# Kingshay

Providing Evidence-Based Livestock Solutions

## ANTIMICROBIAL FOCUS ANNUAL REPORT 2022

- DAIRY 5 YEAR ANTIMICROBIAL TRENDS
- DAIRY HERD YEAR ON YEAR
  COMPARISONS
- DAIRY HERD LEVEL COMPARISONS
- REGIONAL DAIRY TRENDS
- DRY COW THERAPY
- BEEF TRENDS

## WELCOME

Welcome to the second edition of the Kingshay Antimicrobial Focus Report. This report summarises the antimicrobial purchasing trends from dairy and beef herds across the UK, providing valuable insight into how the sector is currently performing with respect to antimicrobial usage and highlighting key areas where there is potential for further improvement.

The Veterinary Antimicrobial Resistance and Sales Surveillance 2021 report showed that overall, UK antibiotic sales for food-producing animals have reduced by 55% since 2014. This significant reduction highlights the success of the collaborative approach between everyone working in UK agriculture to ensure antimicrobials are used responsibly.

In this, the second edition of the Kingshay Antimicrobial Focus Report we will look in more detail at the antimicrobial usage trends in the UK dairy and beef sector. This report draws from 5 years of data from over 1,000 producers across the UK. The data has been collected as part of Kingshay's Antimicrobial Monitoring Service, which was developed in 2018 in response to a need from vets and producers for accurate, clear, and concise reporting of farm medicine usage.

As we continue to work to reduce the antimicrobial usage in the sectors, we are going to need to become more focussed in our approaches; working in a targeted way to address specific disease challenges or farm management practices that are driving antimicrobial usage. To do this, it will be essential for farms and their vets to have clear insight into the antimicrobial usage patterns of their herds enabling identification of areas of highest usage for which changes in management and disease control strategies can be put in place. Reports provided by the Kingshay Antimicrobial Monitoring Service enable farmers to easily meet the reporting requirements of farm assurance schemes and milk purchasers. The reports provide detailed analysis of which products have been bought and in what volume, and are designed to provide clear, accurate and actionable insights.

#### To find out more about our **Antimicrobial Monitoring Service** and other services that Kingshay offer, please call us on **01458 851555**, email **contact.us@kingshay.co.uk** or visit **www.kingshay.com**

Report authors Kathryn Rowland, Christina Ford and

Tim Potter.



Examples of Antimicrobial Monitoring Service Reports (see appendix)

## CONTENTS

Summary	3				
Dairy Trends Over 5 Years	4				
Dairy Herd Changes Year on Year	7				
Dairy Herd Level Comparisons	8				
Dairy Herd Quartile Analysis	9				
Regional Dairy Trends	10				
Dry Cow Therapy	11				
Beef Trends	13				
Appendix					
Glossary					
Meet the Team					



## SUMMARY

## This is the 5th year that Kingshay has been monitoring antimicrobial usage. For the period ending March 2022, there were 1,044 dairy herds and 60 beef herds analysed and included in this report.

Analysis of dairy herds supplying data to Kingshay's antimicrobial service shows that 69% of herds are already below our 2024 target of 17.9 mg/kg. This target has been calculated based on a 15% reduction of the 2020 RUMA target of 21 mg/kg PCU.

Trends in *Figure 1*, highlight that whilst there have been significant reductions in usage since 2018, the rate of reduction is slowing. There has already been a lot of work done to move away from products such as critically important antimicrobials (CIAs), and to reduce prophylactic and metaphylactic use. Whilst we are not aiming

Total Dairy Herd Antimicrobial Usage (mg/kg PCU) 25 21.7 usage 2024 Target 20 Antimicrobial usa (mg/kg PCU) 17.7 15.7 15.9 15.5 15 10 5 0 2018 2019 2020 2021 2022

Figure 1 – Antimicrobial use trends over 5 years

to drive the dairy industry towards zero antibiotic use, the next steps where "easy wins" have already been implemented, will be to improve herd health and invest in preventative strategies to reduce endemic diseases that require treatment with antimicrobials.

