

FEEDING THE PROBLEM

THE DANGEROUS INTENSIFICATION
OF ANIMAL FARMING IN EUROPE

GREENPEACE

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Executive summary

Industrial production and excessive consumption of meat and dairy products have grave impacts on our climate, our environment and our health. An ever-increasing body of scientific evidence makes the need to reduce our production and consumption of animal products clearer and more urgent than ever.

Europe's consumption habits and production levels have widely exceeded any health, environmental and climate limits that science has defined. In the European Union the average per capita consumption of meat is twice the global average.

In light of the scientific evidence on the impact of industrial livestock production and of high consumption of animal products, Greenpeace commissioned an evaluation of how public funds delivered via the EU's common agricultural policy (CAP) are currently used. The report analyses trends in the European livestock sector, and compiles information on the use of agricultural land in Europe.

The research shows that the major trend in the European livestock sector is an ever-increasing concentration of meat and dairy production in fewer and larger farms. Data shows that over 71% of all the EU agricultural land (land used to grow crops – arable land – as well as grassland for grazing or fodder production) is dedicated to feeding livestock. When excluding grasslands, and only taking into account land used for growing crops, we see that over 63% of arable land is used to produce animal feed instead of food for people.

Taking into account CAP payments based on farm size, as well as payments that support production of livestock directly, between € 28.5 billion and € 32.6 billion go to livestock farms or farms producing fodder for livestock – between 18% and 20% of the EU's total annual budget.

This report concludes that the CAP must respond to the massive impacts the livestock sector has on nature, the climate and public health, and to reverse the current trend of farming intensification that it helped create.

1.

The problem with industrial livestock farming

A new report by some of the world's leading scientists and health experts,¹ published in The Lancet in January 2019, stresses the dissonance between the way we currently eat and the healthy, sustainable food systems we need to protect nature, the climate and public health. The report estimates that the necessary dietary shift “requires a dramatic reduction of consumption of unhealthy foods, such as red meat, by at least 50% with variations in the change required according to region” and, simultaneously, “an overall increase in consumption of more than 100% is needed for legumes, nuts, fruit, and vegetables.”²

The Lancet report is just the most recent in the mounting scientific evidence of the substantial health, environmental and climate impacts of the livestock sector. Animal agriculture accounted for 12-17% of the EU's greenhouse gas emissions in 2013.³ Of these, 27% were methane and 23% were nitrous oxide.⁴ Recent studies show that halving the EU's consumption of meat, dairy and eggs could cut EU agricultural greenhouse gas emissions by 25-40%.⁵ Globally, going a step further and adopting a vegetarian or vegan diet would cut agricultural greenhouse gas emissions by 63% and 70%, respectively.⁶ This is echoed by the UN's Intergovernmental Panel on Climate Change which concluded that “the potential to reduce [greenhouse gas] emissions through changes in consumption was found to be substantially higher than that of technical mitigation measures [such as improved cropland or livestock management]”.⁷

Industrial livestock production also contributes heavily to both water and air pollution, with over 80% of EU agricultural ammonia emissions to air and nitrogen emissions to water linked to livestock.⁸ According to the European Nitrogen Report,⁹ nitrogen pollution costs the European Union up to € 320 billion a year. Nitrogen pollution of water potentially exposes an estimated 18 million people to drinking water with nitrate concentrations above recommended levels.¹⁰ Factory farms also contribute to air pollution, which authorities consider the single largest environmental health risk in Europe,¹¹ causing over 400,000 premature deaths per year.¹² Livestock production accounts for the largest share of air pollutants created by agriculture, specifically ammonia, particulate matter and non-methane volatile organic compounds.¹³

The skyrocketing production and consumption of livestock products is also behind a latent global health crisis. High red meat consumption has been linked to cancer,¹⁴ heart disease,¹⁵ obesity and diabetes.¹⁶ Industrial livestock is strongly associated with antimicrobial resistance (resistance to antibiotics), which the World Health Organization recently declared a “global health emergency”.¹⁷ The joint report by the European Centre for Disease Prevention and Control, the European Food Safety Authority and the European Medicines Agency, published in 2017, showed that in 2014 the use of antibiotics for animals in the EU-28 was more than double the use for human medicine.¹⁸ In the EU, 33,000 people die annually due to infections caused by resistant bacteria,¹⁹ which translates into € 1.5 billion in extra health care costs and productivity losses every year.²⁰ Additionally, intensive livestock factory farms, with their high densities of confined animals, have been shown to increase the transmission of diseases from animals to humans.^{21 22}



