Autoriteit Diergeneesmiddelen

Appendix to the report

Usage of Antibiotics in Agricultural Livestock in the Netherlands in 2025

Trends and benchmarking of livestock farms and veterinarians

SDa-expert panel

June 2026
Revision July 6th 2026

Autoriteit Diergeneesmiddelen

Contents

$DDDA_{NAT}$ summary

Table A1. $DDDA_{NAT}$ values for the 2021-2025 period, by livestock sector and pharmacotherapeutic group

	Broiler farming sector					Turkey farming sector					Pig farming sector				
Pharmacotherapeutic group	**2021**	**2022**	**2023**	**2024**	**2025**	**2021**	**2022**	**2023**	**2024**	**2025**	**2021**	**2022**	**2023**	**2024**	**2025**
1st-choice antibiotics	**1.75**	**1.56**	**1.86**	**1.75**	**2.67**	**6.73**	**4.86**	**2.76**	**5.12**	**2.38**	**5.47**	**3.93**	**4.03**	**4.36**	**3.86**
As a proportion of overall AB use	**27.7%**	**26.7%**	**27.0%**	**33.7%**	**41.2%**	**51.8%**	**52.6%**	**45.4%**	**58.8%**	**47.5%**	**72.3%**	**68.2%**	**68.1%**	**65.9%**	**64.6%**
Amphenicols	*	*	*	*	*	*	*	*	*	*	0.33	0.32	0.33	0.33	0.30
Macrolides/lincosamides	0.06	0.03	0.03	0.01	*	*	*	*	*	*	0.44	0.32	0.34	0.43	0.46
Other	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Penicillins	0.58	0.39	0.56	0.53	0.92	0.95	0.66	0.95	0.48	0.35	0.53	0.48	0.45	0.46	0.43
Pleuromutilins	*	*	*	*	*	0.09	*	*	*	*	0.03	0.03	0.03	0.04	0.03
Tetracyclines	0.60	0.63	0.89	0.87	1.12	5.36	4.03	1.49	4.51	2.02	3.18	2.11	2.05	2.38	2.03
Trimethoprim/sulfonamides	0.52	0.50	0.39	0.35	0.63	0.33	0.18	0.31	0.13	0.01	0.97	0.68	0.82	0.72	0.62
2nd-choice antibiotics	**4.55**	**4.23**	**4.97**	**3.37**	**3.73**	**5.88**	**4.15**	**3.08**	**3.32**	**2.47**	**1.77**	**1.58**	**1.67**	**2.07**	**1.96**
As a proportion of overall AB use	**71.9%**	**72.4%**	**72.0%**	**65.0%**	**57.6%**	**45.2%**	**45.0%**	**50.6%**	**38.1%**	**49.3%**	**23.4%**	**27.4%**	**28.2%**	**31.2%**	**32.8%**
Aminoglycosides	0.00	0.00	0.01	0.04	0.02	*	*	*	*	0.04	0.02	0.02	0.01	0.01	0.01
Aminopenicillins	3.20	2.87	3.39	2.25	2.17	3.79	2.87	2.55	2.25	2.02	1.25	1.08	1.17	1.36	1.22
1st- and 2nd-gen. cephalosporins	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Quinolones	1.23	1.16	1.43	0.83	1.08	0.32	0.06	0.18	*	*	0.01	0.00	0.01	0.01	0.01
Fixed-dose combinations	0.01	0.04	0.04	0.14	0.29	*	*	*	*	*	0.02	0.02	0.02	0.09	0.09
Long-acting macrolides	*	*	*	*	*	*	*	*	*	*	0.46	0.46	0.46	0.46	0.63
Macrolides/lincosamides	0.11	0.16	0.10	0.12	0.16	1.77	1.23	0.35	1.07	0.41	*	*	*	0.14	*
3rd-choice antibiotics	**0.02**	**0.05**	**0.07**	**0.07**	**0.08**	**0.38**	**0.23**	**0.24**	**0.27**	**0.16**	**0.33**	**0.25**	**0.22**	**0.19**	**0.16**
As a proportion of overall AB use	**0.4%**	**0.9%**	**1.0%**	**1.3%**	**1.2%**	**3.0%**	**2.4%**	**4.0%**	**3.1%**	**3.2%**	**4.4%**	**4.4%**	**3.7%**	**2.9%**	**2.7%**
3rd- and 4th-gen. cephalosporins	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Fluoroquinolones	0.01	0.02	0.03	0.02	0.02	0.38	0.23	0.15	0.27	0.16	0.00	0.00	0.00	0.00	0.00
Polymyxins	0.01	0.03	0.03	0.05	0.05	*	*	0.09	*	*	0.33	0.25	0.22	0.19	0.16
Overall antibiotic use	**6.33**	**5.84**	**6.89**	**5.19**	**6.47**	**12.99**	**9.24**	**6.08**	**8.71**	**5.01**	**7.57**	**5.77**	**5.92**	**6.62**	**5.98**

0.00 refers to a usage level <0.005 $DDDA_{NAT}$; * refers to no use.

Table A1. (continued)

Pharmacotherapeutic group	Dairy cattle farming sector					Veal farming sector					Non-dairy cattle farming sector				
	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025
1st-choice antibiotics	**2.67**	**2.54**	**2.58**	**2.62**	**2.45**	**13.39**	**13.17**	**13.87**	**13.55**	**13.36**	**0.62**	**0.34**	**0.18**	**0.18**	**0.22**
As a proportion of overall AB use	**80.6%**	**80.2%**	**80.3%**	**80.3%**	**80.5%**	**86.4%**	**86.2%**	**84.4%**	**85.4%**	**84.4%**	**82.5%**	**80.1%**	**72.8%**	**72.3%**	**73.6%**
Amphenicols	0.05	0.05	0.05	0.04	0.04	1.09	1.04	1.06	0.97	0.94	0.06	0.04	0.04	0.03	0.03
Macrolides/lincosamides	0.09	0.09	0.09	0.10	0.10	2.88	2.95	3.13	3.11	3.17	0.10	0.05	0.01	0.01	0.02
Other	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Penicillins	1.98	1.89	1.93	1.94	1.84	0.33	0.30	0.25	0.24	0.23	0.09	0.08	0.08	0.08	0.07
Pleuromutilins	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Tetracyclines	0.30	0.26	0.25	0.26	0.22	8.14	7.90	8.15	7.89	7.73	0.33	0.15	0.04	0.05	0.08
Trimethoprim/sulfonamides	0.26	0.25	0.26	0.27	0.25	0.96	0.98	1.28	1.34	1.28	0.04	0.02	0.01	0.01	0.02
2nd-choice antibiotics	**0.64**	**0.62**	**0.63**	**0.64**	**0.59**	**2.10**	**2.09**	**2.53**	**2.30**	**2.42**	**0.13**	**0.08**	**0.07**	**0.07**	**0.08**
As a proportion of overall AB use	**19.2%**	**19.6%**	**19.5%**	**19.5%**	**19.3%**	**13.5%**	**13.7%**	**15.4%**	**14.5%**	**15.3%**	**16.9%**	**19.6%**	**26.9%**	**27.4%**	**26.2%**
Aminoglycosides	0.01	0.01	0.01	0.01	0.02	0.17	0.19	0.15	0.15	0.12	0.00	0.00	0.00	0.00	0.00
Aminopenicillins	0.30	0.26	0.30	0.31	0.25	1.37	1.20	1.60	1.45	1.57	0.06	0.03	0.02	0.02	0.02
1st- and 2nd-gen. cephalosporins	0.02	0.02	0.02	0.02	0.02	*	*	*	*	0.00	0.00	0.00	0.00	0.00	0.00
Quinolones	0.00	0.00	*	0.00	0.00	0.33	0.43	0.44	0.33	0.36	0.01	0.00	0.00	0.00	0.00
Fixed-dose combinations	0.29	0.30	0.28	0.28	0.28	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Long-acting macrolides	0.02	0.02	0.02	0.02	0.02	0.22	0.27	0.33	0.31	0.30	0.02	0.02	0.02	0.02	0.02
Macrolides/lincosamides	*	*	*	0.00	0.00	*	*	*	0.05	0.07	*	*	*	0.00	0.01
3rd-choice antibiotics	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.04**	**0.01**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
As a proportion of overall AB use	**0.2%**	**0.2%**	**0.2%**	**0.2%**	**0.2%**	**0.0%**	**0.1%**	**0.3%**	**0.1%**	**0.2%**	**0.7%**	**0.2%**	**0.2%**	**0.2%**	**0.2%**
3rd- and 4th-gen. cephalosporins	0.00	0.00	0.00	0.00	0.00	*	*	*	*	*	0.00	*	0.00	0.00	*
Fluoroquinolones	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Polymyxins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Overall antibiotic use	**3.32**	**3.16**	**3.21**	**3.26**	**3.04**	**15.50**	**15.27**	**16.44**	**15.86**	**15.82**	**0.75**	**0.43**	**0.25**	**0.25**	**0.30**

0.00 refers to a usage level <0.005 $DDDA_{NAT}$; * refers to no use.

Table A1. (continued)

Pharmacotherapeutic group	Rabbit farming sector 2021	2022	2023	2024	2025
1st-choice antibiotics	**29.54**	**20.87**	**21.58**	**17.94**	**16.58**
As a proportion of overall AB use	**84.2%**	**88.0%**	**83.9%**	**79.5%**	**75.1%**
Amphenicols	*	*	*	*	*
Macrolides/lincosamides	6.74	6.22	9.15	7.07	6.77
Other	11.00	9.08	8.39	5.97	4.50
Penicillins	*	*	*	0.00	*
Pleuromutilins	2.74	3.08	1.89	2.09	1.27
Tetracyclines	3.23	2.11	2.00	2.06	3.92
Trimethoprim/sulfonamides	5.82	0.38	0.16	0.75	0.12
2nd-choice antibiotics	**5.53**	**2.84**	**4.14**	**4.63**	**5.49**
As a proportion of overall AB use	**15.8%**	**12.0%**	**16.1%**	**20.5%**	**24.9%**
Aminoglycosides	5.09	2.48	3.59	4.04	4.94
Aminopenicillins	*	*	*	*	*
1st- and 2nd-gen. cephalosporins	*	*	*	*	*
Quinolones	0.44	0.35	0.54	0.53	0.20
Fixed-dose combinations	*	*	*	*	*
Long-acting macrolides	*	*	0.01	0.06	0.35
Macrolides/lincosamides	*	*	*	*	*
3rd-choice antibiotics	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
As a proportion of overall AB use	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
3rd- and 4th-gen. cephalosporins	*	*	*	*	*
Fluoroquinolones	*	*	*	*	*
Polymyxins	*	*	*	*	*
Overall antibiotic use	**35.07**	**23.71**	**25.71**	**22.57**	**22.06**

0.00 refers to a usage level <0.005 $DDDA_{NAT}$; * refers to no use.

Table A2. Reductions in the amount of antibiotics used in agricultural livestock, compared to 2009 levels (only livestock sectors with available $DDDA_{NAT}$ values for 2009 are included)

Livestock sector	$DDDA_{NAT}$ 2009	Reduction from the 2009 level, in % '15	'16	'17	'18	'19	'20	'21	'22	'23	'24	'25
Broiler farming sector	36.76	60	72	74	72	73	75	83	84	81	86	82
Pig farming sector	20.51	56	57	58	58	61	57	63	72	71	68	71
Dairy cattle farming sector	5.78	46	48	47	47	48	43	43	45	44	44	47
Veal farming sector*	33.80	35	38	40	45	53	55	54	55	51	53	53

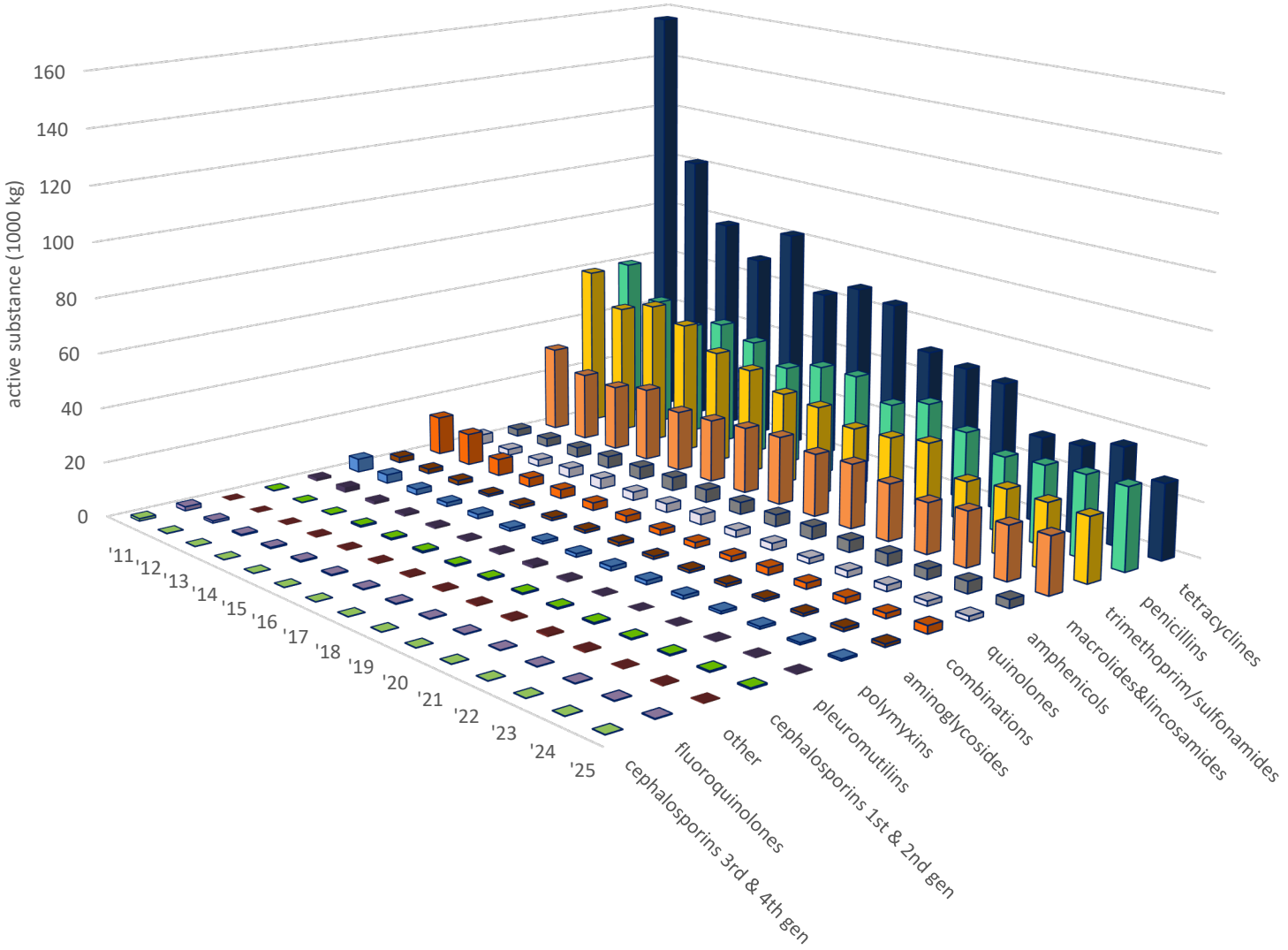
* In 2025, the reduction from its 2007 level amounted to 60%.

