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DAIRY ANTIMICROBIAL FOCUS

Annual Report 2023

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WELCOME

Welcome to the third edition of the Kingshay Antimicrobial Focus Report which provides an annual summary of the antimicrobial purchasing trends from dairy herds across the UK.

This edition of the report highlights the continued reduction in antimicrobial usage within the UK dairy sector and echoes the findings of The Veterinary Antimicrobial Resistance and Sales Surveillance 2022 Report published in November 2023 which highlighted that overall, UK antibiotic sales for food-producing animals have reduced by 59% since 2014. This significant and sustained reduction is testimony to UK agriculture’s commitment to the responsible use of antibiotics.

In this, third edition of the Kingshay Antimicrobial Focus Report we will look specifically at the UK dairy sector providing a more detailed analysis of the antimicrobial usage trends over the last 5 years on UK dairy farms. The data reported is drawn from over 1,000 dairy herds and was collected as part of Kingshay’s Antimicrobial Monitoring Service.

The service, which was developed in 2018, continues to provide vets, producers, and processors with accurate, clear, and concise reporting of farm medicine usage enabling focussed and evidence-based discussions on how medicines usage can be refined and reduced.

Report authors Christina Ford, Tim Potter and Kathryn Rowland.

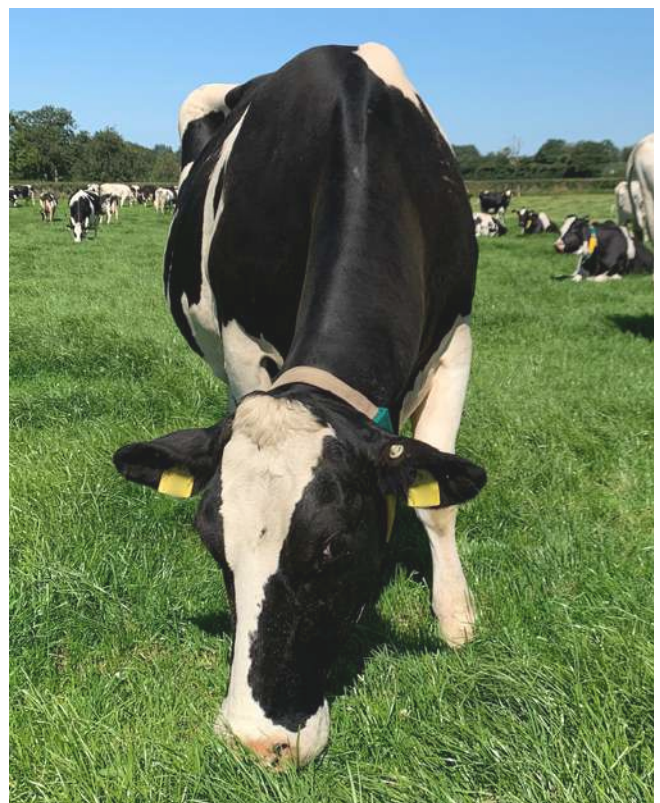


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SUMMARY

This is the 6th year that Kingshay has been monitoring antimicrobial usage. For the period ending March 2023, there were 1,002 dairy herds included in this report.

Figure 1 highlights the significant and continued reductions in usage since 2019. Total antimicrobial usage for 2023 is at 13.7 mg/kg PCU, a decrease of 23% since 2019 and a 14% decrease since 2022.

2023 saw a further small reduction in the amount of Critically Important Antimicrobials (CIA's) being used on farm, reducing to 0.013 mg/kg PCU.

Of the 1,002 herds contributing to this report, 94.3% of herds did not use any CIA's in 2023.

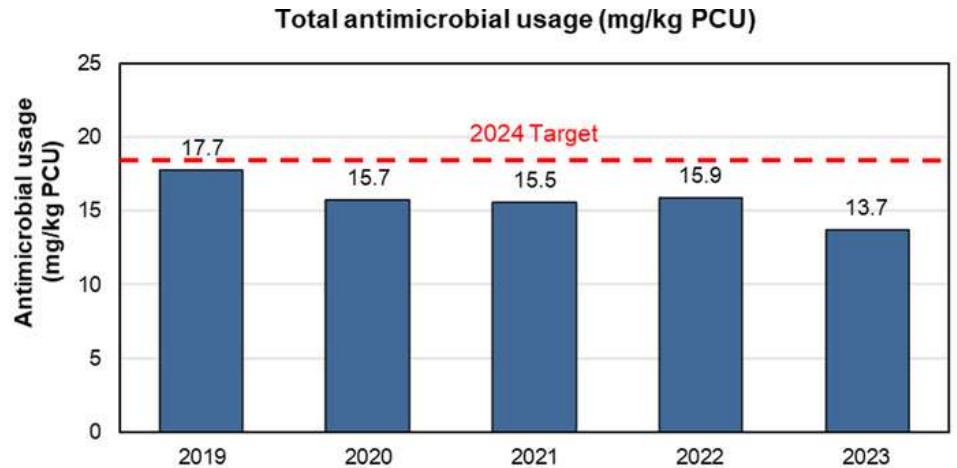


Figure 1 - Antimicrobial use trends over 5 years

As we consider where we go from here, it is important to remember that the target is not zero antimicrobial usage. Antibiotics are a key medicine for the treatment of bacterial infections and as such there will always remain a role for them in animal health. Whenever we do use antimicrobials, it is important we do so in a targeted manner, and we continue with the focus on their responsible use to preserve their effectiveness for both animal and human health.

Teat sealant usage has increased with 68% of herds using selective dry cow therapy, compared to 67% the previous year (see page 10). Whilst the proportion of herds using teat sealants has not increased significantly there is increased usage of teat sealants within the herds that are using them with the average number of tubes per cow rising to 1.88 which is up 14% from last year.

As in previous years, there remains a wide range in antimicrobial usage for dairy herds included in this report from herds ranging from 0.04 mg/kg PCU to 124.9 mg/kg PCU. Of the herds included in the report 52% reduced their total antimicrobial usage by an average of 7.4 mg/kg PCU.

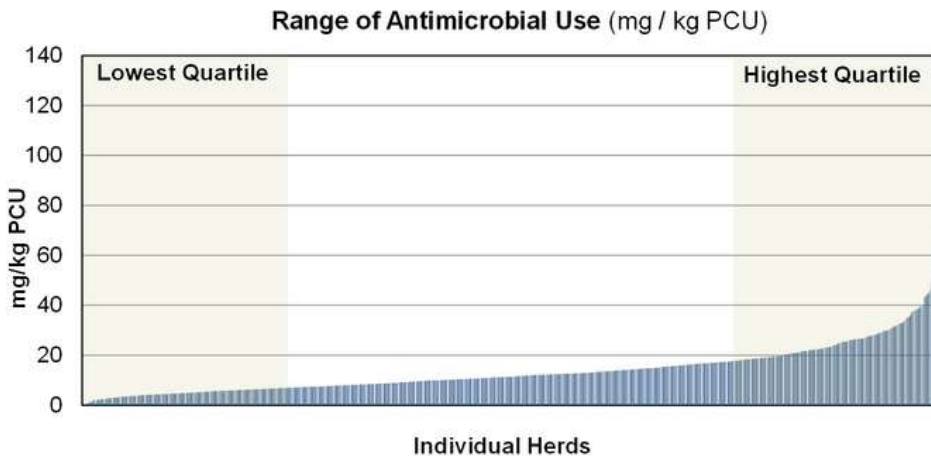


Figure 2 - Range of antimicrobial use by individual dairy herds

This range and variability reflects the different challenges faced by different farms and highlights the need for individual farms to work with their vets and advisors to develop bespoke solutions to animal health problems and reduce the need for antimicrobials.