- 1 Willet et al. 2019. Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. The Lancet Commissions, 393(10170):447-492.
- 2 Ibid.
- 3 Bellarby J. et al. 2013. Livestock greenhouse gas emissions and mitigation potential in Europe. Global Change Biology, 19(1):3-18
- 4 Ibid.
- 5 Westhoek H. et al. 2014. Food choices, health and environment: Effects of cutting Europe's meat and dairy intake. Global Environmental Change, 26:196-205.
- 6 Marco Springmann, H. Charles J. Godfray, Mike Rayner, and Peter Scarborough. 2016. Analysis and valuation of the health and climate change cobenefits of dietary change. Proceedings of the National Academy of Sciences 113(15) 4146-4151.
- 7 IPCC. 2014. Climate Change 2014: Mitigation of Climate Change. Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. New York. p. 840 Available at https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_chapter11.pdf.
- 8 Westhoek, H. et al. 2015. Nitrogen on the Table: The influence of food choices on nitrogen emissions and the European environment – European Nitrogen Assessment Special Report on Nitrogen and Food. Centre for Ecology & Hydrology. www.pbl.nl/sites/default/files/cms/publicaties/Nitrogen_on_the_Table_Report_WEB.pdf
- 9 Sutton, M.A. et al. 2011. The European nitrogen assessment: sources, effects, and policy perspectives. Cambridge University Press. Available at www.cambridge.org/9781107006126
- 10 Grizzetti et al. 2011. Nitrogen as a threat to European water quality. In Sutton et al. 2011. The European Nitrogen assessment. Cambridge University Press. pg. 386. Available at http://centaur.reading.ac.uk/20869/1/28387ENA_c17.pdf
- 11 EEA. 2017. Air Quality in Europe - 2017 report. Report No 13/2017,pg.12 Available at <https://www.eea.europa.eu/publications/air-quality-in-europe-2017>
- 12 European Court of Auditors. 2018. Special report: Air pollution: Our health still inefficiently protected. pg. 6. Available at https://www.eea.europa.eu/Lists/ECADocuments/SR18_23/SR_AIR_QUALITY_EN.pdf, p.6
- 13 EEA. 2017. Air Quality in Europe - 2017 report. Report No 13/2017,pg. 24-25 Available at <https://www.eea.europa.eu/publications/air-quality-in-europe-2017>
- 14 Boada, L.D., et al. 2016. The impact of red and processed meat consumption on cancer and other health outcomes: epidemiological evidences. Food and Chemical Toxicology, 92: 236-244; Lippi, G., et al. 2016. Meat consumption and cancer risk: a critical review of published meta-analyses. Critical Reviews in Oncology/Hematology, 97: 1-14; Wang, X., et al. 2016. Red and processed meat consumption and mortality: dose-response meta-analysis of prospective cohort studies. Public Health Nutrition, 19: 893-905; Bouvard, V., et al. 2015. International Agency for Research on Cancer Monograph Working Group. Carcinogenicity of consumption of red and processed meat. Lancet Oncology, 16: 1599-1600; IARC. 2015. IARC Monographs evaluate consumption of red meat and processed meat. International Agency for Research on Cancer. Press release No. 240. World Health Organization.
- 15 Wang, D., et al. 2017. Red meat intake is positively associated with non-fatal acute myocardial infarction in the Costa Rica Heart Study. British Journal of Nutrition, 118 :303-311.
- 16 Würtz, A. M. L. et al. 2016. Substitution of meat and fish with vegetables or potatoes and risk of myocardial infarction. British Journal of Nutrition, 116: 1602-1610.
- 17 Tilman, D., & Clark, M. 2014. Global diets link environmental sustainability and human health. Nature, 515: 518-522; Rouhani, M., et al. 2014. Is there a relationship between red or processed meat intake and obesity? A systematic review and meta-analysis of observational studies. Obesity Reviews, 15: 740-748; Pan, A., et al. 2011. Red meat consumption and risk of type 2 diabetes: 3 cohorts of US adults and an updated meta-analysis. American Journal of Clinical Nutrition, 94: 1088-1096.
- 18 World Health Organization, <http://www.who.int/mediacentre/news/releases/2017/running-out-antibiotics/en/>
- 19 ECDC, EFSA, EMA. 2017. ECDC/EFSA/EMA second joint report on the integrated analysis of the consumption of antimicrobial agents and occurrence of antimicrobial resistance in bacteria from humans and food-producing animals <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2017.4872>
- 20 European Centre for Disease Prevention and Control. 33000 people die every year due to infections with antibiotic-resistant bacteria. 6 Nov 2018. Available at <https://ecdc.europa.eu/en/news-events/33000-people-die-every-year-due-to-infections-antibiotic-resistant-bacteria>
- 21 EC. (n.d.) European Commission factsheet on AMR in the EU. Available at http://ec.europa.eu/health/amr/sites/amr/files/amr_factsheet_en.pdf
- 22 Jones, B.A. et al., 2013. Zoonosis emergence linked to agricultural intensification and environmental change. Proceedings of the National Academy of Sciences, 110 (21): 8399-8404.
- 23 Graham JP, et al. 2008. The animal-human interface and infectious disease in industrial food animal production: Rethinking biosecurity and biocontainment. Public Health Rep, 123(3):282-299.