Teat sealant usage has increased with 67% of herds using selective dry cow therapy, compared to 63% the previous year (see page 11). This has led to a slight increase from 0.39 courses/cow in 2021 to 0.41 courses/cow but is still lower than the RUMA target of 0.70 courses/cow that was set for 2020, so there is potential for more progress on this.



Figure 2 – Range of antimicrobial use by individual dairy herds

There is still a wide range in antimicrobial usage for dairy herds included in this report from 0.26 to 87.17 mg/kg PCU. This report highlights that the highest 25% of users contribute 49% of the total antimicrobial usage so vets and advisors need to focus on these herds to ensure further progress is made (see page 7). Further analysis of individual herds shows that it is not always the same herds that appear in the highest 25% by usage, indicating that there needs to be an ongoing commitment to responsible use.

Analysis by route of administration (*Figure 13* on page 9) shows that for all herds, between 70% and 76% of their usage comes from injectable products, which will generally be used for the treatment of individual sick cows. Reducing the need for these treatments should be a focus area for all herds irrespective of their current usage.

The report also reviews antimicrobial use by region (see page 10). There were noticeable differences between regions, particularly in the North, where usage of 20.7 mg/kg PCU was higher than other regions. As in previous years there was no correlation between antimicrobial use and calving pattern, milking frequency, housing period or breed, proving that any herd should be able to achieve reductions in their antimicrobial usage.

Analysis of beef herds using Kingshay's antimicrobial service reported an average of 11.5mg/kg PCU with a range from 0.3 to 66.2 mg/kg PCU (see page 13).



Figure 3 – Range of antimicrobial use by individual beef herds

Injectables accounted for 9.7 mg/kg PCU and oral products 1.1 mg/kg PCU.

## DAIRY TRENDS OVER 5 YEARS

When comparing antimicrobial usage over the last 5 years, there has been a 27% reduction since 2018, with total antimicrobial usage dropping to 15.5 mg/kg PCU in 2021. However, the latest year (to March 2022) has seen a slight increase on the previous year to average 15.9 mg/kg PCU.

Overall usage has plateaued in the last 3 years rather than reducing further. When comparing to industry targets, 76.5% of herds are now below RUMA's previous target of 21 mg/PCU set in 2017. The RUMA Target Task Force has now revised their targets, but specific figures for overall usage are yet to be published. The aim is to achieve a 15% reduction by 2024, so based on the previous target figure we have benchmarked against a target of 17.9 mg/kg PCU.

Antimicrobial Use (March year end)	2018	2019	2020	2021	2022
1) Critically important injectables (mg/kg PCU)	0.848	0.301	0.039	0.017	0.014
2) Critically important intra-mammary (DCDVet)	0.188	0.075	0.009	0.008	0.003
3) Dry cow tubes (DCDVet)	0.509	0.512	0.484	0.471	0.454
4) Lactating cow tubes (DCDVet)	0.833	0.596	0.558	0.491	0.471
5) Sealant tube usage (courses/cow)	0.61	0.41	0.36	0.39	0.41
6) Total antimicrobial usage (mg/kg PCU)	21.7	17.7	15.7	15.5	15.9

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

The results suggest that herds are well 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.

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 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.

## CRITICALLY IMPORTANT ANTIMICROBIALS (CIAs) Percentage of herds using Critically Important Antimicrobials



When comparing the percentage of herds using CIAs over the years, the most recent year (period ending March 2022) was similar to 2021 at 6.7% of herds, but had reduced from 79.1% in 2018, which is a massive achievement and should be commended. The increased awareness of their importance in human health along with the change in the Red Tractor Standards in 2018, stating that CIAs must only be used as a last resort under veterinary direction and following culture and sensitivity, have played a key role in their reduction.



