 2913-2920
- 310. McAdie, T.M. et al. (2002). The social transmission of feather pecking in laying hens: effects of environment and age. Applied Animal Behaviour Science <u>75:</u> 147-159

- 311. McCowan, B. et al. (2006). Effects of induced molting on the well-being of egglaying hens. J. Applied Animal Welfare Science 9: 9-23
- 312. McDermott, J.J. et al. (2010). Sustaining intensification of smallholder livestock systems in the tropics. Livestock Science <u>130</u>: 95-109
- 313. McGlone, J.J. (2001). Farm animal welfare in the context of other society issues: toward sustainable systems. Livestock Production Science <u>72</u>: 75-81
- 314. McKeegan, D.E.F. et al. (2011). Physiological responses of laying hens during whole-house killing with carbon dioxide. British Poultry Science 52: 645-657
- 315. McLaren, I et al. (2011). Evaluation of commonly-used farm disinfectants in wet and dry models of *Salmonella* farm contamination. Avian Pathology <u>40:</u> 33-42
- 316. McLeod, A. et al. (2009). Structural changes in the poultry sector: will there be smallholder poultry development in 2030? World's Poultry Science Journal <u>65:</u> 191-200
- 317. McMichael, A. et al. (2007). Food, livestock production, energy, climate change and health. Lancet <u>370:</u> 1253-1263
- 318. Meda, B. et al. (2011). Influence of rearing conditions and manure management practices on ammonia and greenhouse gas emissions from poultry houses. World's Poultry Science Journal 67: 441-455
- 319. Mejia, L. et al. (2011). Evaluation of limit feeding varying levels of distillers dried grains with solubles in non-feed-withdrawal molt programs for laying hens. Poultry Science 90: 321-327
- 320. Mench, J. et al. (2011). Sustainability of egg production in the United States The policy and market context. Poultry Science <u>90:</u> 229-240
- 321. Mengesha, M. (2012). The issue of Feed-Food competition and chicken production for the demands of foods of animal origin. Asian Journal of Poultry Science <u>6</u>: 31-43
- 322. Mertens, K. et al. (2009). Layers in aviary system: effects of beak trimming and alternative feed formulation on technical results and egg quality. J. Appl. Poultry Res. 18: 90-102
- 323. Mertens, K. et al. (2010). The transmission color value: a novel egg quality measure for recording shell color used for monitoring the stress and health status of a brown layer flock. Poultry Science 89: 609-617

- 324. Messens, W. et al. (2006). Eggshell penetration of hen's eggs by *Salmonela* enterica serovar enteritidis upon various storage conditions. Bristish Poultry Science 47: 554-560
- 325. Michel, V. et al. (2007). Systèmes de production et bien-être en élevage de poules pondeuses. INRA Prod. Anim. 20: 47-52
- 326. Millman S.T. (2009). Animal welfare Scientific approaches to the issues. J. Applied Animal Welfare Science 12: 88-96
- 327. Mohammadi, L. et al (2009). Using different ratios of bitter vetch (*Vicia ervilia*) seed for moult induction and post-moult performance in commercial laying hens. Br. Poultry Science 50: 207-212
- 328. Moinard, C. et al. (2004). Accuracy of laying hens in jumping upwards and downwards between perches in different light environments. Applied Animal Behaviour Science 85: 77-92
- 329. Moinard, C. et al. (2005). Effects of obstructed take-off and landing perches on the flight accuracy of laying hens. Applied Animal Behaviour Science 93: 81-95
- 330. Mol,de R.M. et al. (2006). A computer model for welfare assessment of poultry production systems for laying hens. NJAS Wageningen Journal of Life Sciences 54: 157-1688
- 331. Molino, A.B. et al. (2009). The effects of alternative forced-molting methods on the performance and egg quality of commercial layers. Brazilian Journal of Poultry Science 11: 109-113
- 332. Mollenhorst, H. et al. (2005). On-farm assessment of laying hen welfare: a comparison of one environment-based and two animal-based methods. Applied Animal Behaviour Science 90: 277-291
- 333. Mollenhorst, H. et al. (2006). On-farm quantification of sustainability indicators: an application to egg production systems. Br. Poultry Science <u>47:</u> 405-417
- 334. Mollenhorst, H. et al. (2008). Behaviour-based simulation of facility demand of laying hens. Biosystems Engineering 100: 581-590
- 335. Mollenhorst H et al. (2009). On-farm quantification of sustainability indicators: an application to egg production systems. Br. Poultry Science <u>47</u>: 405-417
- 336. Morris, T.R. (2004). Environmental control for layers. World's Poultry Science Journal 60: 163-175

