References - The Farm Carbon Calculator (version 1.6.2 - 07/10/2024)

Farm Carbon Toolkit

Number	Author (year)	Citation
1	BEIS (2020)	Department for Business, Energy & Industrial Strategy (2020). 2020 Government greenhouse gas conversion factors for company reporting. Accessed on 16/03/2023 https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020
1a	BEIS (2020)	Department for Business, Energy & Industrial Strategy (2020). 2020 Government greenhouse gas conversion factors for company reporting: methodology. Accessed on 16/03/2023 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901692/conversion-factors-2020-methodology.pdf on 16/03/2023
2	ICE v2.0 (2011)	Hammond & Jones (2011). The Inventory of Carbon & Energy (ICE) database v2.0.
2a	ICE v3.0 (2019)	Jones (2019). The Inventory of Carbon & Energy (ICE) database v3.0. Accessed on 16/03/2023 https://circularecology.com/embodied-carbon-footprint-database.html
3	Williams et al. (2006)	Williams et al. (2006). Determining the environmental burdens and resource use in the production of agricultural and horticultural commodities. DEFRA project report ISO205. Accessed on 16/03/2023 https://randd.defra.gov.uk/ProjectDetails?ProjectID=11442
4	Brown et al. (2017)	Brown et al. (2017). UK Greenhouse Gas Inventory, 1990 to 2017: Annual Report for submission under the Framework Convention on Climate Change. Accessed on 20/03/2023 https://naei.beis.gov.uk/reports/reports?report_id=981
4a	Brown et al. (2017)	Brown et al. (2017). Annexes to the UK Greenhouse Gas Inventory, 1990 to 2017: Annual Report for submission under the Framework Convention on Climate Change. Accessed on 20/03/2023 https://uk-air.defra.gov.uk/assets/documents/reports/cat09/1905151124_ukghgi-90-17_Annexes_Issue_2_final.pdf
5	Andersen et al (2010)	Andersen et al. (2010). Quantification of Greenhouse Gas Emissions from Windrow Composting of Garden Waste. Journal of Environmental Quality 39(2): 713-724 https://doi.org/10.2134/jeq2009.0329
6	Cuttle et al. (2003)	Cuttle et al. (2003) A Review of Leguminous Fertility-Building Crops, with Particular Refence to Nitrogen Fixation and Utilisation Written as a Part of Defra Project OF0316 "The Development of Improved Guidance on the Use of Fertility-Building Crops in Organic Farming". Institute of Grassland and Environmental Research: Aberystwyth, Wales, 2003.
7	Phong (2012)	Phong (2012). Greenhouse Gas Emissions from Composting and Anaerobic Digestion Plants. INRES, Institute of Crop Science and Resource Conservation. Bonn, D-53115.
8	Amon et al. (1999)	Amon et al. (1999). Emissions of NH3, N2O and CH4 from composted and anaerobically stored farm yard manure. Ramiran 98 posters presentations. Accessed on 16/03/2023 http://ramiran.uvlf.sk/doc98/FIN-POST/AMON-BAR.pdf
9	*Reference superceeded*	
10	Woodland Carbon Code (2018)	Woodland Carbon Code. (2018). Carbon Lookup tables v2.0. Accessed on 30/05/2022 https://www.woodlandcarboncode.org.uk/news/version-2-0-of-the-wcc-launched?highlight=WyJsb29rdXAiXQ==
11	Clark (2007)	Clark (2007). Cover crops—United States—Handbooks, manuals, etc. Sustainable Agriculture Network. 3rd edition.
12	GHG Protocol (2017)	GHG protocol (2017). Calculating HFC and PFC emissions from the manufacturing, serviceing, and/or disposal of refrigeration and air-conditioning equipment. Calculation worksheets v1.0. Accessed on 30/05/2022 https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fghgprotocol.org%2Fsites%2Fdefault%2Ffiles%2Fhfc-pfc_0.xls&wdOrigin=BROWSELINK
13	Taylor et al. (2010)	Taylor et al. (2010). Measuring holistic carbon footprints for lamb and beef farms in the cambrian mountains initiative. CCW Policy Research Report No. 10/8.
