The Wildlife Trusts

# Counting chickens

## An analysis of UK poultry numbers for the Wildlife Trusts

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**Dr Alison Caffyn**, who undertook this analysis, has been researching the UK poultry industry for over ten years. Her PhD at Cardiff University in 2020 explored the growth of the poultry industry in Herefordshire and Shropshire. She lectured in rural policy and planning at the University of Birmingham and was Senior Researcher at the Food, Farming and Countryside Commission. She currently works as a research consultant and advises several NGOs on the impacts of industrial livestock production.




# Executive Summary

New research, as set out in this report, suggests there are significant inaccuracies in UK poultry data. This could be having a significant impact on pollution and misinforming Government policy.

Following the publication of The Wildlife Trusts' 2025 report - *Quantifying the Environmental Risks from Pig & Poultry Production in the UK* - we (The Wildlife Trusts) have commissioned an examination of issues that came to light relating to the recorded number of poultry housed in the UK, and how inaccuracies in these figures could affect the concentration and impact in terms of feed, pollution and land use.

The research, using Freedom of Information requests and other data sources, looked at four counties with high levels of poultry production: Lincolnshire, Norfolk, Shropshire and Herefordshire.

*Missing data*

The findings reveal major differences in poultry data between Department for Environment, Food & Rural Affairs (Defra)'s annual survey and other statutory data providers, including the Environment Agency (EA) and Animal and Plant Health Agency (APHA).

These agencies appear to contradict each other in their estimates of the number of birds across the four identified counties, which are given as:

- Defra: 48 million birds
- EA: 106 million birds
- APHA: 124 million birds

With a difference of 121% between Defra's and EA's figures, and an even larger difference of 150% between Defra and APHA's figures, these disparate figures clearly show the need for investigation and clarification.

Even at a conservative estimate, considering some possible sources of the different numbers, from this analysis we can say that at least 25 million birds are currently missing from the data used by government departments in these four counties alone. Taken to the UK level, this could mean over 67 million birds are currently unaccounted for in government figures and subsequent decision making.

*Implications for land use and pollution*

Consequently, the volume of poultry manure and associated concentrated water and air pollution in these areas will be far higher. Calculations for land and feed use, as well as excrement and air pollution, are likely being badly underestimated.

For instance, if there are 52% more birds than in Defra's survey, this would mean:

- Excrement nutrient load - Total nitrogen from the UK poultry flock excreta would be increased from over 62 million kg/year to over 95 million kg/year and phosphate from 44 to 68 million kg/year. At this scale, both nitrogen and phosphates will have severe consequences on the health of our waterways and wildlife populations.
- Land use - 621 thousand hectares would be required for feed production compared to 409 thousand hectares in our original research. Herbicide, pesticide, and fertilizer use would be similarly much higher.

This would also mean planning decisions – including those proposed to give chickens more space – are possibly being based on poor information.

Furthermore, as the UK Climate Change Committee recommends reducing meat consumption by 25% by 2040 to reduce farm and land-based emissions, accurate meat production volumes are essential to be able to monitor this accurately.

As a result of the knock-on effects of these inaccuracies, The Wildlife Trusts are calling for several actions including:

- An urgent data and policy review - The UK Government and agencies must act quickly on the recommendations in this report to correct the data on the UK poultry flock in all four nations and then review all poultry policies, regulations and measures – including any poultry growth strategy and planning rules – to avoid risk and harm.
- Reform existing permitting regimes - Risk assessments and environmental permitting of intensive poultry units in the UK must be reformed. Units must be accurately assessed and permitted according to both their size and the wider environmental impacts of feed and excreta, especially in light of water pollution risks..
- Food chain regulation - Ensure supply chains are regulated and incentivised to support farmers to transition to a less polluting and more integrated poultry system.

# Part 1: The Wildlife Trust report and recommendations

During 2024 and 2025 The Wildlife Trusts commissioned independent research on both pig and poultry production in all four nations of the UK. Our interest was to get an independent, robust assessment of the impact of these two sectors on land use and environment including the water environment and in particular its role in the excessive nutrient load in UK soils and rivers. The case study of the Wye Valley catchment had shown just how damaging, particularly to rivers, these sectors can be.

This resulted in an impact report, Quantifying the Environmental Risks from Pig & Poultry Production in the UK.[1] The research revealed the huge scale of production of these two livestock sectors and how much production was concentrated in particular areas. It also detailed highly concerning levels of environmental harm and potential harm related to land use, nutrient levels (such as phosphorous from excreta), soil damage, pesticide use, and land use associated with feed production. The report had detailed county and country data. Some key overall findings included:

- The area of land required to produce pig and poultry feed was estimated to include approximately 520,000-580,000 ha of wheat, equivalent to 34-38% of the UK's total wheat crop, with associated fertiliser and pesticide inputs
- The pig and poultry sector outputs over 10 million $m^3$ of excreta every year, highly concentrated within the areas farmed. This results in total outputs of approximately 97 million kg/yr nitrogen and 64 million kg/yr phosphate
- The detailed geographic concentrations of the pig and poultry sectors in particular hotspots means that maintaining N and P balances in soils in those areas is very difficult to manage, with the resultant risk of water pollution being high

We launched the report alongside specific recommendations for policy makers to address the many issues detailed, designed to reduce the impact in the short and long term.

## 1. Why chickens matter

The 2025 report revealed the extent of chicken production in the UK including the huge numbers, concentration, and impact. It revealed that we are breeding, growing and slaughtering in the region of 1.1 billion chicken broilers every year and that we have an egg - It showed how poultry production is highly concentrated, with more than half of England's chickens in just 10 council areas.

There are significant levels of geographic overlap, with implications for nutrient burdens in these areas. It also details how 16% of the UK poultry flocks are not covered by permitting regulations aimed at controlling local pollution.

## 2. Data issues emerging

After the report was launched, we were contacted by researchers regarding the data. The correspondence suggested very significant issues relating to the accuracy of the Defra Farm Survey data. The data they had collated from other statutory sources, particularly in the Wye Valley, suggested extremely large differences, with data from the other sources showing large underestimates of poultry numbers in the Defra annual Survey.

This was alarming as it suggests that policy and regulatory processes are being based on potentially highly-misleading figures. We commissioned Alison Caffyn PhD, who has undertaken considerable work in this area, to look at these discrepancies in detail, where they are and what the origins may be. Given the constraints of access to data, freedom of information requests and time, she limited her research to four English counties where the largest poultry flocks are sited: Lincolnshire and Norfolk in the east and Shropshire and Herefordshire in the west. This research was to find out whether the same undercounting as had been identified in the Wye catchment occurs elsewhere.

Part 2 of this report sets out her findings. They suggest some highly significant differences in data between Defra, and its agencies - Environment Agency (EA) and Animal Health and Plant Agency (APHA) and also local authority planning records. Across the four counties there appears to be a 121% difference in numbers comparing the Defra annual survey and the EA permit data totals, ie 48,264,180 birds in the Defra survey compared to 106,700,000 birds from Environment Agency permits.

The report explores possible reasons for the large differences and makes detailed suggestions for how to resolve the discrepancies.





## 3. Policy recommendations from this data issue

This research was initiated to show, if applicable, serious issues with the Defra farm survey data. It has shown this to be the case, and the researcher has made detailed recommendations to correct these differences. The UK Government must take steps to assess the genuine issues for the environment from this new data:

1. **Data review –** The government and agencies must act quickly on the recommendations in Part 2 of this report to correct the data on the UK poultry flock in all four nations. Following this, a review of all related poultry regulations and measures in relation to environmental and public health needs to be undertaken and changes made to avoid risk and harm.

We recommend also that the government undertake the following from our original report, bearing in mind the new data suggests far higher poultry numbers and therefore the need for urgent action when considering poultry industry sector strategies, land use and planning reforms, food systems and nutrient management and pollution:

2. **Reform existing permitting regimes –** Risk assessments and environmental permitting of intensive pig and poultry units in the UK must be reformed to cover more of the units and to account for the wider environmental impacts associated with feed production and off-site excreta use associated with production units.

3. **Nutrient Management Action Plans –** Introduce a requirement for pig and poultry farms to produce comprehensive nutrient management action plans clearly detailing nutrient management budgets on farms, including end destination and use for excreta transported offsite to ensure sustainable application.

4. **Moratorium on new units in high-risk areas –** There should be no new units, and no expansion of existing units, in the catchments of Protected Areas which are at risk of failing their conservation objectives as a result of nutrient pollution, and in catchments where WFD waters are failing nutrient standards, unless the development can be locally nutrient-neutral, and any off-site nutrient impacts are mitigated.