The highest 25% of users contribute 49% of the total antimicrobial usage, the same as last year, so vets and advisors need to work to engage with these higher users to ensure further progress is made in reducing the sectors usage.



A glossary of terms used in this report can be found on page 15.

TRENDS OVER 5 YEARS

Total antimicrobial usage has declined further, after it plateaued for the previous 3 years, falling to average 13.7 mg/kg PCU for the latest year (to March 2023).

OVERALL TRENDS

Total antimicrobial usage continues to decline year on year with a larger decrease witnessed in 2023 compared to the previous 3 years. Total antimicrobial usage for 2023 is at 13.7 mg/kg PCU, a decrease of 23% since 2019 and a 14% decrease since 2022. 50% of herds have reduced their usage by 15% since 2020.

Sealant tube usage has increased marginally and is at the highest it has been over the last 5 years at 0.47 courses/cow. Dry cow and lactating cow tubes have seen a steady decline over the last 5 years and continues to move in the right direction.

Antimicrobial Use (March year end)	2019	2020	2021	2022	2023
1) Critically important injectables (mg/kg PCU)	0.301	0.039	0.017	0.014	0.013
2) Critically important intra-mammary (DCDVet)	0.075	0.009	0.008	0.003	0.002
3) Dry cow tubes (DCDVet)	0.512	0.484	0.471	0.454	0.451
4) Lactating cow tubes (DCDVet)	0.596	0.558	0.491	0.471	0.430
5) Sealant tube usage (courses/cow)	0.41	0.36	0.39	0.41	0.47
6) Total antimicrobial usage (mg/kg PCU)	17.7	15.7	15.5	15.9	13.7

Table 1 - Total antimicrobial usage over 5 years (including 5 key areas)

If the highest 25% of antimicrobial users cut their usage by one third, this would bring the average mg/kg PCU down to 13.3 mg/kg PCU. This would result in 79% of users being below our target of 17.9 mg/kg PCU. It is clear that there are still some areas within the UK dairy industry where some simple proactive disease control measures need to be targeted to ensure we reduce this figure in years to come.

The results suggest that herds are on the way to achieving this target with 67% of herds already being lower than this figure. The RUMA Targets Task Force 2 set out targets for dry and lactating cow tubes. For sales of lactating cow tubes, the aim was for a year-on-year reduction from 0.69 DCDVet, which has been achieved. For the sales of dry cow tubes, the aim was a year-on-year reduction from 0.59 DCDVet which again has been achieved.

CRITICALLY IMPORTANT ANTIMICROBIALS (CIA's)

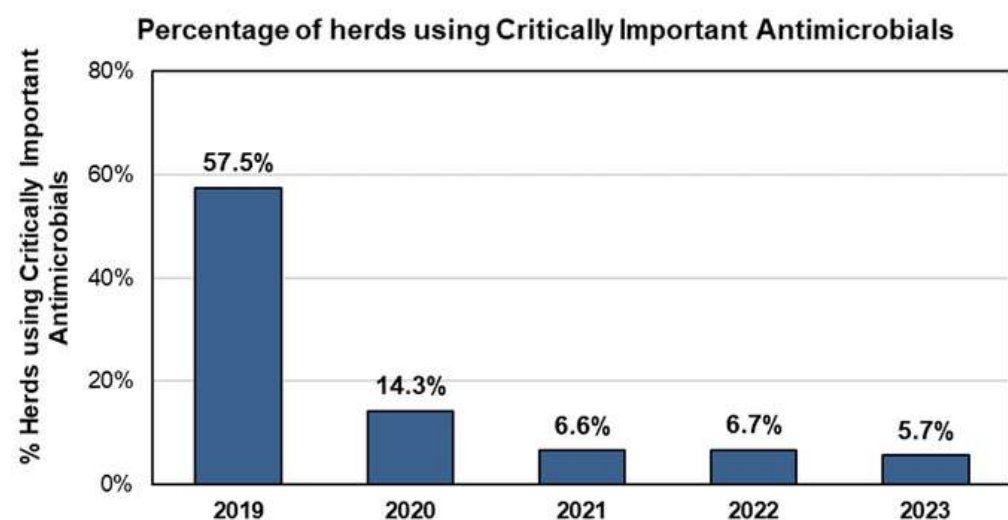


Figure 3 - Percentage of herds using Critically Important Antimicrobials over 5 years

Critically important antimicrobials (CIA's) have stayed consistently low for the last 3 years with a small reduction in 2023, reducing to 0.013 mg/kg PCU. The number of herds using these products has also remained low at 5.7% of herds using these products in 2023.

With the majority of herds not using these products for many years it would be great to see these last few producers make the switch to cut their usage. Of the herds that don't use CIA's 57% of them have not used CIA's in at least 3 of the last 5 years.

TRENDS OVER 5 YEARS

ANTIMICROBIAL ADMINISTRATION

All of the administration routes have decreased for 2023, with lactating cow tubes reducing by 17% and injectables by 16%.

Oral administration still remains on the high side but is moving in the right direction. Oral administration, out of all of the administration routes is one of the highest risks for antimicrobial resistance, which is why it is important to try and reduce these levels where possible.

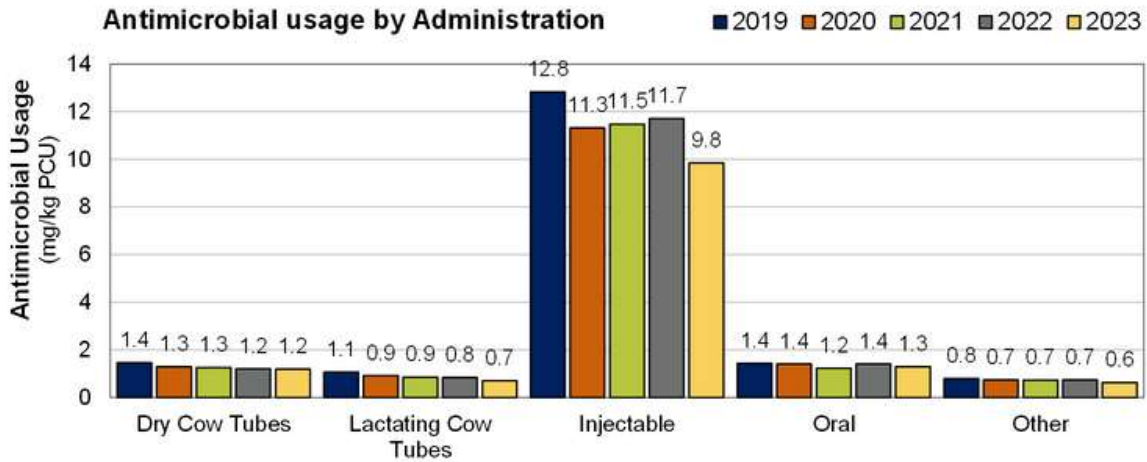


Figure 4 - Trends in antimicrobial administration over the last 5 years

METHODOLOGY USED

For each herd, the cattle numbers were collected from each producer and the antimicrobial purchases were collected from the vet practice. A set of validated reports were then created and sent out to the producer/vet to check all products were included and validate the accuracy of the report content. Any products that were not used in the period were adjusted as well as any products used on other enterprises, such as beef or sheep.