Mass balance

Table A3. Kilograms of antibiotics used (by livestock sector and for all livestock sectors combined) and sold in 2025 by pharmacotherapeutic group

Pharmacotherapeutic group	Kilograms used, according to delivery records											Kilograms sold
	Broiler farming sector	Turkey farming sector	Pig farming sector	Dairy cattle farming sector	Veal farming sector	Non-dairy cattle farming sector	Rabbit farming sector	Other chicken farming subsectors	Duck farming sector	Goats farming sector	All livestock sectors combined	
1st-choice antibiotics	**2,866**	**247**	**25,053**	**8,867**	**35,428**	**1,152**	**96**	**2,153**	**1**	**459**	**76,323**	**85,152**
As a proportion of overall AB use/sales	**51.2%**	**70.3%**	**73.5%**	**78.2%**	**81.9%**	**80.3%**	**49.5%**	**80.0%**	**8.3%**	**56.1%**	**76.5%**	**75.4%**
Amphenicols	0	0	1,194	376	1,554	181	0	0	0	29	3,334	3,033
Fixed-dose combinations	0	0	0	0	0	0	0	0	0	0	0	298
Macrolides/lincosamides	343	94	3,315	641	13,006	166	43	605	0	11	18,224	20,706
Penicillins	596	16	2,927	3,128	274	195	0	884	0	44	8,063	9,055
Pleuromutilins	0	0	142	0	0	0	13	150	0	0	306	436
Tetracyclines	876	136	10,521	1,197	13,706	357	21	427	0	163	27,403	27,582
Trimethoprim/sulfonamides	1,051	1	6,953	3,526	6,888	254	2	87	1	213	18,975	23,652
Other	0	0	0	0	0	0	17	0	0	0	17	390
2nd-choice antibiotics	**2,714**	**100**	**8,604**	**2,453**	**7,809**	**281**	**98**	**405**	**7**	**357**	**22,828**	**26,974**
As a proportion of overall AB use/sales	**48.5%**	**28.5%**	**25.2%**	**21.6%**	**18.0%**	**19.6%**	**50.5%**	**15.0%**	**90.0%**	**43.6%**	**22.9%**	**23.9%**
Aminoglycosides	82	3	151	479	416	38	97	274	0	25	1,565	1,097
Aminopenicillins	1,650	97	7,748	1,309	6,305	124	0	58	0	274	17,564	21,133
1st- and 2nd-gen. cephalosporins	0	0	0	43	0	1	0	0	0	1	45	392
Quinolones	419	0	39	2	1,060	2	2	73	7	47	1,648	1,646
Fixed-dose combinations	564	0	558	615	11	113	0	0	0	6	1,867	2,535
Long-acting macrolides	0	0	108	5	17	4	0	0	0	4	138	171
3rd-choice antibiotics	**16**	**4**	**443**	**19**	**30**	**1**	**0**	**135**	**0**	**3**	**652**	**750**
As a proportion of overall AB use/sales	**0.3%**	**1.2%**	**1.3%**	**0.2%**	**0.1%**	**0.1%**	**0.0%**	**5.0%**	**1.7%**	**0.4%**	**0.7%**	**0.7%**
3rd- and 4th-gen. cephalosporins	0	0	0	0	0	0	0	0	0	0	0	1
Fluoroquinolones	9	4	0	16	4	1	0	26	0	1	62	127
Polymyxins	8	0	443	3	25	0	0	109	0	2	590	623
Overall	**5,596**	**352**	**34,100**	**11,340**	**43,267**	**1,434**	**195**	**2,693**	**7**	**819**	**99,803**	**112,876**

Figure A1. Trends in kilograms of active substances sold over the 2011-2025 period, by pharmacotherapeutic group



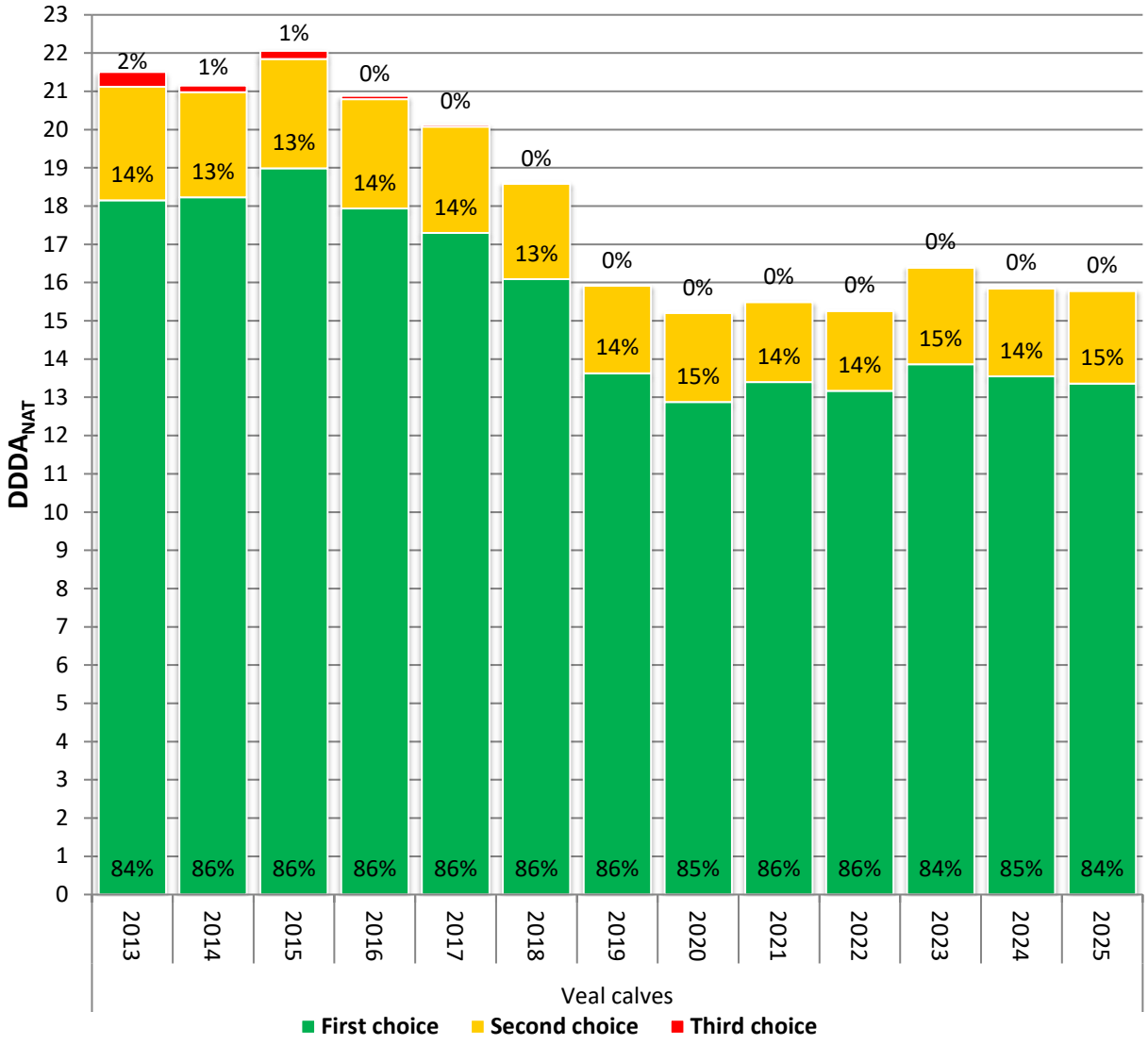
Detailed antibiotic usage data by livestock sector

Big food producing livestock sectors

Veal farming sector

1. $DDDA_{NAT}$

Figure A2. $DDDA_{NAT}$ trends in the veal farming sector over the 2013-2025 period, by antibiotics category



2. $DDDA_F$

2.1 White veal farms

Number of farms: 654
Number of farms with $DDDA_F$ = 0: 1 (0.2%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 100 (15.3%)
Number of farms that used polymyxins: 3 (0.5%)

Table A4. Antibiotic use in $DDDA_F$ at white veal farms from 2011 to 2025*

Year	N	Mean	Median	P75	P90
2011	934	41.1	33.2	44.9	57.8
2012	904	33.6	30.7	40.1	50.9
2013	862	31.4	26.2	35.1	45.2
2014	864	24.5	23.4	31.0	37.8
2015	855	25.1	24.3	31.7	38.3
2016	857	23.7	23.0	29.0	35.6
2017	838	23.0	22.2	27.0	33.1
2018	855	20.1	19.3	24.6	30.0
2019	782	20.0	19.2	23.9	29.8
2020	776	19.8	18.7	23.9	29.3
2021	771	20.2	19.8	24.0	29.0
2022	752	19.4	18.5	23.3	27.9
2023	747	19.5	19.5	23.8	28.5
2024	707	20.0	19.1	24.2	29.1
2025	654	19.3	18.6	23.5	28.0

* Only years for which similar $DDDA_F$ calculation methods were used have been included.

Figure A3. 2011 and 2025 $DDDA_F$ distributions for white veal farms

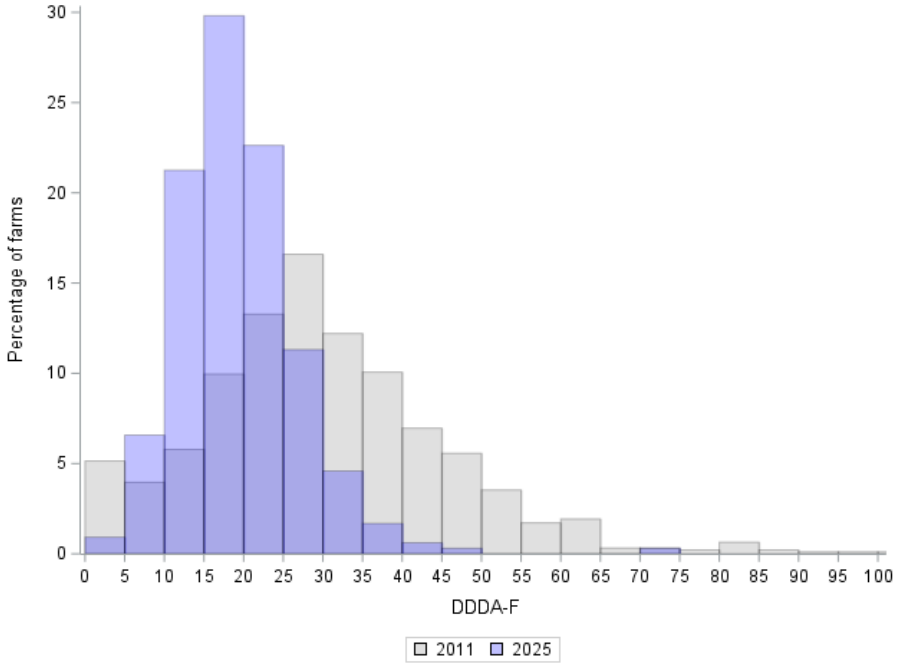


Figure A4. Scatter plot of 2024 and 2025 $DDDA_F$ values for white veal farms. The red solid lines represent the action threshold defined by the SDa. The number of farms with persistently high usage levels (farms whose usage levels exceeded the action threshold in both years) is listed in the upper-right corner of the scatter plot. Here $DDDA_F$ on an annual basis are shown, for the benchmarking of veal calf farmers a $DDDA_F$ over a 1.5-year period is used

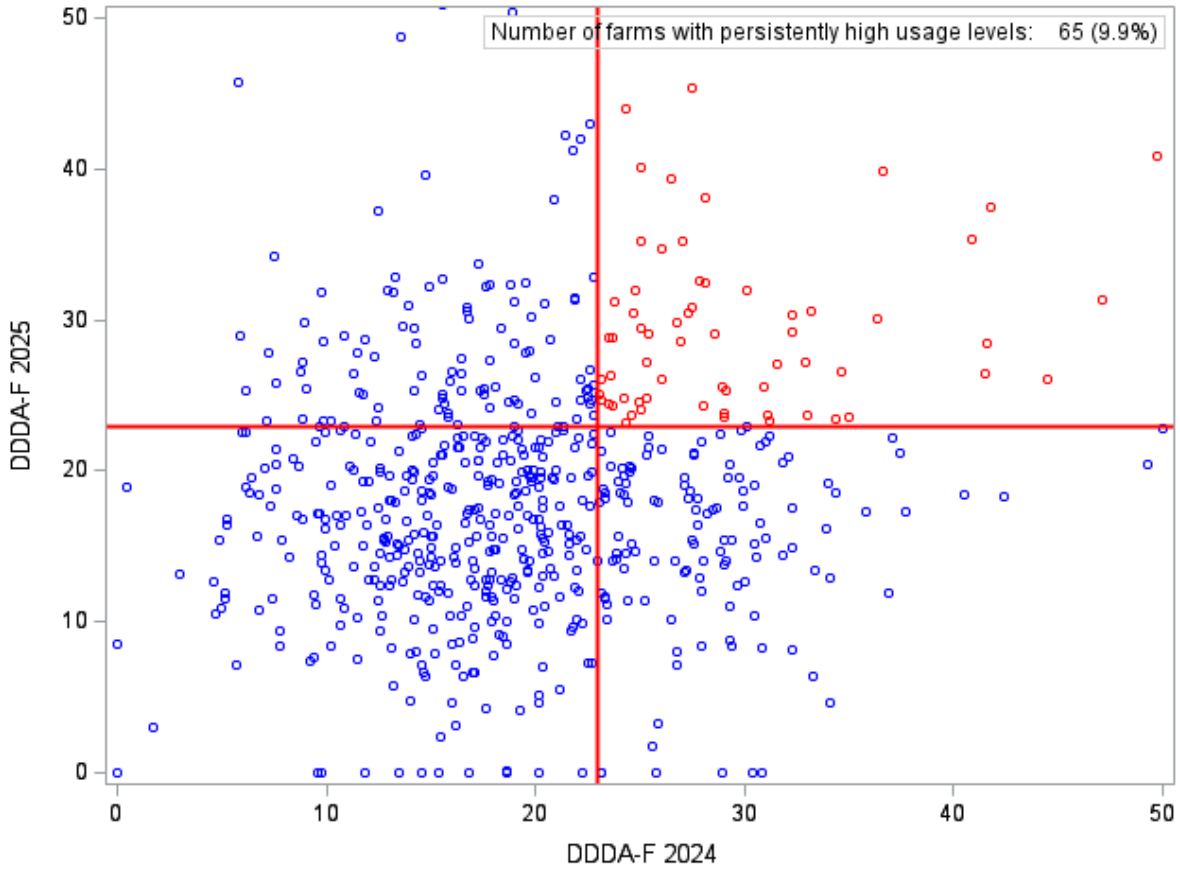


Table A5. Antibiotic use in $DDDA_F$ at white veal farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Parenteral	1.1%	0.85	1.38	1.01
1	Macrolides/lincosamides	Oral	2.3%	3.63	4.65	3.82
1	Macrolides/lincosamides	Parenteral	38.1%	0.01	0.06	0.07
1	Penicillins	Parenteral	7.5%	0.22	0.37	0.29
1	Tetracyclines	Oral	0.6%	9.25	11.90	9.56
1	Tetracyclines	Parenteral	51.2%	0.00	0.06	0.05
1	Trimethoprim/sulfonamides	Oral	47.1%	0.09	1.80	1.22
1	Trimethoprim/sulfonamides	Parenteral	35.5%	0.02	0.05	0.04
2	Aminoglycosides	Oral	33.5%	0.02	0.05	0.12
2	Aminoglycosides	Parenteral	52.9%	0.00	0.07	0.06
2	Aminopenicillins	Oral	31.7%	0.68	3.26	1.95
2	Aminopenicillins	Parenteral	6.1%	0.12	0.22	0.17
2	Quinolones	Oral	74.8%	0.00	0.09	0.52
2	Fixed-dose combinations	Parenteral	77.2%	0.00	0.00	0.01
2	Long-acting macrolides	Parenteral	28.4%	0.17	0.46	0.32
2	Macrolides/lincosamides	Parenteral	88.1%	0.00	0.00	0.04
3	Fluoroquinolones	Parenteral	84.7%	0.00	0.00	0.01
3	Polymyxins	Oral	99.7%	0.00	0.00	0.01
3	Polymyxins	Parenteral	99.7%	0.00	0.00	0.00

2.2 Rosé veal starter farms

Number of farms: 193
Number of farms with $DDDA_F$ = 0: 0 (0.0%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 32 (16.6%)
Number of farms that used polymyxins: 3 (1.6%)

Table A6. Antibiotic use in $DDDA_F$ at rosé veal starter farms from 2011 to 2025*

Year	N	Mean	Median	P75	P90
2011	207	120.0	94.4	127.8	171.5
2012	189	97.5	84.2	107.1	143.1
2013	264	115.6	80.9	102.2	131.0
2014	260	79.6	77.7	97.2	113.9
2015	247	82.7	83.0	101.5	115.1
2016	240	83.9	83.2	100.0	111.6
2017	238	83.0	83.1	102.0	113.3
2018	256	79.9	79.3	96.1	115.6
2019	225	71.5	70.4	90.7	106.5
2020	210	68.4	69.4	85.5	98.1
2021	198	71.6	71.2	88.9	104.7
2022	201	70.6	69.7	88.1	103.2
2023	201	73.7	72.7	91.3	109.4
2024	202	76.2	73.9	99.2	118.3
2025	193	70.7	69.8	91.4	108.1

* Only years for which similar $DDDA_F$ calculation methods were used have been included.