5. **Commission a new Government Taskforce –** The UK Government should set up a taskforce to look at how the impacts associated with the geographic concentration of pig and poultry production in the UK can be best managed to minimise environmental impacts. This taskforce should be cross-departmental, and link closely to the Good Food Cycle approach set out clearly in the Government's 2025 Food Strategy. The work of the new Farming and Food Partnership Board on the sector must take account of these and the taskforce's findings.

6. **Integration within a Land Use Framework –** Growing crops to feed pig and poultry units takes at least 520,000-580,000ha of UK arable land, and now we can see probably more. This is often high-output cropping using low-cost raw materials, reliant on large monocultures produced using heavily industrialised methods. Some of this land could instead be used to grow crops for direct human consumption, or for other core purposes. Consideration of the land take for crops grown to feed pig and poultry should form an important element of the newly-published Land Use Framework in England which aims to assess how land can best be used to achieve nature and climate targets.

7. **Ensure supply chains are regulated and incentivised to support farmers to transition to a less polluting and more integrated pig and poultry system –** Farmers currently operating in pig, poultry, and feed production will need advice, support and resources to transition to less environmentally damaging systems. This support should include greater targeting of measures aimed at improving the water environment in developing Environmental Land Management schemes in England. Furthermore, there should be greater investment, regulation and accountability throughout the supply chain – including supermarkets, traders, processors, and the food service industry – to ensure farmers can be fairly rewarded for better pig and poultry systems. The developing 25-Year Farming Roadmap in England should look to embed policies and regulation to support this.

# Part 2: Full report - Counting chickens - An analysis of UK poultry numbers for The Wildlife Trusts

Alison Caffyn, February 2026

## 4. Introduction

The number of chickens (and turkeys, geese, ducks) raised in the UK matters. Half of all meat consumed in the UK is now chicken and government statistics state there were 1.17 billion birds slaughtered in 2024. This is obviously a significant industry and source of meat for the UK population. The UK produces 83% of the volume of chicken meat consumed here and 89% of the eggs (Agriculture in the UK 2024).

The numbers matter also because of the resources needed for these animals, including the land and chemicals, in the UK and abroad, for feed. Furthermore, poultry manure contains high levels of phosphate/nitrate and gives off ammonia into the air. Large volumes of poultry manure are therefore a risk for both water and air pollution and consequently a risk for the health of wildlife and humans. The Wildlife Trusts published a report Quantifying the Environmental Risks from Pig and Poultry Production in the UK (2025), researched by Cumulus consultants, which drew attention to not just the volumes of excreta produced but also the land required to spread the manure, the potential pollution from nutrient loads and the significant ammonia emissions generated.

The problem remains that no-one seems to know how many chickens there are in the UK. Government statistical sources give wildly different figures and the industry doesn't publish its own data. Most policy and research reports, including the Wildlife Trusts' report, use the official annual Agricultural Survey data, published by Defra. This data is very precise for other livestock such as cattle and sheep as it uses livestock movement records and every animal is tagged. However, the poultry data, despite recording what look like precise figures, could be undercounting poultry by as much as a third.

When water quality is being assessed or catchment plans or policies drawn up, National Landscape management plans written or pollution risks calculated, many of the calculations about poultry are based on figures that are much too low. Similarly, the Environment Agency (in England and its equivalents in the other UK nations) commissions 'source apportionment' modelling of river pollution to address the UK's legal commitments under the Water Framework Directive (as incorporated into UK law post-Brexit) and this also uses livestock data from the Agricultural Survey. If the calculated nutrient levels and ammonia emissions from poultry excreta are incorrect that will affect discussions about what to do to meet the legal targets, particularly in those areas with high concentrations of poultry businesses. It might, as a result, place a disproportionate burden for pollution reduction upon other agricultural or wider sectors.

This report aims to address this situation; exploring the available poultry data and trying to produce more accurate figures. The work focuses on four English counties with the highest populations of poultry: Herefordshire and Shropshire in the west and Lincolnshire and Norfolk in the east. The comparisons between the data will help clarify the strengths and weaknesses of the various data sources, which will aid future users of the data. The analysis also raises a number of broader questions about the UK poultry industry and the poor data available about its continuing growth. Accurate numbers also matter in relation to meeting the UK's net zero targets. The UK Climate Change Committee[2] recommends reducing meat consumption by 25% by 2040 so we need to know production volumes.

The report first gives an overview of the key poultry data sources we are exploring, followed by a description of how the data issues became evident in the Wye Valley. The report then describes the methods used in the research. The main bulk of the report consists of a step-by-step analysis of the poultry statistics. Each step factors in differences between the data in order to identify actual discrepancies which need further explanation. The final sections of the report discuss the discrepancies identified in the poultry statistics and the possible causes of these and then go on to make a number of recommendations to both reduce the discrepancies and improve clarity over UK poultry data for all users.



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## 5. Poultry data sources

There are several sources of data on UK poultry numbers.

*Defra Annual Survey*

Firstly, The Department for the Environment, Food and Rural Affairs (Defra) carries out an annual Survey of Agriculture and Horticulture in June each year. An annual analysis is published as Agriculture in the UK[3] , accompanied by data spreadsheets. This includes the numbers of birds and eggs, plus production data on slaughterings, carcass weights and values.

The survey has been predominantly online since 2011. It is a sample survey of between 30,000 and 60,000 holdings 'depending on requirements'[4] . Agricultural holdings are defined as those with

*'more than five hectares of agricultural land, one hectare of orchards, 0.5 hectares of vegetables or 0.1 hectares of protected crops, or more than 10 cows, 50 pigs, 20 sheep, 20 goats or 1,000 poultry.'*

It appears most surveys are of around 30,000 holdings but a larger one of 55,000 holdings was undertaken in 2025 (not all the data from 2025 has been published yet.)

A geographical analysis by local authority area is published, usually every three years[5] . A fuller Census is undertaken every 10 years – the last being in 2021. Then the same survey is sent to all 107 thousand holdings registered. In 2021 there was a response rate of 60%, equivalent to 64 thousand holdings.

It is this Agricultural Survey data which is most easily available and most widely used in reports and in modelling of river pollution, by government agencies, NGOs, academics and the poultry industry. This report focuses on using other data sources to test how accurate the Survey/Census data is.

*Animal and Plant Health Authority Data*

Secondly, The Animal and Plant Health Authority (APHA) (part of Defra) keeps data on poultry across the country, excluding Northern Ireland. APHA is concerned with animal health and risks to the public and due to the increasing risks of bird flu it has extended its records of poultry to include all domestic and small-scale keepers as well as gamebirds raised for shooting. APHA publishes an annual report on the GB Livestock population. This was published in 2025 using 2024 data[6] . The statistics in the report are presented in map format and there is a single listing of county bird total in an appendix. Further data has to be requested from APHA via Freedom of Information Requests.

*Environment Agency Data*

Third, the Environment Agency (EA, also part of Defra) issues environmental permits for all poultry units with over 40,000 birds. These are classified as 'industrial installations' and require a permit whether they house broilers (meat chickens), layers (poultry producing eggs), turkeys, ducks, geese, pullets (hens being raised to the point of lay) or broiler breeders (hens laying eggs which are hatched into broilers).

As the poultry industry has expanded, most intensive poultry units do house over 40,000 birds and thus are recorded in the lists of environmental permits. Exceptions include many free-range hen operations, some pullet, geese and turkey operations and the occasional free range broiler business. In England environmental permits can be downloaded or requested from the EA website[7] .

*Other Data Sources*

All poultry operations require planning permission when they are first set up, other than very small operations. So almost all businesses can be found in local authority planning records. Online planning records go back around 20-30 years but details prior to 2000 are scarce. Planning applications now normally state the number of birds to be housed on site.

The poultry industry itself does not publish data regularly. Individual processing companies (or integrators) rarely publish data on the numbers of units supplying them or the volumes of birds being processed each year. Information from these sources is piecemeal. The British Poultry Council, British Egg Industry Council and National Farmers Union appear to rely on government statistics.

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## 6. How the River Wye catchment revealed data issues

One area where the numbers of birds has been debated and explored for over five years is the River Wye catchment. Here the issue was important as the excessive levels of nutrients in the River Wye and its tributaries needed to be tackled. Campaigners suspected the substantial increase in the size of the local poultry industry in Herefordshire and Powys (Wales) was a significant factor. Initially government agencies such as Natural England, the Environment Agency and Natural Resources Wales simply quoted the Agricultural Survey data which gave a total of roughly 10-11 million birds in the catchment. Local researchers and campaigners who had been monitoring planning applications for poultry units knew the bird capacities were much higher.

It was only when campaigning bodies such as the Campaign to Protect Rural Wales (CPRW) mapped all the poultry sites[8] and raised awareness of the scale that the agencies took notice. CPRW had recorded planning applications for poultry units across Powys since 2015. The successful applications would accommodate about 10 million birds, in comparison to the Welsh Agricultural Survey data[9] which gives a figure of just over 5 million birds for the county in 2020.

