

Aaron J Cowieson

List of Publications by Year in descending order

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125
papers

5,544
citations

94433

37
h-index

88630

70
g-index

125
all docs

125
docs citations

125
times ranked

2656
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of barley inclusion method and protease supplementation on growth performance, nutrient utilisation, and gastrointestinal tract development in broiler starters. <i>Animal Nutrition</i> , 2022, 8, 61-70.	5.1	6
2	Effects of protease supplementation and diet type on jejunal and ileal digestibility and total tract metabolisability of nitrogen, starch, and energy in broilers. <i>British Poultry Science</i> , 2022, 63, 386-394.	1.7	3
3	Comparative effects of two phytases on growth performance, bone mineralization, nutrient digestibility and phytate-P hydrolysis of broilers. <i>Journal of Applied Poultry Research</i> , 2022, 31, 100247.	1.2	9
4	Research Note: The effect of sequential displacement of dietary dextrose with myo-inositol on broiler chicken growth performance, bone characteristics, ileal nutrient digestibility, and total tract nutrient retention. <i>Poultry Science</i> , 2021, 100, 993-997.	3.4	5
5	Latent Anti-nutrients and Unintentional Breeding Consequences in Australian Sorghum bicolor Varieties. <i>Frontiers in Plant Science</i> , 2021, 12, 625260.	3.6	7
6	Exogenous α -amylase improves the digestibility of corn and corn-soybean meal diets for broilers. <i>Poultry Science</i> , 2021, 100, 101019.	3.4	8
7	The influence of feed ingredients on CP and starch disappearance rate in complex diets for broiler chickens. <i>Poultry Science</i> , 2021, 100, 101068.	3.4	4
8	Mathematical prediction of ileal energy and protein digestibility in broilers using multivariate data analysis. <i>Poultry Science</i> , 2021, 100, 101106.	3.4	1
9	Trends in feed evaluation for poultry with emphasis on in vitro techniques. <i>Animal Nutrition</i> , 2021, 7, 268-281.	5.1	17
10	Balanced nutrient density for broiler chickens using a range of digestible lysine-to-metabolizable energy ratios and nutrient density: Growth performance, nutrient utilisation and apparent metabolizable energy. <i>Animal Nutrition</i> , 2021, 7, 430-439.	5.1	8
11	Towards a digestible calcium system for broiler chicken nutrition: A review and recommendations for the future. <i>Animal Feed Science and Technology</i> , 2021, 276, 114930.	2.2	12
12	Protease supplementation in maize-based diet influenced net energy and nutrient digestibility in broilers. <i>Journal of Applied Animal Nutrition</i> , 2021, 9, 85-91.	0.9	0
13	Constraints on the modelling of calcium and phosphorus growth of broilers: a systematic review. <i>World's Poultry Science Journal</i> , 2021, 77, 775-795.	3.0	3
14	Contribution of purified soybean trypsin inhibitor and exogenous protease to endogenous amino acid losses and mineral digestibility. <i>Poultry Science</i> , 2021, 100, 101486.	3.4	7
15	Matrix values for exogenous enzymes and their application in the real world. <i>Journal of Applied Poultry Research</i> , 2020, 29, 15-22.	1.2	16
16	Contribution of individual broilers to variation in amino acid digestibility in soybean meal and the efficacy of an exogenous monocomponent protease. <i>Poultry Science</i> , 2020, 99, 1075-1083.	3.4	8
17	Effect of broiler genetics, age, and gender on performance and blood chemistry. <i>Heliyon</i> , 2020, 6, e04400.	3.2	16
18	Corn drying temperature, particle size, and amylase supplementation influence growth performance, digestive tract development, and nutrient utilization of broilers. <i>Poultry Science</i> , 2020, 99, 5681-5696.	3.4	15