## DAIRY TRENDS OVER 5 YEARS

#### ANTIMICROBIAL ADMINISTRATION

Previously there has been a strong focus within the dairy industry on reduction of tube usage, either through the adoption of selective dry cow therapy or the control of clinical mastitis to reduce antimicrobial usage, however, there is more potential for a reduction in the use of injectable antimicrobial products, as seen in *Figure 5.* The amount of injectables is



considerably higher than the *Figure 5 – Trends in antimicrobial administration over the last 5 years* other categories and usage has started to creep up in the last 3 years. The "Other" category includes topical and intrauterine products.

The success in reducing the usage of antimicrobials in managing udder health needs to be maintained and it is important for the industry to consider other diseases which require treatment with antimicrobials. We have had clear messaging about reducing prophylactic and metaphylactic use but now we need to reduce the number of individual cases of disease we are treating with antibiotics. The disease challenges will be farm specific and farms will need to focus on management changes, nutritional management and the use of vaccines to prevent disease and achieve further reductions in antimicrobial usage.

### 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 to 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.

## Kingshay Dairy Manager

## Dairy Manager, the UK's leading dairy costings service enables you to track your costs and your herd health status.

Our packages include 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.

YOUR FIRST MONTHS FREE OF CHARGE\*

Call the Dairy Manager Team on **01458 851555** for more information or register today at www.kingshay.com

\*First two months FREE OF CHARGE does not apply to Profit Manager or the Antimicrobial Reporting service.

## DAIRY TRENDS OVER 5 YEARS

### **EMA CLASSIFICATION**

**Figure 6** highlights the change in proportion over the 5 years for the 3 European Medicines Agency (EMA) categories. None of the farms analysed used any products from the Avoid (A) category.

Encouragingly there is a slight shift in the percentage of products used in the Prudence (D) category, compared to 2021 figures, however 2020 is still the best out of all 5 years, as the proportion of Caution (C) & Restrict (B) products used is at its lowest. Products in the Restrict (B) category have reduced from 3.31% in 2018 to 0.08% in 2022.



Figure 6 - 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

Figure 7 - EMA Definitions

#### ANTIMICROBIAL CLASS

Penicillin based products still contribute the highest mg/kg PCU of all the antimicrobial classes but continue to see a reduction year on year. Purchase volumes of sulfonamides have remained comparatively consistent across the period, whilst purchases of CIAs (highlighted in red) have dropped significantly and stayed low. There has been a slight increase in the use of macrolides in 2022. Previously a year-on-year reduction was seen. There has been a continued increase in the usage of tetracyclines over the last 5 years which is likely to be driven by the adoption of these Prudence (Category D) products in favour over other products.



#### **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



## DAIRY HERD CHANGES YEAR ON YEAR

## When comparing year on year trends, a similar picture can be seen, although it is not always the same herds that can be found in the highest 25% each year.

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, and some herds had seen a reduction.

*Figure 9* demonstrates the change in antimicrobial use from 2021 to 2022. Of the 774 herds that supplied data for both years, 380 herds reduced their usage by an average of 5.91 mg/kg PCU. However, 394 herds increased their usage by an average of 5.89 mg/kg PCU. Some small changes in usage may be due to supply/availability of certain products and the swapping to alternative ones, which may have different dose rates or course lengths.



## Change in Antimicrobial Use (2022 vs 2021)

#### Figure 9 – Change in antimicrobial use (2022 vs 2021)

Within the highest 25% of antimicrobial users, 49% of herds had stayed in the highest 25% in both 2022 & 2021, with 54% of those herds increasing in antimicrobial use on the previous year. This highlights the need for further work to be focussed on the higher users in order to bring about significant and consistent reductions in antimicrobial usage across the UK dairy sector.

**Table 2** gives further detail on the changes year on year by quartile highlighting that the highest 25% of producers are not engaging with the issue of responsible use and progressing as well towards the industry targets as producers in other quartiles.