Academic researchers calculating phosphate flows around the catchment checked the numbers directly with the industry and agreed that the Agricultural Survey figures were much too low[10] . Initial campaigner estimates of 20 million birds in the Wye catchment[11] were later increased when data from other counties in the catchment were added. Latest campaigner data suggests a (capacity) figure of 24-26 million birds.

The EA, NE and NRW now accept the numbers are higher than the official survey data and have tended to use higher figures in their recent reports. The EA's 2025 River Wye Diffuse Water Pollution Plan[12] has compared poultry sector figures and campaigner figures and settled on a figure of 23 million birds in the catchment. The Natural England report River Wye Land Use Modelling Project using Farmscoper[13] uses a figure of 30 million apparently derived from APHA records. NRW commissioned a report from consultants Ricardo which also refers to poultry numbers in the catchment approaching 30 million; Phosphorus in the River Wye: Evidence base for Wales[14] .

The issues have been explored, understood and compromise statistics put in place which satisfy all parties so that they can concentrate on actions to address the issues of nutrient pollution and poor water quality. The problem is that awareness and understanding of the shortcomings of poultry data is not known nationally. The Agricultural Survey data tends to be taken at face value and used to assess land and water management measures unchallenged.

## 7. Study methods

This research aimed to find out whether the same undercounting as had been identified in the Wye catchment occurs elsewhere. It aimed to compare the data sources identified in section 2 and try to account for differences in the data. Thereby, it aimed to calculate more realistic poultry figures and potentially identify a route to calculate these figures for other areas. And importantly, it aimed to make the case to Defra that the current methodology for the Agricultural Survey is deficient and needs to be amended.

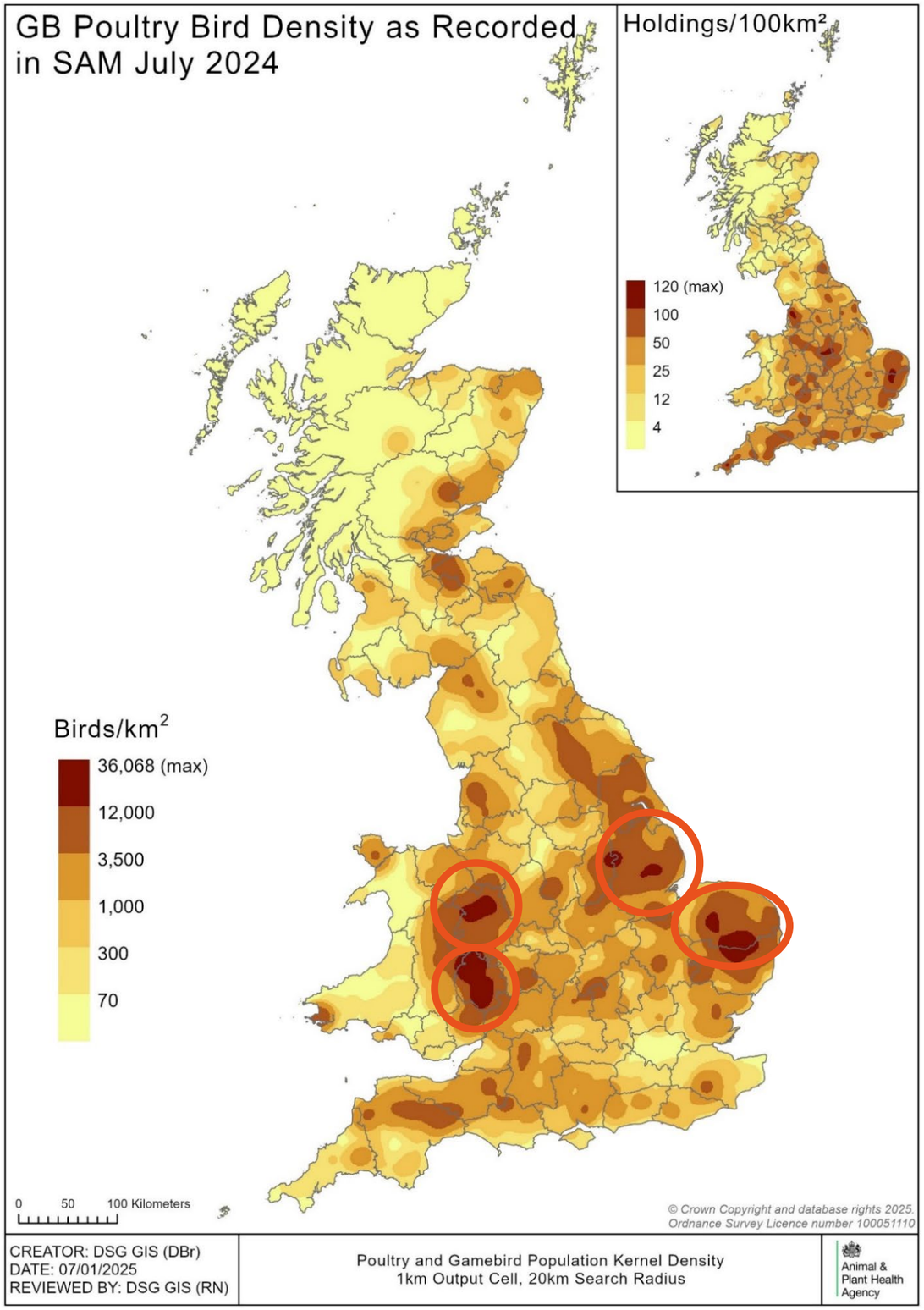
The analysis focuses on four counties which have some of the highest populations of poultry in Great Britain. These are Lincolnshire and Norfolk in the east and Shropshire and Herefordshire in the west. Lincolnshire data is from the seven district/ borough councils and excludes the two unitary local authorities of North and North East Lincolnshire (because APHA data uses this geographical breakdown). Norfolk includes seven district/ borough councils. Shropshire and Herefordshire are both unitary authorities, but results were also identified for Telford and Wrekin unitary authority as some analyses include Telford and Wrekin in the Shropshire data.

Figure 1 shows APHA mapping of GB chicken densities with the four study counties ringed in red.





**Figure 1** Chicken density (APHA 2024) and the four study counties



It would be useful to extend this work to other areas with higher poultry densities such as Northern Ireland and Powys in Wales – particularly to examine whether data discrepancies are restricted to England or are seen in other UK nations too – but this was outside the capacity of the current study.

The work involved downloading or requesting all the poultry environmental permits for the four counties. The aim was to compile the bird numbers for all the permitted poultry sites in each county. Almost all permits reference the number of 'sheds' and the number of birds kept in those sheds. Often there are subsequent permit variation documents which include increases in the number of sheds and birds on a particular site as the business is expanded over time. Each permit was 'ground-truthed' by checking satellite imagery (Google/Bing/MAGIC) to check that the relevant number of sheds was present at the specified location. On occasion permits are given for sites before planning permission is granted and sites are sometime not developed or extended despite having a permit.

In two of the counties (Herefordshire and Shropshire) a full search of the local authority planning portal had previously been conducted[15] and kept up to date and those planning records were drawn upon to check details where necessary and to provide details of all poultry sites with fewer than 40,000 birds. In the other two counties (Lincolnshire and Norfolk) planning records were only consulted when sheds could not be located on the ground to check whether there was a recent planning application for the site. This analysis was used to compare with the published Defra Agricultural Survey and APHA statistics.

The APHA 2024 report simply gives a total number of poultry for each county. This includes all domestic and gamebirds. The report includes many helpful maps of the data, several of which are reproduced in this report. Information requests were submitted to APHA for a fuller breakdown of the totals for each county to enable gamebirds to be separately accounted for.

Previously the Defra Survey department had been questioned about the accuracy of the poultry data in the annual survey. Defra staff defended the statistics and declined to enter discussion over the discrepancies with other government data sources. Further analysis of the Agriculture in the UK poultry data was conducted as part of this exercise and queries submitted to Defra for further clarification.

It should be noted that by their nature chickens and other poultry are small animals, with relatively short lifespans. Mortality rates in the industry are much higher than for other livestock. It will never be possible to be completely accurate. Throughout the report our own calculations have rounded numbers down to the nearest thousand.

The research exercise compiles and compares disparate data which, despite coming under the one government department, give hugely different poultry figures. Some of the differences in the data can be explained. Fundamentally, each source is counting different things. This work attempts to factor in the differences between the data to focus on what discrepancies remain, and what the actual numbers in each county are likely to be on average.



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## 8. Analysis

*Initial comparisons*

Table 1 presents the data from the 2024 Agricultural Survey for the four counties, by local authority area, compared with the totals from the analysis of all the environmental permits. On the right-hand side the percentage difference has been calculated for each county.