Livestock products constituted 40.9% of the total agricultural output of the EU in 2017.³³ In terms of output, the volume of animal production keeps increasing, despite the falling number of farms. Based on the data from the European Commission,³⁴ the total gross production of meat in the EU-28 rose by 12.7% between 2000 and 2017, from 41,956,000 tonnes to 47,273,000 tonnes. While not finalised, predictions from 2018 data indicate a further rise to 48,064,000 tonnes. Sectorally, the increase occurred mainly in poultry and pork production. In the beef and veal sector, production decreased until 2013, after which it started to increase again.



Pig meat production represents 9.1% of the total agricultural output of the EU and is concentrated in just a handful of countries (notably Denmark, Germany, Spain, France and Poland).³⁵ The gross production of pig meat in the EU rose by 8.4% between 2000 and 2017, from 21,683,000 to 23,668,000 tonnes. The forecast for the 2018 data predicts that production of pig meat continued to rise to 24,031,000 tonnes.³⁶

The most pronounced growth can be observed in the poultry sector, where total poultry meat production increased by almost 40% from 10,422,000 tonnes in 2000 to 14,576,000 tonnes in 2017. The forecast for 2018 shows a further increase to 14,896,000 tonnes.³⁷ Poultry represents 5% of the total agricultural output of the EU and the majority of the production (69%) is concentrated in just five countries – Poland, Germany, France, Spain and the United Kingdom.³⁸

The beef and veal sector represents 7.8% of the EU's agricultural output.³⁹ The gross production of beef and veal decreased between 2000 and 2013 by 13% from 8,612,000 to 7,486,000 tonnes. However, as of 2014, the production started to increase reaching 8,108,000 tonnes in 2017. The forecast for 2018 predicts a further increase to 8,236,000 tonnes.⁴⁰ Almost half of EU beef production came from France, Germany and the United Kingdom and two thirds of veal was produced by Spain, Netherlands and France.

The dairy sector, which until 2015 operated under the milk quotas system, saw the production of cow milk increasing by 10.4% from 150 million tonnes in 2000 to 165.6 million tonnes in 2017. The production is expected to have reached 166.6 million tonnes in 2018.⁴¹ Milk represents 13.8% of all agricultural output of the EU-28, with Germany, France, Poland, the United Kingdom, the Netherlands and Italy accounting for about 70% of EU milk production.⁴² The end of milk quotas led to some of the smallest farms abandoning dairy production activities while, in contrast, the largest farms significantly expanded their dairy herd between 2014 and 2015.⁴³

33 Eurostat. 2018. Agriculture, forestry and fishery statistics, 2018 edition. Available at <https://ec.europa.eu/eurostat/documents/3217494/9455154/KS-FK-18-001-EN-N.pdf/a9ddd7db-c40c-48c9-8ed5-a8a90f4faa3f>

34 European Commission. 2018. EU balance sheet and production details by Member State. Autumn 2018. Available at https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/short-term-outlook/xls/agri-short-term-outlook-balance-sheets_en.xlsx

35 Eurostat. 2018. Agriculture, forestry and fishery statistics, 2018 edition. Available at <https://ec.europa.eu/eurostat/documents/3217494/9455154/KS-FK-18-001-EN-N.pdf/a9ddd7db-c40c-48c9-8ed5-a8a90f4faa3f>

36 European Commission. 2018. EU balance sheet and production details by Member State. Autumn 2018. Available at https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/short-term-outlook/xls/agri-short-term-outlook-balance-sheets_en.xlsx

37 Ibid.

38 Eurostat. 2018. Agriculture, forestry and fishery statistics, 2018 edition. Available at <https://ec.europa.eu/eurostat/documents/3217494/9455154/KS-FK-18-001-EN-N.pdf/a9ddd7db-c40c-48c9-8ed5-a8a90f4faa3f>

39 Ibid.

40 European Commission, EU balance sheet and production details by Member State. Autumn 2018. Available at https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/short-term-outlook/xls/agri-short-term-outlook-balance-sheets_en.xlsx

41 Ibid.

42 Eurostat. 2018. Agriculture, forestry and fishery statistics, 2018 edition. Available at <https://ec.europa.eu/eurostat/documents/3217494/9455154/KS-FK-18-001-EN-N.pdf/a9ddd7db-c40c-48c9-8ed5-a8a90f4faa3f>

43 Eurostat. Agricultural Production - Animals, data from September 2017. Available at https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Agricultural_production_-_animals

The decrease in the overall number of farms and the increase in farm size significantly impacts the diversity of the farming sector. It results in the increasing concentration of larger shares of agricultural production on fewer farms.

Sectoral trends in production on large farms

Using the Farm Accountancy Data Network⁴⁴ we estimated the share of production in the pig, poultry and dairy market held by the largest farms (with a standard output of € 500,000 or more) in eight European countries: Belgium, Denmark, France, Germany, Italy, the Netherlands, Poland and Spain.