REPORTING THE RESULTS

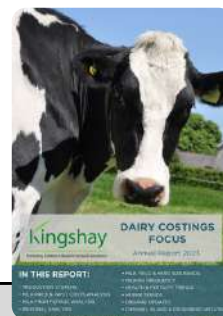
All producers and vets received a summary report for their individual herd(s) benchmarked against other producers for the same period and also the previous year. The farmer report contained a comparison with the targets for antimicrobial use, along with administration routes, antimicrobial class and dry cow therapy. The report also included a list of products used to enable validation and easy checking of the products used.



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TRENDS OVER 5 YEARS

EUROPEAN MEDICINES AGENCY (EMA) CLASSIFICATION

Looking at the proportion of antimicrobial categorisation change over time, very little has changed over the last 5 years.

Prudence (Category D) has increased slightly which is good news as this should be the first line of defence and the first products to be used.

Continuing from previous years, products in the Restrict (Category B) are still very low, as discussed on page 4.

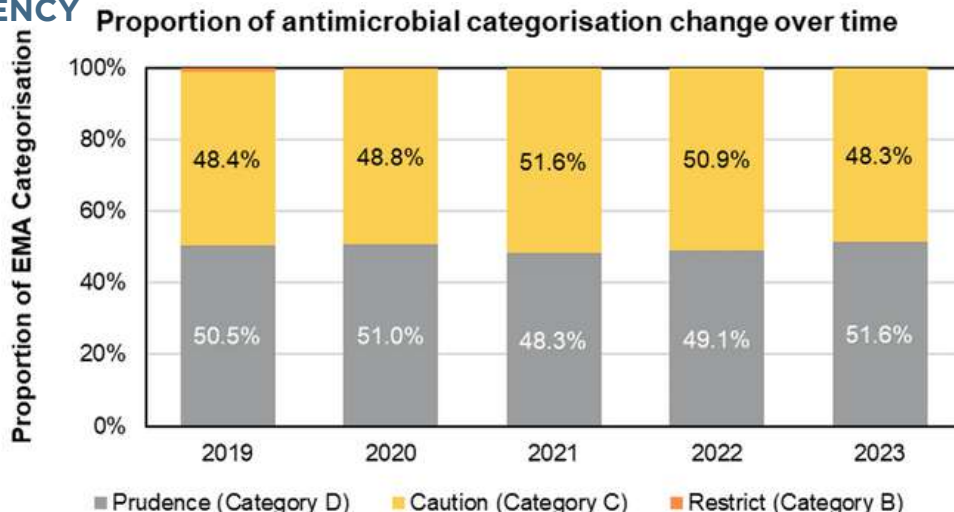


Figure 5 - Proportion of antimicrobial use broken down by EMA classification over the last 5 years

AVOID (Category A)

- Antibiotics in this category are not authorised as veterinary medicines in the EU
- Should not be used in food-producing animals
- May be given to companion animals under exceptional circumstances

CAUTION (Category C)

- For antibiotics in this category there are alternatives in human medicine
- For some veterinary indications, there are no alternatives belonging to Category D
- Should be considered only when there are no antibiotics in Category D that could be clinically effective

RESTRICT (Category B)

- Antibiotics in this category are critically important in human medicine and use in animals should be restricted to mitigate the risk to public health
- Should be considered only when there are no antibiotics in Categories C or D that could be clinically effective
- Use should be based on antimicrobial susceptibility testing, wherever possible

PRUDENCE (Category D)

- Should be used as first line treatments, whenever possible
- As always, should be used prudently, only when medically needed

Figure 6 - EMA definitions

ANTIMICROBIAL CLASS

All the antimicrobial classes have continued to reduce as total antimicrobial usage decreases with Aminoglycosides seeing the largest decrease compared to last year of 25%. Macrolides are closely following with a 22% decrease from last year.

A lot of aminoglycoside products, along with Macrolide products, are in the Caution C category, which is following on from the trend shown in Figure 5 and a positive result.

Cephalosporins 1st Generation are lower than the previous 2 years but still higher than 2020 and 2019 figures.

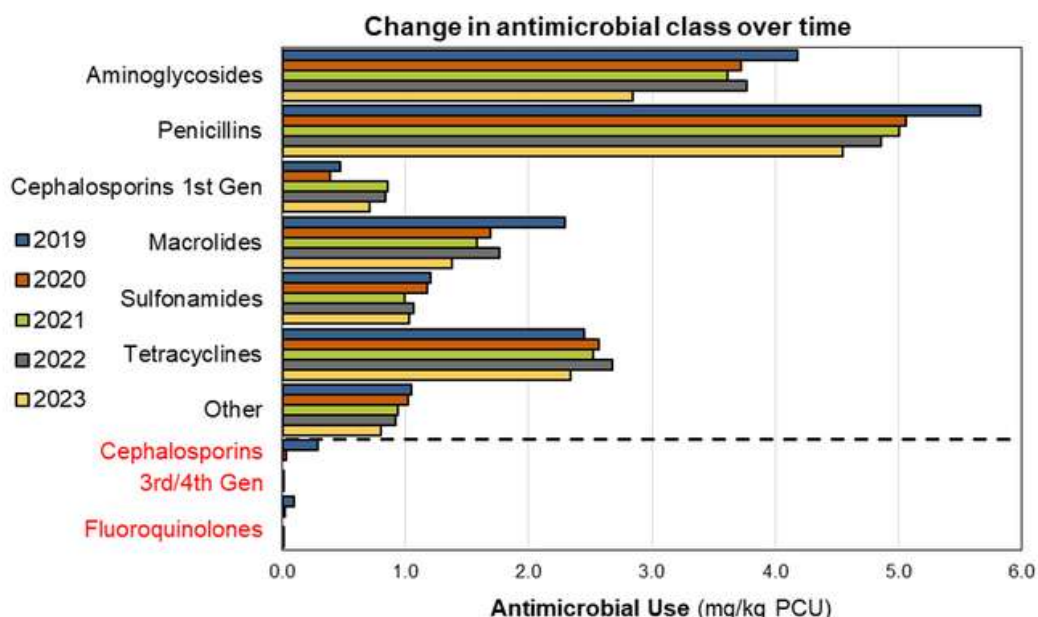
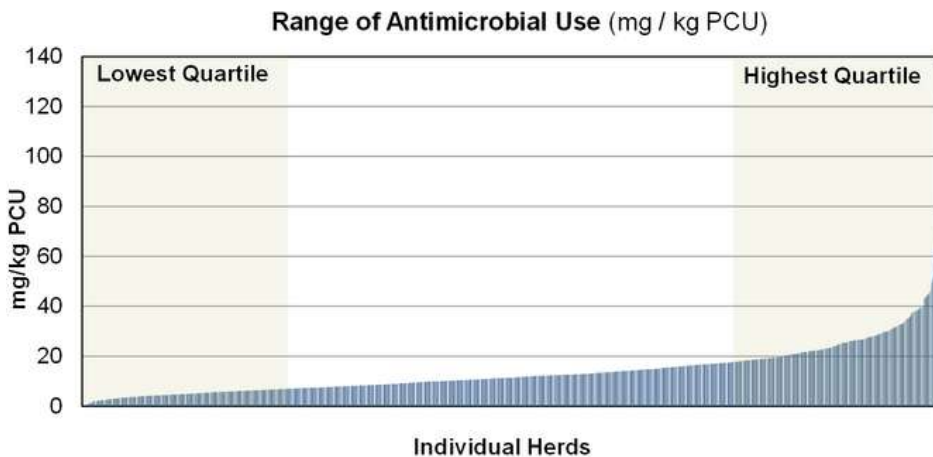