This highlights the need for vets and advisors to focus their work to engage with higher users to change current practices around antimicrobial usage, as well as maintaining the general messages across all farms.

Changes Year on Year by Quartile (mg/kg PCU)	Lowest 25%	2nd 25%	3rd 25%	Highest 25%
% of herds showing a decrease	52%	38%	36%	20%
% of herds showing an increase	23%	35%	40%	54%
Average change on last year	-2.40	-1.76	0.13	4.42
Range of change on last year				
Min change	-28.3	-35.9	-34.4	-40.7
Max change	5.4	8.6	15.2	30.2

Table 2 - Changes year on year in antimicrobial use by quartile (2022 vs 2021)

## DAIRY HERD LEVEL COMPARISONS

There is still a wide range of antimicrobial use seen in the herd analysis for 2022, a similar range to 2021, with 69% of herds demonstrating total usage lower than our 17.9 mg/kg PCU target for 2024.



Figure 10 - Range of total antimicrobial use by individual herd (year ending March 2022)

Ranking herds from the lowest to highest shows a range of 0.26 to 87.17 mg/kg PCU, similar to 2021 data. Of the 1,044 herds analysed, 717 herds (69%) demonstrated total usage lower than the 17.9 mg/kg PCU target for 2024. There are still improvements to be made, particularly in the highest which are contributing 25%, 49% of the overall antimicrobial usage. Industry monitoring and benchmarking, such as this, helps highlight the farms where further work is required, and then individual herd analyses can be used by vets and farmers to formulate targeted plans for improvement.

#### HERD SIZE & MILK YIELD CORRELATIONS

Analysis by herd size and milk yield show a similar spread to 2021, although there is no correlation statistical seen antimicrobial on usage as demonstrated in Figures 11 & 12. Herds that are low/high yielding, a small/large herd or a flying herd, should have no excuses, as there are herds across the scale that are proving low antimicrobial usage can be achieved through good herd health.

There was also no correlation seen between calving pattern, milking frequency, housing period or breed. However, there were some notable trends when analysed by region, as shown on page 10.



Figure 11 - Total antimicrobial use compared to herd size (year ending March 2022)





## DAIRY HERD QUARTILE ANALYSIS

### Analysing the data by quartiles (ranked by total antimicrobial usage) shows some interesting trends, particularly for the highest 25%, averaging 31.3 mg/kg PCU in 2022.

The total antimicrobial usage was the same in nearly all the quartiles compared to 2021 (see *Table 3*), apart from the highest 25%, which rose by 1.4 mg/kg PCU from 29.9 to 31.3 mg/kg PCU. This suggests that the slight increase in the overall average of 15.9 mg/kg PCU could be due to the increased usage in the highest quartile.

Antimicrobial Use By Quartile (mg/kg PCU)	Lowest 25%	2nd 25%	3rd 25%	Highest 25%
1) Critically important injectables (mg/kg PCU)	0.008	0.017	0.011	0.020
2) Critically important intra-mammary (DCDVet)	0.003	0.002	0.002	0.004
3) Dry cow tubes (DCDVet)	0.342	0.456	0.471	0.533
4) Lactating cow tubes (DCDVet)	0.307	0.399	0.493	0.675
5) Sealant tube usage (courses/cow)	0.36	0.45	0.40	0.44
6) Total antimicrobial usage (mg/kg PCU)	5.4	10.5	16.3	31.3
Change on last year (mg/kg PCU)	0.0	0.1	0.0	1.4
DDDVet	1.38	2.18	2.90	4.69
DCDVet	0.72	1.09	1.33	1.94

Table 3 - Quartile analysis of antimicrobial usage (year ending March 2022)

### **QUARTILE ANALYSIS BY ROUTE OF ADMINISTRATION**

Analysing the antimicrobial usage by routes of administration provides a useful insight into what is contributing to the total usage on farms.