- 337. Morris, M.C. (2006). The ethics and politics of the caged layer hen debate in New Zealand. Journal of Agricultural and Environmental Ethics <u>19:</u> 495-514
- 338. Moura, D.J. et al. (2006). Animal welfare concepts and strategy for Poultry Production: A review. Brazilian Journal of Poultry Science 8: 137-148
- 339. Mulder, R.W.A.W. et al. (2007). European legislation in relation to food safety in production of poultry meat and eggs. J. Appl. Poultry Res. <u>16:</u> 92-98
- 340. Musgrove, M.T. et al. (2012). *Salmonella* collected from nest run cart shelves in commercial shell egg processing facilities. Poultry Science 91: 2386-2389
- 341. Nardone, A. et al. (2010). Effects of climate changes on animal production and sustainability of livestock systems. Livestock Science <u>130</u>: 57-69
- 342. Neijat, M. et al. (2011). Production performance and nitrogen flow of Shaver White layers housed in enriched or conventional cage systems. Poultry science <u>90:</u> 543-554
- 343. Neijat, M. et al. (2011). Calcium and phosphorous dynamics in commercial laying hens housed in conventional or enriched cage systems. Poultry Science <u>90:</u> 2383-2396
- 344. New berry, R.C. et al. (1999). Management of spent hens. . J. Applied Animal Welfare Science <u>2:</u> 13-29
- 345. Newberry, R.C. et al. (2007). Behaviour when young as a predictor of severe feather pecking in adult laying hens: The redirected foraging hypothesis revisited. Applied Animal Behaviour Science 107: 262-274
- 346. Ni, J.Q. et al. (2010). Characteristics of ammonia and carbon dioxide releases from layer hen manure. Br. Poultry Science <u>51:</u> 326-334
- 347. Nicholson, F.A. et al. (2004). Ammonia emissions from broiler litter and laying hen manure management systems. Biosystems Engineering 89: 175-185
- 348. Nicol, C.J. et al. (1999). Differential effects of increased stocking density, mediated by increased flock size, on feather pecking and aggression in laying hens. Applied Animal Behaviour Science 65: 137-152
- 349. Nicol, C.J. et al. (2006). Effects of stocking density, flock size and management on the welfare of laying hens in single-tier aviaries. Br. Poultry Science <u>47:</u> 135-146

- 350. Nicol, C.J. et al. (2009). Associations between welfare indicators and environmental choice in laying hens. Animal Behaviour <u>78:</u> 413-424
- 351. Nicol, C.J. et al. (2013). The prevention and control of feather pecking: application to commercial systems. World's Poultry Science Journal 69: 775-787
- 352. Nielsen, H.M. et al. (2010). How to consider the value of arm animals in breeding goals. A review of current status and future challenges. Journal of Agricultural and Environmental Ethics. DOI 10.1007/s10806-010-9264-4
- 353. Nordquist, R.E. et al. (2011). Laying hens selected for low mortality: Behaviour in tests of fearfulness, anxiety and cognition. Applied Animal Bahaviour Science 131: 110-122
- 354. O'Connor, E. et al. (2011). The relationship between the comb and social behavior in laying hens. Applied Animal Behaviour science <u>135</u>: 293-299
- 355. Odén, K. et al. (2005). Effects of sex composition on fear measured as tonic immobility and vigilance behaviour in large flocks of laying hens. Applied Animal Behaviour Science 95: 89-102
- 356. Odihambo Mumma, J. et al. (2006). Physiological stress in laying hens. Poultry Science <u>85</u>: 761-769
- 357. Oguntunji, A.O. et al. (2010). Influence of high environmental temperature on egg production and shell quality: a review. World's Poultry Science Journal 66: 739-749
- 358. O'Connor, E.A. et al. (2011). Effect of low light and high noise on behaviour activity, physiological indicators of stress and production in laying hens. British Poultry Science <u>52</u>: 666-674
- 359. O'Hara P et al. (2007). Challenge of developing regulations for production animals that produce the welfare outcomes we want. J. Veterinary Behavior <u>2</u>: 205-212
- 360. Olsen, R.H et al. (2012). An investigation on first-week mortality in layers. Avian Diseases <u>56:</u> 51-57
- 361. Olsson, I.A. et al. (2000). Night-time roosting in laying hens and the effect of thwarting access to perches. Applied Animal Behaviour Science <u>68:</u> 243-256
- 362. Olsson, I.A. et al. (2002). How important is social facilitation for dustbathing in laying hens? Applied Animal Behaviour Science 79: 285-297

- 363. Onbaşilar, E.E. et al. (2005). Stress parameters and immune response of layers under different cage floor and density conditions. Livestock Production Science 95: 255-263
- 364. Oppermann Moe, R. et al. (2013). Effects of signaled reward type, food status and a μ-opiod receptor antagonist on cue-induced anticipatory behaviour in laying hens (*Gallus domesticus*). Applied Animal Behaviour Science 148: 46-53
- 365. Overall, K.L. (2012). Behavior affects welfare across species. Journal of Veterinary Behavior 7: 325-326
- 366. Oxenboll, K.M. et al. (2011). Use of a protease in Poultry feed offers promising environmental benefits. International Journal of Poultry Science 10: 842-848
- 367. Pantin-Jackwood, M.J. et al. (2012). Low pathogenicity Avian influenza viruses infect layers by different routes of inoculation. Avian Diseases <u>56:</u> 276-281
- 368. Pardue, S.L. (2010). Symposium: Global views of new agriculture. Food, energy, and the environment. Poultry Science 89: 797-802
- 369. Pasquali, F. et al. (2010). Hot air treatment for surface decontamination of table eggs. Food Control <u>21:</u> 431-435
- 370. Patterson, P.H. et al. (2008). The potential for plants to trap emissions from farms with laying hens. 1. Ammonia. J. Appl. Poultry Res. <u>17:</u> 54-63
- 371. Patwardhan, D. et al. (2011). Review: feed withdrawal and non feed withdrawal moult. World's Poultry Science Journal <u>67:</u> 253-268
- 372. Pavic, A. et al. (2010). Utilization of a novel autologous killed tri-vaccine (serogroups B[Typhimurium], C[Mbandaka] and E[Orion] for *Salmonella* control in commercial poultry breeders. Avian Pathology 39: 31-39
- 373. Pelletier, N. et al. (2010). Forecasting potential global environmental costs of livestock production 2000-2050. Processing of the National Academy of Sciences 107: 18371-18374
- 374. Pelletier, N. et al. (2014). Comparison of the environmental footprint of the egg industry in the United States in 1960 and 2010. Poultry Science <u>93:</u> 241-255
- 375. Penha Filho, R. et al. (2009). Efficacy of several vaccination programmes in commercial layer and broiler breeder hens against experimental challenge with *Salmonella enterica serovar enteritidis*. Avian Pathology <u>38:</u> 367-375