Figure A5. 2011 and 2025 $DDDA_F$ distributions for rosé veal starter farms

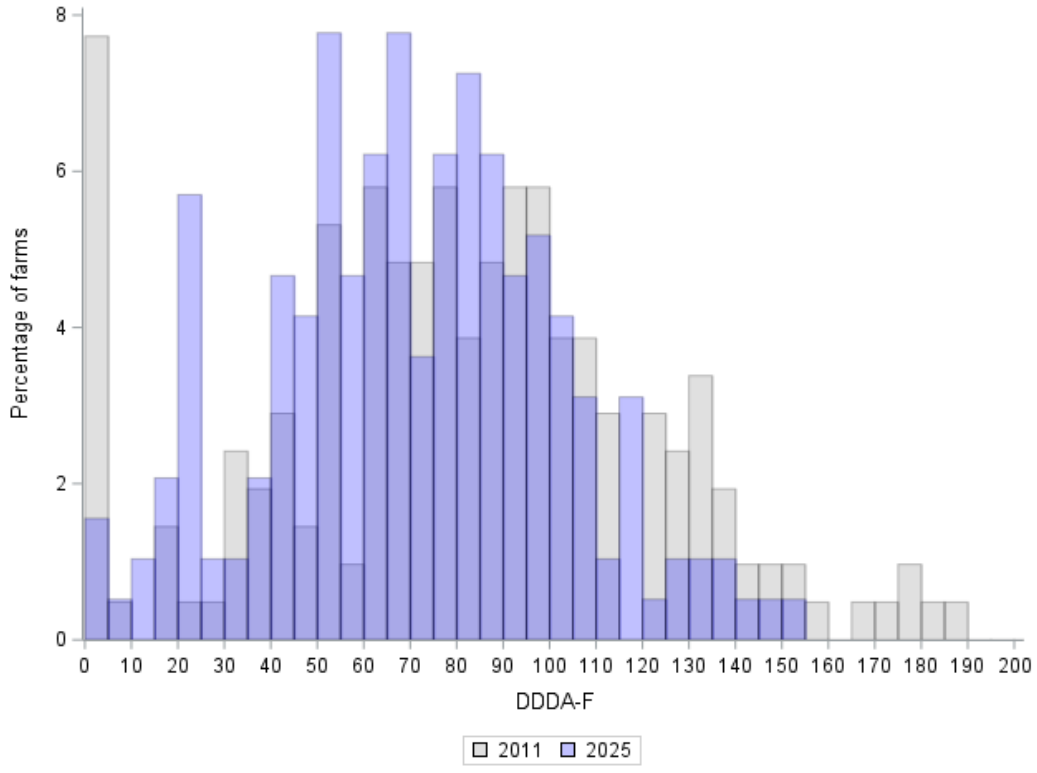


Figure A6. Scatter plot of 2024 and 2025 $DDDA_F$ values for rosé veal starter farms. The red solid lines represent the action threshold defined by the SDa. The number of farms with persistently high usage levels (farms whose usage levels exceeded the action threshold in both years) is listed in the upper-left corner of the scatter plot. Here $DDDA_F$ on an annual basis are shown, for the benchmarking of veal calf farmers a $DDDA_F$ over a 1.5-year period is used

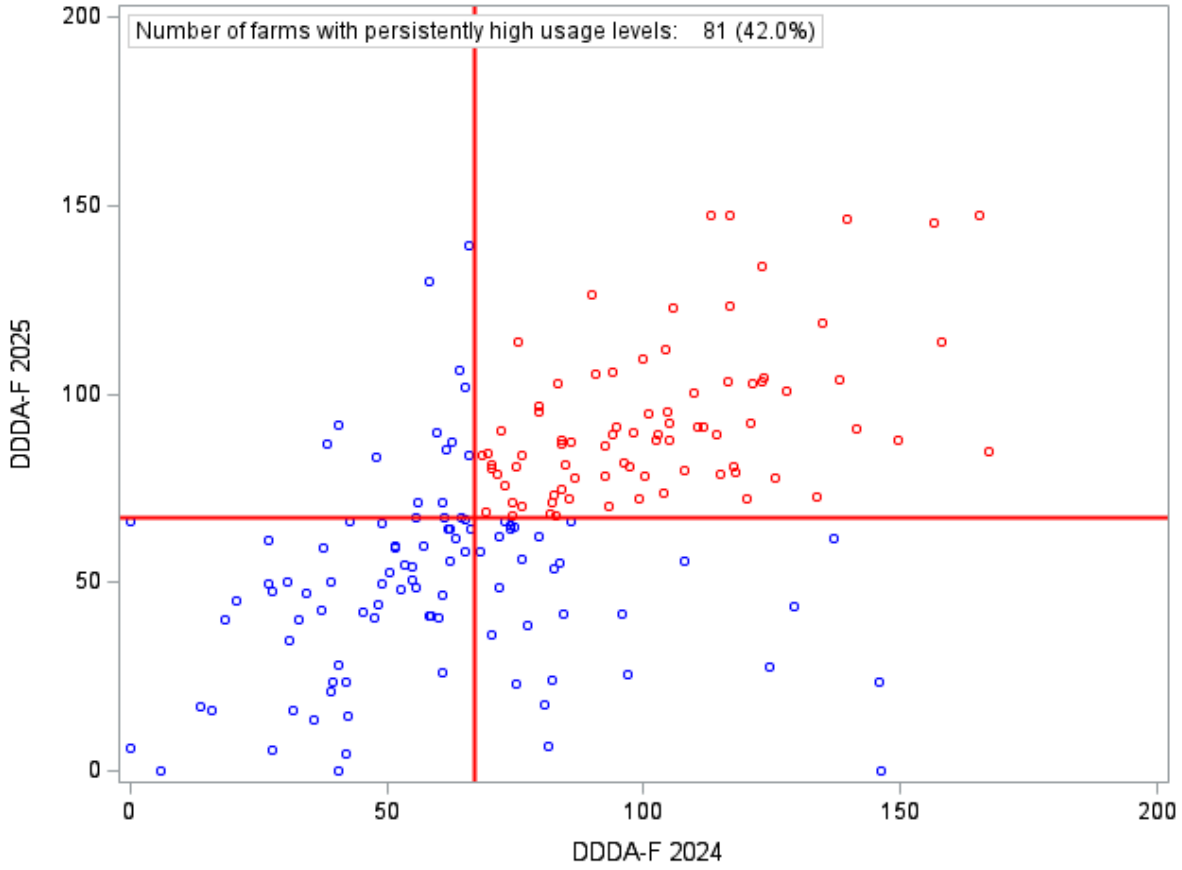


Table A7. Antibiotic use in $DDDA_F$ at rosé veal starter farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Parenteral	3.1%	3.50	5.86	4.45
1	Macrolides/lincosamides	Oral	7.3%	17.88	22.63	16.34
1	Macrolides/lincosamides	Parenteral	37.3%	0.05	0.28	0.39
1	Penicillins	Parenteral	14.5%	0.55	1.18	0.95
1	Tetracyclines	Oral	2.1%	35.24	44.71	34.34
1	Tetracyclines	Parenteral	60.1%	0.00	0.21	0.24
1	Trimethoprim/sulfonamides	Oral	29.0%	4.71	10.78	7.38
1	Trimethoprim/sulfonamides	Parenteral	39.4%	0.06	0.23	0.25
2	Aminoglycosides	Oral	49.2%	0.01	0.20	0.46
2	Aminoglycosides	Parenteral	47.7%	0.04	0.32	0.26
2	Aminopenicillins	Oral	54.9%	0.00	4.17	2.81
2	Aminopenicillins	Parenteral	11.4%	0.42	0.79	0.55
2	Quinolones	Oral	80.8%	0.00	0.00	0.78
2	Fixed-dose combinations	Parenteral	83.9%	0.00	0.00	0.01
2	Long-acting macrolides	Parenteral	40.9%	0.36	1.45	1.05
2	Macrolides/lincosamides	Parenteral	83.9%	0.00	0.00	0.43
3	Fluoroquinolones	Parenteral	83.4%	0.00	0.00	0.02
3	Polymyxins	Parenteral	98.4%	0.00	0.00	0.00

2.3 Rosé veal fattening farms

Number of farms: 452
Number of farms with $DDDA_F$ = 0: 30 (6.6%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 18 (4.0%)
Number of farms that used polymyxins: 1 (0.2%)

Table A8. Antibiotic use in $DDDA_F$ at rosé veal fattening farms from 2011 to 2025*

Year	N	Mean	Median	P75	P90
2011	671	7.8	1.5	6.6	14.5
2012	717	5.8	2.3	7.3	15.5
2013	723	5.2	1.4	5.4	10.8
2014	663	3.4	1.2	4.5	9.5
2015	638	2.7	1.0	4.0	7.3
2016	602	2.8	0.9	3.9	8.1
2017	580	3.0	1.6	4.1	7.8
2018	601	2.7	1.2	3.8	6.4
2019	718	4.0	1.9	6.0	10.7
2020	675	4.0	1.7	6.1	11.0
2021	575	4.0	1.8	6.3	11.5
2022	536	3.9	1.7	6.6	11.5
2023	509	4.0	1.6	6.9	11.6
2024	464	4.4	2.0	8.0	12.4
2025	452	4.6	2.0	7.7	12.5

* Only years for which similar $DDDA_F$ calculation methods were used have been included.

Figure A7. 2011 and 2025 $DDDA_F$ distributions for rosé veal fattening farms

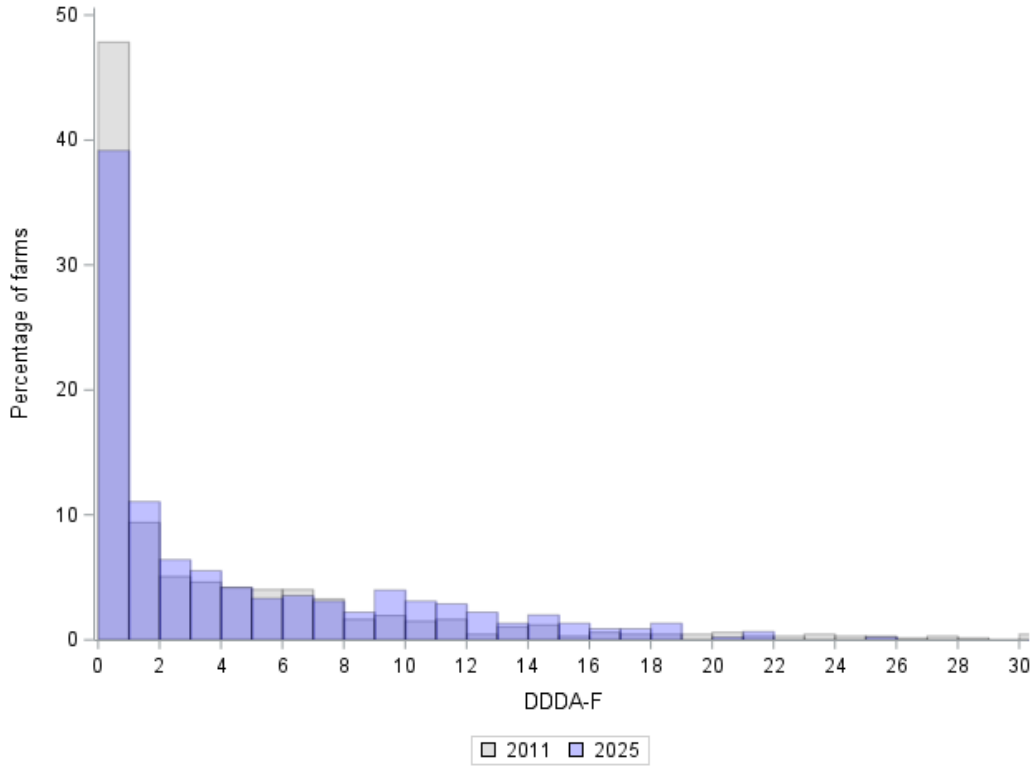


Figure A8. Scatter plot of 2024 and 2025 $DDDA_F$ values for rosé veal fattening farms. The red solid lines represent the action threshold defined by the SDa. The number of farms with persistently high usage levels (farms whose usage levels exceeded the action threshold in both years) is listed in the upper-right corner of the scatter plot. Here $DDDA_F$ on an annual basis are shown, for the benchmarking of veal calf farmers a $DDDA_F$ over a 1.5-year period is used

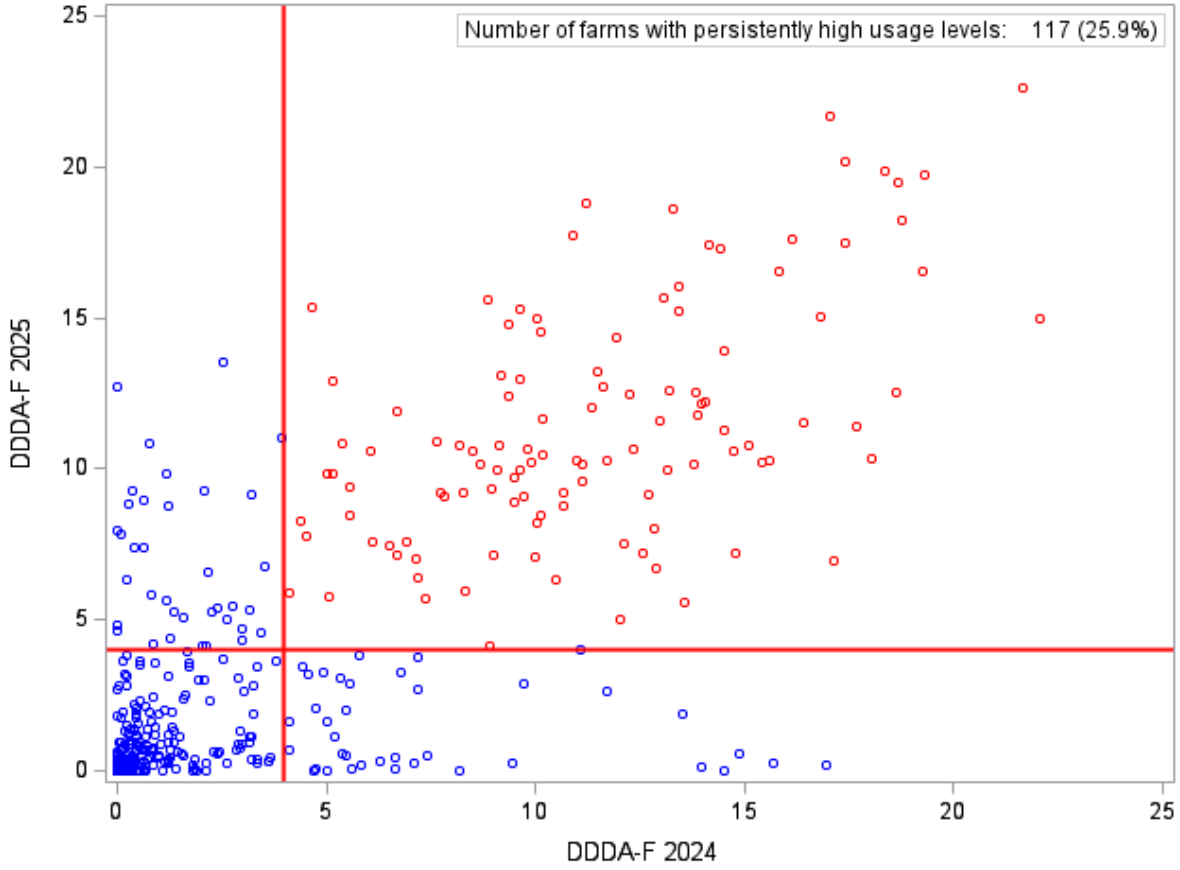


Table A9. Antibiotic use in $DDDA_F$ at rosé veal fattening farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Parenteral	16.6%	0.28	0.61	0.46
1	Macrolides/lincosamides	Oral	71.9%	0.00	0.93	0.64
1	Macrolides/lincosamides	Parenteral	71.0%	0.00	0.00	0.03
1	Penicillins	Parenteral	35.6%	0.06	0.19	0.14
1	Tetracyclines	Oral	51.5%	0.00	4.09	2.12
1	Tetracyclines	Parenteral	75.0%	0.00	0.00	0.02
1	Tetracyclines	Intrauterine	99.8%	0.00	0.00	0.00
1	Trimethoprim/sulfonamides	Oral	65.3%	0.00	0.59	0.60
1	Trimethoprim/sulfonamides	Parenteral	69.9%	0.00	0.01	0.01
2	Aminoglycosides	Oral	88.7%	0.00	0.00	0.01
2	Aminoglycosides	Parenteral	89.8%	0.00	0.00	0.01
2	Aminopenicillins	Oral	87.4%	0.00	0.00	0.14
2	Aminopenicillins	Parenteral	36.1%	0.04	0.11	0.10
2	1st- and 2nd-gen. cephalosporins	Parenteral	99.8%	0.00	0.00	0.00
2	Quinolones	Oral	96.0%	0.00	0.00	0.02
2	Fixed-dose combinations	Parenteral	91.4%	0.00	0.00	0.00
2	Long-acting macrolides	Parenteral	61.9%	0.00	0.18	0.22
2	Macrolides/lincosamides	Parenteral	85.0%	0.00	0.00	0.07
3	Fluoroquinolones	Parenteral	96.0%	0.00	0.00	0.00
3	Polymyxins	Oral	99.8%	0.00	0.00	0.00