The Farm Accountancy Data Network provides the only microeconomic dataset on farms that is harmonised across Europe. As it is based on surveys of a representative sample of European farms, the country-level data may not be as precise as different individual datasets compiled by national authorities. However, the data are accurate enough to identify the major trends in the farming sector.

PORK

The largest farms (over € 500,000) increased their share of pig meat production in the eight countries selected between 2004 and 2016. In 2016, these very large farms accounted for virtually the entire pig meat production in Denmark and Italy, and for over half of the production in Belgium, France, the Netherlands and Spain.

The table below shows the concentration of pig meat production in the biggest farms (with an economic output of € 500,000 or more) in the years 2004 and 2016.

Share of pig meat reared on the largest farms in:	2004	2016	% Variation (2004 - 2016)
Belgium	29%	70%	↑ 41
Denmark	68%	94%	↑ 26
France	31%	64%	↑ 33
Germany	28%	52%	↑ 24
Italy	90%	94%	↑ 4
Netherlands	47%	82%	↑ 35
Poland	7%	24%	↑ 17
Spain	45%	64%	↑ 19

POULTRY

The largest farms (over € 500,000) have increased their share of the production in the poultry sector as well, with the exception of Italy, where the trend seems to have reversed. Although the concentration of poultry on the second-largest category of farm in Italy (with an output of between € 100,000 and € 500,000) rose from 5% to 41% over the same period, keeping the share in the two largest farm categories stable at around 95%. The largest farms account for the majority of the production in Belgium, Germany, Italy and Spain and for approximately 96% and 100% of the production in Denmark and the Netherlands respectively.

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⁴⁴ The Farm Accountancy Data Network is an instrument for evaluating income of agricultural holdings and the impact of the common agricultural policy. It collects annual surveys carried out by the member states of the European Union and it is the only source of microeconomic data that is harmonised. The annual sample covers approximately 80,000 holdings, which represent a population of about 5,000,000 farms in the EU covering about 90% of the utilised agricultural area. It aims to provide representative data along three dimensions: region, economic size and type of farming. <http://ec.europa.eu/agriculture/rica/>

The table shows the concentration of poultry meat production in the biggest farms (with an economic output of € 500,000 or more) in the years 2004 and 2016.

Share of poultry reared on the largest farms in:	2004	2016	% Variation (2004 - 2016)
Belgium	27 %	72 %	↑ 45
Denmark	71 %	96 %	↑ 25
France	11 %	28 %	↑ 17
Germany	61 %	69 %	↑ 8
Italy	91 %	55 %	↓ 36
Netherlands	88 %	100 %	↑ 12
Poland	23 %	30 %	↑ 7
Spain	24 %	59 %	↑ 35

MILK & MILK PRODUCTS

Production in the largest farms (over € 500,000) has also generally increased for milk and other dairy products, although not as significantly as in the pig and poultry meat sectors. This is in part due to the milk quotas, which ended in 2015, that had exerted significant pressure on the milk market for over two decades. In any case, while the largest milk farms currently do not cover the majority of the production as in other sectors, they still registered a noticeable increase in all eight countries between 2004 to 2016, and in particular in Belgium (from 3% to 25%), Denmark (from 27% to 83%), the Netherlands (from 9% to 32%) and Spain (from 3% to 28%).

The table shows the concentration of the production of milk and milk products in the biggest farms (with an economic output of € 500,000 or more) in the years 2004 and 2016.

Share of milk and milk products produced on the largest farms in:	2004	2016	% Variation (2004 - 2016)
Belgium	3 %	25 %	↑ 22
Denmark	27 %	83 %	↑ 56
France	2 %	8 %	↑ 6
Germany	25 %	33 %	↑ 8
Italy	23 %	29 %	↑ 6
Netherlands	9 %	32 %	↑ 23
Poland	4 %	13 %	↑ 9
Spain	3 %	28 %	↑ 25

The trend in the concentration of production in the hands of fewer and larger players correlates with Europe's agricultural system becoming less and less diversified. As smaller farms disappear, so does a more sustainable farming model rooted in diversity – a model that incorporates a variety of practices and genetic diversity of crops and animals (e.g. mixed crops and livestock) instead of relying on one uniform way of farming.⁴⁵ Nowadays, a staggering 82% of livestock comes from specialised⁴⁶ large farms and only 16% from mixed farming systems.⁴⁷

45 Eurostat. Archive:Small and large farms in the EU – statistics from the farm structure survey, data from October 2016. Available at https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Archive:Small_and_large_farms_in_the_EU_-_statistics_from_the_farm_structure_survey&direction=next&oid=406560#Land_use_and_farming_specialisation

46 Farm specialisation describes the trend towards a single dominant activity in farm income: an agricultural holding is said to be specialised when a particular activity provides at least two thirds of the production or the business size of an agricultural holding. https://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Farm_specialisation

47 Eurostat. Agri-environmental indicator – Specialisation, data from June 2016.

Available at https://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental_indicator_-_specialisation

EU financial support for the livestock sector – current and future policy options

Given the essential role the CAP plays in shaping European agriculture, it is critical to investigate how this public money is being spent. It is of particular interest to assess whether the CAP has created the necessary policy instruments to address the massive growth of the industrial livestock sector, and its consequent impacts, and to encourage the urgently needed reduction in both consumption and production of animal products. This is even more relevant when considering that the increasing industrialisation and specialisation of farming, particularly evident in the livestock sector, has underpinned an ever increasing consumption of animal products.