**Table 1 -** Agricultural Survey poultry figures for the four counties compared with environmental permit data

| Counties and Districts/Boroughs | Agricultural survey figures | EA permit data totals | % difference |
|---|---|---|---|
| **Herefordshire** | | | |
| **Herefordshire total** | 9,679,603 | 22,056,000 | 127% |
| **Shropshire** | | | |
| Shropshire | 7,650,765 | 23,027,500 | |
| Telford and Wrekin | 1,462,801 | 3,264,000 | |
| **Shropshire total** | 9,113,566 | 26,291,500 | 188% |
| **Lincolnshire** | | | |
| Boston | 380,008 | 918,000 | |
| East Lindsey | 3,968,096 | 9,164,000 | |
| Lincoln | 0 | 0 | |
| North Kesteven | 4,182,261 | 8,435,000 | |
| South Holland | 1,740,041 | 4,453,000 | |
| South Kesteven | 1,375,446 | 2,177,000 | |
| West Lindsey | 3,665,391 | 7,983,000 | |
| **Lincolnshire total** | 15,311,243 | 33,130,000 | 116% |
| **Norfolk** | | | |
| Breckland | 6,332,217 | 11,551,000 | |
| Broadland | 1,279,912 | 2,223,000 | |
| Great Yarmouth | 694,160 | 320,000 | |
| Kings Lynn and W Norfolk | 931,815 | 1,496,000 | |
| North Norfolk | 2,411,673 | 3,759,000 | |
| Norwich | * | 0 | |
| South Norfolk | 3,885,437 | 5,874,000 | |
| **Norfolk total** | 15,535,214 | 25,223,000 | 62% |
| **Total for 4 counties** | 48,264,180 | 106,700,000 | 121% |

*Data suppressed as small figure and could be an identifiable single business

Massive variations can be seen in this initial analysis. Herefordshire is said to have just over 9.6 million birds in the Agricultural Survey whereas there are permits for 22 million birds (127% higher). In Shropshire the difference is even higher at 188%. In Norfolk the permits are 25m compared to a Survey estimate of 15.5m. And it should be remembered that the permits do not include those smaller sites with fewer than 40,000 birds.

For the record, of the two excluded Lincolnshire unitary local authorities, NE Lincolnshire has permitted sites totalling 146,000 birds and is treated as not statistically relevant in the Agricultural Survey. In contrast, North Lincolnshire has permits for nearly 8.5 million birds, and is listed as having 4.7 million in the Agricultural Survey. These two areas have been excluded from the rest of the analysis as the APHA categorises them under Humberside.

For clarity, all the figures we are exploring are for total birds at any one time. None of these figures give an annual total. Broiler production involves 7-8 crops of birds a year, compared to egg layers which might live for a 12-18 months. Other types of bird (e.g. turkeys) have differing numbers of crops during the course of a year and are obviously more seasonal. The annual total number of individual birds raised would be the above totals multiplied by six or seven times (given the preponderance of broilers).

Table 2 adds in the figures from the APHA 2024 Report for each county. Here the differences with the Agricultural Survey figures are even larger.

This brings together our three main sources of poultry data for comparison and reveals the stark differences in the basic figures. However, as explained earlier, each data source is different and the next few sections address the factors which could account for the differences.

*Environmental permits*

The EA listings of environmental permits only include poultry units with over 40,000 birds. So the figures will under-estimate the true numbers, especially in areas such as Shropshire where there are many smaller operators such as free-range egg operations which often house 16,000 or 32,000 birds. Planning records and a visual search of satellite imagery has filled these gaps in Herefordshire and Shropshire, but has been judged too time consuming to undertake for the eastern counties at this stage.

These permit figures also often include some sites where the proposed poultry unit has not been built. They therefore overestimate the number of active sites and birds. In some cases, sites are awaiting planning permission and may come on stream in the next year or two. But in other cases, permission - for a new site or additional sheds - has been refused or applications never even submitted. There are also one or two apparently derelict sites which still have permits.

Finally, even when sites do exist on the ground the numbers stated in the permit are often a little more than is referenced in the planning application. It appears operators tend to apply for a figure over their planned stocking density to 'play it safe' with the permitted capacity. It is relatively straightforward, if time consuming, to filter out the sheds and sites that have not been built. But the variation in precision of the figures requested by operators is difficult to account for and indeed operators may well stock up to these figures, perhaps before thinning the broiler crops out or to account for bird mortality. So no adjustment has been made for this and the exact permitted numbers have been retained.

Table 3 shows the number of permitted sites in each county that have been excluded from the analysis as they have not (or not yet) been built (at least from Google imagery in late 2025/early 2026). The right-hand column has the recalculated totals of birds. These totals have also been adjusted to allow for sites which do exist, but the shed numbers vary from the permit.

The adjusted permit numbers are several million lower in each county, but remain nearly double the Agricultural Survey figures.

Also these figures do not yet include poultry sites under the permit threshold of 40,000 birds. The non-permitted sites for Herefordshire and Shropshire are known from previous research using planning records and satellite surveys[16] . In Herefordshire there are 53 non-permitted poultry sites with 1,348,000 birds. In Shropshire there are 67 non-permitted sites with 1,504,000 birds, plus 2 sites in Telford and Wrekin with 72,000 birds, totalling 69 sites and 1,576,000 birds.

If similar levels of non-permitted sites were present in both Lincolnshire and Norfolk that would suggest approximately an additional 2 million birds in each. The structure of the poultry industry may be different on the east of the country with fewer smaller operators, so this is only a rough estimate – however, a Freedom of Information request made to APHA in 2023 by The Wildlife Trusts indicates numbers of non-permitted egg-laying birds that are in keeping with this estimate.[17] Adding these figures for non-permitted sites in brings the totals back up again (Table 4).

These figures are now effectively bird capacity figures – the number of spaces given planning permission, and permits where necessary, and which exist on the ground. This is where the environmental permitting records bring us – to relatively accurate poultry capacities. We now turn attention to the other data sources.





**Table 2** Poultry figures from all three main sources compared by County

| Counties | Agricultural survey figures | EA permit data totals | APHA Report figures | % difference between Survey and APHA |
|---|---|---|---|---|
| Herefordshire | 9,679,603 | 22,056,000 | 35,490,727 | 266% |
| Shropshire | 9,113,566 | 26,291,500 | 29,545,478 | 224% |
| Lincolnshire | 15,311,243 | 33,130,000 | 37,401,715 | 144% |
| Norfolk | 15,535,214 | 25,223,000 | 34,257,469 | 120% |
| **Total for 4 counties** | 48,264,180 | 106,700,000 | 136,695,389 | 183% |

**Table 3** Comparison including adjusted permitted sites figures

| Counties | Ag survey Totals | APHA Report | EA permit totals | No. of non-existent sites | **EA permit totals adjusted** |
|---|---|---|---|---|---|
| Herefordshire | 9,679,603 | 35,490,727 | 22,056,000 | 3 | 19,926,000 |
| Shropshire | 9,113,566 | 29,545,478 | 26,291,500 | 8 | 22,467,000 |
| Lincolnshire | 15,311,243 | 37,401,715 | 33,130,000 | 8 | 29,289,000 |
| Norfolk | 15,535,214 | 34,257,469 | 25,223,000 | 4 | 23,732,000 |
| **Total for 4 counties** | 48,264,180 | 136,695,389 | 106,700,676 | 23 | 95,414,000 |

