Phil C Garnsworthy

List of Publications by Year
in descending order

112 papers	4,967 citations	101543 36 h-index	98798 67 g-index
113 all docs	113 docs citations	113 times ranked	4168 citing authors

#	Article	IF	Citations
1	Fertility in the high-producing dairy cow. Livestock Science, 2004, 86, 125-135.	1.2	298
2	Seasonal variation in milk conjugated linoleic acid and Î”9-desaturase activity in dairy cows. Livestock Science, 2003, 79, 47-59.	1.2	272
3	A heritable subset of the core rumen microbiome dictates dairy cow productivity and emissions. Science Advances, 2019, 5, eaav8391.	10.3	218
4	The effect of body condition of dairy cows at calving on their food intake and performance when given complete diets. Animal Science, 1982, 35, 113-119.	1.3	205
5	The environmental costs and benefits of high-yield farming. Nature Sustainability, 2018, 1, 477-485.	23.7	193
6	Effect of dietary-induced increases in circulating insulin concentrations during the early postpartum period on reproductive function in dairy cows. Reproduction, 2002, 123, 419-427.	2.6	171
7	Prediction of enteric methane production, yield, and intensity in dairy cattle using an intercontinental database. Global Change Biology, 2018, 24, 3368-3389.	9.5	166
8	Technical Note: A Rapid Lipid Separation Method for Determining Fatty Acid Composition of Milk. Journal of Dairy Science, 2004, 87, 3785-3788.	3.4	150
9	Independent effects of dietary linoleic and linolenic fatty acids on the conjugated linoleic acid content of cowsâ€™ milk. Animal Science, 2002, 74, 163-176.	1.3	144
10	The environmental impact of fertility in dairy cows: a modelling approach to predict methane and ammonia emissions. Animal Feed Science and Technology, 2004, 112, 211-223.	2.2	139
11	Variation of Milk Citrate with Stage of Lactation and De Novo Fatty Acid Synthesis in Dairy Cows. Journal of Dairy Science, 2006, 89, 1604-1612.	3.4	131
12	On-farm methane measurements during milking correlate with total methane production by individual dairy cows. Journal of Dairy Science, 2012, 95, 3166-3180.	3.4	131
13	Impact of Dietary Fatty Acids on Oocyte Quality and Development in Lactating Dairy Cows1. Biology of Reproduction, 2007, 77, 9-17.	2.7	127
14	Dietary omega-3 and -6 polyunsaturated fatty acids affect the composition and development of sheep granulosa cells, oocytes and embryos. Reproduction, 2010, 139, 57-69.	2.6	117
15	Reducing dietary protein in dairy cow diets: implications for nitrogen utilization, milk production, welfare and fertility. Animal, 2014, 8, 262-274.	3.3	105
16	A case study of the carbon footprint of milk from high-performing confinement and grass-based dairy farms. Journal of Dairy Science, 2014, 97, 1835-1851.	3.4	104
17	Symposium review: Uncertainties in enteric methane inventories, measurement techniques, and prediction models. Journal of Dairy Science, 2018, 101, 6655-6674.	3.4	103
18	Effects of synchronizing the rate of dietary energy and nitrogen release in diets with a similar carbohydrate composition on rumen fermentation and microbial protein synthesis in sheep. Journal of Agricultural Science, 1995, 124, 463-472.	1.3	92