14	Brentrup et al. (2016)	Bentrup et al. (2016). Carbon footprint analysis of mineral fertilizer production in Europe and other world regions. Conference paper. Accessed on 30/05/2022 https://www.researchgate.net/publication/312553933_Carbon_footprint_analysis_of_mineral_fertilizer_production_in_Europe_and_other_world_regions
15	Berners-Lee (2010)	Berners-Lee (2010). How bad are bananas? The carbon footprint of everything. Profile Books, London
16	Warwick HRI (2009)	Warwick HRI (2009). Preliminary assessment of greenhouse gases associated with growing media materials. DEFRA project report IF0154 http://randd.defra.gov.uk/Default.aspx?Module=More&Location=None&ProjectID=15967
17	Wiltshire et al. (2008)	Wiltshire et al. (2008). Scenario building to test and inform the development of a BSI method for assessing greenhouse gas emissions from food (Technical annexe to the final report). DEFRA project report FO0404 submitted by ADAS. Accessed 02/05/2023 https://repository.rothamsted.ac.uk/item/8q33x/scenario-building-to-test-and-inform-the-development-of-a-bsi-method-for-assessing-greenhouse-gas-emissions-from-food-technical-annex-to-final-report-on-defra-project-no-fo0404
18	GFLI database (2020)	GFLI (2020). Database of livestock feeds and environmental impacts. Accessed 30/05/2022 http://globalfeedlca.org/gfli-database/gfli-database-tool/
19	*Reference superceeded*	
20	Soya UK	Correspondence with David McNaughton (Soya UK Managing Director) on crop yields and residues
21	Taft et al (2017)	Taft et al. (2017) GHG from intensively managed peat soils in an arable production system. Agriculture, Ecosystems & Environment. 237: 162-172.

22	Axe et al (2017)	Axe et al. (2017) Carbon storage in hedge biomass - A case study of actively managed hedges in England. Agriculture, Ecosystems & Environment. 250: 81-88. https://doi.org/10.1016/j.agee.2017.08.008
23	Ostle et al. (2009)	Ostle et al. (2009). UK land use and carbon sequestration. Land Use Policy 26S: S274-S283. https://doi.https://doi.org/10.1016/j.landusepol.2009.08.00610.1016/j.landusepol.2009.08.006
24	Chishna et al (2010)	Chishna et al (2010) Embodied carbon in natural building stone in Scotland. Historic Scotland, Technical Conservation Group. Technical Paper 7. SISTech Ltd and Harold-Watt University.
25	Falloon et al (2004)	Falloon et al (2004) Managing field margins for biodiveristy and carbon sequestration: A Great Britain case study. Soil Use and Management. 20 (2): 240-247.
26	Kerckhoffs and Reid (2007)	Kerckhoffs and Reid (2007). Carbon sequestration in the standing biomass of orchard crops in New Zealand. NZ Institute for Crop & Food Research Ltd. report for Horticulture New Zealand Ltd.
27	Carlisle et al. (2010)	Carlisle et al. (2010). California vineyard greenhouse gas emissions: assessment of the available literature and determination of research needs. California sustainable wine growing Alliance. Accessed on 30/05/2022 https://www.sustainablewinegrowing.org/docs/CSWA%20GHG%20Report_Final.pdf
28	Vicente-Vicente et al (2016)	Vicente-Vicente et al. (2016) Soil carbon sequestration rates under Mediterranean woody crops using recommended management practices: A meta-analysis. Agriculture, Ecosystems & Environment. 235: 204-214.
29	Dondini et al. (2009)	Dondini et al. (2009). The potential of Miscanthus to sequester carbon in soils: comparing field measurements in Carlow, Ireland to model predictions. GCB Bioenergy 1: 413-425. https://doi.org/10.1111/j.1757-1707.2010.01033.x
30	Rytter (2012)	Rytter (2012) The potential of willow and poplar plantations as carbon sinks in Sweden. Biomass and Bioenergy. 36:86-95. https://doi.org/10.1016/j.biombioe.2011.10.012
31	Grogan and Matthews (2002)	Grogan and Matthews (2002). A modelling analysis of the potential for soil carbon sequestration under short rotation coppice willow bioenergy plantations. Soil Use and Management 18: 175-183. https://doi.org/10.1111/j.1475-2743.2002.tb00237.x
32	Ventura et al (2019)	Ventura et al (2019) Carbon balance and soil carbon input in a poplar short rotation coppice plantation as affected by nitrogen and wood ash application. New Forests. 50. 969-990.