- 376. Pérez-Bonilla, A. et al. (2012). Effect of crude protein and fat content of diet on productive performance and egg quality of brown egg-laying hens with differnt initial body weight. Poultry Science 91: 1400-1405
- 377. Petracci. M., M. Bianchi, C. Cavani, P. Gaspari and A. Lavazza (2006). Preslaughter mortality in broiler chickens, turkeys, and spent hens under commercial slaughtering. Poultry Science <u>85</u>: 1660-1664
- 378. Phillis, Y.A. et al. (2011). Sustainability ranking and improvement of countries. Ecological Economics 70: 542-553
- 379. Pickel, T. et al. (2010). Perch material and diameter affects particular perching behaviours in laying hens. Applied Animal Behaviour Science 127: 37-42
- 380. Pickel, T. et al. (2011). Pressure load on keel bone and food pads in perching laying hens in relation to perch design. Poultry Science <u>90:</u> 715-724
- 381. Pickel, T. et al. (2011). Roosting behavior in laying hens on perches of different temperatures: Trade-offs between thermoregulation, energy budget, vigilance and resting. Applied Animal Behaviour Science <u>134</u>: 164-169
- 382. Pohle, K. et al. (2009a). Furnished cage system and hen well-being: Comparative effects of furnished cages and battery cages on behavior exhibitions in White Leghorn chickens. Poultry Science <u>88</u>: 1559-1564
- 383. Pohle, K. et al. (2009b). Comparative effects of furnished and battery cages on egg production and physiological parameters in White Leghorn chickens. Poultry Science 88: 2042-2051
- 384. Pötzsch, C.J. et al. (2001). A cross-sectional study of the prevalence of vent pecking in laying hens in alternative systems and its associations with feather pecking, management and disease. Applied Animal Behaviour Science <u>74:</u> 259-272
- 385. Powers, W.J. et al. (2005). Air emissions in poultry production: current challenges and future directions. J. Appl. Poultry Res. <u>14:</u> 613-621
- 386. Powers, W. et al. (2008). A review of the capacity for nutritional strategies to address environmental challenges in poultry production. Poultry Science 87: 1929-1938
- 387. Pretty, J.N. et al. (2005). Farm costs and food miles: An assessment of the full cost of the UK weekly food basket. Food policy 30: 1-19

- 388. Pratt, E.V. et al. (2006). Reducing gaseous nitrogen loss from stored laying hen manure by the addition of carbohydrates. Br. Poultry Science <u>47:</u> 103-109
- 389. Raj M. (2008). Humane killing of nonhuman animals for disease control purposes. Journal of Applied Animal Welfare Science <u>11</u>: 112-124
- 390. Ramadan, S.G.A. et al (2008). Role of loose feathers on the development of feather pecking in laying hens. Br. Poultry Science 49: 250-256
- 391. Rask, K.J. et al. (2011). Economic development and food production-consumtion balance: A growing global challenge. Food Policy <u>36:</u> 186-196
- 392. Reis, A. et al. (2012). Tenacity of low-pathogenic avian influenza viruses in different types of poultry litter. Poultry Science 91: 1745-1750
- 393. Reu, de, K. et al. (2005). Bacterial eggshell contamination in conventional cages, furnished cages and aviary housing systems for laying hens. Br. Poultry Science 46: 149-155
- 394. Reu, de, K. et al. (2006). Eggshell factors influencing eggshell penetration and whole egg contamination by different bacteria, including *Salmonella enteritidis*. International Journal of Food Microbiology 112: 253-260
- 395. Reu, de, K. et al. (2008). Bacterial contamination of table eggs and the influence of housing systems. World's Poultry Science Journal <u>64</u>: 5-19
- 396. Revolledo, L. et al. (2012). Current perspectives in avian salmonellosis: Vaccines and immune mechanisms of protection. Journal of Applied Poultry Research 21: 418-431
- 397. Reynolds, D. et al. (1997). Evaluation of combined antibiotic and competitive exclusion treatment in broiler breeder flocks infected with *Salmonella enterica* serovar eteritidis. Avian Pathology <u>26:</u> 83-95
- 398. Riber, A.B. (2010). Development with age of nest box use and gregarious nesting in laying hens. Applied Animal Behaviour Science 123: 24-31
- 399. Riber, A.B. (2012a). Nest sharing under semi-natural conditions in laying hens. Applied Animal Behaviour Science <u>136:</u> 44-49
- 400. Riber, A.B. (2012b). Gregarious nesting An anti-predator response in laying hens. Applied Animal Behaviour Science <u>138:</u> 70-78