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19	Variation among individual dairy cows in methane measurements made on farm during milking. Journal of Dairy Science, 2012, 95, 3181-3189.	3.4	91
20	Effect of dietary-induced changes in plasma insulin concentrations during the early post partum period on pregnancy rate in dairy cows. Reproduction, 2009, 137, 759-768.	2.6	90
21	Integration of physiological mechanisms that influence fertility in dairy cows. Animal, 2008, 2, 1144-1152.	3.3	80
22	The influence of body condition at calving and dietary protein supply on voluntary food intake and performance in dairy cows. Animal Science, 1987, 44, 347-353.	1.3	79
23	Oocyte quality in lactating dairy cows fed on high levels of n-3 and n-6 fatty acids. Reproduction, 2009, 138, 771-781.	2.6	79
24	Nutrition, Metabolism, and Fertility in Dairy Cows: 1. Dietary Energy Source and Ovarian Function. Journal of Dairy Science, 2008, 91, 3814-3823.	3.4	70
25	The effect of supplementing grass silage with barley on digestibility, in sacco degradability, rumen fermentation and methane production in sheep at two levels of intake. Animal Feed Science and Technology, 1995, 55, 9-33.	2.2	67
26	Prediction of chemical, nutritive and agronomic characteristics of wheat by near infrared spectroscopy. Journal of Agricultural Science, 2000, 135, 409-417.	1.3	67
27	Diet-induced milk fat depression: Association with changes in milk fatty acid composition and fluidity of milk fat. Livestock Science, 2008, 115, 319-331.	1.6	66
28	Comparison of Methods to Measure Methane for Use in Genetic Evaluation of Dairy Cattle. Animals, 2019, 9, 837.	2.3	60
29	Short communication: Heritability of methane production and genetic correlations with milk yield and body weight in Holstein-Friesian dairy cows. Journal of Dairy Science, 2019, 102, 7277-7281.	3.4	46
30	Intra-ovarian regulation of follicular development and oocyte competence in farm animals. Theriogenology, 2007, 68, S22-S29.	2.1	45
31	Biohydrogenation of linoleic acid by rumen fungi compared with rumen bacteria. Journal of Applied Microbiology, 2007, 103, 551-556.	3.1	45
32	Short communication: Heritability of milk fatty acid composition and stearoyl-CoA desaturase indices in dairy cows. Journal of Dairy Science, 2010, 93, 1743-1748.	3.4	45
33	Nutrition, Metabolism, and Fertility in Dairy Cows: 2. Dietary Fatty Acids and Ovarian Function. Journal of Dairy Science, 2008, 91, 3824-3833.	3.4	41
34	Variation in enteric methane emissions among cows on commercial dairy farms. Animal, 2014, 8, 1540-1546.	3.3	41
35	Determination of the absolute accuracy of UK chamber facilities used in measuring methane emissions from livestock. Measurement: Journal of the International Measurement Confederation, 2015, 66, 272-279.	5.0	40
36	The effect of increased dietary intake on superovulatory response to FSH in heifers. Theriogenology, 2002, 57, 1591-1602.	2.1	37