Figure 7 - Antimicrobial use over 5 years by antimicrobial class

HERD LEVEL COMPARISONS

All farms are different and have different challenges which is why it's not surprising that there is a broad range of total antimicrobial usage across the herds analysed.



Herds range from 0.04 mg/kg PCU to 124.9 mg/kg PCU, which is a wider range compared to last year where the highest was 87 mg/kg PCU. Unfortunately, this year there is 1 herd which is a lot higher than the next lowest which makes the range larger.

The median for the group is 11.3 mg/kg PCU, highlighting that these higher users are bringing up the average which, as highlighted earlier in the report, is 13.7 mg/kg PCU.

Figure 8 - Range of total antimicrobial use by individual herd (year ending March 2023)

The group of highest users are reducing their usage more and more each year which shows that everyone is making improvements, and therefore they are becoming more aligned to the rest of the herds. It is important to make sure that we still have the flexibility to be able to use certain products when they are needed. Those herds that are higher users due to disease outbreaks will be working with their vet and advisors to help control these situations.

HERD SIZE & MILK YIELD CORRELATIONS

Every year we check herd system data to see if there are any trends with different systems, breeds, size of herd or milk yield. As you can see in Figure 9 and Figure 10.

There are a large range of herd sizes and milk yields and within these a vast range of antimicrobial usage. There is no significant correlation between milk yield or herd size and antimicrobial usage.

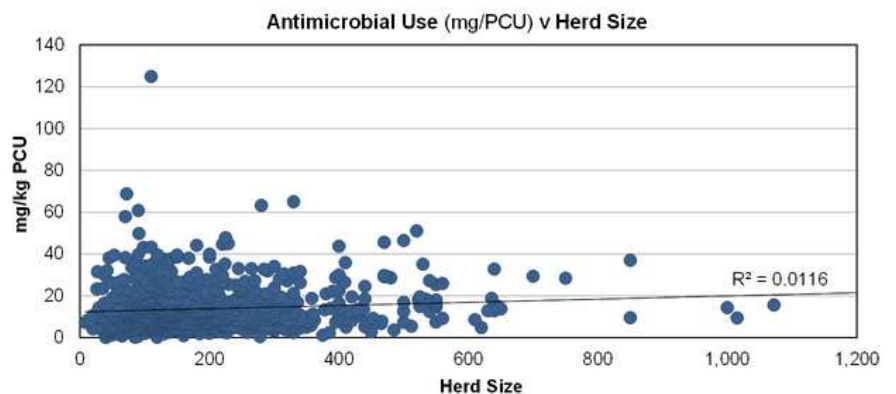


Figure 9 - Total antimicrobial use compared to herd size (year ending March 2023)

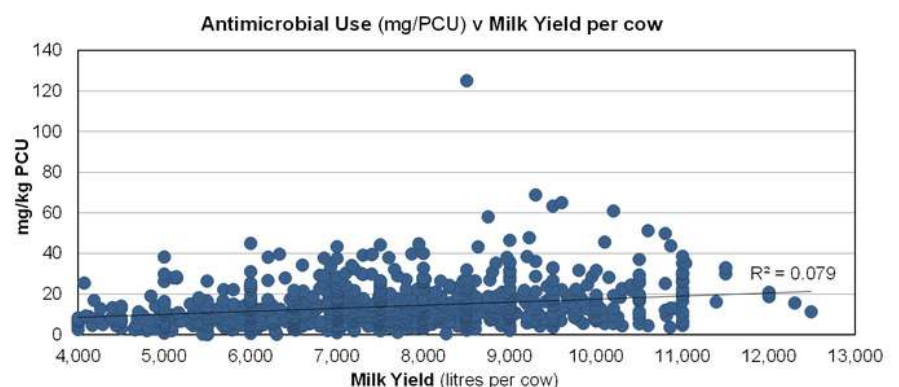


Figure 10 - Total antimicrobial use compared to milk yield per cow (year ending March 2023)

HERD CHANGES YEAR ON YEAR

When comparing this year to last year, 52% of those herds reduced their total antimicrobial usage by an average of 7.4 mg/kg PCU, compared to the previous year. This is a marked improvement on last year where 36% of herds reduced their usage by 5.9 mg/kg PCU.

The green bars along the middle of each chart represent the change in mg/kg PCU for each individual herd, compared to their usage the previous year. Across the analysis sample, some herds saw their usage had increased, whilst some herds had seen a reduction.

As shown in Figure 11, a large proportion of herds are still reducing their usage further, even where their usage is already low. The range varied from an increase of 31.64 to a decrease of 85.24 mg/kg PCU, the median difference is 0.12 mg/kg PCU.