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19	Monitoring Phytate Hydrolysis Using Serial Blood Sampling and Feather Myo-Inositol Levels in Broilers. <i>Frontiers in Physiology</i> , 2020, 11, 736.	2.8	4
20	Research Note: Delay in sampling influences the profile of phytate in gizzard digesta and ileal digestibility of phosphorus in broilers. <i>Poultry Science</i> , 2020, 99, 5065-5069.	3.4	1
21	Phytase catalysis of dephosphorylation studied using isothermal titration calorimetry and electrospray ionization time-of-flight mass spectroscopy. <i>Analytical Biochemistry</i> , 2020, 606, 113859.	2.4	1
22	Growth performance and amino acid digestibility responses of broiler chickens fed diets containing purified soybean trypsin inhibitor and supplemented with a monocomponent protease. <i>Poultry Science</i> , 2020, 99, 5007-5017.	3.4	20
23	Growth phase and dietary α -amylase supplementation effects on nutrient digestibility and feedback enzyme secretion in broiler chickens. <i>Poultry Science</i> , 2020, 99, 6867-6876.	3.4	10
24	Possible role of available phosphorus in potentiating the use of low-protein diets for broiler chicken production. <i>Poultry Science</i> , 2020, 99, 6954-6963.	3.4	15
25	Toward standardized amino acid matrices for exogenous phytase and protease in corn-soybean meal-based diets for broilers. <i>Poultry Science</i> , 2020, 99, 3196-3206.	3.4	7
26	Effect of coccidial challenge and vaccination on the performance, veterinary postmortem scores, and blood biochemistry of broiler chickens. <i>Poultry Science</i> , 2020, 99, 3831-3840.	3.4	8
27	Starch digestibility and energy utilisation of maize- and wheat-based diets is superior to sorghum-based diets in broiler chickens offered diets supplemented with phytase and xylanase. <i>Animal Feed Science and Technology</i> , 2020, 264, 114475.	2.2	18
28	Exogenous α -amylase supplementation reduces the variability of ileal digestible energy in broiler chickens fed complete diets with maize batches of variable protein solubility. <i>Animal Feed Science and Technology</i> , 2020, 268, 114610.	2.2	4
29	Contribution of exogenous enzymes to potentiate the removal of antibiotic growth promoters in poultry production. <i>Animal Feed Science and Technology</i> , 2019, 250, 81-92.	2.2	50
30	Exogenous Microbial Amylase in the Diets of Poultry: What do We Know?. <i>Journal of Applied Poultry Research</i> , 2019, 28, 556-565.	1.2	17
31	Extra-phosphoric effects of super dosing phytase on growth performance of pigs is not solely due to release of myo-inositol. <i>Journal of Animal Science</i> , 2019, 97, 3898-3906.	0.5	29
32	The impact of age and feeding length on phytase efficacy during the starter phase of broiler chickens. <i>Poultry Science</i> , 2019, 98, 6742-6750.	3.4	28
33	Influence of age and duration of feeding low-phosphorus diet on phytase efficacy in broiler chickens during the starter phase. <i>Poultry Science</i> , 2019, 98, 2588-2597.	3.4	35
34	Efficacy of a Mono-Component Exogenous Protease in the Presence of a High Concentration of Exogenous Phytase on Growth Performance of Broiler Chickens. <i>Journal of Applied Poultry Research</i> , 2019, 28, 638-646.	1.2	6
35	Measurement of the true ileal calcium digestibility of some feed ingredients for broiler chickens. <i>Animal Feed Science and Technology</i> , 2018, 237, 118-128.	2.2	24
36	The effect of a mono-component exogenous protease and graded concentrations of ascorbic acid on the performance, nutrient digestibility and intestinal architecture of broiler chickens. <i>Animal Feed Science and Technology</i> , 2018, 235, 128-137.	2.2	18