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37	Effects of circulating progesterone and insulin on early embryo development in beef heifers. Animal Reproduction Science, 2003, 79, 71-79.	1.5	36
38	The environmental costs and benefits of high-yield farming. Nature Sustainability, 2018, 1, 477-485.	23.7	36
39	Methane emissions among individual dairy cows during milking quantified by eructation peaks or ratio with carbon dioxide. Journal of Dairy Science, 2014, 97, 6536-6546.	3.4	35
40	Challenges and priorities for modelling livestock health and pathogens in the context of climate change. Environmental Research, 2016, 151, 130-144.	7.5	35
41	Short communication: Chemical composition, fatty acid composition, and sensory characteristics of Chanco cheese from dairy cows supplemented with soybean and hydrogenated vegetable oils. Journal of Dairy Science, 2015, 98, 111-117.	3.4	33
42	Quantitative analysis of ruminal bacterial populations involved in lipid metabolism in dairy cows fed different vegetable oils. Animal, 2016, 10, 1821-1828.	3.3	32
43	Estimation of intake and digestibility of forage-based diets in group-fed dairy cows using alkanes as markers. Journal of Agricultural Science, 1999, 133, 419-425.	1.3	29
44	Extraction and Quantitative Analysis of Stearoyl-Coenzyme A Desaturase mRNA from Dairy Cow Milk Somatic Cells. Journal of Dairy Science, 2007, 90, 4128-4136.	3.4	29
45	The effects of body condition at calving and dietary protein content on dry-matter intake and performance in lactating dairy cows given diets of low energy content. Animal Science, 1988, 47, 321-333.	1.3	25
46	The effects of body condition at calving, food intake and performance in early lactation on blood composition of dairy cows given complete diets. Animal Science, 1982, 35, 121-125.	1.3	24
47	The effect of patterns of rumen fermentation on the response by dairy cows to dietary protein concentration. British Journal of Nutrition, 1990, 63, 177-186.	2.3	24
48	Short Communication: Effect of Production Variables on the Cis-9, Trans-11 Conjugated Linoleic Acid Content of Cowsâ€™ Milk. Journal of Dairy Science, 2005, 88, 2714-2717.	3.4	23
49	Influence of fish oil alone or in combination with hydrogenated palm oil on sensory characteristics and fatty acid composition of bovine cheese. Animal Feed Science and Technology, 2015, 205, 60-68.	2.2	23
50	The influence of the fat concentration of the diet on the response by dairy cows to body condition at calving. Animal Science, 1992, 54, 7-13.	1.3	22
51	The effect of alkali treatment of cereal straws on digestibility and methane production by sheep. Animal Feed Science and Technology, 1994, 49, 245-259.	2.2	22
52	Estimation of dry-matter intake and digestibility in group-fed dairy cows using near infrared reflectance spectroscopy. Animal Science, 2004, 79, 327-334.	1.3	22
53	Dietary options to reduce the environmental impact of milk production. Journal of Agricultural Science, 2017, 155, 334-347.	1.3	22
54	Nutrition, Metabolism, and Fertility in Dairy Cows: 3. Amino Acids and Ovarian Function. Journal of Dairy Science, 2008, 91, 4190-4197.	3.4	21

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55	Dietary carbohydrates and amino acids influence oocyte quality in dairy heifers. Reproduction, Fertility and Development, 2009, 21, 419.	0.4	21
56	Technical note: A novel approach to the detection of estrus in dairy cows using ultra-wideband technology. Journal of Dairy Science, 2013, 96, 6529-6534.	3.4	21
57	Trans fatty acids and their role in the milk of dairy cows. Ciencia E Investigacion Agraria, 2013, 40, 449-473.	0.2	21
58	Effect of olive oil in dairy cow diets on the fatty acid profile and sensory characteristics of cheese. International Dairy Journal, 2018, 85, 8-15.	3.0	21
59	The effects of dietary energy content on the response of dairy cows to body condition at calving. Animal Science, 1989, 49, 183-191.	1.3	20
60	Effects of changing cow production and fitness traits on profit and greenhouse gas emissions of UK dairy systems. Journal of Agricultural Science, 2015, 153, 138-151.	1.3	20
61	Energy balance, milk production and reproduction in grazing crossbred cows in the tropics with and without cereal supplementation. Livestock Science, 2009, 122, 227-233.	1.6	19
62	Relationship between lice infestation and leather damage in cattle. Veterinary Record, 2003, 153, 255-259.	0.3	18
63	The interaction between dietary fibre level and protein degradability in dairy cows. Animal Science, 1989, 48, 271-281.	1.3	17
64	Mathematical Modeling of Glucose Homeostasis and Its Relationship With Energy Balance and Body Fat. Obesity, 2009, 17, 632-639.	3.0	17
65	Variation in composition of pre-grazed pasture herbage in the United Kingdom, 2006â€“2012. Animal Feed Science and Technology, 2014, 196, 139-144.	2.2	16
66	Effects of Freeze-dried Citrus Peel on Feed Preservation, Aflatoxin Contamination and In vitro Ruminal Fermentation. Asian-Australasian Journal of Animal Sciences, 2009, 22, 674-680.	2.4	14
67	The effects on milk yield and composition of incorporating lactose into the diet of dairy cows given protected fat. Animal Science, 1996, 62, 1-3.	1.3	13
68	Effect of site of starch digestion on metabolic hormones and ovarian function in dairy cows. Livestock Science, 2009, 125, 161-168.	1.6	13
69	Impact of diet and fertility on greenhouse gas emissions and nitrogen efficiency of milk production. Livestock, 2017, 22, 140-144.	0.2	13
70	Increasing the digestible undegraded protein intake of lactating dairy cows by feeding fishmeal or a rumen protected vegetable protein blend. Animal Feed Science and Technology, 2002, 96, 69-81.	2.2	12
71	Modelling responses to nutritional, endocrine and genetic strategies to increase fertility in the UK dairy herd. Veterinary Journal, 2009, 180, 356-362.	1.7	12
72	Does the diurnal pattern of enteric methane emissions from dairy cows change over time?. Animal, 2018, 12, 2065-2070.	3.3	12