**Table 4** Comparison including non permitted sites

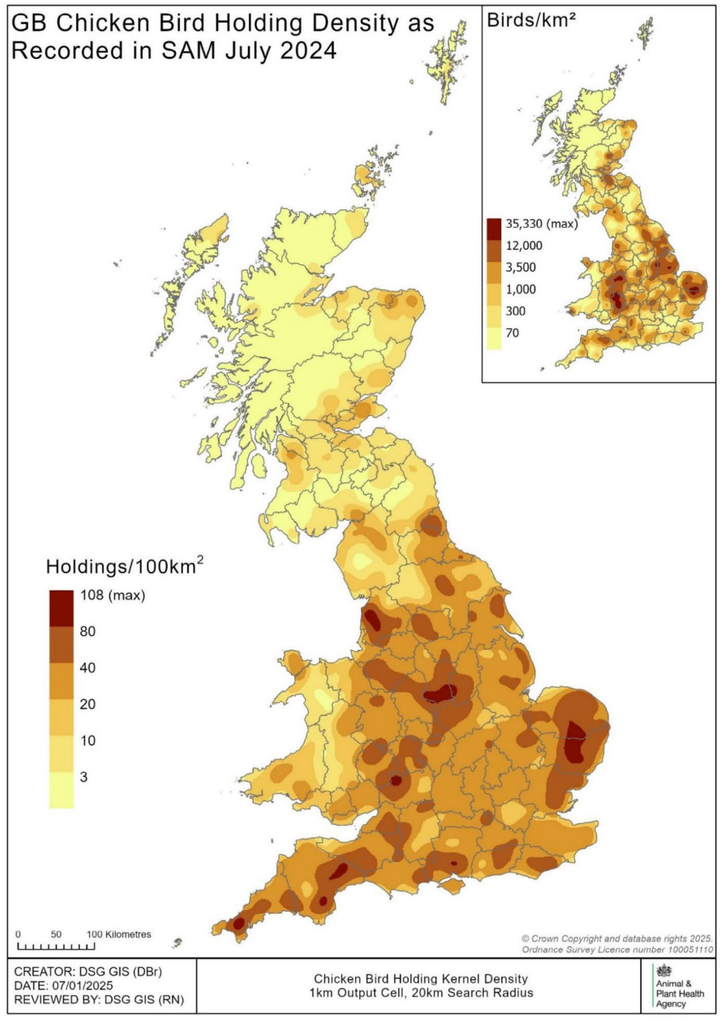
| Counties | Ag survey Totals | APHA Report | EA permit totals adjusted | Non-permitted sites | **Permitted plus non-permitted** |
|---|---|---|---|---|---|
| Herefordshire | 9,679,603 | 35,490,727 | 19,926,000 | 1,348,000 | 21,274,000 |
| Shropshire | 9,113,566 | 29,545,478 | 22,467,000 | 1,576,000 | 24,043,000 |
| Lincolnshire | 15,311,243 | 37,401,715 | 29,289,000 | 2,000,000e | 31,289,000e |
| Norfolk | 15,535,214 | 34,257,469 | 23,732,000 | 2,000,000e | 25,732,000e |
| **Total for 4 counties** | 48,264,180 | 136,695,389 | 95,414,000 | 6,924,000 | 102,338,000 |

e = estimated

*APHA Poultry data*

The APHA data includes not just commercial poultry kept on agricultural holdings but also domestic poultry on smallholdings and in gardens, including pigeons, guinea fowl, quail and rheas, plus gamebirds raised for shooting – pheasants and partridges. While the number of properties where domestic poultry is kept is high the actual volumes of birds is relatively negligible in comparison to the commercial agricultural operations. However, in many counties the numbers of gamebirds raised is in the millions and thus it is helpful to separate out the gamebirds from the APHA totals.

**Figure 2** Gamebird distribution (APHA 2024)








Breakdowns of the APHA data were sought via FOI requests[18] [19]. These revealed that Herefordshire and Shropshire have just over 2m gamebirds each, Norfolk 1.1m and Lincolnshire 900,000. This exercise brings the APHA totals down a little (Table 5, columns 4 and 5).

Given the purpose of the APHA data which is to keep a record of where all poultry is in case of public health type incidents such as bird flu outbreaks, one would expect this data source to be the most accurate. However, we are concerned that there may be some errors in the data we have seen for Herefordshire. The raw (anonymised) listings for Herefordshire were previously acquired by campaigners for the River Wye[20] and passed to us. A review of the many hundreds of entries revealed two sites which were listed as having 1.5m and nearly 5m birds each. Given the largest poultry unit in Herefordshire has under one million birds it is likely these are typographical errors, we have reduced the Herefordshire total by 6 million. This is a token amount and could be higher[21] but it brings the Herefordshire numbers more into line with reality on the ground[22] .

It can be seen that the bird capacity numbers from the environmental permits and planning information are now closer to the adjusted APHA total bird population figures. The APHA figures do still include domestic birds and chicken holdings with fewer than 1,000 birds but those should not make a significant difference – perhaps 1-200,000.

The APHA numbers are still several million birds higher than the capacity figures calculated, which is difficult to explain. Anecdotally, EA staff have mentioned that APHA figures are higher and that it may be partly due to a time lag in the data, or it not being updated efficiently. Or there could be additional errors in the data, for example sites might be listed in the wrong county. This was found multiple times in the permits but could be corrected as full address details were available, whereas the raw APHA data was redacted. This issue would merit further investigation.

Nevertheless, we are getting closer to totals we can be more confident in, but they still remain around double the figures in the Agricultural Survey.

*Agricultural Survey – applying occupancy rates*

The Agricultural Survey is carried out on one date in June each year. It will not record any birds at sites where the sheds have been emptied and are being cleaned out between crops of broilers or between flocks of hens. Planning applications tend to specify 7-8 crops of broilers a year with a period of a week-10 days in between each when the sheds are empty for cleaning and maintenance. Hens kept for egg production are replaced every 12-18 months, with sheds standing empty for a week or two in between flocks. So one would expect the figures from the Survey to be lower than our capacity figures as a small proportion of sheds can be expected to be empty on the date of the survey. To allow for this one can apply an 'occupancy percentage' to the capacity figure. Table 6 shows the impact of applying a generalised occupancy percentage of 85%.

**Table 5** Comparison including adjusted APHA data

| Counties | Ag survey Totals | APHA Report | APHA no. of gamebirds | APHA totals without gamebirds | **Bird capacity (permitted plus non permitted)** |
|---|---|---|---|---|---|
| Herefordshire | 9,679,603 | 35,490,727 | 2,050,000 | 27,440,000* | 21,274,000 |
| Shropshire | 9,113,566 | 29,545,478 | 2,275,000 | 27,270,000 | 24,043,000 |
| Lincolnshire | 15,311,243 | 37,401,715 | 911,500 | 36,490,000 | 31,289,000e |
| Norfolk | 15,535,214 | 34,257,469 | 1,138,000 | 33,119,000 | 25,732,000e |
| **Total for 4 counties** | 48,264,180 | 136,695,389 | 6,374,500 | 124,319,000 | 102,338,000 |

* Including a reduction of 6 million for data errors

**Table 6** Comparison incorporating occupancy calculations

| Counties | Ag survey Totals | APHA totals without gamebirds | Poultry capacity (permitted plus non permitted) | Rough occupancy calculation = 85% of capacity |
|---|---|---|---|---|
| Herefordshire | 9,679,603 | 27,440,000 | 21,274,000 | 18,082,000 |
| Shropshire | 9,113,566 | 27,270,000 | 24,043,000 | 20,436,000 |
| Lincolnshire | 15,311,243 | 36,490,000 | 31,289,000 | 26,595.000 |
| Norfolk | 15,535,214 | 33,119,000 | 25,732,000 | 21,872,000 |
| **Total for 4 counties** | 48,264,180 | 124,319,000 | 102,338,000 | 86,985,000 |

Obviously the 85% occupancy calculated reduces the numbers, but they are still significantly above the Agricultural Survey figures.

Occupancy varies by type of bird production though, with broiler sheds likely to be occupied for about 80% of the time and egg production sheds for 95% of the time. The full Agricultural Census (2021) includes a breakdown by type of bird, as did our capacity analysis for Herefordshire and Shropshire, and so we are able to do a more detailed version of the above exercise for some counties.

Table 7 compares the 2021 census breakdown for types of birds in Herefordshire with our capacity figures. This demonstrates that the discrepancies in numbers are mainly in the broiler sector in Herefordshire.

A similar comparison has been done for Shropshire, again adjusting for sites in situ in 2021 (Table 8). In Shropshire the broilers figures disagree again but the Agricultural Census figure for laying hens is also striking, being well under half of the capacity figures. There are 56 sites in Shropshire producing eggs. This includes one very large operation which has a permit for 1.8 million hens alone (on its website it claims to have over 2 million birds on site www.griffithsfarms.co.uk.) If the Agricultural Survey or Census does not happen to include this single plant, then the laying hen figures for the county will immediately be much lower than reality.

Undertaking the occupancy calculations and comparisons again, including an 80% occupancy for broilers, 95% for laying hens and 90% for other birds produces the following results.

The discrepancy between the Agricultural Census figure and our calculations has now shrunk further to 5 million birds in Herefordshire and 7.5 million birds in Shropshire on any one day. The higher proportion of broilers in Herefordshire has made a proportionately greater change to the figures for this county, because broilers have a lower occupancy.

**Table 7** Herefordshire - Capacities for different types of bird

| | Broilers | Laying hens | Other | Total |
|---|---|---|---|---|
| Agricultural Census | 8,384,993 | 1,208,000 | 1,097,750 | 10,690,743 |
| Capacity figures | 17,304,000 | 1,225,000 | 793,000 | 19,322,000 |

**Note** the numbers are slightly different to those above as these are 2021 figures not 2024. Capacity figures have been adjusted to exclude sheds and birds given planning permission since 2020. 'Other' includes turkeys, geese, ducks and breeder birds.