33	Turner et al (2015)	Turner et al (2015) Greenhouse gas emission factors for recycling of source-segregated waste materials. Resources, Conservation and Recycling. 105 (A): 186-197.
34	Chris Foss	Personal communications with Chris Foss (Wine GB)
35	COFALEC (2015)	COFALEC (2015). Carbon footprint of yeast produced in the European Union. Produced by PriceWaterhouseCooper for COFALEC. Accessed 30/05/2022 https://cofalec.com/wp-content/uploads/2022/03/20120327155707_Yeast_Carbon_Footprint_COFALEC_28english-version29.pdf
36	Nica and Woinarocschy (2010)	Nica and Woinarocschy (2010) Environmental Assessment of Citric Acid production. UPB Scientific Bulletin, Series B. Chemistry and Materials Science. 72 (3):45-56.
37	AHDB Carbon footprint decision tool (2014)	AHDB & HGCA (2014). Carbon footprint decision tool. 10. Field Operations. Accessed 21/03/2023 https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fprojectblue.blob.core.windows.net%2Fmedia%2FDefault%2FTools%2FTool%2520Download%2FAHDB%2520carbon%2520footprinting%2520tool%2520(2014).xlsm&wdOrigin=BROWSELINK
38	Moller et al (2009)	Moller et al. (2009) Anaerobic digestion and digestate use: accounting of greenhouse gases and global warming contribution. Waste Manag Res. 27 (8): 813-24.
39	Vergana and Silver (2019)	Vergana & Silver (2019) GHG emissions from windrow composting of organic wastes: Patterns and emissions factors. Environmental Research Letters. 14 (12) 124027.
40	Audsley et al (2009)	Audsley et al. (2009) Estimation of the greenhouse gas emissions from agricultural pesticide manufacture and use. Cranfield University. 10. Accessed 30/05/2022 https://dspace.lib.cranfield.ac.uk/bitstream/handle/1826/3913/Estimation_of_the_greenhouse_gas_emissions_from_agricultural_pesticide_manufacture_and_use%E2%80%902009.pdf?sequence=1
41	Yara (2017)	Yara (2017). Yara International ASA. Carbon footprint - fertilizer products. Verified by DNV GL. Accessed on 25/04/2023 https://www.yara.co.uk/contentassets/a6e77004605040aea339577f909d5368/yara-carbon-footprint_verification_statement.pdf/
42	CF fertilisers	CF Fertiliser range (under reconsideration, reference material unavailable)
43	Schwarzbeck et al (2015)	Schwarzbeck et al (2015) Determining national greenhouse gas emissions from waste-to-energy using the Balance Method Determining national greenhouse gas emissions from waste-to-energy using the Balance Method. Waste Management. 49:263-271. https://doi.org/10.1016/j.wasman.2016.01.025
44	Warner et al. (2020b)	Warner et al. (2020b). Establishing a field-based evidence base for the impact of agri-environment options on soil carbon and climate change mitigation – phase 2. Final Report. Work package number: ECM50416. Evidence Programme Reference number: RP04176. Natural England.
45	Farm Carbon Toolkit (ongoing)	Farm Carbon Toolkit: Soil Carbon Project (ongoing). See https://farmcarbontoolkit.org.uk/soil-carbon-project/ for more information.
46	Kalfos (2021)	Personal communications with Joseph Barnes (Saria UK)
47	Fertilizers Europe (2011)	Fertilizers Europe (2011). Carbon footprint reference values - mineral fertilizer carbon footprint reference values: 2011.