The consumption of animal protein in Europe has increased by 80% since the 1960s. Although population growth may account for some of this increase, the main driver has been a substantial per-capita increase in consumption of animal products, which in 2011 was already 50% higher than in the 1960s and has since increased even further.⁴⁸ Policy analysts at the RISE foundation stressed that *“the doubling of livestock product consumption in the EU since the mid-20th century was made possible by the corresponding increase in EU production. The increase in livestock numbers and production during this period was enabled by significant technological and structural change in livestock farming systems encouraged by supportive agricultural and protective trade policy.”*⁴⁹

To get a better understanding of the role the CAP played in the expansion of industrialised livestock production, Greenpeace asked Nils Mulvad⁵⁰ an investigative journalist, data specialist and co-founder of FarmSubsidy.org – a project aimed at facilitating access to information on CAP subsidies – to gather data on the amount of public funding the CAP delivers to the sector. The researcher approached the European Commission directorate-general for agriculture and rural development (DG AGRI) and Eurostat requesting information about the amount of CAP funding going to livestock production, but neither institution was in possession of these calculations. Greenpeace then asked the researcher to collect necessary data on what the EU agricultural land is used for.

A) RESEARCH METHODS

Data on the amount of agricultural land present in each EU member state and on the specific use of that land have been sourced from the European Commission’s directorate-general for agriculture and rural development (DG AGRI) and Eurostat. These institutions also provided data on the proportions of crops for human consumption, the livestock sector and industry. These data allowed us to calculate the amount of agricultural land in each country dedicated to feeding livestock.

Data on the ‘utilised agricultural area’ for each EU member state were downloaded from Eurostat.⁵¹ Eurostat divides utilised agricultural area into four categories: 1. arable land, 2. permanent grassland, 3. permanent crops and 4. kitchen gardens. Calculations were then made as to what percentage of utilised agricultural area in each of the four categories is used for the production of fodder for livestock.

Permanent grasslands are considered as fully dedicated to animal fodder while **permanent crops** and **kitchen gardens** are regarded as producing no animal feed.

The percentage of **arable land** dedicated to animal feed had to be calculated using data on cereals, oilseeds and sugar beet production. These data were provided by the European Commission via email on 14 December 2018.⁵² These data are part of the report EU Agricultural outlook for markets and income 2018 - 2030⁵³ and the latest Short-term outlook for EU agricultural markets.⁵⁴ This information was then used to calculate the percentage of each product destined for animal feed.

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48 Westhoek, H. et al. 2011. The Protein Puzzle. The Hague: PBL Netherlands Environmental Assessment Agency. pg 69

Available at http://www.pbl.nl/sites/default/files/cms/publicaties/Protein_Puzzle_web_1.pdf

49 Buckwell, A. and Nadeu, E. 2018. What is the Safe Operating Space for EU Livestock? RISE Foundation, Brussels.

Available at http://www.risefoundation.eu/images/files/2018/2018_RISE_LIVESTOCK_FULL.pdf

50 <https://www.kaasogmulvad.dk/en/>

51 Eurostat, Utilised agricultural area by categories. Available at <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tag00025>

52 All the data are available here: https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/short-term-outlook/xls/agri-short-term-outlook-balance-sheets_en.xlsx

53 European Commission. 2018. EU Agricultural outlook for markets and income 2018-2030. Available at https://ec.europa.eu/agriculture/markets-and-prices/medium-term-outlook_en

54 European Commission. 2018. Short-term outlook for EU agricultural markets, autumn 2018. Available at https://ec.europa.eu/agriculture/markets-and-prices/short-term-outlook_en



The calculation of the percentage of cereals dedicated to animal feed is based on the data provided by the European Commission on their different commercial use (human consumption, animal feed or industrial use). For oil seeds the European Commission did not provide detailed information. The percentage of oilseeds dedicated to animal feed was calculated by using the following percentages:⁵⁵