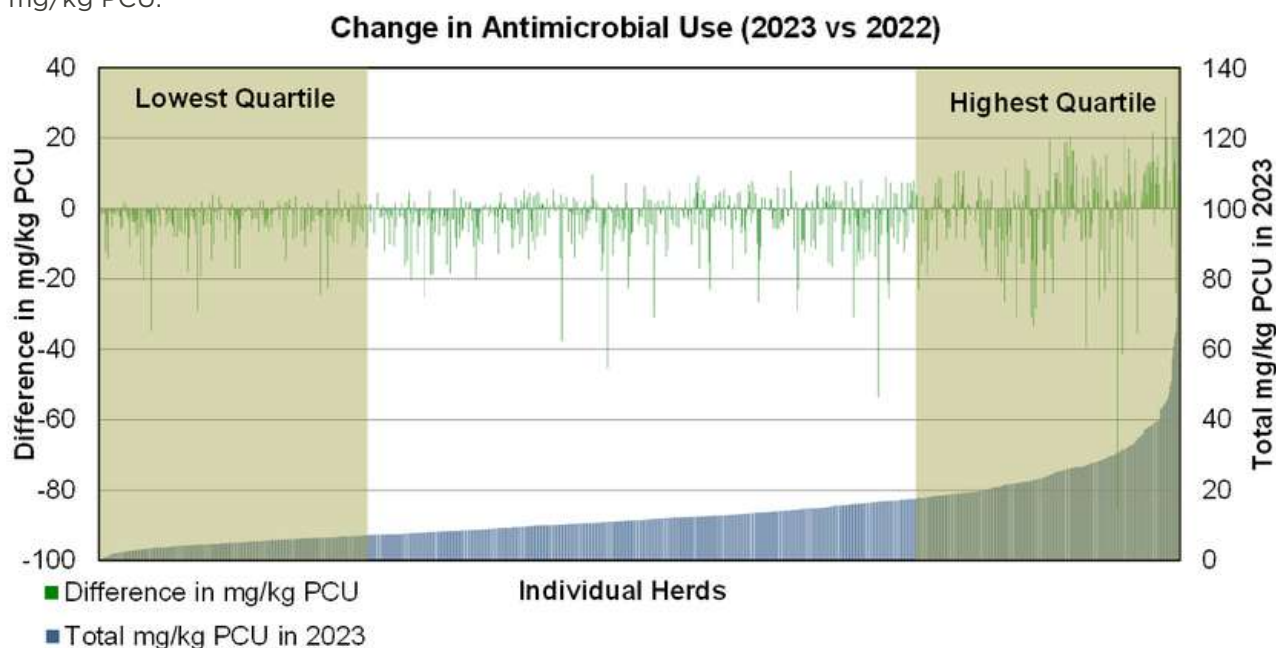


Figure 11 - Change in antimicrobial use (2023 vs 2022)

HERD QUARTILE ANALYSIS

All quartiles have reduced their antimicrobial usage compared to last year, by as much as 17%.

When the data is broken down into quartiles (from the lowest 25% of herds based on total antimicrobial usage to the highest 25% of herds) we see quite a range of results. Comparing to last year all of the quartiles reduced their overall usage with the highest quartile reducing the most on average by 4.6 mg/kg PCU. There doesn't appear to be a trend in any of the critically important antimicrobial KPIs between the quartile groups.

Looking at dry cow tubes and lactating cow tubes, however, there is an increase in usage in line with the total antimicrobial usage. So the highest quartile use more dry cow and lactating cow tubes than the lowest quartile, by 40% and 58% respectively. Teat sealant usage also doesn't appear to have a consistent trend with the 2nd quartile using the most courses per cow at 0.60. Table 2 shows all of the results for further interpretation.

Antimicrobial Use by Quartile (mg/kg PCU)	Lowest 25%	2nd 25%	3rd 25%	Highest 25%
1) Critically important injectables (mg/kg PCU)	0.007	0.010	0.010	0.023
2) Critically important intra-mammary (DCDVet)	0.001	0.001	0.003	0.001
3) Dry cow tubes (DCDVet)	0.318	0.415	0.516	0.530
4) Lactating cow tubes (DCDVet)	0.267	0.362	0.441	0.641
5) Sealant tube usage (courses/cow)	0.379	0.60	0.41	0.48
6) Total antimicrobial usage (mg/kg PCU)	4.7	9.2	14.1	26.7
Change on last year (mg/kg PCU)	-0.7	-1.4	-2.2	-4.6

Table 2 - Quartile analysis of antimicrobial usage (year ending March 2023)

HERD QUARTILE ANALYSIS (Contd)

Table 3 splits the changes year on year out into the quartiles, demonstrating the highest 25% of antimicrobial users have had the smallest change on last year. However the quartile, as a whole, has reduced, which is an improvement on last year where it had increased by 4.42 mg/kg PCU.

Compared to last year, all the quartiles had more herds this year showing a decrease in total antimicrobial usage, with the lowest 25% quartile reducing on average by 3.64 mg/kg PCU. This highlights the determination of both farmers and vets to continue to reduce antimicrobial usage on an individual herd basis even, when targets are met, and usage is already low.

Changes Year on Year by Quartile (mg/kg PCU)	Lowest 25%	2nd 25%	3rd 25%	Highest 25%
% of herds showing a decrease	64%	58%	49%	38%
% of herds showing an increase	20%	27%	39%	48%
Average change on last year	-3.62	-3.74	-2.92	-0.76
Range of change on last year				
Min change	-34.8	-45.5	-53.5	-85.2
Max change	5.4	9.6	10.8	31.6

Table 3 - Changes year on year in antimicrobial use by quartile (2023 vs 2022)

QUARTILE ANALYSIS BY ROUTE OF ADMINISTRATION

Analysing the data by route of administration and by quartile has shown that the highest users are still using a significant amount of oral and injectable antimicrobials.

It is clear to see in Figure 12 that the highest 25% of antimicrobial users are using the most oral products. These products tend to contribute a significant amount to the total usage figures, as they are generally used for medication of groups of animals to manage disease outbreaks or animals at immediate risk of disease. This results in animals that don't yet show signs of illness getting treated with the antimicrobials.

Within the dairy industry oral antibiotics are generally used for the treatment of calf diseases, so it is important for producers that are using these products to work with their vets to improve their systems to avoid the need for them. These products also pose one of the biggest risks to antimicrobial resistance compared to other methods of administration.

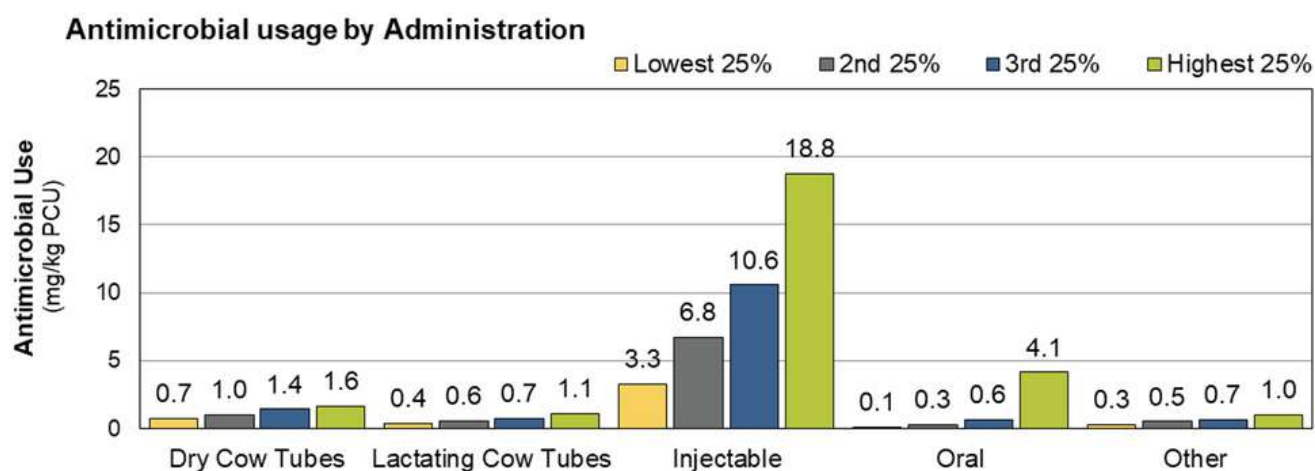


Figure 12 - Antimicrobial administration by quartile (year ending March 2023).