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37	An isothermal titration calorimetry study of phytate binding to lysozyme. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 127, 1201-1208.	3.6	26
38	Exploratory transcriptomic analysis in muscle tissue of broilers fed a phytase-supplemented diet. <i>Journal of Animal Physiology and Animal Nutrition</i> , 2017, 101, 563-575.	2.2	27
39	A systematic view on the effect of phytase on ileal amino acid digestibility in broilers. <i>Animal Feed Science and Technology</i> , 2017, 225, 182-194.	2.2	88
40	Effects of energy, α -amylase, and β -xylanase on growth performance of broiler chickens. <i>Animal Feed Science and Technology</i> , 2017, 225, 205-212.	2.2	20
41	Effect of calcium source and particle size on the true ileal digestibility and total tract retention of calcium in broiler chickens. <i>Animal Feed Science and Technology</i> , 2017, 224, 39-45.	2.2	33
42	Gastrointestinal functionality in animal nutrition and health: New opportunities for sustainable animal production. <i>Animal Feed Science and Technology</i> , 2017, 234, 88-100.	2.2	232
43	Growth performance, nutrient utilisation and carcass composition respond to dietary protein concentrations in broiler chickens but responses are modified by dietary lipid levels. <i>British Journal of Nutrition</i> , 2017, 118, 250-262.	2.3	12
44	A systematic view on the effect of microbial phytase on ileal amino acid digestibility in pigs. <i>Animal Feed Science and Technology</i> , 2017, 231, 138-149.	2.2	37
45	Interaction between xylanase and phytase on the digestibility of corn and a corn/soy diet for broiler chickens. <i>Poultry Science</i> , 2017, 96, 1204-1211.	3.4	19
46	Time-series responses of swine plasma metabolites to ingestion of diets containing <i>myo</i> -inositol or phytase. <i>British Journal of Nutrition</i> , 2017, 118, 897-905.	2.3	21
47	The influence of the selection of macronutrients coupled with dietary energy density on the performance of broiler chickens. <i>PLoS ONE</i> , 2017, 12, e0185480.	2.5	4
48	An assessment of the influence of macronutrients on growth performance and nutrient utilisation in broiler chickens by nutritional geometry. <i>British Journal of Nutrition</i> , 2016, 116, 2129-2138.	2.3	14
49	The influence of meat-and-bone meal and exogenous phytase on growth performance, bone mineralisation and digestibility coefficients of protein (N), amino acids and starch in broiler chickens. <i>Animal Nutrition</i> , 2016, 2, 86-92.	5.1	6
50	Toward optimal value creation through the application of exogenous mono-component protease in the diets of non-ruminants. <i>Animal Feed Science and Technology</i> , 2016, 221, 331-340.	2.2	79
51	Basal endogenous losses of amino acids in protein nutrition research for swine and poultry. <i>Animal Feed Science and Technology</i> , 2016, 221, 274-283.	2.2	94
52	Phytate-free nutrition: A new paradigm in monogastric animal production. <i>Animal Feed Science and Technology</i> , 2016, 222, 180-189.	2.2	51
53	Influence of chick hatch time and access to feed on broiler muscle development. <i>Poultry Science</i> , 2016, 95, 1433-1448.	3.4	24
54	Influence of hatch time and access to feed on intramuscular adipose tissue deposition in broilers. <i>Poultry Science</i> , 2016, 95, 1449-1456.	3.4	14