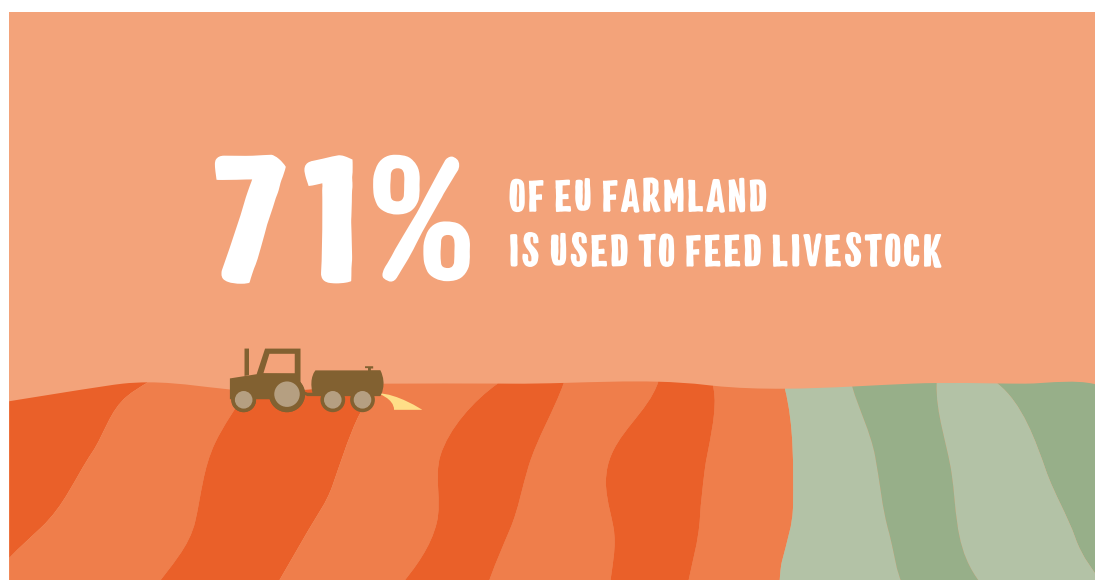
Rapeseed and turnip: 57 %
Soya bean: 79 %
Sunflower: 55 %

For sugarbeet almost nothing is regarded as going to animal feed.

The heading 'rest' refers mainly to farmland used for grassland in rotation, silage, legumes and root vegetables for feed.

B) RESEARCH FINDINGS

The research found that 71.2% of European farmland in 2017 was used for the production of fodder for the livestock sector. This percentage, encompassing both cropland and grassland, has been stable since 2007, varying slightly between 70% and 72%.

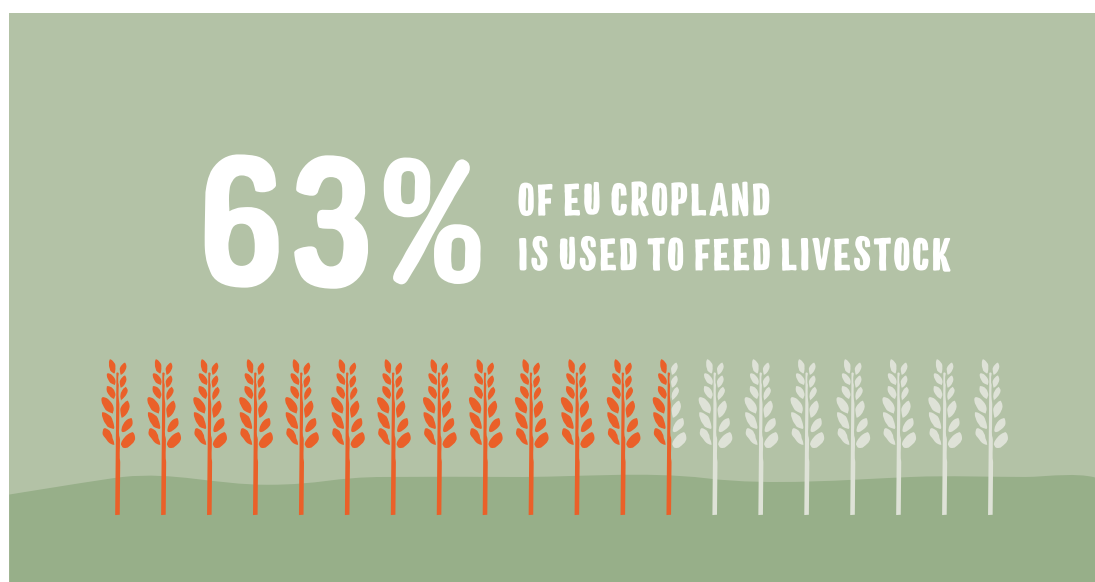


	Total agricultural land (thousand hectares)	Area dedicated to fodder production (thousand hectares)	% of total agricultural land dedicated to fodder production
Total agricultural area	178,740	127,260	71.2 %
- Permanent grassland	60,488	60,488	100 %
- Permanent crops	11,905	-	-
- Kitchen gardens	860	-	-
- Arable land	105,487	66,772	63 %
Cereals	55,478	34,410	62 %
Oil seed	11,873	6,892	58 %
Sugar beet	1,750	0	0 %
Rest	36,386	25,470	70 %

⁵⁵ These percentages are based on the data and methodology provided to Mr. Mulvad by the European Commission, where the various oilseeds are divided into 'oil' (used for human consumption and biodiesel) and 'meal' (used for animal feed). The details can be found here: <https://ec.europa.eu/info/sites/info/files/food-farming-fisheries/farming/documents/sto-2018-autumn-methodology.pdf>

The fact that a third of the total EU agricultural area is dedicated to grassland does not itself raise concerns. Grasslands play an important role in the maintenance and enhancement of biodiversity and are an important carbon sink. While permanent grasslands with high nature value can bring these environmental benefits, temporary grasslands that are grown on crop land are less beneficial.