Injectables are again the highest use of antimicrobial administration, which is likely to always be the case, as this indicates a targeted individual treatment. When looking at the data compared to last year a similar trend is seen in the total antimicrobial use where all quartiles have reduced their usage across all the routes of administration, with injectables seeing the biggest decline in use across all of the herds.

DRY COW THERAPY

Dry cow antibiotic tube usage is decreasing steadily and teat sealant usage is increasing.

The number of herds not using teat sealants has decreased for a fourth year. Looking at Figure 13, 68% of herds used teat sealants for the year up to March 2023, an increase of 1%. When analysing all herds, regardless of whether they use teat sealants the average number of tubes per cow is 1.88, up 14% from last year. This is based on sales data and fluctuations between years may be due to when herds are purchasing DCT products, especially if bulk buying. Where known, these figures are adjusted manually to take this into account.

If we exclude the herds that don't use teat sealants at all, the average is 2.75 tubes per cow, which is up slightly from last year at 2.46 tubes per cow.

Dry Cow Therapy (tubes per cow)	2019	2020	2021	2022	2023
Antibiotics	1.91	1.77	1.75	1.67	1.65
Teat sealants	1.66	1.44	1.54	1.64	1.88

Table 4 - Dry cow therapy (antibiotics vs teat sealants)

Looking at dry cow antibiotic use, the number of tubes is continuing to decline, and has reduced by 15% since 2018, now sitting at a level of 1.65 tubes per cow.

Herds that are not yet utilising teat sealants should discuss with their vet to include them in their dry cow therapy protocols as part of a strategy to reduce antimicrobial usage.

Milk recording data is an important tool for selective dry cow therapy and may be a barrier for some herds, if they do not milk record frequently.

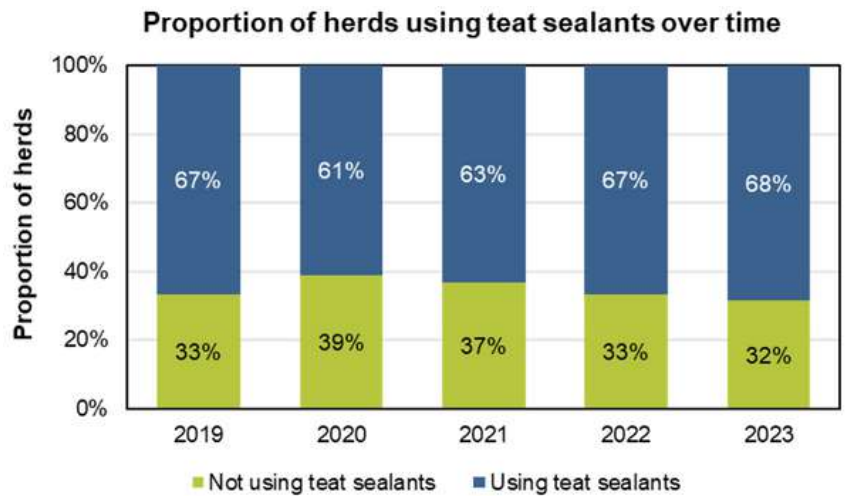


Figure 13 - Proportion of herds using teat sealants over time

There were 109 herds that didn't use any dry cow therapy antibiotics, 10 more herds compared to last year.



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PRODUCTS OVERVIEW

Of the top 10 products, 8 of them are injectable with there being a lot of similarity across the herds on what products are being utilised. It is worth noting the significant impact the use of oral antimicrobial products can have on overall usage.

The data presented in this report is based on antimicrobial sales data only and not farm records of usage. As such we do not have access to information on what diseases/conditions the products are being utilised for. Table 5 shows the top 10 products by total mg of antimicrobials.

There is one oral product in the top 10 products by total mg of antimicrobials, even though it is only used by 51 herds. Oral administration of antimicrobials (especially to groups of animals) carries with it a higher risk of developing antimicrobial resistance when compared to other routes of administration (e.g. by injection or via tube) and so it is important that farms consider alternatives to this practice wherever possible.

Product Name	Product Application Method	Antimicrobial Class	No of Herds using Product	Total Usage (mg)
Pen & Strep	Injectable	Aminoglycoside, Penicillin	812	298,286,061
Diatrim	Injectable	Sulphonamide, Anisole	581	147,750,921
Synulox RTU	Injectable	Penicillin	689	127,736,911
Betamox	Injectable	Penicillin	609	114,369,001
Chloromed	Oral	Tetracycline	51	80,063,250
Pharmasin Inj	Injectable	Macrolide	347	64,721,515
Tylan 200	Injectable	Macrolide	308	47,928,278
Ubrostar Red	Dry Cow Tube	Aminoglycoside, Penicillin	501	37,353,006
Engemycin 10%	Injectable	Tetracycline	541	36,509,637
Alamycin LA 300	Injectable	Tetracycline	179	35,697,672

Table 5 - Top 10 products used ordered by total active ingredient volume (mg)

The annual medicines review required for farm assurance should be viewed as an opportunity to drive herd improvement. Done properly they can provide valuable insight into a herd's health challenges enabling the setting of focussed targets for improvements in the coming months. Reviews should examine the usage patterns and offer the opportunity for discussion on how products have been utilised in the last 12 months.

Current treatment protocols should be reviewed to ensure they are still effective, and the optimum product is being used for each condition. It is also important to discuss steps to avoid the need for antimicrobial treatment in the future, either through improvements in management or use of products such as vaccines.

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REGIONAL TRENDS

Breaking down the data into regions has shown that every region has reduced its total antimicrobial usage compared to last year with all regions now sitting below the 2024 target of 17.9 mg/kg PCU.

Figure 14 illustrates that antimicrobial usage has reduced across all areas of the UK with Wales having the biggest difference with a 31% reduction compared to last year, followed by the North region which was 16% below last year at 17.8 mg/kg PCU which is now just below the 2024 target of 17.9 mg/kg PCU. South/ South East and Midlands remain to be the lowest using regions which is comparable to last year.

Antimicrobial Use by Region (March 2023 year end)	South West	South / South East	Midlands	North	Wales	Scotland
% of herds	39%	5%	6%	16%	16%	17%
Herd size	215	177	124	159	209	166
Yield per cow (litres)	7,554	7,876	6,722	7,654	7,283	7,487
Somatic cell count ('000)	155	179	176	167	166	171
1) Critically important injectables (mg/kg PCU)	0.001	0.000	0.015	0.025	0.012	0.031
2) Critically important intra-mammary (DCDVet)	0.000	0.000	0.001	0.001	0.004	0.005
3) Dry cow tubes (DCDVet)	0.408	0.395	0.449	0.517	0.456	0.498
4) Lactating cow tubes (DCDVet)	0.444	0.612	0.454	0.355	0.426	0.409
5) Sealant tube usage (courses/cow)	0.52	0.57	0.97	0.30	0.41	0.34
6) Total antimicrobial usage (mg/kg PCU)	12.8	11.7	11.7	17.8	12.6	14.1

Table 6 - Antimicrobial use by region

Looking at the other KPI's, sealant tube usage has seen little change in the usage by each region except in the Midland's which has increased from 0.32 courses/cow to 0.97 this year.