48	Brentrup et al (2018)	Brentrup et al (2018) Updated carbon footprint values for mineral fertilizer from different world regions. LCA Food 2018 and LCA AgriFood Asia 2018: (1-B) From Farm to Table. Conference paper accessed on 30/05/2022 https://www.researchgate.net/publication/329774170_Updated_carbon_footprint_values_for_mineral_fertilizer_from_different_world_regions
49	Sylvester-Bradley et al (2015)	Sylvester-Bradley et al. (2015). Minimising nitrous oxide intensities of arable crop products (MIN-NO). AHDB Cereals & Oilseeds/Project Report No. 548. Accessed on 30/05/022 https://projectblue.blob.core.windows.net/media/Default/Research%20Papers/Cereals%20and%20Oilseed/pr548-abstract-and-executive-summary.pdf
50	AHDB (2017)	AHDB (2017). Nutrient Management Guide - RB209. Accessed on 30/05/2022 https://ahdb.org.uk/RB209
51	Thorman et al (2020)	Thorman et al (2020) Towards Country-Specific Nitrous Oxide Emission Factors for Manures Applied to Arable and Grassland Soils in the UK. Frontiers in Sustainable Food Systems. 4:62.
52	IPCC (2019)	Liang & Kasimir (2019) Chapter 11: N2O Emissions from Managed Soils, and CO2 Emissions from Lime and Urea Application. Refinement to 2006 IPCC Guidelines for National Greenhouse Gas Inventories (pp. 11.1-11.48) Publisher: Intergovernmental Panel on Climate Change.
53	IPCC (2020)	IPCC (2020). Climate Change and Land - An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. Summary for policy makers. ISBN 978-92-9169-154-8. Available at https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/
54	Haverkort et al. (2011)	Haverkort and Hillier (2011). Cool Farm Tool – Potato: Model Description and Performance of Four Production Systems. Potato Res. 54, 355–369 https://doi.org/10.1007/s11540-011-9194-1
55	BEIS (2021)	Department for Business, Energy & Industrial Strategy (2021). UK Government GHG Conversion Factors for Company Reporting 2021. Accessed on 30/05/2021 https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021
56	PET Recycling Team (2017)	PET Recycling Team website (2017). Certificate of carbon footprint for PCF Model ALPHA Bottles rPET produced using EcoInvent 3.3. Accessed on 30/05/2021 https://petrecyclingteam.com/en/excellent-co2-balance
57	Idemat (2020)	Idemat database (2020). ECO-costs 2017 v1.6. Accessed on 30/05/2021 https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.ecocostsvalue.com%2FEVR%2Fimg%2FIdematapp2020.xlsx&wdOrigin=BROWSELINK
58	Woodland Carbon Code (2021)	West (2021). Woodland Carbon Code Carbon Calculations Spreadsheet Version 2.4. Accessed 30/05/2021 https://www.woodlandcarboncode.org.uk/images/Spreadsheets/WCC_CarbonCalculationSpreadsheet_Version2.4_March2021.xlsx
59	Brown et al. (2021)	Brown et al. (2021). UK Greenhouse Gas Inventory 1990 to 2019: Annual Report for submission under the Framework Convention on Climate Change. Department for Business, Energy & Industrial Strategy. Accessed on 30/05/2022 https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2105061125_ukghgi-90-19_Main_Issue_1.pdf
59a	Brown et al. (2021)	Brown et al. (2021). Annexes to the UK Greenhouse Gas Inventory 1990 to 2019: Annual Report for submission under the Framework Convention on Climate Change. Department for Business, Energy & Industrial Strategy. Accessed on 30/05/2022 https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2106091119_ukghgi-90-19_Annex_Issue_2.pdf
60	Bizzaro et al. (2021)	Bizarro et al. (2021). Potential carbon footprint reduction for reclaimed asphalt pavement innovations. Sustainability 13(3):1382 https://doi.org/10.3390/su130313821
61	GHG Protocol (2014)	GHG Protocol (2014). Agricultural Guidance Interpreting the Corporate Accounting and Reporting Standard for the agricultural sector. GHG Protocol Agricultural Guidance. Accessed on 02/03/23 https://ghgprotocol.org/sites/default/files/standards/GHG%20Protocol%20Agricultural%20Guidance%20%28April%2026%29_0.pdf
62	Carbon Trust (2021)	Carbon Trust (2021). Certification Letter - British Sugar - 2020 LimeX extension. Carbon Trust CERT-10235
63	Warner et al. (2020a)	Warner et al. (2020a). Establishing a field-based evidence base for the impact of agri-environment options on soil carbon and climate change mitigation – phase 1. Final Report. Work package number: ECM50416. Evidence Programme Reference number: RP04176. Natural England.