- 401. Riber, A.B. et al. (2013). Changes in position and quality of preferred nest box : Effects on nest box use by laying hens. Applied Animal Behaviour Science <u>148</u>: 185-191
- 402. Rios, R.L. et al. (2009). Effect of cage density on the performance of 25- and 84-week-old laying hens. Brazilian Journal of Poultry Science 11: 257-262
- 403. Ritz, C.W. et al. (2004). Implications of ammonia production and emissions from commercial poultry facilities: a review. J. Appl. Poultry Res. 13: 684-692
- 404. Rodenburg, T.B. et al. (2003). Heritability of feather pecking and open-field response of laying hens at two different ages. Poultry Science <u>83</u>: 861-867
- 405. Rodenburg, T.B. et al. (2005a). Welfare, health, and hygiene of laying hens housed in furnished cages and in alternative housing systems. J. Applied Animal Welfare Science 8: 211-226
- 406. Rodenburg, T.B. et al. (2005b). Can short-term frustration facilitate feather pecking in laying hens? Applied Animal Behaviour Science 91: 85-101
- 407. Rodenburg, T.B. et al. (2008). Selection method and early-life history affect behavioural development, feather pecking and cannibalism in laying hens: A review. Applied Animal Behaviour Science 110: 217-228
- 408. Rodenburg, T.B. et al. (2010). Fearfulness and feather damage in laying hens divergently selected for high and low feather pecking. Applied Animal Behaviour Science 128: 91-96
- 409. Rodić, V. et al. (2012). Socio-economic implications of adopting the EU laying hen welfare regulation in Serbia. World's Poultry Science Journal <u>68:</u> 229-238
- 410. Roland, D.A. Sr. et al. (1997). Performance and profits of commercial leghorns as influenced by cage row position. J. Appl. Poultry Res. <u>6:</u> 284-289
- 411. Roll, V. et al. (2011). Research on *Salmonella* in broiler litter reused for up to 14 consecutive flocks. Poultry Science <u>90:</u> 2257-2262
- 412. Roumeliotis, T.S. et al. (2008). Summary of ammonia and particulate matter emission factors for poultry operations. The potential for plants to trap emissions from farms with laying hens. 1. Ammonia. J. Appl. Poultry Res. <u>17:</u> 305-314
- 413. Rushen, J. (2008). Farm animal welfare since the Brambell report –Guest editorial. Applied Animal Behaviour Science <u>113:</u> 277-278

- 414. Ruzal, M. et al. (2011). Ventilation plays an important role in hens' egg production at high ambient temperature. Poultry Science <u>90:</u> 856 862
- 415. Sandilands, V. et al. (2009). Providing laying hens with perches: fulfilling behavioural needs but causing injury?. Br. Poultry Science <u>50</u>: 395-406
- 416. Saki, A. et al. (2011). Assessing bone mineral density, eggshell characteristics and their relationship at peak egg production of laying hens in response to various levels of vitamin C. Brazilian Journal of Poultry Science 13: 203-206
- 417. Sarnozkan, S. et al. (2013). Comparison of different molting methods and evaluation of the efffects of postmolt diets supplemented with humate and carnitine on peformance, egg quality, and profitability of laying hens. Journal of Applied Poultry Science 22: 689-699
- 418. Sasaki, Y. et al. (2012). Risk factors for *Salmonella* prevalence in laying-hen farms in Japan. Epidemiology and Infection 140: 982-990
- 419. Savory, C.J. (1995). Feather pecking and cannibalism. World's Poultry Science Journal <u>51</u>: 215-219
- 420. Savory, C.J. et al (2006). Behavioural responses to different floor space allowances in small groups of laying hens. Br. Poultry Science <u>47:</u> 120-124
- 421. Sgavioli, S. et al. (2013). Effect of forced-molting methods and rearing temperatures on the performance and organ biometrics of laying hens. Brazilian Journal of Poultry Science <u>15:</u> 169-286
- 422. Sgavioli, S. et al. (2013). Dietary fiber inclusion as an alternative to feed fasting to induce molting in commercial layers. Brazilian Journal of Poultry Science <u>15:</u> 365-370
- 423. Scholten, M.C.T et al. (2013). Livestock farming with care: towards sustainable production of animal-source food. NJAS Wageningen Journal of Life Sciences 66: 3-5
- 424. Scholz, B. et al. (2010). Food, wood, or plastic as substrates for dustbathing and foraging in laying hens: a preference test. Poultry Science 89: 1584-1589
- 425. Scholz, B. et al. (2011). Litter lipid content affects dustbathing behavior in laying hens. Poultry Science <u>90:</u> 2433-2439
- 426. Schrader, L. et al. (2009). Night-time roosting in the domestic fowl: the height matters. Applied Animal Behaviour Science 121: 179-183\

- 427. Schulz, J. et al. (2011). The dynamics of *Salmonella* occurrence in commercial laying hen flocks throughout a laying period. Avian Pathology <u>40:</u> 243-248
- 428. Schwaiger, K. et al. (2010). Comparative analysis on antibiotic resistance characteristics of *Listeria spp.* and *Enterococcus spp.* isolated from laying hens and eggs in conventional and organic keeping systems in Bavaria, Germany. Zoonoses and Public Health 57: 171-180
- 429. Scott, G.B. et al. (1997). Ability of laying hens to negotiate horizontal perches at different heights, separated by different angles. Br. Poultry Science 38: 48-54
- 430. Seehuus, B. et al. (2013). Disrupting motivational sequences in chicks: Are there affective consequences? Applied Animal Behaviour Science <u>148</u>: 85-92
- 431. Seré, C. et al. (2008). Dynamics of livestock production systems, drivers of change and prospects for animal resources. Animal Genetic Resources Information 42: 3-27
- 432. Sgavioli, S. et al. (2011). Performance of layers submitted to different forced-molting methods and different temperatures. Brazilian Journal of Poultry Science 13: 207-210
- 433. Shanawany, M.M. (1982). The effect of ahemeral light and dark cycles on the performance of laying hens (A review). World's Poultry Science Journal 38: 120-126
- 434. Shapira, N. (2010). Every egg may have a targeted purpose: toward a differential approach to egg according to composition and functional effect. World's Poultry Science Journal 66: 271-284
- 435. Sherwin, C.M. et al. (2010). Comparison of the welfare of layer hens in 4 housing systems in the UK. Br. Poultry Science <u>51:</u> 488-499
- 436. Shields, S.J. et al. (2010). A critical review of electrical water-bath stun systems for Poultry slaughter and recent developments in alternative technologies. Journal of Applied Animal Welfare Science <u>13:</u> 281-299
- 437. Shimmura, T. et al. (2008). Pecking behaviour of laying hens in single-tiered aviaries with and without outdoor area. Br. Poultry Science 49: 396-401
- 438. Shimmura, T. et al. (2008a). Pecking behaviour of laying hens in single-tier aviaries with and without outdoor area. British Poultry Science <u>49</u>: 396-401