For all herds, injectable antimicrobials make up the largest proportion of their antimicrobial usage (ranging between 70% and 76%) and reductions in this area highlight the biggest opportunity for reducing overall herd usage.

On farm the usage of injectable antimicrobials will generally be for the treatment of individual animals, so to achieve reductions, these farms should focus on disease prevention and working with their veterinary surgeons to optimise product selection and treatment protocols.



Antimicrobial usage by Administration

Figure 13 - Antimicrobial administration by quartile (year ending March 2022)

The data highlights the high usage of oral antimicrobials in herds within the highest 25% of users with herd using on average 4.3 mg/kg PCU which is 4 times as much as herds in the 3rd guartile and 43 times as much as herds in the lowest quartile. Oral products (such as chloromed and parafor) are frequently used for group treatments of youngstock and the data demonstrates how such usage impacts a herd's overall usage figure. Oral administration to groups of animals has been highlighted by the EMA as having the highest estimated impact on antimicrobial resistance. Herds should work to avoid the need for prophylactic and metaphylactic group treatments by implementing management changes and preventing disease outbreaks through the use of vaccinations.

## **REGIONAL DAIRY TRENDS**

Breaking down the analysis into region highlighted the South / South East regions to have the lowest use, averaging 13.0 mg/kg PCU and the North region to be the highest at 20.7 mg/kg PCU. A more detailed analysis would be needed to understand why these differences exist, as herd size and milk yield suggests similarities between all regions.

Antimicrobial Use by Region (March 2022 year end)	South West	South / South East	Midlands	North	Wales	Scotland
% of herds	41%	5%	8%	13%	16%	17%
Herd size	213	188	126	156	202	166
Yield per cow (litres)	7,630	8,018	7,164	7,690	7,210	7,470
Somatic cell count ('000)	157	182	186	167	162	172
1) Critically important injectables (mg/kg PCU)	0.002	0.000	0.016	0.036	0.018	0.024
2) Critically important intra-mammary (DCDVet)	0.000	0.000	0.008	0.001	0.004	0.006
3) Dry cow tubes (DCDVet)	0.416	0.350	0.439	0.551	0.452	0.507
4) Lactating cow tubes (DCDVet)	0.476	0.605	0.581	0.424	0.406	0.464
5) Sealant tube usage (courses/cow)	0.50	0.55	0.32	0.28	0.40	0.32
6) Total antimicrobial usage (mg/kg PCU)	14.5	13.0	13.2	20.7	16.5	17.1

Table 4 – Antimicrobial use by region

Table 4 illustrates a higher usage in the North, Scotland and Welsh regions compared to the Southern regions. In our analysis herds in the North had total antimicrobial usage 44% higher than the Southwest. Looking at the highest 25% users of antimicrobial products, 40% of the herds located in the North region were in this highest quartile.

Another interesting trend that needs more investigation is the difference in the teat sealant usage. The Northern and Welsh areas appear to have lower teat sealant usage compared to the Southern regions. Implying that maybe more focus and education of dry cow management and teat sealant usage might be more beneficial here. There is also regional variation in the usage of Critically important antimicrobials highlighting the need for more targeted education and interventions.

Total antimicrobial usage by Region (mg/kg PCU)



Figure 14 – Total antimicrobial use by region

## **Q** ... the online training provider for farmers.

Connecting you with industry leading expertise.



## The Responsible Use of Medicines Course

Online training to meet the requirements for farm assurance.

- **Red Tractor Approved**
- **Easy to access**
- **Cost effective** Ϊ
- Vet led
- e:info@farmIQ.co.uk Valuable and engaging content w: farmIQ.co.uk

t: 01458 552209

## DRY COW THERAPY

The number of antibiotic tubes used in dry cow therapy has dropped further in 2022 to average 1.67 tubes per cow and the DCD Vet is 0.454 which is below the 0.54 figure reported in the RUMA Targets Task Force 2 report (published in November 2022). The use of teat sealant tubes has increased to 1.64 tubes per cow.