Examining the data closer, the Midlands area consists of 25 different vet practices with a similar number of farms, so this dramatic change is not due to 1 or 2 vet practices promoting this use but looks to be a whole region focus. The North and Scotland still have a way to come to increase their sealant tube usage.

Total antimicrobial usage by Region (mg/kg PCU)

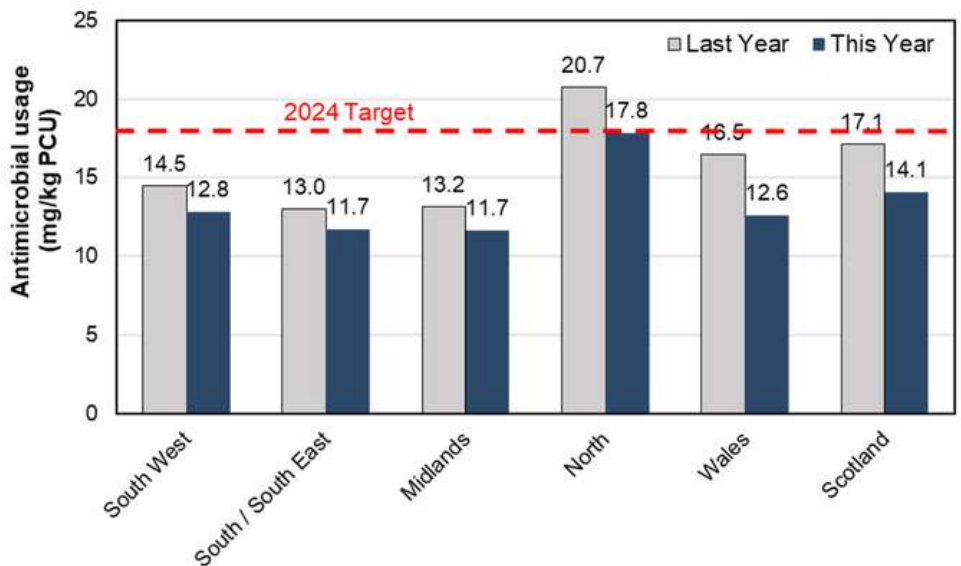


Figure 14 - Total antimicrobial use by region (this year vs last year)



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 Recommendations



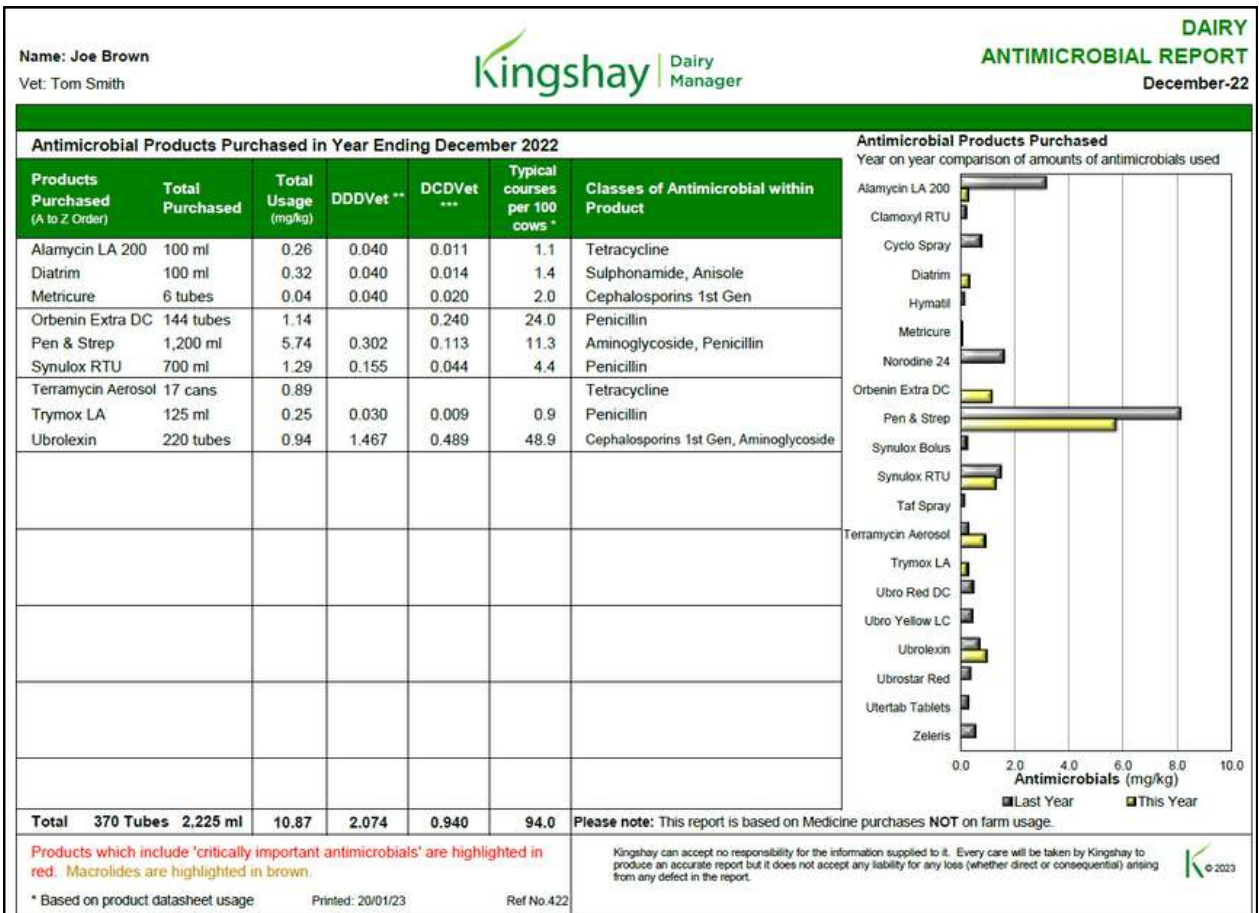
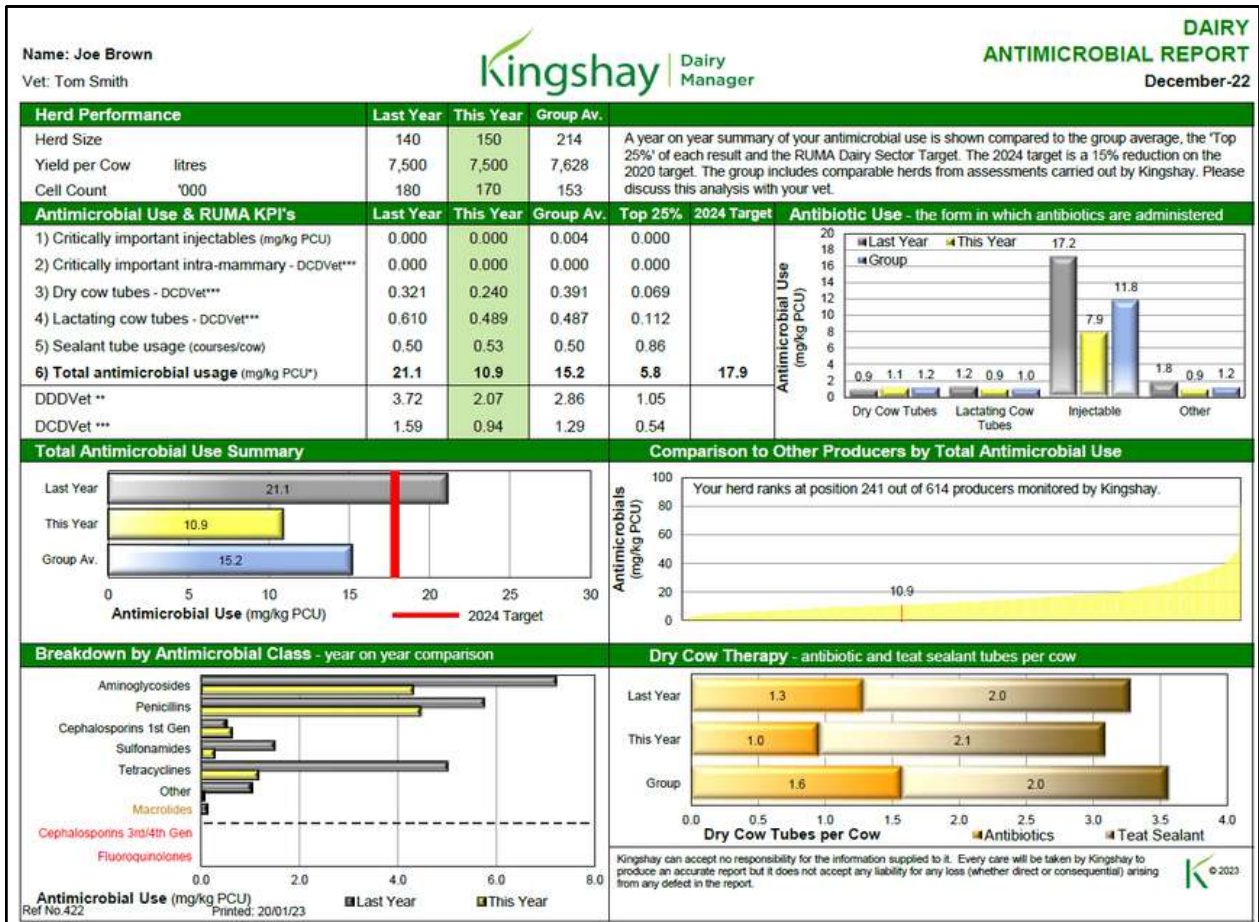
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APPENDIX