**Table 8** Shropshire (not including Telford and Wrekin) - Capacities for different types of bird

| | Broilers | Laying hens | Other | Total |
|---|---|---|---|---|
| Agricultural Census | 6,486,920 | 1,981,461 | 1,081,320 | 9,549,701 |
| Capacity figures | 13,169,800 | 5,275,500 | 1,707,000 | 20,152,300 |



2 - An analysis of UK poultry numbers for The Wildlife Trusts

**Table 9** Herefordshire with adjusted occupancy figures

| | Broilers | Laying hens | Other | Total |
|---|---|---|---|---|
| Agricultural Census | 8,384,993 | 1,208,000 | 1,097,750 | 10,690,743 |
| Capacity figures | 17,304,000 | 1,225,000 | 793,000 | 19,322,000 |
| % occupancy | 13,843,200 | 1,163,750 | 713,700 | 15,720,650 |

**Table 10** Shropshire with adjusted occupancy figures

| | Broilers | Laying hens | Other | Total |
|---|---|---|---|---|
| Agricultural Census | 6,486,920 | 1,981,461 | 1,081,320 | 9,549,701 |
| Capacity figures | 13,169,800 | 5,275,500 | 1,707,000 | 20,152,300 |
| % occupancy | 10,535,840 | 5,011,725 | 1,536,300 | 17,083,865 |

*Taking stock*

This is the point at which this study's calculations halt. The capacity figures give the actual number of spaces in each county that could house poultry and then the occupancy figures give a figure for the numbers likely to be housed on any specific day, given normal production cycles. This produces the best calculation of likely bird numbers on a single day, which should equate to the Agricultural Survey figures. Table 11 below summarises the final position and what we can call the likely birds at any one time occupying the known capacity of poultry sheds.

An estimated adjustment has been used for Lincolnshire and Norfolk as a full calculation was judged to take too long at this stage. The overall likely number of birds at any one time across all three counties is 74 million out of the overall capacity of 102 million – still much more than the Survey's estimated 48 million.

Table 12 expresses these totals as a final discrepancy from the Agricultural Survey which varies between 3.5 million in Norfolk to 7.9 million in Shropshire and totals 25 million across all four counties.

**Table 11** Finalised calculations – Likely birds at any one time

| | Agricultural survey totals | APHA totals without gamebirds | Poultry capacity | Rough occupancy calculation = 85% of capacity | More precise occupancy calculation (Likely birds at any one time) |
|---|---|---|---|---|---|
| Herefordshire | 9,679,603 | 27,440,000 | 21,274,000 | 18,082,000 | 15,720,000 |
| Shropshire (inc T&W) | 9,113,566 | 27,270,000 | 24,043,000 | 20,436,000 | 17,083,000 |
| Lincolnshire | 15,311,243 | 36,490,000 | 31,289,000 | 26,595,000 | 23,000,000e |
| Norfolk | 15,535,214 | 33,119,000 | 25,732,000 | 21,872,000 | 19,000,000e |
| Total for 4 counties | 48,264,180 | 124,319,000 | 102,338,000 | 86,985,000 | 74,803,000 |

**Table 12** Finalised calculations and discrepancies remaining

| | Agricultural survey totals | APHA totals without gamebirds | Poultry capacity | Likely birds at any one time | Final discrepancy Agricultural Survey | Final % difference from Ag Survey |
|---|---|---|---|---|---|---|
| Herefordshire | 9,679,603 | 27,440,000 | 21,274,000 | 15,720,000 | 6 million | 62% |
| Shropshire (inc T&W) | 9,113,566 | 27,270,000 | 24,043,000 | 17,083,000 | 7.9 million | 86% |
| Lincolnshire | 15,311,243 | 36,490,000 | 31,289,000 | 23,000,000e | 7.7 million | 50% |
| Norfolk | 15,535,214 | 33,119,000 | 25,732,000 | 19,000,000e | 3.5 million | 22% |
| Total for 4 counties | 48,264,180 | 124,319,000 | 102,338,000 | 74,803,000 | 25.1 million | 52% |





At the beginning of this analysis (Table 1) the environmental permit totals were on average 121% higher than the Agricultural Survey estimates. Our analysis has brought that down to 25 million birds or 52% higher than the Agricultural Survey on average. This is closer, and considerable understanding of the data has been gained along the way. But discrepancies of this scale would still make a massive difference to any calculations of cumulative impacts based upon the Agricultural Survey data rather than the likely birds figures.

The discrepancies between the Agricultural Survey and APHA data should also be emphasised. The Survey methodology does not make reference to other data sources. Interestingly the APHA 2025 report does state:

*'Other dataset comparability: How does the data stored compare to data stored in other data sources? The Agricultural survey only targets holdings of over 1000 birds and last ran a full census in 2010, though little work has been done by the LDDG (Livestock Demographic Data Group) to compare the GBPR (GB Poultry Register) with this dataset.'*

It is clear that work should be done to make these comparisons. The APHA figures, even without gamebirds, remain more than double the Survey figures which surely demands further investigation and explanation.

While this analysis has brought the likely birds present at anyone one time figure calculated closer to the Agricultural Survey figures, significant discrepancies remain unexplained. The next section moves on to discuss the possible causes and factors where more information is required.

## 9. Discussion of discrepancies

A number of factors may influence the figures or throw light on what is causing the continuing discrepancies and are considered in turn below.

*Holding categorisation*

Defra's Agricultural Survey and Census counts the number of agricultural holdings as well as birds in the UK , by county. The table below compares the numbers of 'specialist poultry' holdings (those primarily dedicated to poultry) with permitted poultry site numbers and our actual known total sites for Herefordshire and Shropshire.

This table shows, as one would expect, that the Survey data identifies a higher number of sites than the permit data as there are additionally many non-permitted sites present in each county. The differences between the counties, however, are striking. Are there really over 130 non-permitted sites in Norfolk? Might the apparently higher number in Norfolk reveal better sampling in that county? Or maybe Norfolk has more holdings which focus simply on poultry? The Survey classifies only those agricultural holdings which generate over two thirds of their 'Standard Output' from poultry as 'specialised poultry' holdings. The other counties include many holdings where the poultry operation sits alongside arable and other livestock etc, so these sites might not be listed in the census figures. That may account for the higher number of poultry units we have identified in reality in Herefordshire and Shropshire. This factor should not of itself affect the bird numbers in the Survey figures, but it may help cast light on where the issues are. It could also be misleading if people take the Survey holding numbers as the entire number of holdings raising poultry.

*Industry input to Agricultural Survey*

The more detailed Defra notes on the Survey methodology explain how samples are stratified and that;

*'Additional exercises are also carried out which target the largest pig and poultry producers. By directly liaising with the head offices of some of the larger companies, we ensure increased coverage of two sectors that could otherwise be underrepresented. These exercises alone cover almost 40% of breeding pigs, piglets/suckling pigs and the poultry breeding flock plus almost a third of the broiler population.'*

This process might still miss many significant sites run by smaller processing companies or independent specialist producers. For example, the massive egg production site in Shropshire is an independent company and has obviously been missed from the Survey. It also begs the question as to how data from these large companies is checked and confirmed. Might the Survey be too dependent on data from company head offices?

When asked about this process the Defra statistics team replied:

*'The additional exercise is a long-standing part of the Survey and was introduced to boost coverage of the pig & poultry sectors. Although the survey gets good coverage across all sectors, the pig and poultry sectors can be more variable especially given the shorter production cycle for poultry and the point in time nature of the survey. The additional data collection ensures we still have robust coverage in the years where the survey sample is smaller or not a census and allows us to collect holding level data from one central point for each of the larger companies in the exercise. This eases the burden on individual farms but means that by contacting a few companies we can get response data for several hundred holdings. As an example, the poultry exercise currently accounts for around 35 % of the broiler population.'*[23]

**Table 13** Comparison of site holdings figures

| No. of Poultry sites | Agricultural Census (2021) | Environmental permits (adjusted) | Actual sites identified |
|---|---|---|---|
| Herefordshire | 105 | 94 | 154 |
| Shropshire (inc T&W) | 117 | 99 | 171 |
| Lincolnshire | 180 | 131 | na |
| Norfolk | 244 | 110 | na |





There appears to be some confusion between whether the additional exercise is actually additional and supplies extra or corroboratory data into the survey, or whether it is actually the main data-collecting exercise saving contacting farms direct and saving time at the surveys team. If it is the latter, and the companies are providing all the data for the broiler sector, that might begin to provide answers to the discrepancies and a potential route to resolve them.

*Bird mortality and thinning*

Mortality rates of birds may play a role. In broiler flocks mortality is usually around 4-5%. One large study[24] found the standard Ross 308 birds (a commonly used breed of fast-growing broiler chicken) had an average mortality of 1.4% in the first week of life and 3% after the first week. Birds dead on arrival after transport to the processing plant was a further 0.06%. An average broiler unit with 250,000 birds could lose 12,500 birds during the 5-6 weeks crop. However, it is not clear whether this needs to be taken into account in occupancy calculations as operators might well simply put more chicks on the ground in the first place to compensate.