Estimates show that only a limited amount of livestock animals are fed with fodder coming from grasslands with high nature value, 20% in the case of beef production and 4% in the case of dairy production.⁵⁶ A relevant part of European grasslands are intensively farmed, with regular fertiliser application. However, given the positive contribution that grasslands make, particularly permanent grasslands of high nature value, it is crucial to defend farmland like this and encourage extensive livestock systems that contribute to rural livelihood, while providing benefits to biodiversity and the climate.



On the contrary, the most striking figure concerns feed crops. The research concludes that an astonishing 63% of arable land in Europe is dedicated to the production of crops for animal feed. Such a large amount of land, often intensively cultivated with the application of synthetic fertilisers and pesticides – with all the associated health, environmental and climate impacts – could be dedicated for the most part to the production of food for people. A reduction in the consumption of animal products should match a parallel reduction in livestock production and an increase in alternatives to meat and dairy, grown on farmland once used to grow feed crops for animals. Using land to grow feed for livestock is also a highly inefficient use of natural resources, whether in Europe or elsewhere. Animals are able to convert only between 10-30% of the feed they consume into food for people,⁵⁷ with significant consequences for the amount of land needed.

C) CAP PAYMENTS LINKED TO THE LIVESTOCK SECTOR

The main factors driving the increased specialisation and industrialisation of the livestock sector, aside from an increase in demand for animal products, are international market forces as well as trade policies and agricultural policies. The EU's trade policies and agricultural policies have ensured the availability of cheap feed, maintained prices of animal products competitive in the international market, via export subsidies and import tariffs, and regulated the market through production quotas and buying excess agricultural products if prices are in danger of falling.

A number of CAP reforms, to address market distortions, transformed subsidies into income support mechanisms. In the 1990s, payments were still coupled to production, compensating farmers for lower market prices. After 2003, the majority of CAP funds (around 90%) became increasingly decoupled from production, linked only to the amount of land farmed. The fact that the majority of payments is not linked to any specific production prevents precise calculations on the exact number of hectares dedicated to the different farming sectors. Another element that makes precise calculations even more challenging is that not all farmers in the EU are beneficiaries of CAP payments. There is a significant number of small and very small farmers who do not, or cannot, apply for CAP payments. According to Commission's figures, CAP subsidies reach nearly 7 million farms, covering 90% of total European farmland.⁵⁸

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⁵⁶ Westhoek, H. et al. 2011. The Protein Puzzle, The Hague: PBL Netherlands Environmental Assessment Agency, page 23.

Available at http://www.pbl.nl/sites/default/files/cms/publicaties/Protein_Puzzle_web_1.pdf

⁵⁷ Ibid.

⁵⁸ European Commission. 2017. CAP Explained - Direct Payments for Farmers 2015 - 2020.

Available at https://ec.europa.eu/agriculture/sites/agriculture/files/direct-support/direct-payments/docs/direct-payments-schemes_en.pdf

Under these circumstances it is not possible to precisely match the 71.2% of EU farmland dedicated to the production of fodder for livestock with CAP direct payments. However, the conclusion that a substantial proportion of CAP direct payments is linked to the animal farming sector, reaching land producing feed crops and grasslands, remains valid. Since direct payments are tied to the acreage of land farmed, it is possible to formulate solid estimations substantiating these conclusions.

An element that needs to be considered is that EU member states can dedicate up to 13% of their direct payments budget to support specific production sectors, via a mechanism known as 'voluntary coupled support'. An analysis by the European Commission of the sectors currently covered by coupled payments in the various member states shows that 73% of these payments specifically benefit the livestock sector. About 41% of voluntary coupled support goes to the beef and veal sector, 20% to milk and milk products and about 12% to the sheep and goat meat sector. If one considers that 10.6% of coupled payments are dedicated to protein crops, and at least half of which are used as feed for livestock, the amount of coupled payments devoted to livestock increases to about 78%. € 4.2 billion per year is used by member states as voluntary coupled support.⁵⁹

A few small adjustments could influence the overall calculation of the amount of the direct payment reaching the livestock sector:

1. Redistributive payments: EU member states are allowed to set higher payments for the first hectares (30 ha or the national average farm size if more than 30 ha). However, this redistribution remains connected to the land area, not production.
2. Young farmers and small farmers can benefit from extra payment.
3. Cross-compliance and other financial discipline mechanisms, which can impose fines on CAP beneficiaries violating public health, environmental and animal welfare.

However, these adjustments are considered to cause only marginal variations to the calculations, and are therefore not taken into account in this analysis.