Teat sealant usage saw a fall from 2.45 tubes per cow in 2018 down to 1.44 tubes per cow in 2020. However, this usage is gradually rising year on year back up to levels seen in 2019.

Dry Cow Therapy (tubes per cow)	2018	2019	2020	2021	2022
Antibiotics	1.94	1.91	1.77	1.75	1.67
Teat sealants	2.45	1.66	1.44	1.54	1.64

There were 99 herds that didn't use any antibiotic dry cow tubes at all during drying off.

Table 5 - Dry cow therapy (antibiotics vs teat sealants)

The continued adoption of selective dry cow therapy and increased usage of teat sealants still plays a key role in the strategy to reduce "unnecessary" antimicrobial use. Improving overall herd health and welfare by implementing preventative measures can play a more important role in the battle to reduce antimicrobial use in dairy cattle.

When using teat sealants, it is important to follow protocols closely, avoiding teat sealant products getting in the milk and administering them correctly, as poor technique without antimicrobials can be bad. Farms should regularly review how they are using teat sealants as part of their dry cow therapy protocols with their vet.



Figure 15 – Proportion of herds using teat sealants over time

Proportion of herds using teat sealants over time



# FREE Are you fed up of playing the TB Advice TB lottery?

Experienced advisers are available to give bespoke TB biosecurity advice by telephone or during two on-farm visits, to discuss how to reduce the risk and impact that bovine TB could have on your farm.

To find out more please contact us:

-			1000		
2	Into	ati	Das.	ore.	uк
				- 0	-

№ tbas.org.uk

## 01306 779410

TBAS is an entirely vet-led advisory service, funded by Defra for farmers of all TB susceptible species in England





## **BEEF TRENDS**

## Antimicrobial usage of beef herds for the year ending March 2022 reported an average use of 11.5mg/kg PCU with a range from 0.3 to 66.2 mg/kg PCU.

The RUMA taskforce originally set a target of 10 mg/kg PCU to be achieved by 2020. According to our results, 36 of the 60 herds analysed (60% of herds) were below this target with their 2022 data, so there is potentially still a way to go on achieving this.

**Figure 16** highlights the range of these farms, which looks fairly similar to the dairy results, with the highest 25% bringing up the average. One herd, in particular, stands out within this dataset as a very high user. However, this range may be due to different systems within the UK beef industry. Further analysis by herd production systems is needed to fully understand the differences within this range.

The use of critically important antimicrobials has been discouraged, similar to the dairy sector, and it was observed that no beef herds used any products in the Restrict category (B). Of the products used, 69.3% were in the Prudence category (D) which is a higher proportion than the dairy herds at 49.1%. 36% of beef herds only used products from the prudence category (D).

Injection is the most common route of administration with 9.7 mg/kg PCU coming from this method, followed by oral products at 1.1 mg/kg PCU and 'other' at 0.7 mg/kg PCU.

**Figure 17** shows a breakdown by antimicrobial class, highlighting Tetracyclines as the most commonly used



Figure 16 – Range in antimicrobial use by individual beef herd (year ending March 2022)



Figure 17 – Beef antimicrobial use by antimicrobial class (year ending March 2022)

products at 5.5 mg/kg PCU, followed by Penicillin products at 2.9 mg/kg PCU and then Aminoglycosides at 1.3 mg/kg PCU.

It should be noted that while these results give valuable insight, this is a relatively small group of herds covering a range of beef production systems.