Bird numbers included for the purposes of planning permissions and environmental permits (and welfare certifications) are usually calculated by bird weight per metre² at the end of the production cycle. So producers are aiming to achieve 30kg/m² (or up to 38kg depending on what accreditation scheme they use) live birds on day 38 (or 42 or 45) of the production cycle. This suggests that higher numbers of birds might be present at earlier stages in the production cycle when the birds are smaller.

Similarly, the number of operations which still thin their broiler (and turkey) flocks is unknown. This practice involves around 30% of a flock (often the larger birds) being removed for culling after around four weeks, before the rest of the flock are grown on and culled at five or six weeks. Thinning is known to be detrimental to the health and welfare of the remaining birds. It is one of the practices being phased out with the introduction of the Better Chicken Commitment (of which more later). Again, along with mortality, this would suggest that some farmers may stock higher numbers in earlier weeks to allow for a full quota of birds on the final day of the production cycle.

Industry intelligence should be able to inform this point. But it doesn't help resolve the discrepancies as, if producers were over-stocking at earlier points in the growing cycle, it would suggest there would be higher numbers revealed through the Survey, than the permit/capacity figures. It might perhaps explain higher APHA figures. And it also points to the significant scope for uncertainty over crop numbers. Greater transparency from the industry would be helpful.

*Slaughter statistics*

The Agriculture in the UK report and spreadsheets include the total number of broiler slaughterings for the UK – a total of 1,172,000,000 or 1.17 billion in 2021. Defra bases the slaughter figures on Food Standards Agency (FSA) administrative data which is mandatory for abattoirs to report.[25]

The Agricultural Survey figure for UK total broilers (or table chickens in the report) is given as 126,693,000 for the survey date in June that year. Multiplying the total broilers by 7.5 crops a year gives a total of 950m birds in one year; significantly under 1.17 billion slaughtered. Again, one needs to factor in the fact that sheds are empty for up to 20% of the time, but these figures suggest broiler sheds across the UK would need to be empty for 30% of the time for the totals to tally, if 5% mortality is also included. The slaughterings figures are around 10% more than the Agricultural Survey figures, yet substantially less than the likely birds at any one-time calculations (which were 50% higher) and the even higher APHA figures.

This raises many questions: why might so many sheds be standing empty for significant periods? Might mortality rates be higher than reported? Are there more than or fewer than 7.5 crops a year? Are the slaughterings statistics accurate?

*Avian influenza*

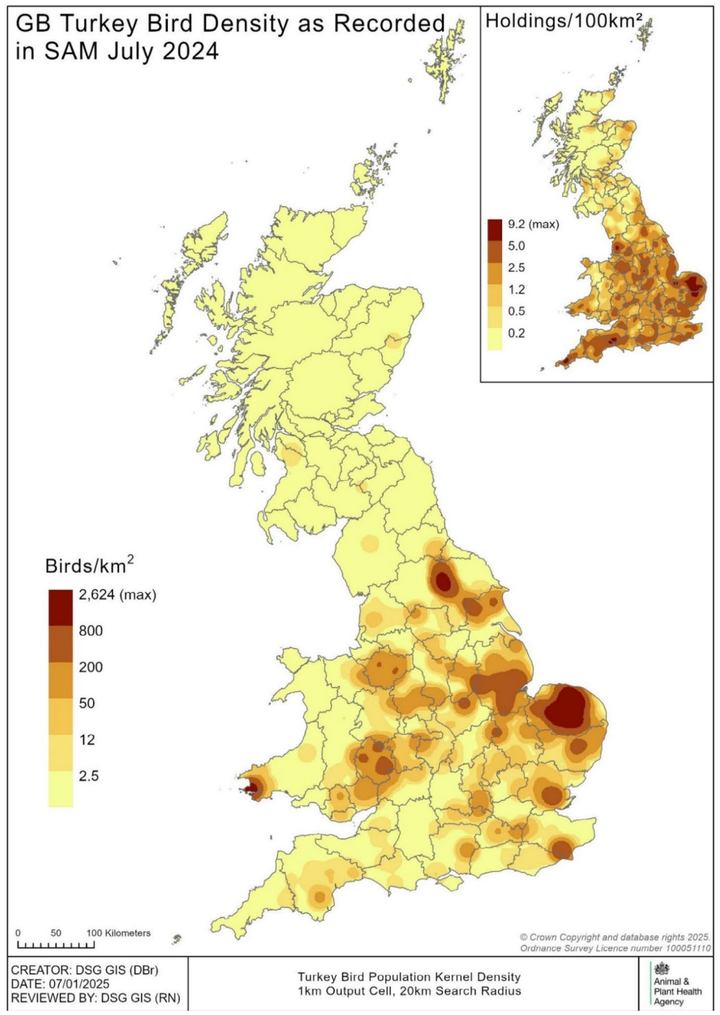
The Agriculture in the UK Report for 2024 referenced the impact of culling poultry flocks because of avian influenza. While bird flu has been prevalent for 5-10 years, media and government reports suggest the number of birds culled each year is under 10 million birds, so a small percentage of the totals here. Besides, most outbreaks occur during the winter so would be less likely to impact on the June Survey exercise.

*June Survey omitting Christmas turkeys?*

One other factor relating to timing is worth considering. The Agricultural Survey takes place in June each year. Does this mean those operations raising turkeys might be standing empty while awaiting the turkey chicks? Turkeys are normally slaughtered at around 20 weeks, and presumably a large proportion of that would be in late November/ early December each year. However, as Norfolk has many more turkeys than any of the other counties (see Figure 3 below) this factor could not account for the discrepancies outside of Norfolk. Indeed, one would hope the Agricultural Survey does take account of such an obvious factor.

This discussion of other factors has failed to reveal where the problems lie. Instead it has thrown up further complexity and additional questions about how the Agricultural Survey data is produced and why the figures are so much lower than capacities.

**Figure 3** Distribution of turkeys (APHA 2024)Ireland by area








## 10. Conclusions

It is difficult to speculate on the reasons for the discrepancies between the data sets, without access to more detailed information on the methodologies used. But it does suggest that those carrying out the Agricultural Survey need to look to their sampling and their calculations to try to achieve a more precise estimate of poultry holdings and poultry totals. It also suggests that the APHA data published may be over-estimating the numbers of birds. The teams working on both sets of data need to examine why there are such large discrepancies and work to resolve them.

This analysis which started as a number-crunching exercise to compare various data sets begins to trigger broader questions about the industry, overall bird populations and consequently also about the wider impacts on the environment, food security, wildlife and human populations.

*Wider questions around bird capacity*

Taking a national perspective this study begins to raise questions around bird capacity at poultry units. There has been a major push by supermarkets since 2016 to adopt the Better Chicken Commitment (BCC)[26] . This dictates that broiler birds be given 20% additional room in the sheds than previous standard stocking densities. The industry has been calling for another 20% of shed space to be built to accommodate this across the national flock which might equate to an additional 500 sheds.

There has been intense lobbying of politicians to loosen planning regulations to make it easier for landowners to secure planning permission for these additional sheds. Steve Reed, then Defra Secretary of State, said at the 2025 Oxford Farming Conference 'Planning rules have got in the way for too long. We will speed up the system so you can grow and diversify your business. Like chicken producers who want a larger shed to boost the amount of food they produce'[27].

This study suggests that if the Agricultural Survey figures are correct, there would be considerable spare capacity already, at least in the four counties analysed. The numbers of sites, sheds and bird capacities have been tallied and occupancy rates applied and the likely number of birds which one would expect to be present is 50% higher than the Agricultural Survey gives. If the survey figures are correct then there is already 33% additional capacity and the urgency for more poultry sheds is less critical. Fewer new sheds, if any, would be required to meet the BCC requirement for 20% more floor space.

For example if there were only 10 million birds in Shropshire, then there is already capacity for another 14 million birds available which could house at least 7 million birds at any one time. There would be no need for the 14 planning applications currently in the planning system for an additional 1.5 million birds.

Might it be that numerous sites stand empty for long periods? Sites do occasionally come on the property market and perhaps might be awaiting maintenance overhauls. But it seems unlikely that the broiler industry would be operating with such significant inefficiencies.

If, on the other hand, the calculated capacities and occupancies figures are closer to the real picture then the claims by the industry around lack of additional capacity would seem more valid. In this limited capacity scenario, one would expect to have begun to see the national volumes of poultry being produced stalling or reducing somewhat as the adoption of the BCC works through the system. However, annual production of poultry meat has actually increased slightly from 1,957,000 tonnes in 2020 to 2,065,000 tonnes in 2025[28]. Broiler meat production had increased by around 270,000 tonnes in that period. Planning permissions have been granted for some new capacity but not for the millions of additional bird spaces that would be required. Industry commentators bemoaned how quickly supermarkets suddenly wanted poultry producers to switch over,[29] implying production levels would have to fall. But that doesn't seem to be the case at this stage.