2.4 Rosé veal combination farms

Number of farms: 66
Number of farms with $DDDA_F$ = 0: 2 (3.0%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 10 (15.2%)
Number of farms that used polymyxins: 0 (0.0%)

Table A10. Antibiotic use in $DDDA_F$ at rosé veal combination farms from 2011 to 2025*

Year	N	Mean	Median	P75	P90
2011	313	34.6	17.3	29.7	45.7
2012	365	21.5	13.2	23.7	37.4
2013	276	11.7	10.1	16.2	23.8
2014	215	13.0	12.0	17.1	21.9
2015	238	11.8	11.2	16.2	21.4
2016	229	11.1	11.3	16.6	20.6
2017	212	12.8	12.6	17.3	22.6
2018	186	14.8	14.1	18.1	21.9
2019	70	16.1	14.1	21.9	31.4
2020	68	16.0	15.6	21.7	27.7
2021	64	16.3	14.0	21.1	30.5
2022	65	16.7	14.5	22.1	31.7
2023	68	16.5	13.9	21.5	37.4
2024	64	17.6	17.2	20.7	34.4
2025	66	16.9	15.3	21.7	31.2

* Only years for which similar DDDAF calculation methods were used have been included.

Figure A9. 2011 and 2025 $DDDA_F$ distributions for rosé veal combination farms

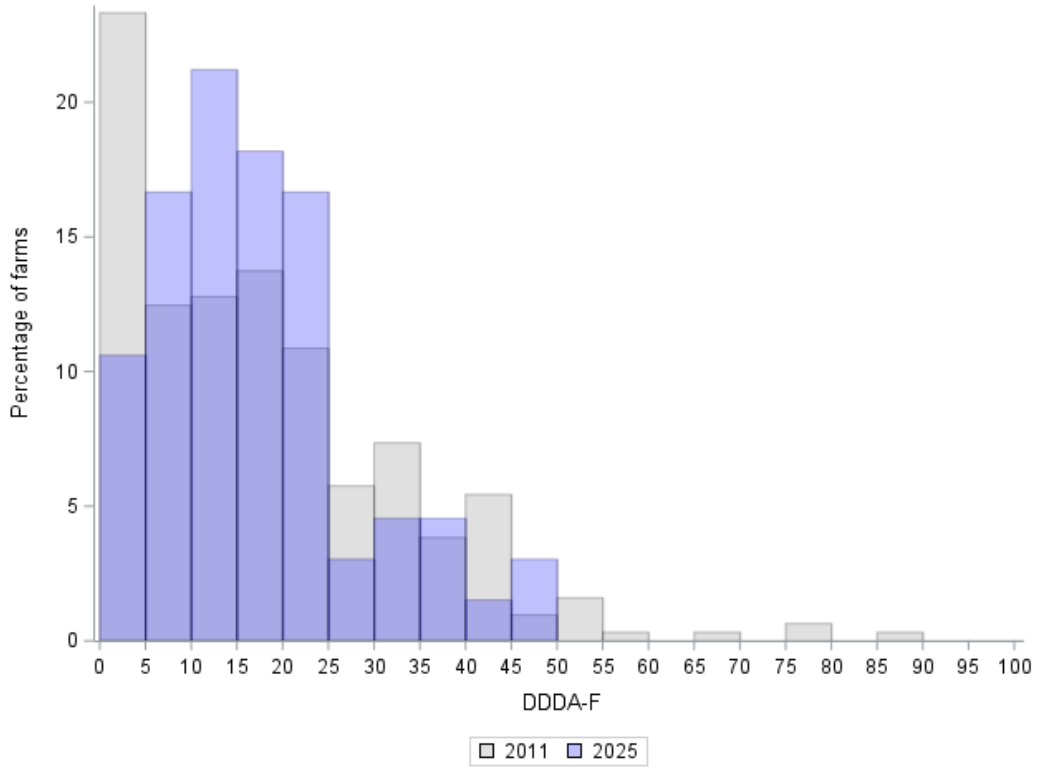


Figure A10. Scatter plot of 2024 and 2025 $DDDA_F$ values for rosé veal combination farms. The red solid lines represent the action threshold defined by the SDa. The number of farms with persistently high usage levels (farms whose usage levels exceeded the action threshold in both years) is listed in the upper-right corner of the scatter plot. Here $DDDA_F$ on an annual basis are shown, for the benchmarking of veal calf farmers a $DDDA_F$ over a 1.5-year period is used

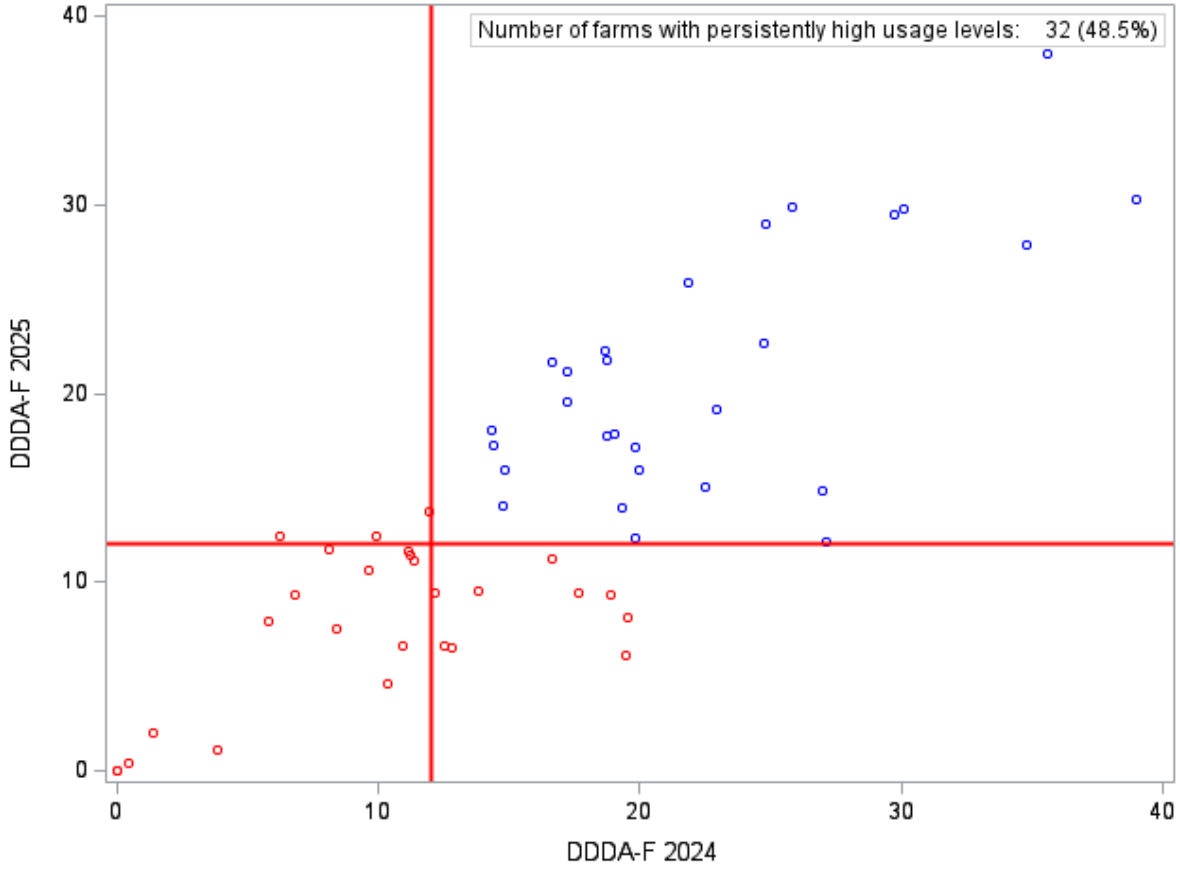


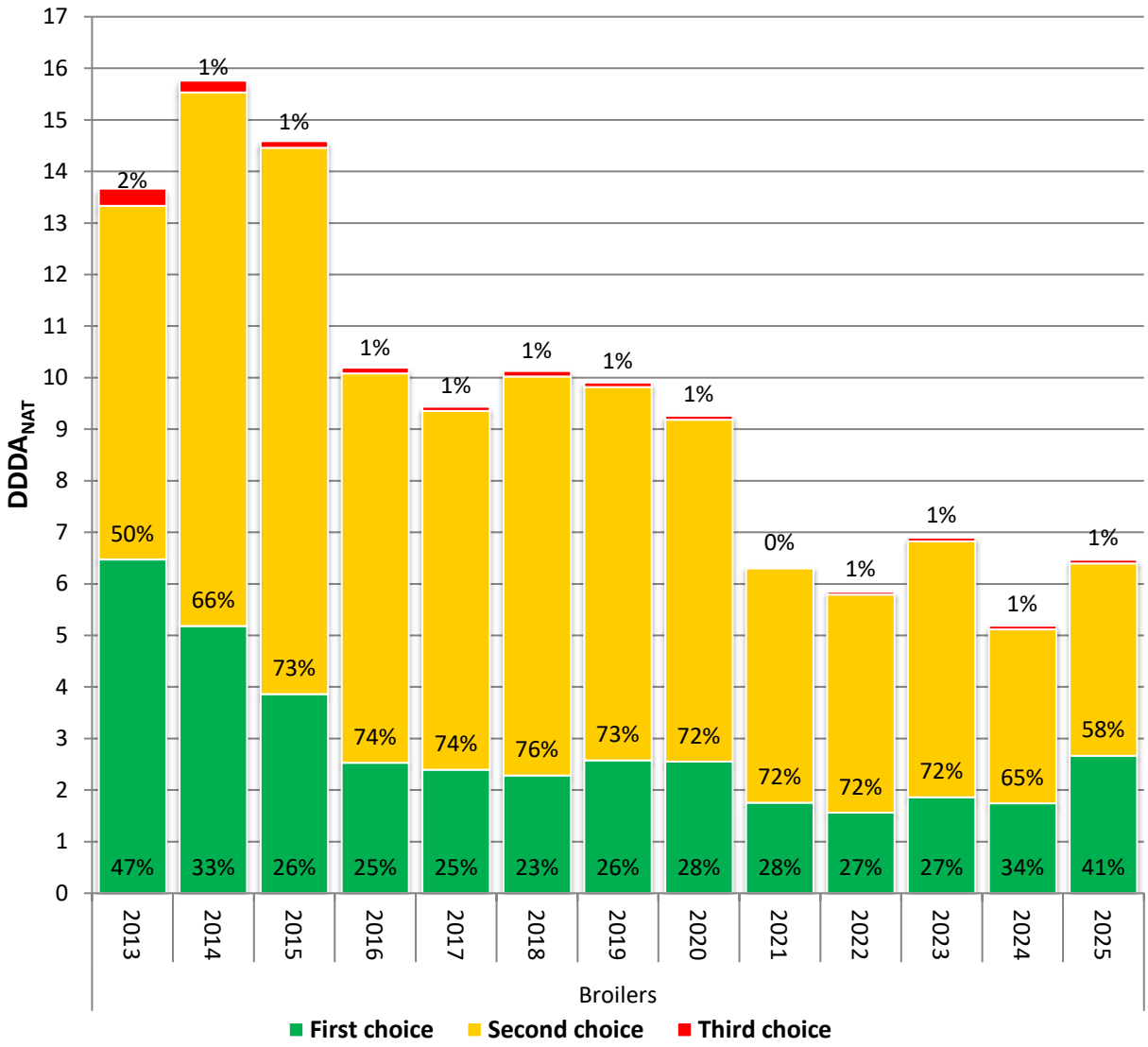
Table A11. Antibiotic use in $DDDA_F$ at rosé veal combination farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Parenteral	4.5%	0.97	1.48	1.25
1	Macrolides/lincosamides	Oral	10.6%	2.85	4.00	3.41
1	Macrolides/lincosamides	Parenteral	33.3%	0.02	0.09	0.09
1	Penicillins	Parenteral	15.2%	0.13	0.33	0.20
1	Tetracyclines	Oral	9.1%	7.63	10.46	8.46
1	Tetracyclines	Parenteral	47.0%	0.01	0.05	0.04
1	Trimethoprim/sulfonamides	Oral	33.3%	0.62	1.61	1.53
1	Trimethoprim/sulfonamides	Parenteral	34.8%	0.02	0.05	0.04
2	Aminoglycosides	Oral	47.0%	0.00	0.07	0.08
2	Aminoglycosides	Parenteral	54.5%	0.00	0.02	0.04
2	Aminopenicillins	Oral	47.0%	0.07	1.17	0.77
2	Aminopenicillins	Parenteral	10.6%	0.12	0.27	0.18
2	Quinolones	Oral	78.8%	0.00	0.00	0.22
2	Fixed-dose combinations	Parenteral	71.2%	0.00	0.01	0.01
2	Long-acting macrolides	Parenteral	31.8%	0.19	0.65	0.42
2	Macrolides/lincosamides	Parenteral	86.4%	0.00	0.00	0.14
3	Fluoroquinolones	Parenteral	84.8%	0.00	0.00	0.01

Broiler farming sector

1. DDDA$_{NAT}$

Figure A11. DDDA$_{NAT}$ trends in the broiler farming sector over the 2013-2025 period, by antibiotics category



2. DDDA$_F$

2.1 All breeds

Number of farms: 798*
Number of farms with DDDA$_F$ = 0: 383 (48.0%)
Number of farms that used third- and fourth-generation cephalosporins**: 0 (0.0%)
Number of farms that used fluoroquinolones: 11 (1.4%)
Number of farms that used polymyxins: 6 (0.8%)

Table A12. Antibiotic use in DDDA$_F$ at broiler farms from 2016 to 2025***

Year	N	Mean	Median	P75	P90
2016	853	8.6	4.8	12.5	22.2
2017	852	8.3	4.1	12.9	21.9
2018	834	8.3	4.9	12.4	22.5
2019	819	8.6	3.4	13.6	24.0
2020	816	7.0	2.3	10.0	21.5
2021	805	5.0	1.1	7.4	15.6
2022	788	4.8	0.0	7.0	14.9
2023	783	4.6	0.0	6.6	14.1
2024	792	3.9	0.0	5.0	13.1
2025	798	5.5	1.1	8.5	16.8

* This number also includes broiler farms with both conventional and slower growing breeds. As a result, the number of broiler farms with conventional breeds and broiler farms with slower growing breeds combined, differs from the total number of broiler farms stated above.
** These antibiotics are not authorized for use in poultry.
*** Only years for which similar DDDA$_F$ calculation methods were used have been included.