64	BEIS (2022)	Department for Business, Energy & Industrial Strategy (2022) Greenhouse gas reporting: conversion factors 2022. Accessed on 04/01/2023 https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022
65	Brown et al. (2022)	Brown et al. (2022) UK Greenhouse Gas Inventory, 1990 to 2020. Department for Business, Energy & Industrial Strategy. Accessed on 05/01/2023 https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2206220830_ukghgi-90-20_Main_Issue1.pdf
66	Brown et al. (2022)	Brown et al. (2022) UK Greenhouse Gas Inventory 2020 annexes. Department for Business, Energy & Industrial Strategy. Accessed 05/01/2023 https://naei.beis.gov.uk/reports/reports?report_id=1072
67	Wilms et al. (2022)	Wilms et al. (2022). Macronutrient profile in milk replacer or a whole milk powder modulates growth performance, feeding behavior, and blood metabolites in ad libitum-fed calves. J. Dairy Sci. 105:6670–6692 https://doi.org/10.3168/jds.2022-21870
68	Finnegan et al. (2017)	Finnegan et al. (2017). Environmental impacts of milk powder and butter manufactured in the Republic of Ireland. Science of the Total Environment 579 (2017) 159–168 http://dx.doi.org/10.1016/j.scitotenv.2016.10.237
69	Sánchez et al. (2012)	Sánchez et al. (2012). Comparison of Life Cycle energy consumption and GHG emissions of natural gas, biodiesel and diesel buses of the Madrid transportation system. Energy 47(1):174-198 https://doi.org/10.1016/j.energy.2012.09.052
70	Smyth et al. (2015)	Smyth et al. (2015) Developing Peatland Carbon Metrics and Financial Modelling to Inform the Pilot Phase UK Peatland Code. Report to Defra for Project NR0165, Crichton Carbon Centre, Dumfries.
71	Carbon Intelligence (2021)	Encirc LCA for wine bottle, green glass, conducted by Carbon Intelligence.
72	Budsberg et al. (2020)	Budsberg et al. (2020). Production routes to bio-acetic acid: life cycle assessment. Biotechnol Biofuels 13:154 https://doi.org/10.1186/s13068-020-01784-y

73	Bellboom et al. (2015)	Bellboom et al. (2015). Environmental impacts of phosphoric acid production using di-hemihydrate process: a Belgian case study. Journal of Cleaner Production 108A: 978-986 https://doi.org/10.1016/j.jclepro.2015.06.141
74	Naukkarinen (2023)	Naukkarinen (2023). Life Cycle Assessment Study of a Sulfuric Acid Manufacturing Process in the Chemical Pulping Industry. Masters thesis, Lappeenranta–Lahti University of Technology LUT. Accessed 27/04/2023 https://lutpub.lut.fi/bitstream/handle/10024/165170/Thesis_Naukkarinen_Martta.pdf?sequence=1
75	Origin (2020)	Origin (2020). RSK ADAS Limited certificate of cradle-to-gate carbon footprint at the plant gate (Origin Newport) of Origin CAN
76	Origin (2020)	Origin (2020). RSK ADAS Limited certificate of cradle-to-gate carbon footprint at the plant gate (Origin Newport) of Origin 14-14-21 + 7SO3 + 0.02B
77	Origin (2020)	Origin (2020). RSK ADAS Limited certificate of cradle-to-gate carbon footprint at the plant gate (Origin Newport) of Origin 16-16-16 + 7SO3 + 0.02B
78	Origin (2020)	Origin (2020). RSK ADAS Limited certificate of cradle-to-gate carbon footprint at the plant gate (Origin Newport) of Origin 10-10-20 + 7SO3 + 0.02B