D) CALCULATING TOTAL CAP DIRECT PAYMENTS LINKED TO THE LIVESTOCK SECTOR

Considering all the above-mentioned information, it is therefore possible to conclude that between 69% (€ 28.5 billion) and 79% (€ 32.6 billion) of the CAP direct payments is directed to producers of fodder for animals, or goes directly to livestock producers as coupled support. That's between 18% and 20% of the EU's € 157.86 billion budget in 2017.



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59 European Commission. 2017. Voluntary coupled support – Notification of the revised decisions taken by Member States by 1 August 2016.

Available at https://ec.europa.eu/agriculture/sites/agriculture/files/direct-support/direct-payments/docs/voluntary-coupled-support-note-revised_en.pdf



- **€ 41,551,156,000 is the total CAP direct payments for the year 2017**
- **Approximately € 4.2 billion of this is voluntary coupled support, 73% of which goes directly to the livestock sector, so € 3.066 billion**
- **This leaves € 37,351,156,000 of direct payments based on acreage**
- **71.2% of all agricultural land is used to feed livestock**
- **10% of all agricultural land does not receive CAP payments, 90% does**
- **Assuming that all of that 10% of land is dedicated to livestock fodder would mean that all such land should be subtracted from the calculations, so: $(71.2 - 10) / 90 = 68\%$ of direct payments based on acreage, so € 25,398,786,080**
- **Assuming that none of that 10% of land is dedicated to livestock fodder, then calculations would not consider it so: $71.2 / 90 = 79.1\%$ of direct payments based on acreage, so € 29,544,764,396**
- **Adding the € 3.066 billion of coupled support for livestock gives us a range between approximately € 28.5 billion and € 32.6 billion of taxpayers' money spent annually on supporting the livestock sector – 18% to 20% of the EU's budget.**

Due to the lack of detailed information on direct payments, it is not possible to single out how much CAP money goes to extensive animal farms compared to industrial livestock farms.

Direct payments are not the only CAP subsidies reaching the livestock sector. Market measures and rural development measures also convey public funds to agricultural activities.

Market measures are public interventions that respond to market failures. When a particular sector is hit by a sudden crisis or market prices fall below certain levels, the European Commission can intervene and activate market support measures, providing finance to a sector in difficulty or buying produce from the market to ensure higher prices. In the case of livestock the biggest amount of money recently spent for market measures reached the milk sector, although other animal farming sectors have been supported as well.

The researcher found it particularly difficult to gather, from the European and national institutions contacted, detailed information on the distribution of rural development funds. Considering the critical role played in the intensification of the livestock sector by rural development policies and subsidies, particularly in the case of investments for the construction or modernisation of stables, these funds should be the subject of a dedicated investigation. For these reasons, only CAP direct payments are included in the present calculations, so the amount of total CAP funding supporting the livestock sector is higher than these estimates.

How the current CAP plan would affect trends in European farming

4.

In June 2018 the European Commission presented its proposal for the CAP post 2021. The Commission claims that the new CAP proposal introduces a new plan for direct payments that is better targeted, fairer and greener. However, despite criticism by a wide range of stakeholders on direct payments, the proposed plan leaves them untouched. The EU budgetary watchdog, the Court of Auditors, recently highlighted that *"the proposal continues to impose on Member States the use of direct payments based on given amount of hectares of land owned or used. This instrument is not appropriate for addressing many environmental and climate concerns, nor is it the most efficient way of supporting viable farm income."*⁶⁰

The Commission presents its proposal as aimed at increasing the environmental and climate ambition of the CAP. Even though three of the nine objectives that member states are supposed to meet by the end of the policy term are explicitly related to environmental and climate protection, the CAP proposal does not provide any clear mechanism to make sure governments achieve these objectives. The new proposed framework is set up in a way that drives member states into a race to the bottom. Governments will be under pressure to introduce requirements as weak as those set by other EU governments, so as not to put their own farmers at a competitive disadvantage.

The plan sets generic objectives and loose indicators for progress towards them, fails to set strict control mechanisms, and substantially broadens member states' discretionary spending power. The Commission proposal thereby provides EU governments with a blank cheque, allowing them to maintain unaltered the current CAP payments, benefiting the most powerful agricultural players and underpinning an unsustainable farming sector. The EU Court of Auditors confirms this by stating: *"Despite the Commission's ambitions and calls for a greener CAP, the proposal does not reflect a clear increase in environmental and climate ambition ... It is unclear how the Commission would check these [required member state farming] plans to ensure environmental and climate ambition."*

Despite the claim of aiming for a greener CAP, the Commission has shied away from even mentioning as an objective of the CAP addressing the problems that mounting scientific evidence keeps highlighting: the current excess of production and consumption of animal products in the EU.

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⁶⁰ European Court of Auditors. 2018. Briefing Paper, Future of the CAP, March 2018.

Available at https://www.eca.europa.eu/Lists/ECADocuments/Briefing_paper_CAP/Briefing_paper_CAP_EN.pdf





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