Figure A12. 2016 and 2025 DDDA$_F$ distributions for broiler farms

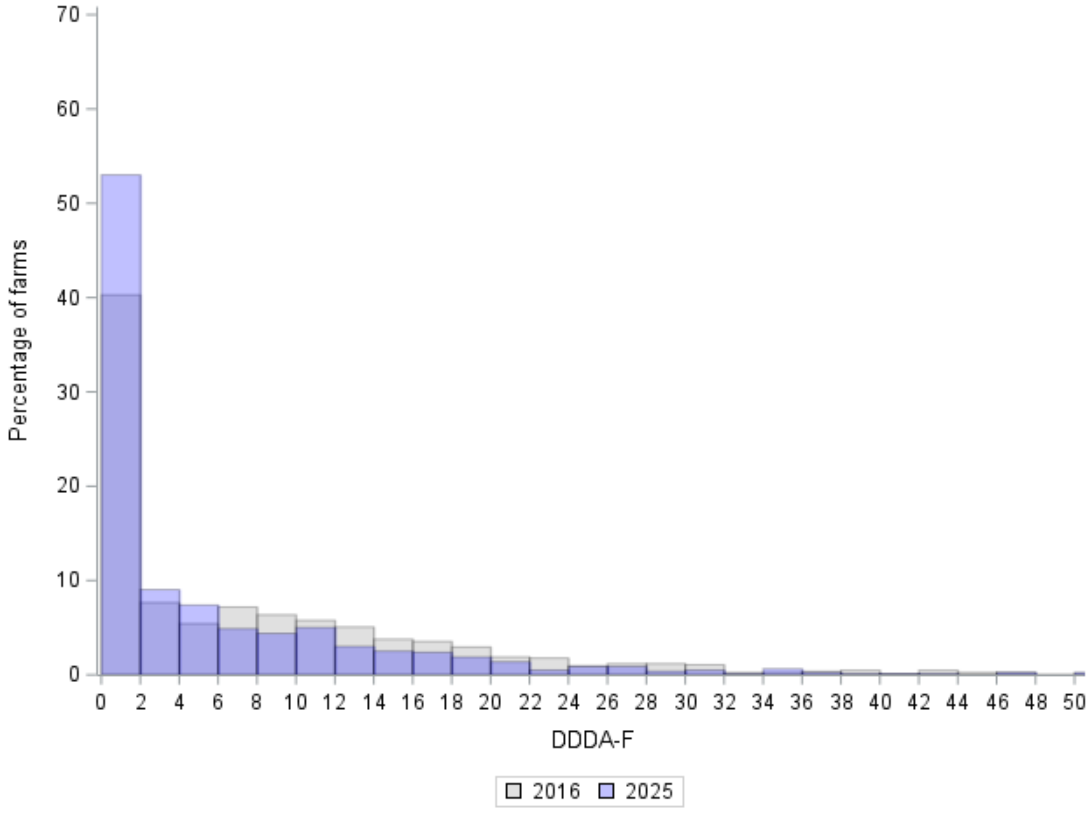


Table A13. Antibiotic use in $DDDA_F$ at broiler farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	89.6%	0.00	0.00	0.55
1	Tetracyclines	Oral	79.6%	0.00	0.00	0.79
1	Trimethoprim/sulfonamides	Oral	60.5%	0.00	3.56	2.31
2	Aminoglycosides	Oral	99.5%	0.00	0.00	0.00
2	Aminopenicillins	Oral	79.4%	0.00	0.00	0.86
2	Quinolones	Oral	90.7%	0.00	0.00	0.35
2	Fixed-dose combinations	Oral	92.5%	0.00	0.00	0.57
2	Macrolides/lincosamides	Oral	95.6%	0.00	0.00	0.05
3	Fluoroquinolones	Oral	98.6%	0.00	0.00	0.03
3	Polymyxins	Oral	99.2%	0.00	0.00	0.01

2.2 Broiler farms with conventional breeds

Number of farms: 326
Number of farms with $DDDA_F$ = 0: 78 (23.9%)
Number of farms that used third- and fourth-generation cephalosporins*: 0 (0.0%)
Number of farms that used fluoroquinolones: 10 (3.1%)
Number of farms that used polymyxins: 6 (1.8%)

Table A14. Antibiotic use in $DDDA_F$ at broiler farms with conventional breeds from 2016 to 2025**

Year	N	Mean	Median	P75	P90
2016	570	12.3	8.5	17.5	29.7
2017	487	13.9	9.3	19.5	33.3
2018	498	14.3	10.1	20.0	34.0
2019	455	13.1	10.1	19.2	30.4
2020	394	13.4	10.2	19.7	30.9
2021	363	10.7	7.5	15.5	23.6
2022	357	12.4	7.5	17.8	31.0
2023	306	11.7	8.9	16.6	26.7
2024	280	12.4	6.3	16.3	27.7
2025	326	16.2	9.5	21.1	39.6

* These antibiotics are not authorized for use in poultry.
** Only years for which similar DDDAF calculation methods were used have been included.

Figure A13. $DDDA_F$ distributions for broiler farms with conventional breeds

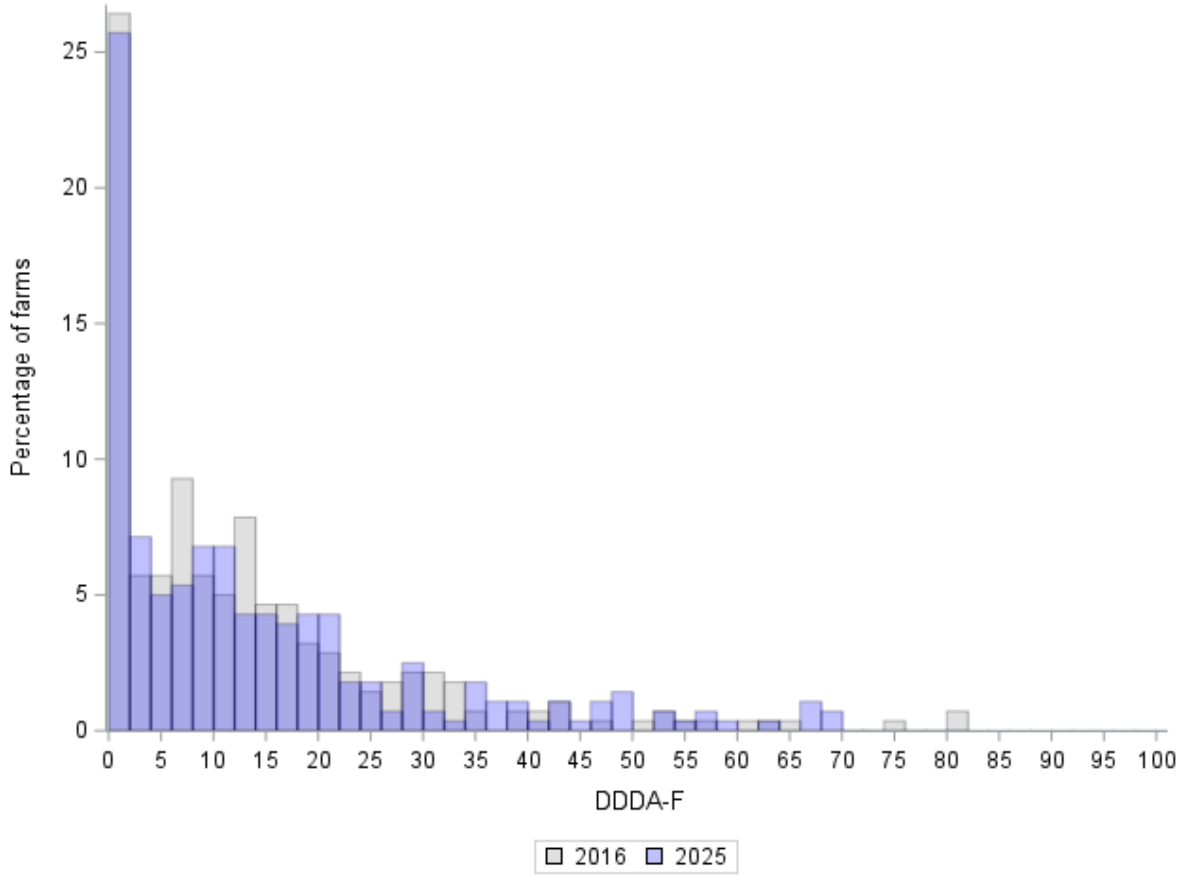


Figure A14. Scatter plot of 2024 and 2025 $DDDA_F$ values for broiler farms with conventional breeds. The red solid lines represent the action threshold defined by the SDa. The red dotted lines represent the transitional action threshold negotiated by the livestock sector. For each type of action threshold, the number of farms with persistently high usage levels is listed in the upper-right corner of the scatter plot

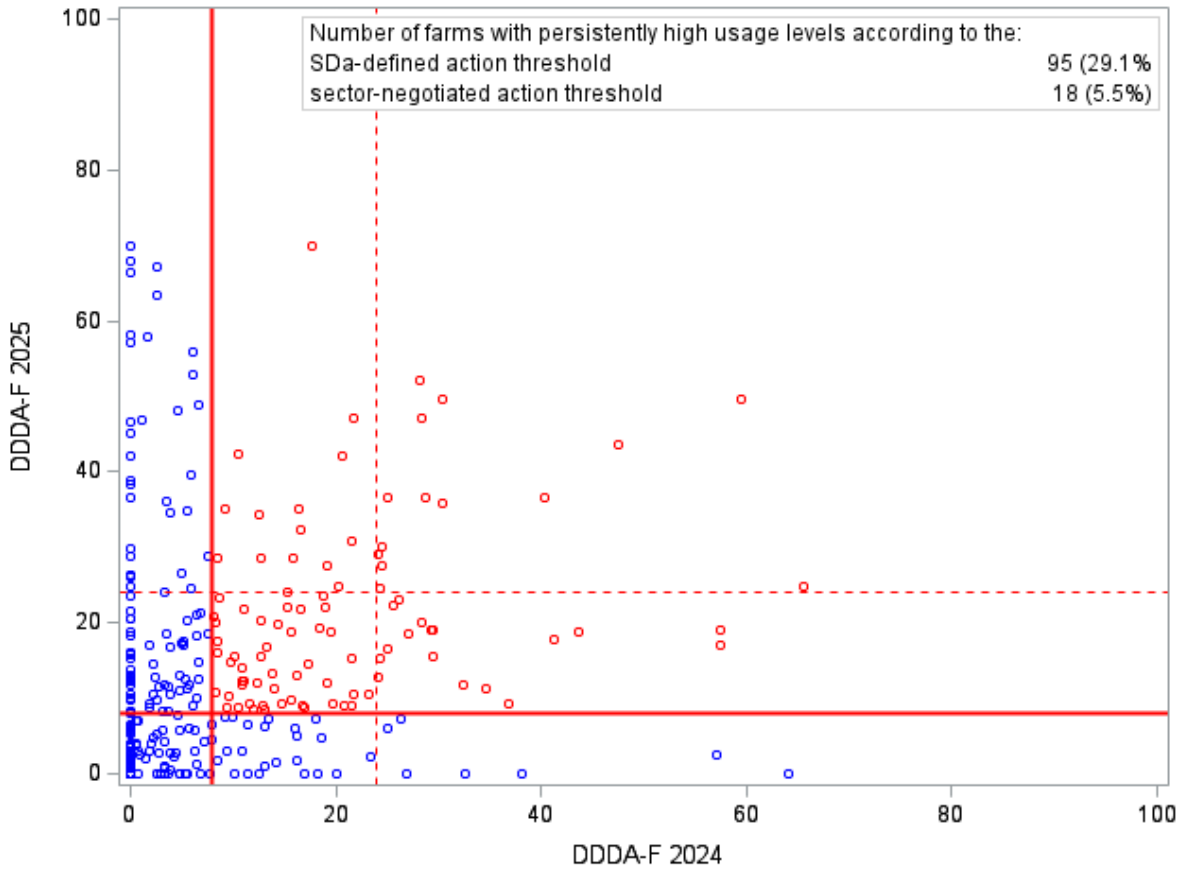


Table A15. The distribution of antibiotic use, expressed as $DDDA_F$, for specialized farms (keeping only conventional broilers) and mixed farms (keeping both conventional and slower-growing broilers)

Type of farm	N	Mean	Median	75th percentile	90th percentile
Specialized	206	12.33	9.68	18.31	26.33
Combined	120	22.89	9.21	37.54	57.61

Table A16. Antibiotic use in $DDDA_F$ at broiler farms with conventional breeds in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	83.1%	0.00	0.00	1.42
1	Tetracyclines	Oral	62.9%	0.00	2.49	2.60
1	Trimethoprim/sulfonamides	Oral	42.6%	1.66	6.50	6.00
2	Aminoglycosides	Oral	98.8%	0.00	0.00	0.01
2	Aminopenicillins	Oral	59.2%	0.00	2.41	2.34
2	Quinolones	Oral	80.1%	0.00	0.00	0.96
2	Fixed-dose combinations	Oral	82.2%	0.00	0.00	2.65
2	Macrolides/lincosamides	Oral	90.8%	0.00	0.00	0.12
3	Fluoroquinolones	Oral	96.9%	0.00	0.00	0.08
3	Polymyxins	Oral	98.2%	0.00	0.00	0.03

2.3 Broiler farms with slower growing breeds

Number of farms: 591
Number of farms with $DDDA_F$ = 0: 391 (66.2%)
Number of farms that used third- and fourth-generation cephalosporins*: 0 (0.0%)
Number of farms that used fluoroquinolones: 1 (0.2%)
Number of farms that used polymyxins: 0 (0.0%)

Table A17. Antibiotic use in $DDDA_F$ at broiler farms with slower growing breeds from 2016 to 2025**

Year	N	Mean	Median	P75	P90
2016	461	3.6	0.0	3.8	11.9
2017	493	4.1	0.0	5.0	12.6
2018	475	3.6	0.0	4.9	10.6
2019	471	2.3	0.0	2.8	7.8
2020	525	2.1	0.0	2.3	6.9
2021	560	1.7	0.0	1.9	5.4
2022	599	1.4	0.0	0.0	4.1
2023	595	1.6	0.0	0.0	5.1
2024	593	1.5	0.0	1.2	5.1
2025	591	1.9	0.0	2.8	6.6

* These antibiotics are not authorized for use in poultry.
** Only years for which similar DDDAF calculation methods were used have been included.