79	IPCC (2019)	Ogle et al. (2019). Refinement to 2006 IPCC Guidelines for National Greenhouse Gas Inventories. Volume 4 - Agriculture, forestry and other land use. Chapter 2 - Generic methodologies applicable to multiple land use categories (pp. 2.33) Publisher: Intergovernmental Panel on Climate Change. https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch02_Generic%20Methods.pdf
80	OIV (2014)	International Organisation of Vine and Wine (2017). Methodological recommendations for accounting for the GHG balance in the vitiviniculture sector. Paris, France. ISBN 979-10-91799-75-1
81	Baldini et al. (2017)	Baldini et al. (2017). A critical review of the recent evolution of Life Cycle Assessment applied to milk production. Journal of Cleaner Production 140: 421e435 http://dx.doi.org/10.1016/j.jclepro.2016.06.078
82	Evans et al. (2022)	Evans et al. (2022). Aligning the Peatland Code with the UK Peatland Inventory.. Report to Defra and the IUCN Peatland Programme, March 2022 (Updated January 2023)
83	Farm Carbon Toolkit (2023)	Farm Carbon Toolkit (2023). Report for Mercian Seed potato supplier farm (England) for cropping year 2022. https://calculator.farmcarbontoolkit.org.uk/sites/default/files/83.%20FCC%20Report%20(2022)%20Mercian%20English%20Seed%20Potatoes.pdf
84	Farm Carbon Toolkit (2023)	Farm Carbon Toolkit (2023). Report for Mercian Seed potato supplier farm (Scotland) for cropping year 2022. https://calculator.farmcarbontoolkit.org.uk/sites/default/files/84.%20FCC%20Report%20(2022)%20Mercian%20Scottish%20seed%20potatoes.pdf
85	DESNZ (2023)	Department for Energy Security and Net Zero (2023). Greenhouse Gas Reporting: Conversion Factors 2023 (flat file .csv) Published 07/06/2023, accessed on 01/12/2023 https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023
86	DESNZ (2023)	Department for Energy Security and Net Zero (2023). Greenhouse Gas Reporting: Conversion Factors 2023 (full file .xls) Published 07/06/2023, accessed on 01/12/2023 https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023
87	Drexler et al. (2023)	Drexler, S., Thiessen, E., & Don, A. (2023). Carbon storage in old hedgerows: The importance of below-ground biomass. GCB Bioenergy, 16, e13112. https://doi.org/10.1111/gcbb.13112
88	Biffi et al. (2022)	Biffi, S., Chapman, P., Grayson, R.P., Ziv, G. (2022). Soil carbon sequestration potential of planting hedgerows in agricultural landscapes. Journal of Environmental Management, 307, 114484. https://doi.org/10.1016/j.jenvman.2022.114484
89	Biffi et al. (2023)	Biffi, S., Chapman, P., Grayson, R.P., Ziv, G. (2023). Planting hedgerows: Biomass carbon sequestration and contribution towards net-zero targets. Science of the Total Environment, 892, 164482. https://doi.org/10.1016/j.scitotenv.2023.164482
90	Wang et al (2017)	Wang, Z., Chen, J., Mao, S., Han, Y., Chen, F., Zhang, L., Li, Y., & Li, C., (2017) Comparison of greenhouse gas emissions of chemical fertilizer types in China's crop production. Journal of Cleaner Production. 141, 1267-1274.