- 439. Shimmura, T. et al. (2008b). Relation between social order and use of resources in small and large furnished cages for laying hens. Br. Poultry Science 49: 516-524
- 440. Shimmura, T. et al. (2009). Effects of separation of resources on behavior, physical condition and production of laying hens in furnished cages. Br. Poultry Science <u>50:</u> 39-46
- 441. Shimmura, T. et al. (2010). Multi-factorial investigation of various housing systems of laying hens. Br. Poultry Science <u>51:</u> 31-42
- 442. Shirota, K. et al. (2012). Epidemiologic role of feeds in the epidemiology of *Salmonella senftenbeg* contamination in commercial layer farms in Eastern Japan. Avian Diseases <u>56:</u> 516-520
- 443. Siegford, J.M. et al. (2008). Environmental aspects of ethical animal production. Poultry Science <u>87</u>: 380-386
- 444. Silva R. et al. (2011). Poultry welfare scenario in South America: Norms and regulations. Brazilian Journal of Poultry Science 13: 83-89
- 445. Silversides, F. et al. (2012). Comparison of bones of 4 strains of laying hens kept in conventional cages and floor pens. Poultry Science <u>91:</u> 1-7
- 446. Sim, S. et al. (2007). The relative importance of transport in determining an appropriate sustainability strategy for food sourcing. Int. J. LCA <u>12</u>: 422-431
- 447. Singh, R. et al. (2009a). Production performance and egg quality of four strains of laying hens kept in conventional cages and floor pens. Poultry Science <u>88</u>: 256-264
- 448. Singh, R. et al. (2009b). Invasive and noninvasive measurement of stress in laying hens kept in conventional cages and in floor pens. Poultry Science <u>88</u>: 1346-1351
- 449. Song, W.O. et al. (2000). Nutritional contribution of eggs to American diets. J. of the American College of Nutrition 19: 556S-562S
- 450. Sorensen, J.T. et al. (2010). On-farm welfare assessment for regulatory purposes: Issues and possible solutions. Livestock Science <u>131:</u> 1-7
- 451. Spiertz, J.H.J. et al. (2009). Crop production and resource use to meet the growing demand for food, feed and fuel: opportunities and constraints. NJAS Wageningen Journal of Life Sciences 56: 281-300

- 452. Spiertz, H. (2010). Food production, crops and sustainability: restoring confidence in science and technology. Current Opinion in Environmental Sustainability <u>2:</u> 439-443
- 453. Sossidou, E.N. et al. (2009). Hens' welfare to egg quality: a European perspective. World's Poultry Science Journal 65: 709-718
- 454. Sossidou, E.N. et al. (2011). Pasture-based systems for poultry production : implications and prespectives. World's Poultry Science Journal 67: 47-58
- 455. Stämpfli, K. et al. (2011). Influence of nest-floor slope on the nest choice of laying hens. Applied Animal Behaviour Science <u>135:</u> 286-292
- 456. Steenfeldt, S. et al. (2007). Effect of feeding silages or carrots as supplements to laying hens on production performance, nutrient digestibility, gut structure, gut flora and feather pecking behavior. Br. Poultry Science 48: 454-468
- 457. Struelens, E. et al. (2005). Design of laying nests in furnished cages: influence of nesting material, nest box position and seclusion. Br. Poultry Science 46: 9-15
- 458. Struelens, E. et al. (2009). Perch width preferences of laying hens. Br. Poultry Science <u>50</u>: 418-423
- 459. Su, G. et al. (2005). Variance components and selection response for feather-pecking behavior in laying hens. Poultry Science <u>84</u>: 14-21
- 460. Sumner, D.A. et al. (2011). Economic and market issues on the sustainability of egg production in the United States: Analysis of alternative production systems. Poultry Science 90: 241-250
- 461. Surai, P.F. et al. (2001). Designer eggs: from improvement of egg composition to functional food. Trends in Food Science & Technology <u>12:</u> 7-16
- 462. Swanson, J.C. et al. (2011). Introduction The socially sustainable egg production project. Poultry Science <u>90:</u> 227-228
- 463. Swanson, J.C. et al. (2011). Integration: Valuing stakeholder input in setting priorities for socially sustainable egg production. Poultry Science <u>90:</u> 2110-2121
- 464. Szablewski, T. et al. (2010). Ergosterol as an indicator of the presence of microscopic fungi in eggs for human consumption produced in different husbandry systems. Poultry Science 89: 2491-2493