Figure A15. 2016 and 2025 $DDDA_F$ distributions for broiler farms with slower growing breeds

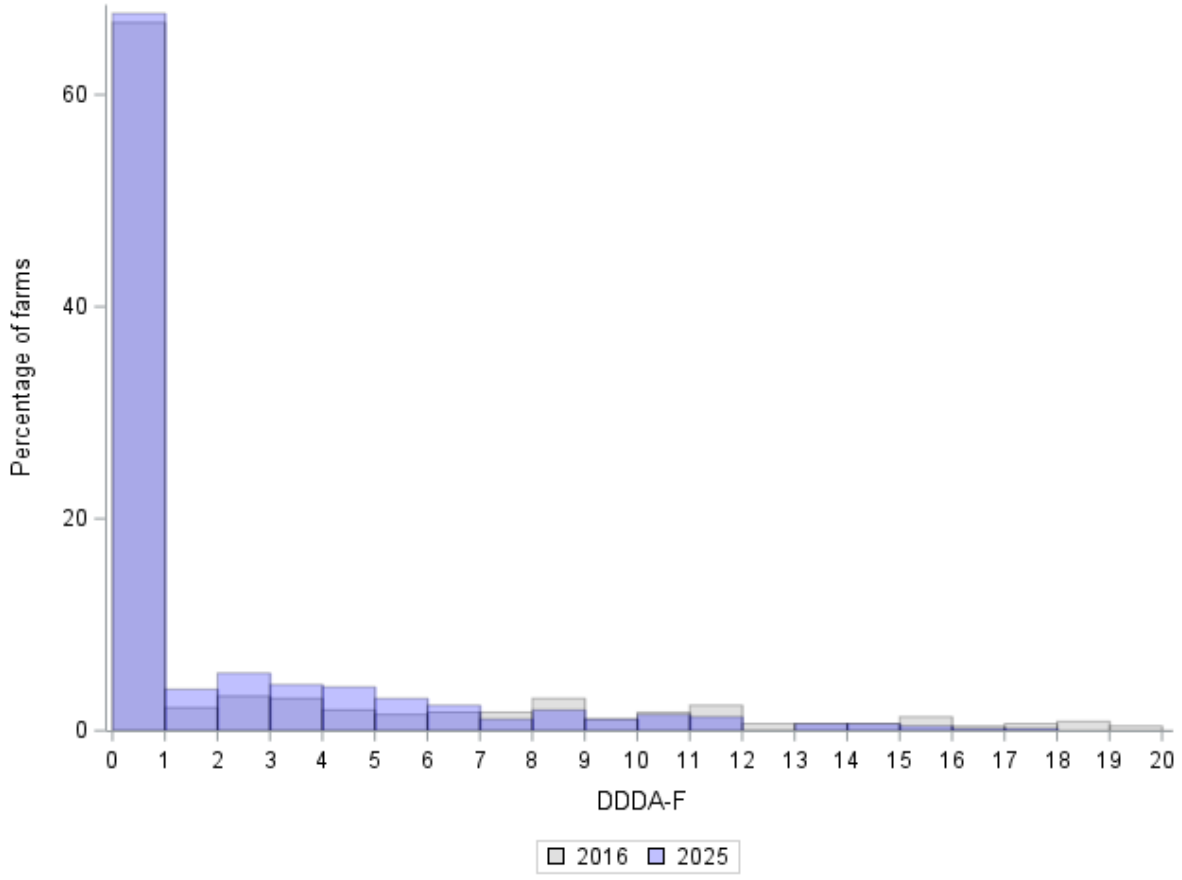


Figure A16. Scatter plot of 2024 and 2025 $DDDA_F$ values for broiler farms with slower growing breeds. The red solid lines represent the action threshold defined by the SDa. The red dotted lines represent the transitional action threshold negotiated by the livestock sector. For each type of action threshold, the number of farms with persistently high usage levels is listed in the upper-left corner of the scatter plot

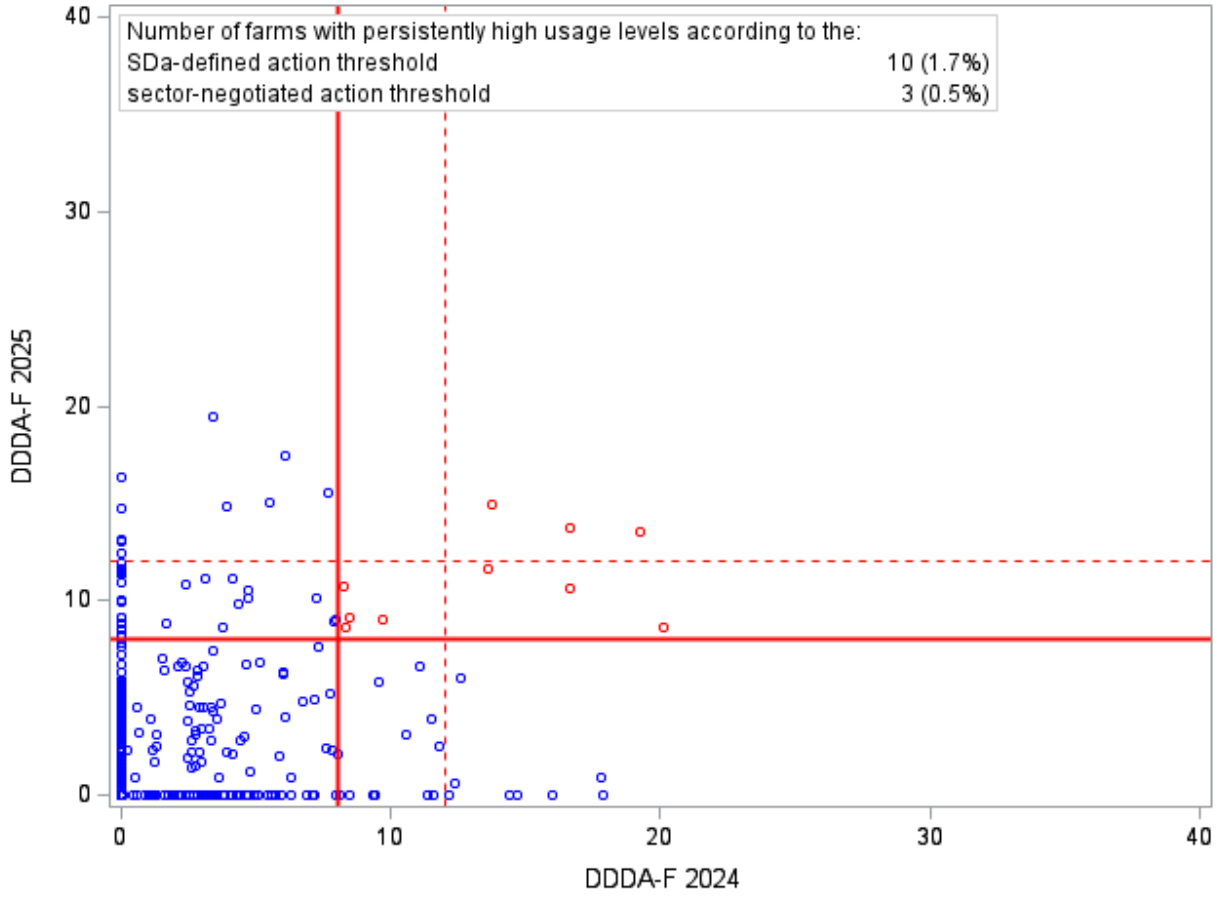


Table A18. Antibiotic use in $DDDA_F$ at broiler farms with slower growing breeds in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	95.1%	0.00	0.00	0.25
1	Tetracyclines	Oral	92.4%	0.00	0.00	0.23
1	Trimethoprim/sulfonamides	Oral	76.0%	0.00	0.00	1.14
2	Aminopenicillins	Oral	94.2%	0.00	0.00	0.20
2	Quinolones	Oral	98.5%	0.00	0.00	0.06
2	Fixed-dose combinations	Oral	99.8%	0.00	0.00	0.01
2	Macrolides/lincosamides	Oral	99.2%	0.00	0.00	0.01
3	Fluoroquinolones	Oral	99.8%	0.00	0.00	0.01

Broiler parent/grandparent stock farming sector

2.4 Parent/grandparent stock rearing farms

Number of farms: 74
Number of farms with $DDDA_F$ = 0: 21 (28.4%)
Number of farms that used third- and fourth-generation cephalosporins*: 0 (0.0%)
Number of farms that used fluoroquinolones: 4 (5.4%)
Number of farms that used polymyxins: 0 (0.0%)

Table A19. Antibiotic use in $DDDA_F$ at parent/grandparent stock rearing farms from 2017 to 2025**

Year	N	Mean	Median	P75	P90
2017	116	13.3	8.6	17.0	27.8
2018	99	15.7	10.6	22.8	35.2
2019	103	14.5	10.8	19.9	30.5
2020	100	9.6	7.9	13.9	18.1
2021	90	7.2	5.6	12.0	15.9
2022	90	6.4	4.9	7.8	12.6
2023	86	5.0	3.4	7.5	13.2
2024	88	5.4	2.7	8.1	13.9
2025	74	5.1	3.4	6.3	12.5

* These antibiotics are not authorized for use in poultry.
** Only years for which similar DDDAF calculation methods were used have been included.

Figure A17. 2017 and 2025 $DDDA_F$ distributions for parent/grandparent stock rearing farms

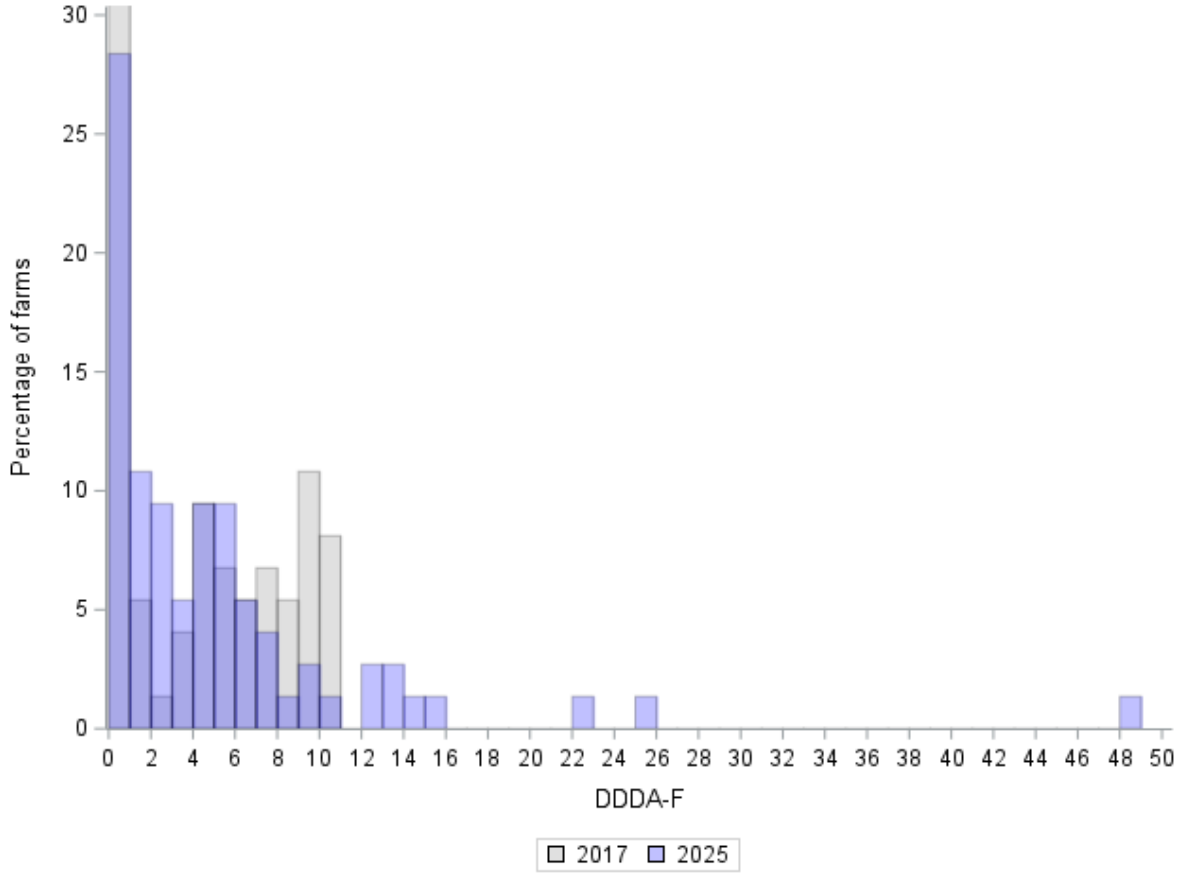


Table A20. Antibiotic use in $DDDA_F$ at parent/grandparent stock rearing farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	60.8%	0.00	2.08	1.94
1	Tetracyclines	Oral	93.2%	0.00	0.00	0.10
1	Trimethoprim/sulfonamides	Oral	45.9%	1.11	2.51	1.78
2	Aminopenicillins	Oral	78.4%	0.00	0.00	0.83
2	Quinolones	Oral	90.5%	0.00	0.00	0.36
3	Fluoroquinolones	Oral	94.6%	0.00	0.00	0.10

2.5 Parent/grandparent stock production farms

Number of farms: 174
Number of farms with $DDDA_F$ = 0: 110 (63.2%)
Number of farms that used third- and fourth-generation cephalosporins*: 0 (0.0%)
Number of farms that used fluoroquinolones: 11 (6.3%)
Number of farms that used polymyxins: 1 (0.6%)

Table A21. Antibiotic use in $DDDA_F$ at parent/grandparent stock production farms from 2017 to 2025**

Year	N	Mean	Median	P75	P90
2017	250	2.8	0.0	3.7	9.2
2018	215	2.7	0.0	3.9	8.5
2019	224	2.0	0.0	1.6	7.5
2020	220	4.3	0.0	2.4	8.2
2021	209	1.6	0.0	0.8	6.6
2022	200	1.5	0.0	0.6	4.9
2023	192	2.6	0.0	1.0	7.6
2024	181	2.4	0.0	3.9	7.5
2025	174	2.7	0.0	3.0	8.3

* These antibiotics are not authorized for use in poultry.
** Only years for which similar DDDAF calculation methods were used have been included.

Figure A18. 2017 and 2025 $DDDA_F$ distributions for parent/grandparent stock production farms