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55	Apparent ileal digestibility of calcium in limestone for broiler chickens. <i>Animal Feed Science and Technology</i> , 2016, 213, 142-147.	2.2	25
56	Energy and nutrient utilization of broiler chickens fed corn-soybean meal and corn-based diets supplemented with xylanase. <i>Poultry Science</i> , 2016, 95, 1881-1887.	3.4	19
57	Dietary protein selection in a free-ranging urban population of common myna birds. <i>Behavioral Ecology</i> , 2016, 27, 219-227.	2.2	40
58	Measurement of true ileal calcium digestibility in meat and bone meal for broiler chickens using the direct method. <i>Poultry Science</i> , 2016, 95, 70-76.	3.4	28
59	Interactive effects of vitamin D ₃ and strontium on performance, nutrient retention and bone mineral composition in laying hens. <i>Journal of the Science of Food and Agriculture</i> , 2015, 95, 1080-1087.	3.5	11
60	Measurement of true ileal phosphorus digestibility in meat and bone meal for broiler chickens. <i>Poultry Science</i> , 2015, 94, 1611-1618.	3.4	23
61	Interactive effect of vitamin D and strontium on performance and bone composition in broiler chickens. <i>Animal Feed Science and Technology</i> , 2015, 205, 107-115.	2.2	5
62	Measurement of true ileal calcium digestibility in meat and bone meal for broiler chickens. <i>Animal Feed Science and Technology</i> , 2015, 206, 100-107.	2.2	22
63	Measurement of true ileal phosphorus digestibility in maize and soybean meal for broiler chickens: Comparison of two methodologies. <i>Animal Feed Science and Technology</i> , 2015, 206, 76-86.	2.2	38
64	Phosphorus equivalency of a <i>Citrobacter braakii</i> phytase in broilers. <i>Journal of Applied Poultry Research</i> , 2015, 24, 335-342.	1.2	19
65	Starch digestibility, energy utilization, and growth performance of broilers fed corn-soybean basal diets supplemented with enzymes. <i>Poultry Science</i> , 2015, 94, 2472-2479.	3.4	41
66	Influence of Dietary Calcium Concentration on the Digestion of Nutrients along the Intestinal Tract of Broiler Chickens. <i>Journal of Poultry Science</i> , 2014, 51, 392-401.	1.6	27
67	Assessment of postcrumble addition of limestone and calcium-specific appetite in broilers during the starter phase. <i>Poultry Science</i> , 2014, 93, 2578-2591.	3.4	4
68	The effect of nutritional status and muscle fiber type on myogenic satellite cell fate and apoptosis. <i>Poultry Science</i> , 2014, 93, 163-173.	3.4	31
69	The effect of nutritional status on myogenic gene expression of satellite cells derived from different muscle types. <i>Poultry Science</i> , 2014, 93, 2278-2288.	3.4	27
70	Vitamin D fortification of eggs for human health. <i>Journal of the Science of Food and Agriculture</i> , 2014, 94, 1389-1396.	3.5	49
71	The geometric framework: An in vivo approach. <i>Journal of Applied Poultry Research</i> , 2014, 23, 295-300.	1.2	0
72	Nutritional geometry of calcium and phosphorus nutrition in broiler chicks. The effect of different dietary calcium and phosphorus concentrations and ratios on nutrient digestibility. <i>Animal</i> , 2014, 8, 1080-1088.	3.3	18

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73	Measurement of true ileal digestibility and total tract retention of phosphorus in corn and canola meal for broiler chickens. Poultry Science, 2014, 93, 412-419.	3.4	44
74	Graded inclusions of sodium metabisulphite in sorghum-based diets: I. Reduction of disulphide cross-linkages in vitro and enhancement of energy utilisation and feed conversion efficiency in broiler chickens. Animal Feed Science and Technology, 2014, 190, 59-67.	2.2	16
75	Graded inclusions of sodium metabisulphite in sorghum-based diets: II. Modification of starch pasting properties in vitro and beneficial impacts on starch digestion dynamics in broiler chickens. Animal Feed Science and Technology, 2014, 190, 68-78.	2.2	10
76	Effects of exogenous xylanase on performance, nutrient digestibility, volatile fatty acid production and digestive tract thermal profiles of broilers fed on wheat- or maize-based diet. British Poultry Science, 2014, 55, 351-359.	1.7	58
77	Effect of dietary nonphytate phosphorus and calcium concentration on calcium appetite of broiler chicks. Poultry Science, 2014, 93, 1695-1703.	3.4	29
78	Influence of Steam-Pelleting Temperatures and Grain Variety of Finely-Ground, Sorghum-Based Broiler Diets on Small Intestinal Starch and Nitrogen Digestion Dynamics in Broiler Chickens. International Journal of Poultry Science, 2014, 13, 308-315.	0.1	5
79	The effect of nutritional status on myogenic satellite cell proliferation and differentiation. Poultry Science, 2013, 92, 2163-2173.	3.4	27
80	The effect of microbial phytase and myo-inositol on performance and blood biochemistry of broiler chickens fed wheat/corn-based diets. Poultry Science, 2013, 92, 2124-2134.	3.4	71
81	Protease supplementation of sorghum-based broiler diets enhances amino acid digestibility coefficients in four small intestinal sites and accelerates their rates of digestion. Animal Feed Science and Technology, 2013, 183, 175-183.	2.2	50
82	Influence of conditioning temperatures on amino acid digestibility coefficients at four small intestinal sites and their dynamics with starch and nitrogen digestion in sorghum-based broiler diets. Animal Feed Science and Technology, 2013, 185, 85-93.	2.2	7
83	Preliminary assessment of including a reducing agent (sodium metabisulphite) in "all-sorghum" diets for broiler chickens. Animal Feed Science and Technology, 2013, 186, 81-90.	2.2	12
84	Influence of white- and red-sorghum varieties and hydrothermal component of steam-pelleting on digestibility coefficients of amino acids and kinetics of amino acids, nitrogen and starch digestion in diets for broiler chickens. Animal Feed Science and Technology, 2013, 186, 53-63.	2.2	24
85	Dual Effects of Sodium Phytate on the Structural Stability and Solubility of Proteins. Journal of Agricultural and Food Chemistry, 2013, 61, 290-295.	5.2	37
86	Strategies to enhance the performance of pigs and poultry on sorghum-based diets. Animal Feed Science and Technology, 2013, 181, 1-14.	2.2	51
87	Effects of exogenous xylanase on performance, nutrient digestibility and caecal thermal profiles of broilers given wheat-based diets. British Poultry Science, 2013, 54, 1-9.	1.7	24
88	Influence of conditioning temperature on the postpellet recovery and efficacy of 2 microbial phytases for broiler chicks. Journal of Applied Poultry Research, 2013, 22, 308-313.	1.2	10
89	The concentration of strontium and other minerals in animal feed ingredients. Journal of Applied Animal Nutrition, 2013, 2, .	0.9	14
90	Identifying variation in the nutritional value of corn based on chemical kernel characteristics. World's Poultry Science Journal, 2013, 69, 299-312.	3.0	21