- 465. Tablante, N.L. et al. (2000). Spatial distribution of cannibalism mortalities in commercial laying hens. Poultry Science <u>79</u>: 705-708
- 466. Tactacan, G.B. et al. (2009). Performance and welfare of laying hens in conventional and enriched cages. Poultry Science <u>88</u>: 698-707
- 467. Tahmasbi, A.M. et al. (2012). The effects of phytase and root hydroalcoholic extract of *Withania sominfera* on productive performance and bone mineralisation of laying hens in the late phase of production. British Poultry Science <u>53:</u> 204-214
- 468. Tamminga, S. (2003). Pollution due to nutrient losses and its control in European animal production. Livestock Production Science <u>84:</u> 101-111
- 469. Tasistro, A.S. et al. (2007). Ammonia emissions from broiler litter: response to bedding materials and acidifiers. Br. Poultry Science 48: 399-405
- 470. Tauson, R. (2005). Management and housing systems for layers effects on welfare and production. World's Poultry Science Journal 61: 477-490
- 471. Tauson, R. et al. (1999). Effect of two floor housing systems and cages on health, production, and fear response in layers. J. Appl. Poultry Res. <u>8:</u> 152-159
- 472. Taylor N et al. (2009). Willingness to pay: Australian consumers and "on the Farm" welfare. Journal of Applied Animal Welfare Science 12: 345-359
- 473. Taylor, R.C. et al. (2014). The greenhouse emissions footprint of free-range eggs. Poultry Science <u>93:</u> 231-237
- 474. Thiruvenkadan, A.K. et al. (2010. Layer breeding strategies: an overview. World's Poultry Science Journal <u>66:</u> 477-501
- 475. Thogerson, C.M. et al. (2009a). The effect of feeder space allocation on behavior of Hy-Line W-36 hens housed in conventional cages. Poultry Science 88: 1544-1552
- 476. Thogerson, C.M. et al. (2009b). The effect of feeder space allocation on productivity and physiology of Hy-Line W-36 hens housed in conventional cages. Poultry Science <u>88</u>: 1544-1552
- 477. Thompson, P.B. (2010). Why using genetics to address welfare may not be a good idea. Poultry Science 89: 814-821
- 478. Thompson, P.B. et al. (2011). Values and public acceptability dimensions of sustainable egg production. Poultry Science <u>90:</u> 2097-2109

- 479. Tonsor, G.T. et al. (2011). On mandatory labeling of animal welfare attributes. Food Policy <u>36:</u> 430-437
- 480. Tukker, A. et al. (2006). Environmental impacts of products. A detailed review of studies. Journal of Industrial Ecology <u>10:</u> 159-182
- 481. Turner, S. (2011). Breeding against harmful social behaviours in pigs and chickens: State of the art and the way forward. Applied Animal Behaviour Science 134: 1-9
- 482. Turner, P.V. et al. (2012). Mass depopulation of laying hens in whole barns with liquid carbon dioxide: Evaluation of welfare impact. Poultry Science 91: 1558-1568
- 483. Tuyttens, F.A.M. et al. (2010). Quantitative verification of the correspondance between the Welfware Quality ® operational definition of farm animal welfare and the opinion of Flemish farmers, citizens and vegetarians. Livestock Science 131: 108-114
- 484. Tuyttens, F.A.M. et al. (2011). Survey of egg producers on the introduction of alternative housing systems for laying hens in Flanders, Belgium. Poultry Science 90: 941-950
- 485. Uitdehaag, K.A. et al. (2009). Mixed housing of different genetic lines of laying hens negatively affects feather pecking and fear related behaviour. Applied Animal Behaviour Science <u>116</u>: 58-66
- 486. Umali, D.V. et al. (2012). Transmission and shedding patterns of *Salmonella* in naturally infected captive wild roof rats (*Rattus rattus*) from a *Salmoenlla*-contaminated layer farm. Avian Diseases 56: 288-294
- 487. Väisänen, J. et al. (2004). Responses of young red jungle fowl (*Gallus gallus*) and White leghorn layers to familiar and unfamiliar social stimuli. Poultry Science <u>83</u>: 335-343
- 488. Valkonen, E. et al. (2008). Effects of dietary content on the performance of laying hens in furnished and conventional cages. Poultry Science <u>87</u> 844-852
- 489. Valros, A. et al. (2008). Effect of simulated long transportation on behavioural characteristics in two strains of laying hen chicks. Applied Animal Behaviour Science 109: 58-67