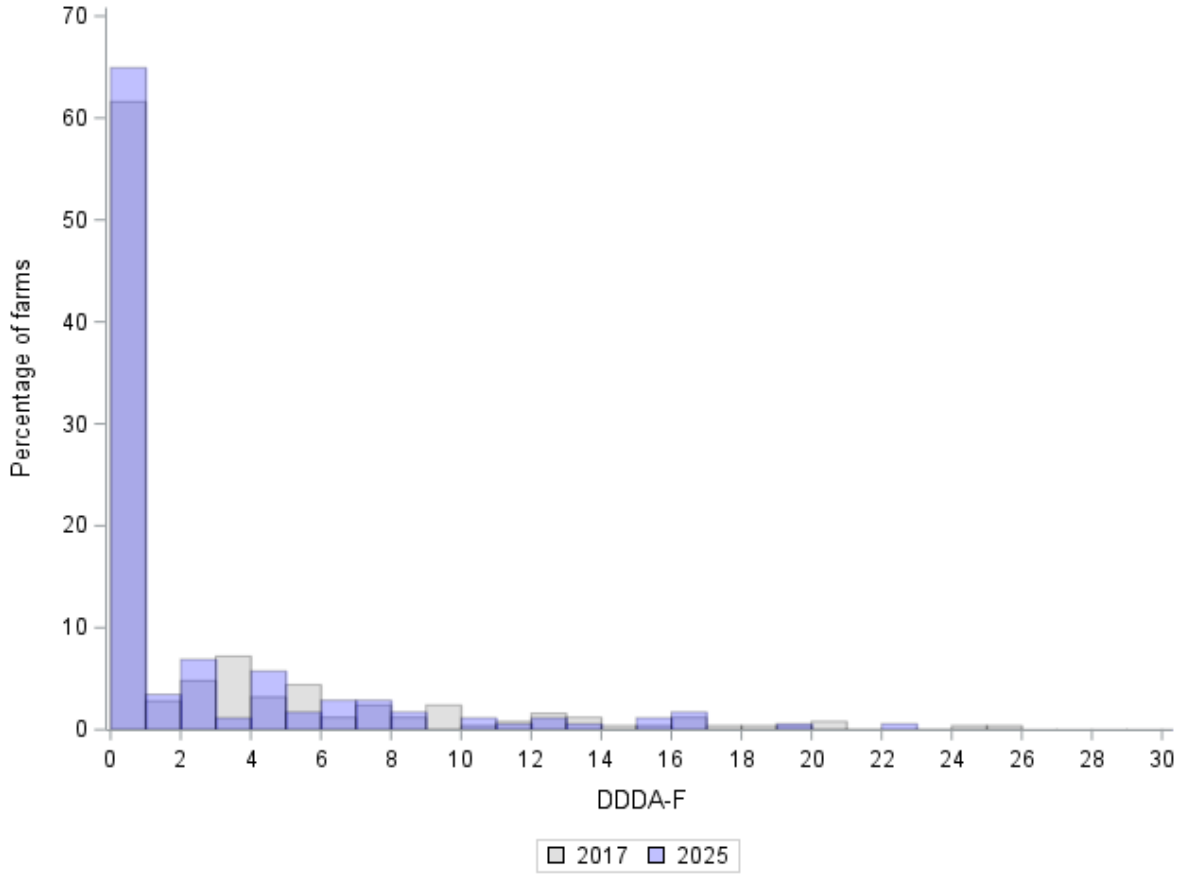


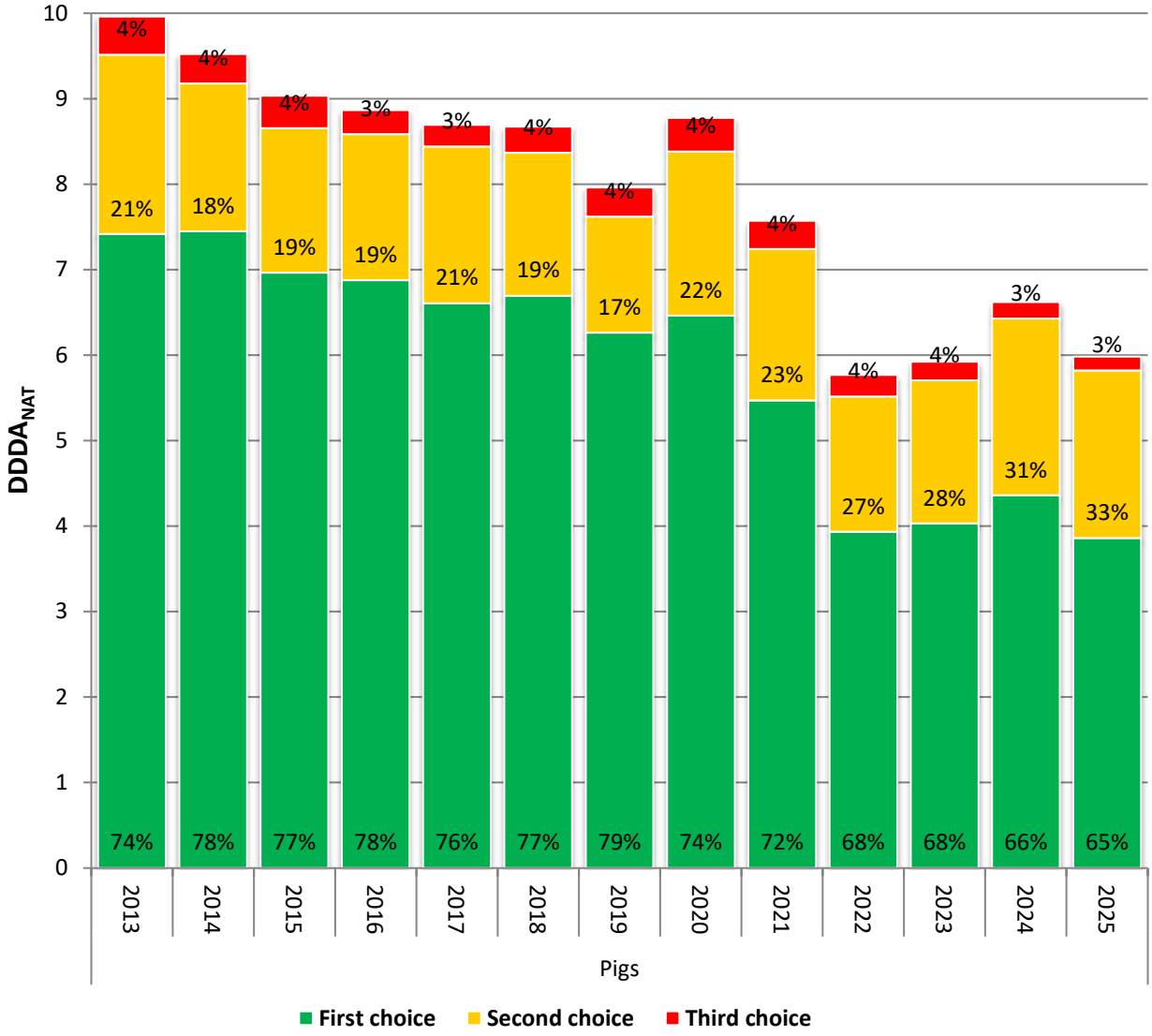
Table A22. Antibiotic use in $DDDA_F$ at parent/grandparent stock production farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	87.9%	0.00	0.00	0.87
1	Tetracyclines	Oral	79.3%	0.00	0.00	1.08
1	Trimethoprim/sulfonamides	Oral	98.9%	0.00	0.00	0.02
2	Aminopenicillins	Oral	98.9%	0.00	0.00	0.07
2	Quinolones	Oral	93.1%	0.00	0.00	0.44
2	Macrolides/lincosamides	Oral	98.9%	0.00	0.00	0.01
3	Fluoroquinolones	Oral	93.7%	0.00	0.00	0.15
3	Polymyxins	Oral	99.4%	0.00	0.00	0.05

Pig farming sector

1. $DDDA_{NAT}$

Figure A19. $DDDA_{NAT}$ trends in the pig farming sector over the 2013-2025 period, by antibiotics category



2. $DDDA_F$

2.1 Farms with sows and suckling piglets

Number of farms: 1.135
Number of farms with $DDDA_F$ = 0: 82 (7.2%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 2 (0.2%)
Number of farms that used polymyxins: 127 (11.2%)

Table A23. Antibiotic use in $DDDA_F$ at farms with sows and suckling piglets from 2015 to 2025*

Year	N	Mean	Median	P75	P90
2015	2,109	5.4	3.1	6.8	12.8
2016	1,919	3.5	2.3	4.7	8.1
2017	1,853	3.7	2.2	4.7	8.2
2018	1,780	3.8	2.1	4.5	8.6
2019	1,659	3.5	2.1	4.6	8.2
2020	1,572	3.6	2.2	4.5	7.7
2021	1,498	3.2	2.0	4.2	6.9
2022	1,318	2.8	1.9	3.9	5.6
2023	1,250	3.0	2.2	4.0	5.7
2024	1,198	3.2	2.1	4.2	5.9
2025	1,135	2.8	1.9	3.9	5.4

* Only years for which similar DDDAF calculation methods were used have been included.

Figure A20. 2015 and 2025 $DDDA_F$ distributions for farms with sows and suckling piglets

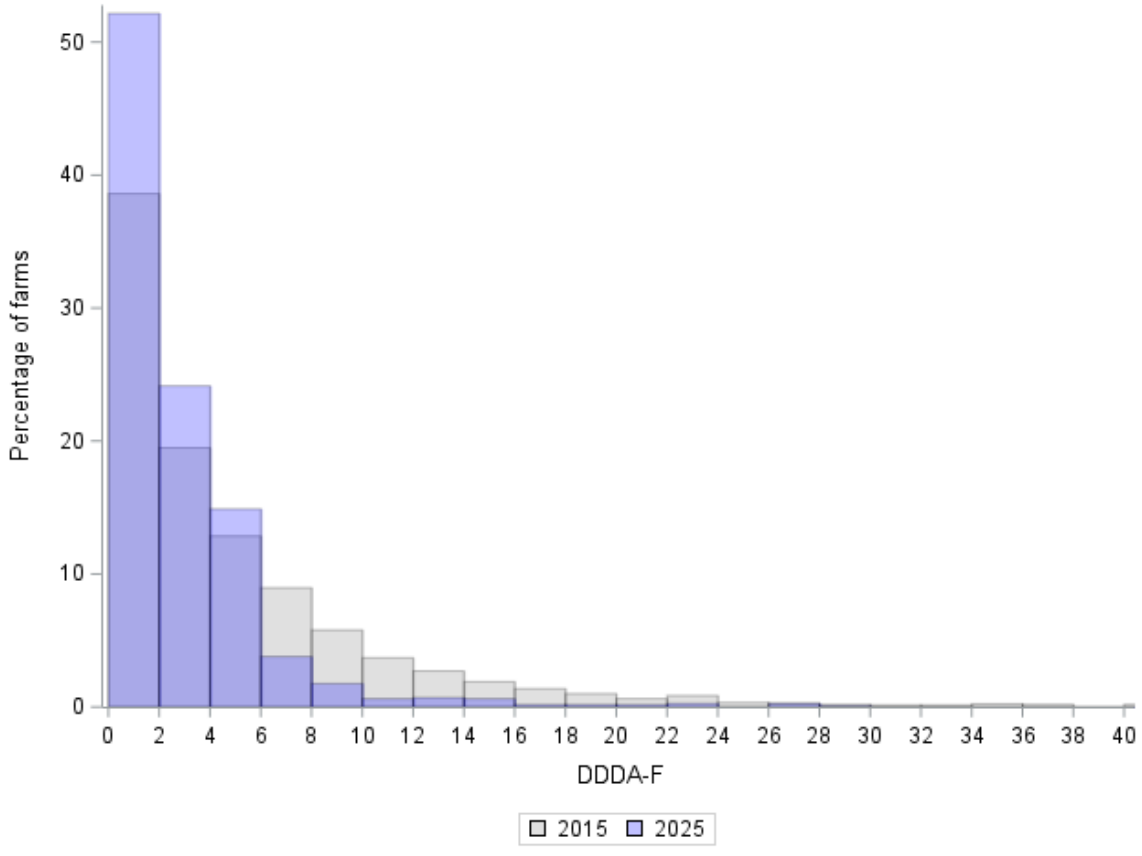


Table A24. Benchmark results for farms with sows and suckling piglets

	Sows and suckling piglets	
	2024	2025
In target zone	1.034 (86%)	1.007 (89%)
In action zone	164 (14%)	128 (11%)
With persistently high usage levels	57 (4%)	50 (4%)

Figure A21. Scatter plot of 2024 and 2025 $DDDA_F$ values for farms with sows and suckling piglets. The red solid lines represent the action threshold defined by the SDa. The number of farms with persistently high usage levels is listed in the upper-right corner of the scatter plot

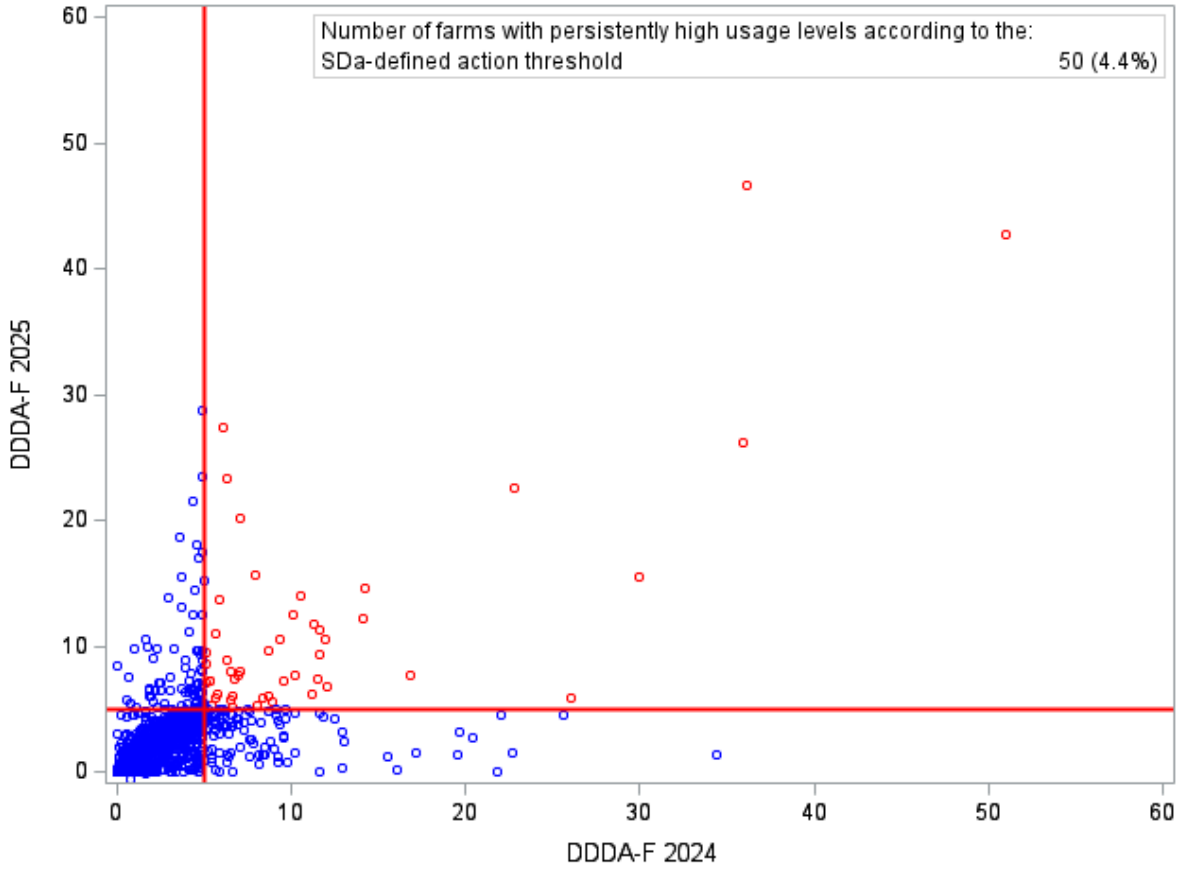


Table A25. Antibiotic use in $DDDA_F$ at farms with sows and suckling piglets in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Parenteral	72.7%	0.00	0.04	0.13
1	Macrolides/lincosamides	Oral	96.5%	0.00	0.00	0.06
1	Macrolides/lincosamides	Parenteral	89.1%	0.00	0.00	0.02
1	Penicillins	Oral	99.9%	0.00	0.00	0.00
1	Penicillins	Parenteral	21.8%	0.31	0.88	0.63
1	Pleuromutilins	Oral	99.5%	0.00	0.00	0.01
1	Pleuromutilins	Parenteral	96.2%	0.00	0.00	0.01
1	Tetracyclines	Oral	88.5%	0.00	0.00	0.23
1	Tetracyclines	Parenteral	47.8%	0.02	0.27	0.27
1	Trimethoprim/sulfonamides	Oral	91.6%	0.00	0.00	0.11
1	Trimethoprim/sulfonamides	Parenteral	37.7%	0.06	0.29	0.23
2	Aminoglycosides	Oral	85.2%	0.00	0.00	0.02
2	Aminopenicillins	Oral	93.9%	0.00	0.00	0.07
2	Aminopenicillins	Parenteral	41.5%	0.06	0.48	0.33
2	Quinolones	Oral	99.7%	0.00	0.00	0.01
2	Fixed-dose combinations	Oral	98.9%	0.00	0.00	0.02
2	Fixed-dose combinations	Parenteral	76.9%	0.00	0.00	0.04
2	Long-acting macrolides	Parenteral	70.7%	0.00	0.40	0.59
3	Fluoroquinolones	Parenteral	99.8%	0.00	0.00	0.00
3	Polymyxins	Oral	95.1%	0.00	0.00	0.02
3	Polymyxins	Parenteral	93.3%	0.00	0.00	0.01

2.2 Farms with weaner pigs

Number of farms: 1.268
Number of farms with $DDDA_F$ = 0: 221 (17.4%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 228 (18.0%)

Table A26. Antibiotic use in $DDDA_F$ at farms with weaner pigs from 2015 to 2025*

Year	N	Mean	Median	P75	P90
2015	2.276	19.6	7.6	24.4	52.2
2016	2.088	24.2	11.9	29.1	57.2
2017	2.037	21.7	10.6	25.5	52.9
2018	1.941	19.8	10.1	23.5	44.0
2019	1.833	16.8	8.1	20.7	38.3
2020	1.759	20.5	9.5	21.3	41.3
2021	1.668	20.5	6.9	18.1	32.8
2022	1.463	14.6	7.1	16.8	28.4
2023	1.392	16.0	7.6	17.4	30.7
2024	1.336	16.1	6.9	17.2	29.7
2025	1.268	14.5	6.0	16.5	27.3

* Only years for which similar $DDDA_F$ calculation methods were used have been included.