91	Meinrenken et al. (2022)	Meinrenken, Christoph J; Chen, Daniel; Esparza, Ricardo A; Iyer, Venkat; Prasad, Aruna; Paridis, Sally; et al. (2022). The Carbon Catalogue public database – Carbon footprints of 866 commercial products across 8 industry sectors and 5 continents. figshare. Dataset. https://doi.org/10.6084/m9.figshare.16908979.v1
92a	Brown et al. (2023)	Brown et al. (2023) UK Greenhouse Gas Inventory, 1990 to 2021. Department for Energy Security and Net Zero. Accessed on 08/03/2024 https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2304171441_ukghgi-90-21_Main_Issue1.pdf
92b	Brown et al. (2023)	Brown et al. (2023) UK Greenhouse Gas Inventory, 1990 to 2021 Annexes. Department for Energy Security and Net Zero. Accessed on 08/03/2024 https://uk-air.defra.gov.uk/assets/documents/reports/cat09/2304171442_ukghgi-90-21_Annex_Issue1.pdf
92c	Brown et al. (2023)	Brown et al. (2023) UK Greenhouse Gas Inventory, 1990 to 2021 Supplementary file with emission factors for the agriculture sector. Department for Energy Security and Net Zero. Accessed on 08/03/2024 https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fuk-air.defra.gov.uk%2Fassets%2Fdocuments%2Freports%2Fcat09%2F2304171445_Supplementary_file_EFs_UK_inventory_agriculture_2023.xlsx&wdOrigin=BROWSELINK
93	IPCC (2019)	Gavrilova et al. (2019) Chapter 10: Emissions from Livestock and Manure Management. Refinement to 2006 IPCC Guidelines for National Greenhouse Gas Inventories (pp. 10.1 - 10.207) Publisher: Intergovernmental Panel on Climate Change.
94	IPCC(2019) revised 2023	Liang & Kasimir (2019) Chapter 11: N2O Emissions from Managed Soils, and CO2 Emissions from Lime and Urea Application. Refinement to 2006 IPCC Guidelines for National Greenhouse Gas Inventories (pp. 11.1-11.48) Publisher: Intergovernmental Panel on Climate Change. https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch11_Soils_N2O_CO2.pdf
95	Vogtlander (2024)	Vogtlander (2024). Idemat dataset V1-2. Accessed on 05/03/2024 Idemat_2024-V2-1.xlsx (live.com)

96a	RB209 (2023)	RB209 (2023). Nutrient Management Guide: Section 1. Principles of Nutrient Management and Fertiliser Use. Accessed on 08/03/2024 https://ahdb.org.uk/knowledge-library/rb209-section-1-principles-of-nutrient-management-and-fertiliser-use
96b	RB209 (2023)	RB209 (2023). Nutrient Management Guide: Section 2. Organic Materials. Accessed on 08/03/2024 https://ahdb.org.uk/knowledge-library/rb209-section-2-organic-materials
97	Steel Insight (2011)	Steel Insight (2011). Last accessed on 25/03/2024 https://www.building.co.uk/home/steel-insight-structural-steelwork/5026908.article
98	ForFarmers (2024)	Data on feed composition provided by ForFarmers December 2023 and made available by Farm Carbon Toolkit https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fcalculator.farmcarbontoolkit.org.uk%2Fsites%2Fdefault%2Ffiles%2F98.%2520ForFarmers%2520(2023)%2520Feed%2520footprints.xlsx&wdOrigin=BROWSELINK
99	Crossland (2015)	Crossland (2015). The carbon sequestration potential of hedges managed for woodfuel. The Organic Research Centre. Last accessed on 25/03/2024 https://www.organicresearchcentre.com/manage/authincludes/article_uploads/project_outputs/TWECOM%20ORC%20Carbon%20report%20v1.0.pdf
100	Taylor et al. (2010)	Taylor et al. (2010). Measuring holistic carbon footprints for beef and lamb in the Cambrian Mountains Initiative. CCW Policy Research Report No. 10/8
101	Robertson et al. (2012)	Robertson et al. (2012). Economic, biodiversity, resource protection and social values of orchards: A study of six orchards by the Herefordshire Orchards Community Evaluation Project. Natural England Commissioned Report NECR090
102	DESNZ (2023) - SUPERSEDED	Department for Energy Security and Net Zero (2023). Greenhouse Gas Reporting: Conversion Factors 2023 (full file .xls) Published 07/06/2023, accessed on 01/12/2023 https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023
103	Evans Vanodine (2024)	Evans Vanodine (2024) Technical Hub - Carbon Calculator. Available at: https://www.evansvanodine.co.uk/carbon-calculator Last accessed on 07/10/2024