- 490. Vandenberge, V. et al. (2012). Transfer of flubendazole and tylosin at cross contamination levels in the feed to egg matrices and distribution between egg yolk and egg white. Poultry Science 91: 1248-1255
- 491. Vanhonacker, F. et al. (2010). Citizens' views on farm animal welfare and related information provision: exploratory insights from Flanders, Belgium. Journal of Agricultural and Environmental Ethics. DOI 10.1007/s10806-010-9235-9
- 492. Van Krimpen, M. et al. (2011). Effect of four processed animal proteins in the diet on behavior in laying hens. Applied Animal Behaviour Science 132: 138-145
- 493. Vinnari, M. et al. (2012). Sustainability of diets: From concepts to governance. Ecological Economics 74: 46-54
- 494. Veissier, I. et al. (1999). Les méthodes d'appréciation du bien-être des animaux d'élevage. INRA Prod. Anim. <u>12:</u> 113-121
- 495. Veissier, I. et al. (2007). Les recherches sur le bien-être animal: buts, méthodologie et finalité. INRA Prod. Anim. <u>20:</u> 3-10
- 496. Veissier, I. et al. (2008). European approaches to ensure good animal welfare. Applied Animal Behaviour Science <u>113:</u> 279-297
- 497. Vergé, X.P.C. et al. (2009). Long-term trends in greenhouse gas emissions from the Canadian poultry industry. Journal of Applied Poultry Research 18: 210-222
- 498. Vits, A. et al. (2005). Production, egg quality, bone strength, claw length, and keel bone deformities of laying hens housed in furnished cages with different group sizes. Poultry Science <u>84</u>: 1511-1519
- 499. Vries, de M. et al. (2010). Comparing environmental impacts for livestock products: A review of life cycle assessments. Livestock Science <u>128:</u> 1-11
- 500. Vylder, de, J. et al. (2011). Horizontal transmission of *Salmonella enteritidis* in groups of experimentally infected laying hens housed in different housing systems. Poultry Science <u>90:</u> 1391-1396
- 501. Wachenflet, von E. et al. (2001). Release of heat, moisture and carbon dioxide in an aviary system for laying hens. Br. Poultry Science 42: 171-179
- 502. Wales, A. et al. (2007). A longitudinal study of environmental salmonella contamination in caged and free-range layer flocks. Avian Pathology <u>36:</u> 187-197

- 503. Wales, A. et al. (2011). A critical review of *Salmonella typhimurium* infection in laying hens. Avian Pathology <u>40:</u> 429-436
- 504. Walker, A.W. et al. (1998). Egg shell colour is affected by laying cage design. Br. Poultry Science 39: 696-699
- 505. Wall, H. et al. (2002). Effect of nest design, passages, and hybrid on use of nest and production performance of layers in furnished cages. Poultry Science <u>81</u>: 333-339
- 506. Wall, H. et al. (2004). Pop hole passages and welfare in furnished cages for laying hens. Br. Poultry Science <u>45:</u> 20-27
- 507. Wall, H. et al. (2007). Perch arrangements in small-group furnished cages for laying hens. J. Appl. Poultry Res. <u>16:</u> 322-330
- 508. Wall, H. et al. (2008a). Effects of litter substrate and genotype on layers' use of litter, exterior appearance, and heterophil:lymphocyte ratios in furnished cages. Poultry Science <u>87</u>: 2458-2465
- 509. Wall, H. et al. (2008b). Bacterial contamination of eggshells in furnished and conventional cages. J. Appl. Poultry Res. <u>17:</u> 11-16
- 510. Wall, H. (2011). Production performance and proportion of nest eggs in layer hybrids housed in different designs of furnished cages. Poultry Science <u>90:</u> 2153-2161
- 511. Wall. H. et al. (2013). Nest lining in small-group furnished cages for laying hens. Journal of Applied Poultry Science 22: 474-484
- 512. Wang, X.L. et al. (2009). Laying performance and egg quality of blue-shelled layers as affected by different housing systems. Poultry Science <u>88</u>: 1485-1492
- 513. Wathes, C.M. et al. (1997). Concentrations and emission rates of aerial ammonia, nitrous oxide, methane, carbon dioxide, dust and endotoxin in UK broiler and layer houses. Br. Poultry Science 38: 14-28
- 514. Weber, C.L. et al. (2008). Food-miles and the relative climate impacts of food choices in the United States. Environmental Science & Technology <u>42:</u> 3508-3513
- 515. Weber, G.M. (2009). Improvement of flock productivity through supply of vitamins for higher laying performance and better egg quality. World's Poultry Science Journal 65: 443-458

- 516. Webster, A.B. (1995). Immediate and subsequent effects of a short fast on the behavior of laying hens. Applied Animal Behaviour Science 45: 255-266
- 517. Webster, A.B. (2000). Behavior of white leghorn laying hens after withdrawal of feed. Poultry Science <u>79</u>: 192-200
- 518. Webster, A.B. (2003). Physiology and behavior of the hen during induced molt. Poultry Science <u>83</u>: 992-1002
- 519. Webster, A.B. (2004). Welfare implications of avian osteoporosis. Poultry Science 83: 184-192
- 520. Webster, A.B. et al. (1996). Humane on-farm killing of spent hens. J. Appl. Poultry Res. <u>5:</u> 191-200
- 521. Weeks, C.A. et al. (2006). Behavioural needs, priorities and preferences of laying hens. World's Poultry Science Journal <u>62</u>: 296-307
- 522. Weeks, C.A. et al. (2012). Levels of mortality in hens by end of lay on farm and in transit to slaughter in Great Britain. Veterinary Record <u>170:</u> 647-650
- 523. Weerd, van de, H.A. et al. (2006). Rearing factors that influence the propensity for injurious feather pecking in laying hens. World's Poultry Science Journal <u>62</u>: 654-664
- 524. Weerd, van de, H.A. et al. (2009). A review of key health-related welfare issues in organic poultry production. World's Poultry Science Journal <u>65:</u> 649-684
- 525. Weitzenbürger, D. et al. (2005). Effect of furnished small group housing systems and furnished cages on mortality and causes of death in two layer strains. Br. Poultry Science 46: 553-559
- 526. Weitzenbürger, D. et al. (2006). Macroscopic and histopathological alterations of foot pads of laying hens kept in small group housing systems and furnished cages. Br. Poultry Science <u>47:</u> 533-543
- 527. Whitehead, C.C. (2002). Nutrition and poultry welfare. World's Poultry Science Journal <u>58</u>: 349-356
- 528. Whitehead, C.C. (2004). Overview of bone biology in the egg-laying hen. Poultry Science 83: 193-199
- 529. Wichman, A. et al. (2007). Perching behaviour in chickens and its relation to spatial ability. Applied Animal Behaviour Science 105: 165-179