## APPENDIX

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



Name:	Joe	Brown

Vet: Tom Smith

## Kingshay Manager

#### DAIRY ANTIMICROBIAL REPORT December-22

Antimicrobial	Products Pur	chased in	n Year Endi	ing Decem	ber 2022		Antimicrobial Pro	oducts Purchase	d	
Products Purchased (A to Z Order)	Total Purchased	Total Usage (mg/kg)	DDDVet **	DCDVet	Typical courses per 100 cows *	Classes of Antimicrobial within Product	Alamycin LA 200 Clamoxyl RTU	inson of amounts of	antimicrobials	Lused
Alamycin LA 200	) 100 ml	0.26	0.040	0.011	1.1	Tetracycline	Cyclo Spray			
Diatrim	100 ml	0.32	0.040	0.014	1.4	Sulphonamide, Anisole	Diatrim n			
Metricure	6 tubes	0.04	0.040	0.020	2.0	Cephalosporins 1st Gen	Hymatil			
Orbenin Extra D	C 144 tubes	1.14		0.240	24.0	Penicillin	Matricum			
Pen & Strep	1,200 ml	5.74	0.302	0.113	11.3	Aminoglycoside, Penicillin	interiore interiore			
Synulox RTU	700 ml	1.29	0.155	0.044	4.4	Penicillin	Norodine 24	_		
Terramycin Aeros	ol 17 cans	0.89				Tetracycline	Orbenin Extra DC			
Trymox LA	125 ml	0.25	0.030	0.009	0.9	Penicillin	Pen & Strep			i i
Ubrolexin	220 tubes	0.94	1.467	0.489	48.9	Cephalosporins 1st Gen, Aminoglycoside	Synulax Bolus		_	
							Synulox RTU	-		
							Taf Spray	_		
							Terramycin Aerosol			
							Trymox LA	-		
							Ubro Red DC			
							Ubro Yellow LC			
							Ubrolexin 🚍	5		
							Ubrostar Red	-		
							Utertab Tablets			
							Zeloris 🖬			
							0.0	2.0 4.0	6.0 8.0	0 10.0
								Antimicrobi	als (mg/kg)	
Total 370 Tu	bes 2,225 ml	10.87	2.074	0.940	94.0	Please note: This report is based on Medic	ine purchases NOT on	farm usage.		Jar
Products which i red. Macrolides	Products which include 'critically important antimicrobials' are highlighted in red. Macrolides are highlighted in brown. Kingshay can accept no responsibility for the information supplied to it. Every care will be taken by Kingshay to produce an accurate report but it does not accept any lability for any loss (whether direct or consequential) arising from any detect in the report.						K 0 2023			
* Based on product datasheet usage Printed: 20/01/23 Ref No.422										

## 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 Antimicrobials (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.
	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



#### 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. She also runs the Profit Manager service and business management training workshops.



#### **SIMON WITHERS** Business Development Manager

Simon joined Kingshay in 2020 and is a key member of the Kingshay leadership team, focussed on supporting existing customers and developing further sales within Kingshay's services.



#### **RICHARD SIMPSON** Development Director

Richard has been heavily involved in the design, development and operation of Dairy Manager from the beginning, having joined Kingshay in 1994. He now oversees all of our development projects, alongside leading the Kingshay team.







#### **CHRISTINA FORD** *Product Owner*

Christina manages the antimicrobial reporting service alongside other corporate projects and joined Kingshay in 2019. Her main role is developing, testing and promoting the DigiFarm website & App for the vets.

#### **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 Dairy Manager queries.

#### **TIM POTTER** Senior Clinical Director

Tim is part of the Kingshay Leadership team. Since completing his PhD examining antimicrobial resistance in calf pneumonia his research focus has been on the responsible use of medicines and calf health, regularly delivering training on these topics both nationally and internationally.

# Kingshay

Providing Evidence-Based Livestock Solutions

## 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**.



Search 'Kingshay Farming'

Bridge Farm, West Bradley, Glastonbury, Somerset, BA6 8LU T: 01458 851555 E: contact.us@kingshay.co.uk

## WWW.KINGSHAY.COM

All rights reserved. All information provided by Kingshay in this report is copyright and is not to be reproduced, stored or transmitted in any form or distributed to other persons without written permission of Kingshay. DISCLAIMER: Kingshay can take no responsibility for the consequences of actions carried out as a result of the information contained in this report.