It is difficult to tell what the true situation is. It is likely there was at least some spare capacity already in the system which has been deployed, along with a trickle of new poultry units being built. Maybe there has been some adjustment going on within the industry which has been disguised within the unreliable statistics. It would help if the poultry industry was more transparent about current existing capacities and didn't over-state the case for a further 20% being urgently required to meet the BCC criteria. Greater openness over these trends would reduce the need for speculation[30].

There has been concern from campaigning organisations that the BCC is being used as a rationale for building additional poultry capacity when there is no guarantee that the improved welfare conditions and stocking densities will be maintained longer term, as it is a voluntary scheme. Few other BCC criteria (such as bird breed, crop duration, halting of thinning) are being integrated into proposed new operations seeking planning permission. In fact, in February 2026 several large companies have withdrawn from the BCC scheme[31].

*Other broader questions*

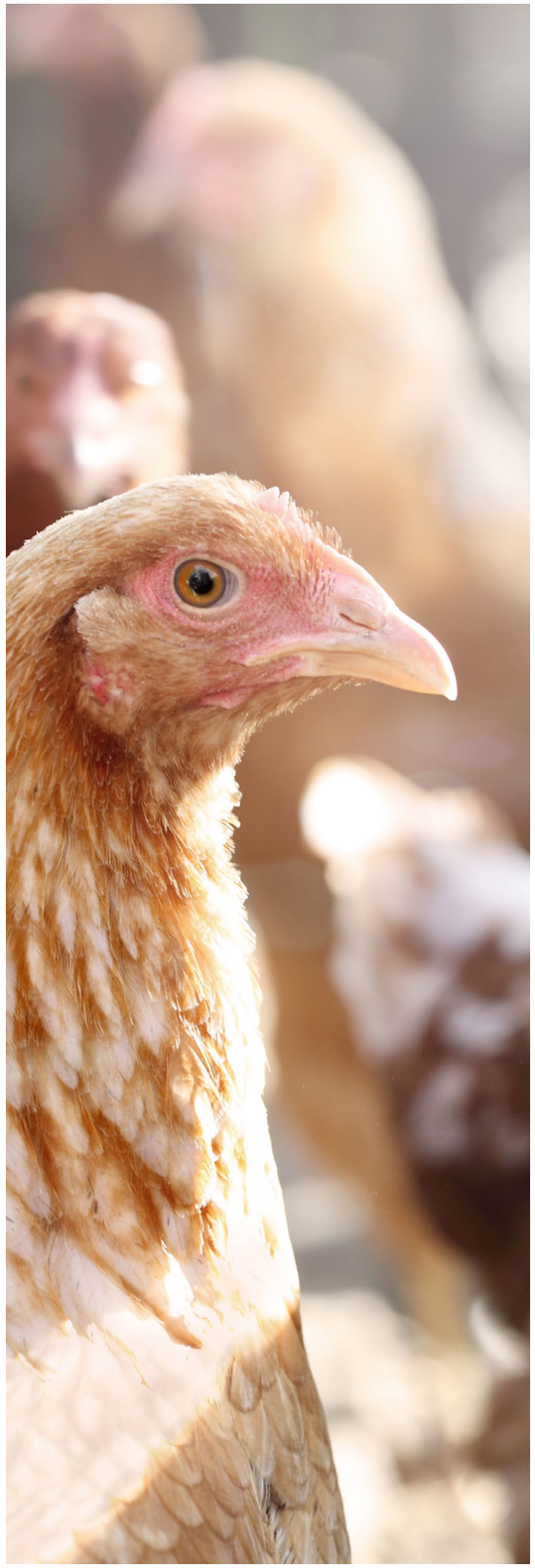
The analysis has identified many unknowns around animal welfare issues such as stocking densities, mortality and thinning practices. It has also identified unknown factors such as how long sheds are left empty between the crops or for longer periods. It raises further questions around the bird numbers used in planning applications and environmental permits. How accurate are these and do they include birds likely to be lost through mortality and removed at thinning? How does this affect the ammonia emissions and manure volumes produced and the environmental impacts from these?

These issues around the cumulative impacts of many millions of poultry are central to this investigation. If the numbers of birds are being under-estimated by at least a third then the impacts will similarly not be fully taken into account. Collaborative work in many river catchments is underway on nutrient modelling and farm nutrient balances and more accurate figures will be increasingly required.

This work has aimed to improve the understanding of UK poultry data, outlined the differences between data sets and identified their limitations and possible inaccuracies. This will allow policy makers and land and water managers to consider whether to work with more than one data source. The type of accommodations made in the River Wye catchment can be made in a transparent fashion so all stakeholders can see how figures and impacts can be calculated. Policy makers may decide to use a range of poultry population figures if that is more appropriate to their purposes.

The analysis will hopefully increase the pressure for reviews of the methodologies and accuracy of both the Agricultural Survey and APHA statistics.

The final section lists a series of recommendations which have emerged from the analysis.



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## 11. Recommendations on data discrepancies

There are a number of improvements or clarifications to the data sources which would help resolve the discrepancies identified:

1. Stakeholders in parts of the country with high numbers of poultry should work to develop agreed estimates of capacities and likely bird numbers in their own areas until more reliable figures are available nationally.

2. The statisticians in APHA and Defra's Agricultural Survey team should work to reconcile their different data sets, resolve the discrepancies and include the explanations in the methodological notes.

3. Ongoing annual liaison with APHA over poultry data should be established in a similar way as is established for accessing cattle and sheep tracing systems.

4. The APHA Reports should be improved to list the different types of poultry separately. For example, the impact of gamebirds and domestic poultry is often overlooked, and it would be useful for many stakeholders to have that listed separately in the APHA data. The APHA data also needs to be reviewed to eradicate significant errors, as we have identified in the Herefordshire data.

5. All data sources should include checks to ensure that data for specific farms are compiled into the correct local authority, using post codes or coordinates (not postal counties).

6. The Agricultural Census or Survey data should be benchmarked against national permitting records – perhaps as a one-off exercise – to identify whether there are significant discrepancies built into the methodology or how operators report their numbers.

7. The way the Agricultural Survey sources its poultry data direct from the five or six integrator companies needs to be urgently reviewed by an independent body. Clarification over whether this is additional or the main source of the data should be included.

8. The use of exact figures by the Agricultural Census gives a false sense of precision to the data. While there are caveats in the methodological notes it would be simpler to round the figures to the nearest hundred or thousand which would give those accessing the data a clearer idea that the figures are approximate and will change on an almost hourly basis.

9. Similarly, the Agricultural Census in its methodological notes could explain more clearly that the population on one day will be significantly less than the capacity for birds and that occupancy levels vary from one type of bird to another.

10. EA permit records could be amended to note when a poultry operation hasn't been built – maybe a column which confirms whether the site is operational or not or first date of operation. Several studies have accessed these records and then assumed all the permitted sites exist. Similarly, there should be a time lag that when a site is still not built after say three years (the normal length of a planning permission) then the permit would lapse or at least be removed from the public listings. Sites where extra sheds have been added to the permit but not built, after a certain period should also revert to the original and accurate number of sheds and birds.

11. The study has revealed the significance of bird capacity, stocking density, bird crop lengths, occupancy percentages, thinning practices and mortality rates which all affect the data and about which relatively little information is available. The poultry industry itself, perhaps through the British Poultry Council and British Egg Industry Council, should publish more regular data from its members on typical production systems. These will vary and shift over time but an annual intelligence publication would be the best place to capture this type of information which, as we have seen, affects poultry calculations. It would help improve the accountability of the industry for its wider impacts.

12. Local authorities and agencies have not been keeping accurate records of increasing poultry sites and bird numbers. They have had no way of monitoring many types of cumulative impacts. They should utilise their planning and permitting records more proactively to monitor the trends and geographical distributions and to identify areas where additional permissions should be refused.

# References


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21 The errors were fed back to APHA in 2024 and raised again recently but no response has been received.

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29 The poultry industry has in the past argued that sharing more information about poultry units could be a risk due to the potential of them being targeted by animal rights activists. Given that poultry sites have environmental permits as industrial installations all their location data is publicly available and also easily identified by aerial satellite imagery. These sorts of arguments should be resisted.

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Wildlife Trusts care for – and have restored – some of the most special places for wildlife in the UK. Collectively we manage more than 2,300 nature reserves, operate 123 visitor and education centres and own 29 working farms. We undertake research, we stand up for wildlife and wild places under threat, and we help people access nature.

We work with businesses who are committed to being nature positive and take action to help restore 30% of land and seas for nature by 2030.

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