- 530. Wichman, A. et al. (2008). Hens are motivated to dustbathe in peat irrespective of being reared with or without a suitable dusbathing substrate. Animal Behaviour 75: 1525-1533
- 531. Wichman, A. et al. (2012). Cognitive bias and anticipatory behaviour of laying hens housed in basic and enriched pens. Applied Animal Behaviour Science 140: 62-69
- 532. Wilke, A. et al. (2011). Analysis of risk factors for the introduction of *Salmonella spp.* and *Campylobacter spp.* in poultry farms using Delphi method. World's Poultry Science Journal 67: 615-630
- 533. Wilson, D.R. et al. (2012). Fowl communicate the size, speed and proximity of avian stimuli through graded structure in referential alarm calls. Animal Behaviour 83: 535-544
- 534. Witte de, K (2009). Development of the Australian animal welfare standards and guidelines for the land transportation of livestock: Process and philosophical considerations. Journal of Veterinary Behavior 4: 148-156
- 535. Wolc, A. et al. (2012). Genetic parameters of egg defects and egg quality in layer chickens. Poultry Science <u>91:</u> 1292-1298
- 536. Wolffram, R. et al. (2002). Impacts of stricter legal standards in the EU for keeping laying hens in battery cages. World's Poultry Science Journal <u>58</u>: 365-370
- 537. Wu, G. et al. (2007a). Effect of nutrient density on performance, egg components, egg solids, egg quality, and profits in eight commercial Leghorn strains during phase One. Poultry Science <u>86</u>: 691-697
- 538. Wu, G. et al. (2007b). Effect of molting method and dietary energy on postmolt performance, egg components, egg solid, and egg quality in Bovans White and Dekalb White hens during second cycle phases two and three. Poultry Science 86: 869-876
- 539. Wu-Haan, W. et al. (2007). Effect of an acidifying diet combined with Zeolite and slight protein reduction on air emissions from layiong hens of differnt ages. Poultry Science 86: 182-190
- 540. Wu-Haan, W. et al. (2010). The use of distillers dried grains plus soluble as a feed ingredient on air emissions and performance from laying hens. Poultry Science 89: 1355-1359

- 541. Wysocki, M. et al. (2010). Genetic and physiological factors influencing feather pecking in chickens. World's Poultry Science Journal <u>66:</u> 659-671
- 542. Xin, H. et al. (2011). Environmental impacts and sustainability of egg production systems. Poultry Science <u>90:</u> 263-277
- 543. Yamazaki, M. et al (2012). *In vitro* screening of lactobacilli isolated from chicken excreta to control *Salmonella enteritidis* and *typhimurium*. British Poultry Science 53: 183-189
- 544. Yan, F.F. et al. (2013). Effects of perch access and age on physiological measures of stress in caged White Leghorn pullets. Poultry Science <u>92:</u> 2853-2859
- 545. Yang, t. et al. (2011). Melamine residues in eggs of laying hens exposed to melamine-contaminated feed. Poultry Science <u>90:</u> 701-704
- 546. Yasunari, T. et al. (2013). Asia: proving ground for global sustainability. Current Opinion in Environmental Sustainability <u>5:</u> 288-292
- 547. Yildiz, A. et al. (2006). Effects of cage location and tier level with respect to light intensity in semiconfined housing on egg production and quality during the late laying period. J. Appl. Poultry Res. <u>15:</u> 355-361
- 548. Yngvesson, J. et al. (2004). Individual production differences do not explain cannibalistic behaviour in laying hens. Br. Poultry Science <u>45</u>: 453-462
- 549. Yousaf, M. et al. (2008). History, changing scenarios and future strategies to induce moulting in laying hens. World's Poultry Science Journal 64: 65-75
- 550. Zabaniotou, A. et al. (2003). Life cycle assessment applied to egg packaging made from polystyrene and recycled paper. Journal of Cleaner Production 11: 549-559
- 551. Zeltner, E. et al. (2008). Factors involved in the improvement of the use of hen runs. Applied Animal Behaviour Science 114: 395-408
- 552. Zhang, G. et al. (2013). Comparison of different preenrichment broths, egg:preenrichment broth ratios, and surface disinfection for the detection of *Salmonella enterica spp. Enterica serovar Enteritidis* in shell eggs. Poultry Science 92: 3010-3016

- 553. Zhang, G. et al. (2013). Comparison of a novel strategy for the detection and isolation of *Salmonella* in shell eggs with the Food and Drug Administration bacteriological analytical manual method. Poultry Science 92: 3266-3274
- 554. Zhao, L. et al. (2008). Lutein and zeaxanthin for macular degeneration. American Journal Health-System Pharmacists <u>65:</u> 1232-1238
- 555. Zhao, Y. et al. (2011). Willingness to pay: Animal welfare and related influencing factors in China. Journal of Applied Animal Welfare Science 14: 150-161
- 556. Zidar, J. et al. (2012). Scent of the enemy: behavioural responses to predator faecal odour in the fowl. Animal Behaviour <u>84:</u> 547-554
- 557. Zimmerman, P.H. et al. (2006). The effect of stocking density, flock size and modified management on laying hen behavior and welfare in a non-cage system. Applied Animal Behaviour Science 101: 111-124
- 558. Zupan, M. et al. (2008). Comparison of the prelaying behavior of nest layers and litter layers. Poultry Science <u>87</u>: 399-404