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73	Effect of Feeding Cows with Unsaturated Fatty Acid Sources on Milk Production, Milk Composition, Milk Fatty Acid Profile, and Physicochemical and Sensory Characteristics of Ice Cream. Animals, 2019, 9, 568.	2.3	12
74	Supplementation of Essential Oil Extracted from Citrus Peel to Animal Feeds Decreases Microbial Activity and Aflatoxin Contamination without Disrupting In vitro Ruminal Fermentation. Asian-Australasian Journal of Animal Sciences, 2006, 19, 1617-1622.	2.4	12
75	Feeding calcium salts of fatty acids in high-starch or high-fibre compound supplements to lactating cows at grass. Animal Science, 1990, 51, 441-447.	1.3	11
76	Mutations in genes involved in oestrous cycle associated expression of oestrus. Animal Reproduction Science, 2013, 142, 106-112.	1.5	11
77	Protein nutrition of growing cattle: food intake and growth responses to rumen degradable protein and undegradable protein. Animal Science, 1987, 45, 383-394.	1.3	10
78	Effect of different exogenous fatty acids on the cytosolic triacylglycerol content in bovine mammary cells. Animal Nutrition, 2019, 5, 202-208.	5.1	10
79	Effects of dietary polyunsaturated fatty acid sources on expression of lipid-related genes in bovine milk somatic cells. Scientific Reports, 2020, 10, 14850.	3.3	10
80	The nutritive value of wheat and oat silages ensiled on three cutting dates. Journal of Agricultural Science, 1993, 121, 233-240.	1.3	9
81	Effect of dietary vegetable oils on the fatty acid profile of plasma lipoproteins in dairy cows. Archives of Animal Nutrition, 2016, 70, 322-332.	1.8	9
82	Effects of bypass fat on energy balance, milk production and reproduction in grazing crossbred cows in the tropics. Livestock Science, 2009, 121, 64-71.	1.6	8
83	A mathematical model of the bovine oestrous cycle: Simulating outcomes of dietary and pharmacological interventions. Journal of Theoretical Biology, 2012, 313, 115-126.	1.7	8
84	Transport of fatty acids within plasma lipoproteins in lactating and nonâ€lactating cows fed on fish oil and hydrogenated palm oil. Journal of Animal Physiology and Animal Nutrition, 2017, 101, 369-377.	2.2	8
85	Rumen digestibility of starch and nitrogen in near-isogenic lines of wheat. Animal Feed Science and Technology, 2000, 85, 33-40.	2.2	7
86	Genome-Wide Association Studies for Methane Production in Dairy Cattle. Genes, 2019, 10, 995.	2.4	7
87	Review: More effective linkages between science and policy are needed to minimize the negative environmental impacts of livestock production. Animal, 2021, 15, 100291.	3.3	7
88	The effect of feeding period and trenbolone acetate on the potential of culled dairy cows for beef production. Animal Science, 1986, 43, 385-390.	1.3	6
89	Effect of Soybean Oil and Fish Oil on Lipid-Related Transcripts in Subcutaneous Adipose Tissue of Dairy Cows. Animals, 2020, 10, 54.	2.3	6
90	Responses of British Friesian steers with or without implants of oestradiol-17Î² to undegradable dietary protein. Animal Science, 1988, 46, 181-193.	1.3	5