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91	Functional patterns of exogenous enzymes in different feed ingredients. <i>World's Poultry Science Journal</i> , 2013, 69, 759-774.	3.0	28
92	Effects of corn source on the relationship between in vitro assays and ileal nutrient digestibility. <i>Poultry Science</i> , 2012, 91, 1908-1914.	3.4	33
93	Protein-phytate interactions in pig and poultry nutrition: a reappraisal. <i>Nutrition Research Reviews</i> , 2012, 25, 1-17.	4.1	185
94	Exogenous enzymes and their effects on intestinal microbiology. <i>Animal Feed Science and Technology</i> , 2012, 173, 76-85.	2.2	202
95	Effects of dietary enzymes on performance and intestinal goblet cell number of broilers exposed to a live coccidia oocyst vaccine. <i>Poultry Science</i> , 2011, 90, 91-98.	3.4	35
96	Increased dietary sodium chloride concentrations reduce endogenous amino acid flow and influence the physiological response to the ingestion of phytic acid by broiler chickens. <i>British Poultry Science</i> , 2011, 52, 613-624.	1.7	12
97	Exploiting calcium-specific appetite in poultry nutrition. <i>World's Poultry Science Journal</i> , 2011, 67, 587-598.	3.0	25
98	Super-dosing effects of phytase in poultry and other monogastrics. <i>World's Poultry Science Journal</i> , 2011, 67, 225-236.	3.0	157
99	Strategic Selection of Exogenous Enzymes for Corn/soy-based Poultry Diets. <i>Journal of Poultry Science</i> , 2010, 47, 1-7.	1.6	100
100	Broiler responses to supplementation of phytase and admixture of carbohydrases and protease in maize-soyabean meal diets with or without maize Distillers' Dried Grain with Solubles. <i>British Poultry Science</i> , 2010, 51, 434-443.	1.7	39
101	Interactions between xylanase and glucanase in maize-soy-based diets for broilers. <i>British Poultry Science</i> , 2010, 51, 246-257.	1.7	114
102	Phytate and microbial phytase: implications for endogenous nitrogen losses and nutrient availability. <i>World's Poultry Science Journal</i> , 2009, 65, 401-418.	3.0	91
103	Consequences of calcium interactions with phytate and phytase for poultry and pigs. <i>Livestock Science</i> , 2009, 124, 126-141.	1.6	340
104	The effect of phytase and carbohydrase on ileal amino acid digestibility in monogastric diets: complimentary mode of action?. <i>World's Poultry Science Journal</i> , 2009, 65, 609-624.	3.0	128
105	Ileal digestibility and endogenous flow of minerals and amino acids: responses to dietary phytic acid in piglets. <i>British Journal of Nutrition</i> , 2009, 102, 428-433.	2.3	54
106	Influence of enzyme supplementation of maize-soyabean meal diets on carcass composition, whole-body nutrient accretion and total tract nutrient retention of broilers. <i>British Poultry Science</i> , 2008, 49, 436-445.	1.7	26
107	Effect of exogenous enzymes in maize-based diets varying in nutrient density for young broilers: growth performance and digestibility of energy, minerals and amino acids. <i>British Poultry Science</i> , 2008, 49, 37-44.	1.7	153
108	Sensitivity of broiler starters to three doses of an enzyme cocktail in maize-based diets. <i>British Poultry Science</i> , 2008, 49, 340-346.	1.7	28