Examples are shown below of the Dairy Antimicrobial Reports issued to farmers/vets for individual herds as part of the Antimicrobial Monitoring Service.



GLOSSARY

Term	Definition
Antibiotic	A medicine used to prevent and treat bacterial infections specifically. This report is primarily focused on the use of antibiotics, as a subset of wider antimicrobials.
Antimicrobial	A product which kills or slows the spread of a range of microorganisms, including bacteria, viruses, protozoans, and fungi. Antibiotics are antimicrobials.
Critically Important Antimicrobial (CIAs)	Identified by European Medicines Agency as being of most importance in human medicine (category B). CIAs consist of 3rd and 4th generation cephalosporins, fluoroquinolones and polymyxins.
DCDVet (Defined Course Dose)	The assumed average dose per kg animal per species per treatment.
DDDVet (Defined Daily Dose)	The assumed average dose per kg animal per species per day.
EMA	European Medicines Agency
mg/kg PCU (Population Corrected Unit)	Milligrams per kilogram PCU, the unit of measurement developed by the European Medicines Agency to monitor antibiotic use and sales across Europe, which has also been adopted by the UK in its national reports. Uses average weight at time of treatment (calculated as average weight over whole lifetime). Calculation assumes all beef animals are for slaughter.
RUMA (Responsible Use of Medicines in Agriculture Alliance)	Is a unique, independent non-profit group involving organisations that represent all stages of the food chain from 'farm to fork'. RUMA aims to produce a co-ordinated and integrated approach to best practice in animal medicine use. It has an established communications network with government departments and many non-governmental organisations.

ANTIMICROBIAL PROJECT TEAM



CHRISTINA FORD

Product Owner

Christina joined Kingshay in 2019. Her main role is developing, testing and promoting the DigiFarm website & App for the vets, as well as managing the antimicrobial projects.



KATHRYN ROWLAND

Senior Farm Services Manager

Kathryn joined in 2002 and now manages the Dairy Manager service. A key part of her role is analysing key performance data and writing technical articles for publication.



TIM POTTER

Senior Clinical Director

Tim is part of the Kingshay leadership team. Since completing his PhD examining antimicrobial resistance in calf pneumonia, he regularly delivers training both nationally and internationally on the responsible use of medicines and calf health.



MARY-KATE FOSTER

Farm Services Specialist

Mary-Kate is responsible for the smooth running of the antimicrobial service for key corporate clients. She joined the team in 2021 and deals with any technical queries and customer support related tasks.



Providing Evidence-Based Livestock Solutions

DAIRY ANTIMICROBIAL FOCUS REPORT 2023

**PUT OUR INDEPENDENT INFORMATION, SERVICES
AND ADVICE TO WORK ON YOUR FARM TO BUILD
A HEALTHIER, MORE PROFITABLE FUTURE.**

Technical Knowledgebase

Our Dairy Insight users have a wealth of dairy industry knowledge at their fingertips, via the Kingshay App, the internet and regular mailings. We also offer membership options for veterinary practices, farm advisers, colleges, universities and corporate bodies.

Dairy Manager

The UK's leading dairy costings service includes options for targeted reports, allowing you to create and monitor regular production forecasts, highlight key health issues, compare your herd to similar herds and calculate your bottom-line profit and antimicrobial use.

Consultancy & Training

Our team of Agricultural Consultants and Associates bring their skills and expertise to your door wherever you farm in the UK. We offer tailored workshops on a wide range of subjects, to suit your specific requirements.

Tools and Analysis

We provide the everyday analysis and tools every dairy farmer needs to maximise their resources, from soil analysis to plate meters.

Data Services

A growing part of Kingshay is developing bespoke tools and services to organisations across the agricultural industry. Our unique combination of farming expertise & technical IT skills enable us to provide an Online Portal, Phone Apps, Data Integration and Big Data Management.

FarmIQ

An online training provider for farmers. Providing courses created by vets and industry leaders for further training and assurance certification. Kingshay members get exclusive discount and offers for specific courses.

For any further information on the above services, call our team on [01458 851555](tel:01458851555).



Search 'Kingshay Farming'

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