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91	The effects of dietary fibre and starch concentrations on the response by dairy cows to body condition at calving. Animal Science, 1993, 57, 15-21.	1.3	5
92	Estimation of genetic variation in A9-desaturase enzyme activity in dairy cows. Proceedings of the British Society of Animal Science, 2005, 2005, 52-52.	0.0	5
93	Estimation of dry matter intake by n-alkanes in dairy cows fed TMR: effect of dosing technique and faecal collection time. Animal Production Science, 2014, 54, 1747.	1.3	5
94	Effect of Feeding System on Enteric Methane Emissions from Individual Dairy Cows on Commercial Farms. Land, 2018, 7, 26.	2.9	5
95	Effects of Dietary Vegetable Oils on Mammary Lipid-Related Genes in Holstein Dairy Cows. Animals, 2020, 10, 57.	2.3	5
96	THE IMPORTANCE OF INTAKE IN FEED EVALUATION. , 1990, , 147-160.		5
97	Integrating heterogeneous across-country data for proxy-based random forest prediction of enteric methane in dairy cattle. Journal of Dairy Science, 2022, 105, 5124-5140.	3.4	5
98	Detection of Methane Eructation Peaks in Dairy Cows at a Robotic Milking Station Using Signal Processing. Animals, 2022, 12, 26.	2.3	5
99	Feeding frequency has diet-dependent effects on plasma hormone concentrations but does not affect oocyte quality in dairy heifers fed fibre- or starch-based diets. Animal, 2008, 2, 1361-1370.	3.3	4
100	Long-Term Effects of Dietary Olive Oil and Hydrogenated Vegetable Oil on Expression of Lipogenic Genes in Subcutaneous Adipose Tissue of Dairy Cows. Veterinary Sciences, 2019, 6, 74.	1.7	4
101	Biohydrogenation Pathways for Linoleic and Linolenic Acids by Orpinomyces Rumen Fungus. Asian-Australasian Journal of Animal Sciences, 2007, 20, 1694-1698.	2.4	4
102	Factors influencing biohydrogenation and conjugated linoleic acid production by mixed rumen fungi. Journal of Microbiology, 2007, 45, 199-204.	2.8	4
103	Evaluation of rumen protected rapeseed expeller (NovaPro) as an alternative to soya bean meal in dairy cow diets. Animal Feed Science and Technology, 2021, 273, 114816.	2.2	3
104	Inclusion of Wheat Dried Distillersâ€™ Grains with Solubles from Bioethanol Plants in Diets for Dairy Cows. Animals, 2021, 11, 70.	2.3	2
105	Î”9 -desaturase activity in the mammary gland of lactating dairy cows. Proceedings of the British Society of Animal Science, 2002, 2002, 181-181.	0.0	1
106	Fatty acid transport in plasma from cows treated with ruminal pulses of fish oil and partially hydrogenated vegetable oil. Livestock Science, 2020, 236, 104018.	1.6	1
107	The occurrence of conjugated linoleic acid in the milk of dairy cows. Proceedings of the British Society of Animal Science, 1999, 1999, 209-209.	0.0	0
108	Changes in the conjugated linoleic acid content of milk from dairy cows throughout the year. BSAP Occasional Publication, 2000, 25, 125-129.	0.0	0

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109	Conjugated linoleic acid in cows milk: independent effects of dietary linoleic and linolenic fatty acids. Proceedings of the British Society of Animal Science, 2001, 2001, 80-80.	0.0	0
110	Dietary manipulation of conjugated linoleic acid in ruminant products. Proceedings of the British Society of Animal Science, 2003, 2003, 219-220.	0.0	0
111	Short-Term Variations of C18:1 Trans Fatty Acids in Plasma Lipoproteins and Ruminal Fermentation Parameters of Non-Lactating Cows Subjected to Ruminal Pulses of Oils. Animals, 2021, 11, 788.	2.3	0
112	FATTY ACIDS AND FERTILITY IN DAIRY COWS. , 0, , 1-20.		0