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109	Influence of Dietary Phytic Acid and Source of Microbial Phytase on Ileal Endogenous Amino Acid Flows in Broiler Chickens. Poultry Science, 2008, 87, 2287-2299.	3.4	54
110	Effects of Phytate and Phytase on the Performance and Immune Function of Broilers Fed Nutritionally Marginal Diets. Poultry Science, 2008, 87, 1105-1111.	3.4	75
111	Influence of Dietary Electrolyte Balance and Microbial Phytase on Growth Performance, Nutrient Utilization, and Excreta Quality of Broiler Chickens. Poultry Science, 2008, 87, 677-688.	3.4	98
112	Energy utilization and growth performance of broilers receiving diets supplemented with enzymes containing carbohydrase or phytase activity individually or in combination. British Journal of Nutrition, 2008, 99, 682-690.	2.3	63
113	Age-Related Influence of a Cocktail of Xylanase, Amylase, and Protease or Phytase Individually or in Combination in Broilers. Poultry Science, 2007, 86, 77-86.	3.4	175
114	Phytic Acid and Phytase: Implications for Protein Utilization by Poultry. Poultry Science, 2006, 85, 878-885.	3.4	130
115	Supplementation of Cornâ€“Soy-Based Diets with an Eschericia coli-Derived Phytase: Effects on Broiler Chick Performance and the Digestibility of Amino Acids and Metabolizability of Minerals and Energy. Poultry Science, 2006, 85, 1389-1397.	3.4	108
116	Prediction of ingredient quality and the effect of a combination of xylanase, amylase, protease and phytase in the diets of broiler chicks. 1. Growth performance and digestible nutrient intake. British Poultry Science, 2006, 47, 477-489.	1.7	58
117	Prediction of ingredient quality and the effect of a combination of xylanase, amylase, protease and phytase in the diets of broiler chicks. 2. Energy and nutrient utilisation. British Poultry Science, 2006, 47, 490-500.	1.7	24
118	Using the precision-feeding bioassay to determine the efficacy of exogenous enzymesâ€“A new perspective. Animal Feed Science and Technology, 2006, 129, 149-158.	2.2	13
119	Carbohydrases, protease, and phytase have an additive beneficial effect in nutritionally marginal diets for broiler chicks. Poultry Science, 2005, 84, 1860-1867.	3.4	190
120	The effect of conditioning temperature and exogenous xylanase addition on the viscosity of wheat-based diets and the performance of broiler chickens. British Poultry Science, 2005, 46, 717-724.	1.7	55
121	Factors that affect the nutritional value of maize for broilers. Animal Feed Science and Technology, 2005, 119, 293-305.	2.2	185
122	The effects of phytase and phytic acid on the loss of endogenous amino acids and minerals from broiler chickens. British Poultry Science, 2004, 45, 101-108.	1.7	291
123	The effect of phytase and phytic acid on endogenous losses from broiler chickens. British Poultry Science, 2003, 44, 23-24.	1.7	11
124	Supplementation of diets containing pea meal with exogenous enzymes: Effects on weight gain, feed conversion, nutrient digestibility and gross morphology of the gastrointestinal tract of growing broiler chicks. British Poultry Science, 2003, 44, 427-437.	1.7	63
125	Thymidine phosphorylase and dihydropyrimidine dehydrogenase protein expression in colorectal cancer. International Journal of Cancer, 2001, 94, 297-301.	5.1	23