Figure A22. 2015 and 2025 $DDDA_F$ distributions for farms with weaner pigs

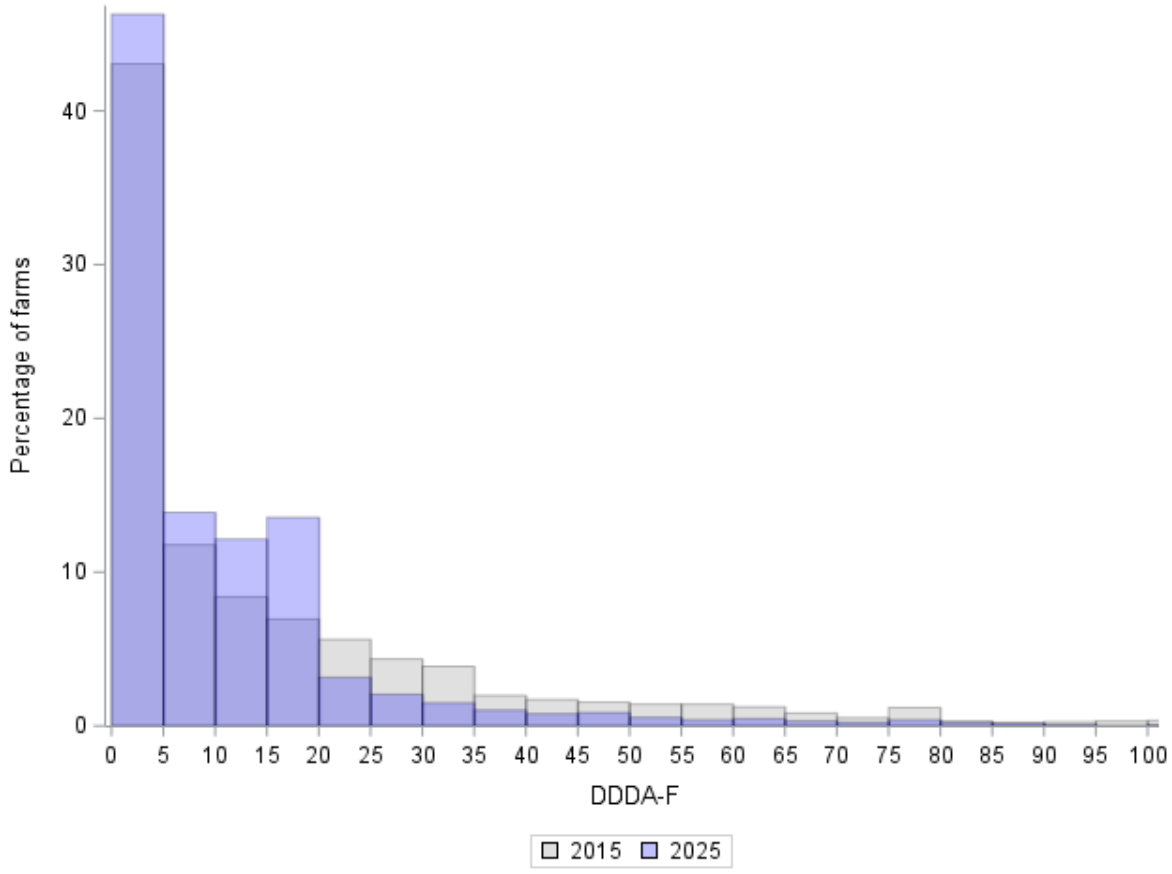


Figure A23. Scatter plot of 2024 and 2025 $DDDA_F$ values for farms with weaner pigs. The red solid lines represent the action threshold defined by the SDa. The number of farms with persistently high usage levels is listed in the upper-right corner of the scatter plot

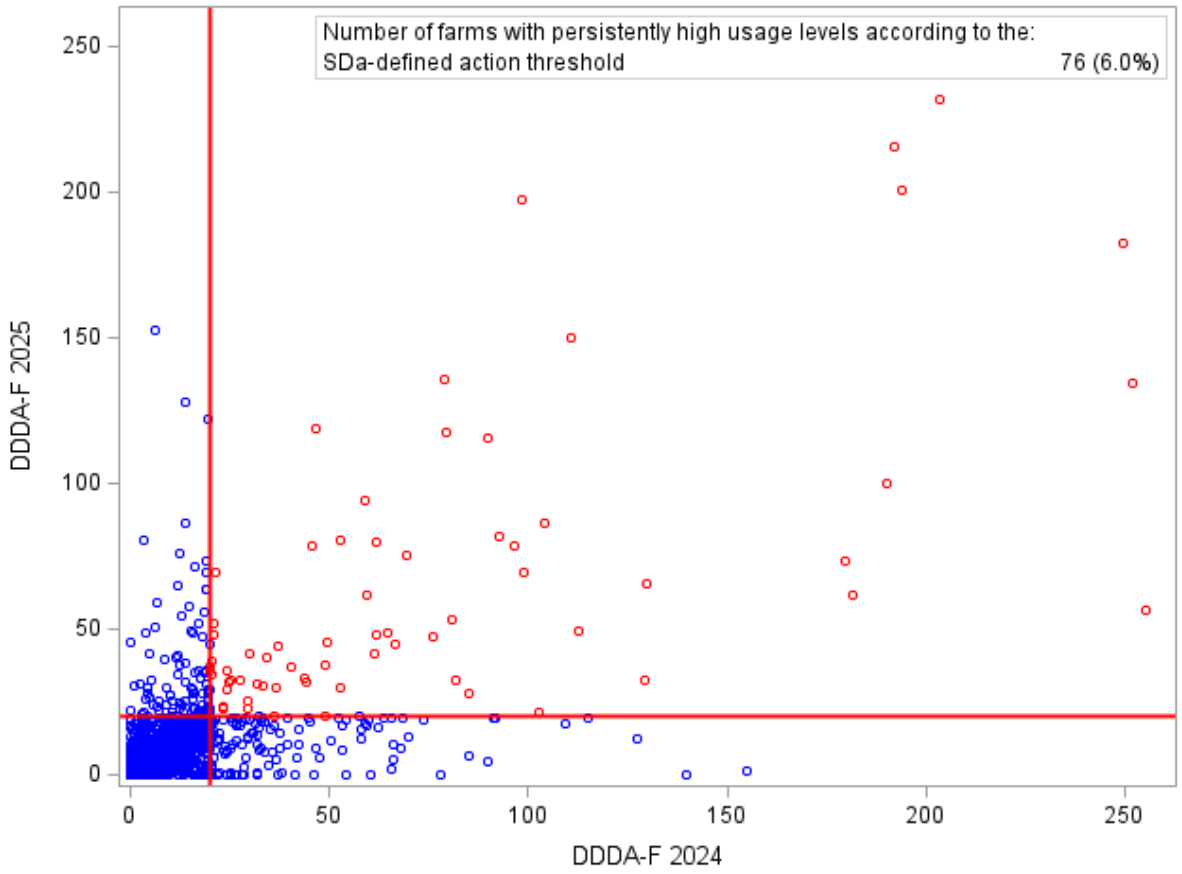


Table A27. Antibiotic use in $DDDA_F$ at farms with weaner pigs in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Oral	99.8%	0.00	0.00	0.01
1	Amphenicols	Parenteral	83.0%	0.00	0.00	0.31
1	Macrolides/lincosamides	Oral	89.0%	0.00	0.00	0.67
1	Macrolides/lincosamides	Parenteral	95.3%	0.00	0.00	0.02
1	Penicillins	Parenteral	62.1%	0.00	0.42	0.58
1	Pleuromutilins	Oral	99.4%	0.00	0.00	0.04
1	Pleuromutilins	Parenteral	97.6%	0.00	0.00	0.04
1	Tetracyclines	Oral	70.3%	0.00	2.02	3.64
1	Tetracyclines	Parenteral	78.9%	0.00	0.00	0.36
1	Trimethoprim/sulfonamides	Oral	70.6%	0.00	0.97	1.94
1	Trimethoprim/sulfonamides	Parenteral	89.1%	0.00	0.00	0.04
2	Aminoglycosides	Oral	94.2%	0.00	0.00	0.04
2	Aminopenicillins	Oral	76.3%	0.00	0.00	3.88
2	Aminopenicillins	Parenteral	56.9%	0.00	0.56	0.64
2	Quinolones	Oral	99.9%	0.00	0.00	0.00
2	Fixed-dose combinations	Oral	98.7%	0.00	0.00	0.08
2	Fixed-dose combinations	Parenteral	88.7%	0.00	0.00	0.06
2	Long-acting macrolides	Parenteral	77.6%	0.00	0.00	1.39
3	Polymyxins	Oral	84.3%	0.00	0.00	0.73
3	Polymyxins	Parenteral	96.6%	0.00	0.00	0.01

2.3 Farms with fattening pigs

Number of farms: 2,532
Number of farms with $DDDA_F$ = 0: 645 (25.5%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 33 (1.3%)

Table A28. Antibiotic use in $DDDA_F$ at farms with fattening pigs from 2015 to 2025*

Year	N	Mean	Median	P75	P90
2015	5,072	4.1	1.6	5.4	10.2
2016	4,701	4.0	1.7	5.7	10.1
2017	4,580	3.8	1.7	5.4	9.8
2018	4,323	3.9	1.8	5.4	9.9
2019	4,005	3.8	1.6	5.5	10.2
2020	3,650	3.5	1.2	4.8	9.0
2021	3,142	2.8	1.2	4.1	6.9
2022	2,931	2.2	1.0	3.3	5.3
2023	2,820	2.4	1.0	3.1	5.1
2024	2,697	2.3	0.8	3.2	5.2
2025	2,532	2.3	0.8	2.8	5.0

* Only years for which similar DDDAF calculation methods were used have been included.

Figure A24. 2015 and 2025 $DDDA_F$ distributions for farms with fattening pigs

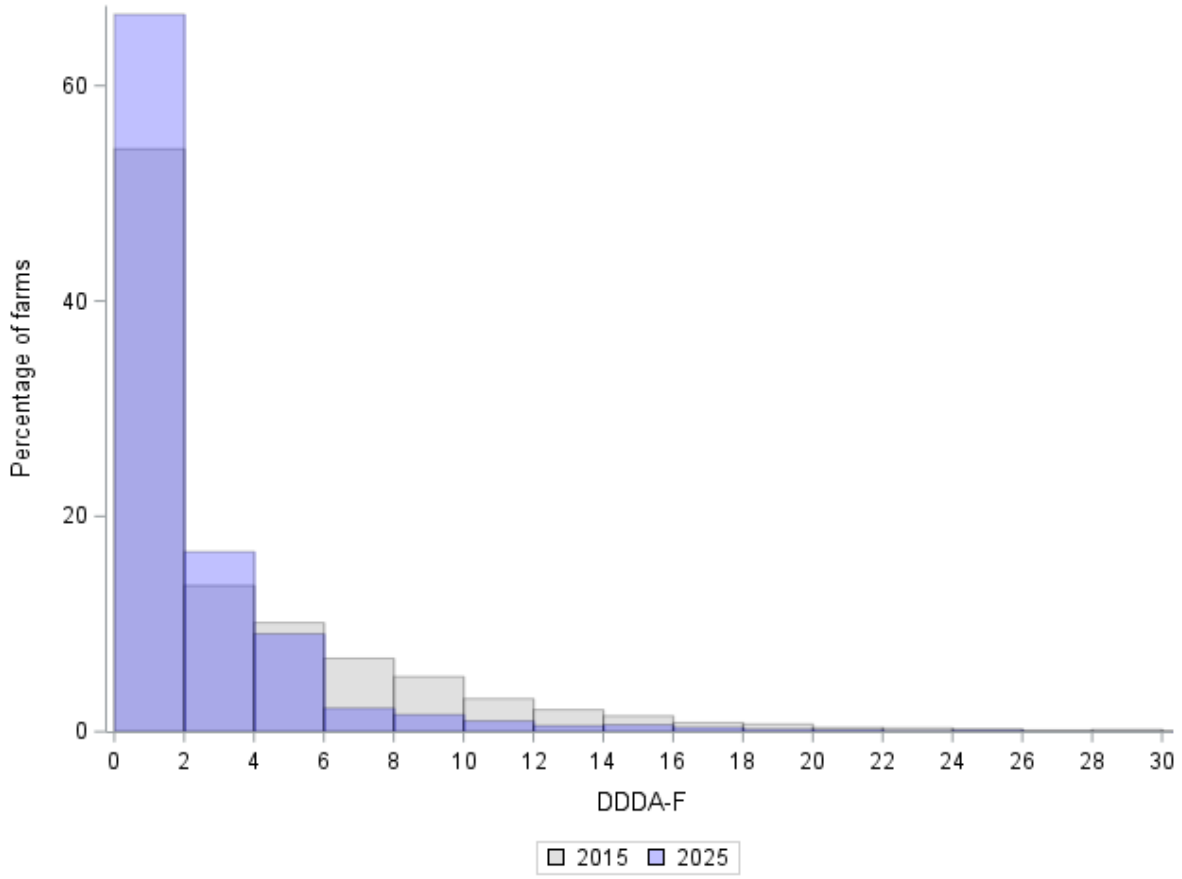


Table A29. Benchmark results for farms with fattening pigs

	Fattening pigs	
	2024	**2025**
In target zone	2.401 (89%)	2.284 (90%)
In action zone	296 (11%)	248 (10%)
With persistently high usage levels	78 (3%)	75 (3%)

Figure A25. Scatter plot of 2024 and 2025 $DDDA_F$ values for farms with fattening pigs. The red solid lines represent the action threshold defined by the SDa. The number of farms with persistently high usage levels is listed in the upper-right corner of the scatter plot

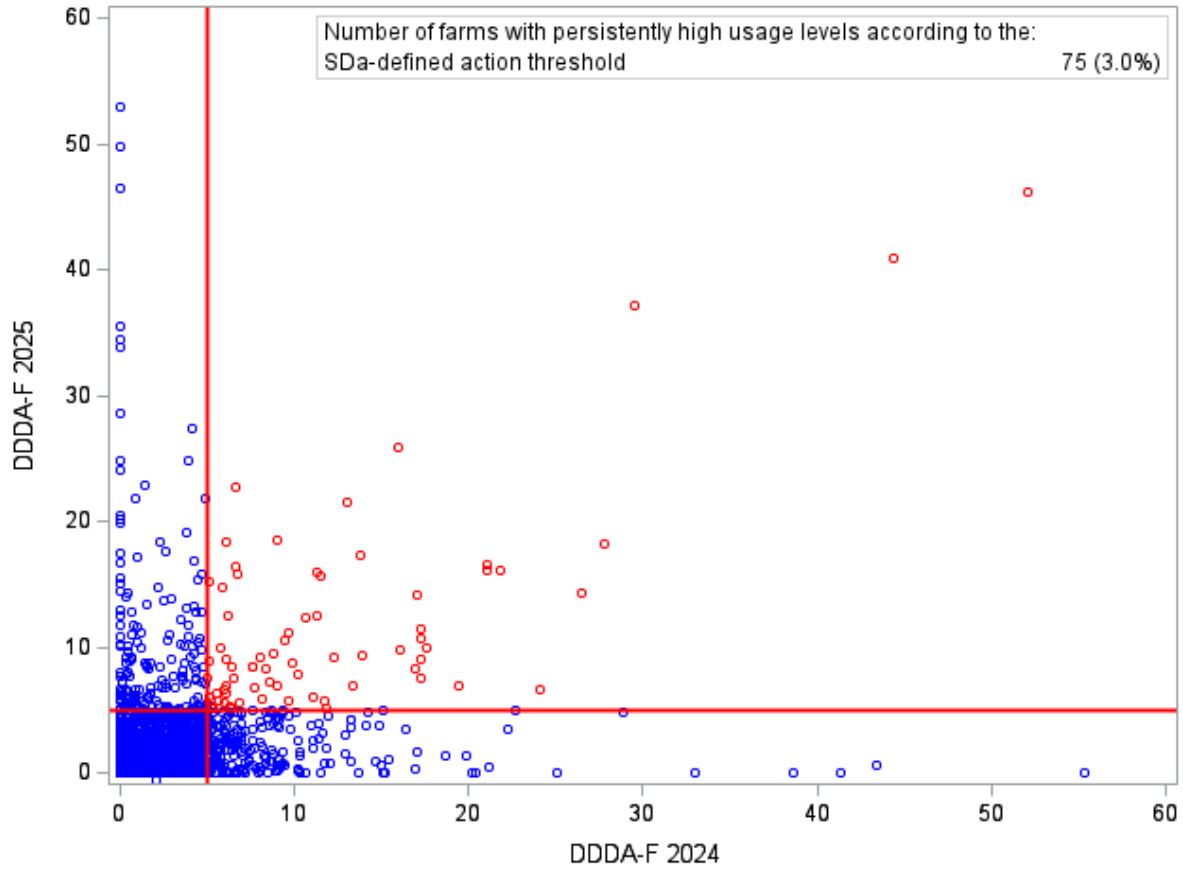


Table A30. Antibiotic use in $DDDA_F$ at farms with fattening pigs in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Oral	99.8%	0.00	0.00	0.00
1	Amphenicols	Parenteral	69.2%	0.00	0.09	0.19
1	Macrolides/lincosamides	Oral	84.6%	0.00	0.00	0.35
1	Macrolides/lincosamides	Parenteral	84.0%	0.00	0.00	0.02
1	Penicillins	Parenteral	43.5%	0.04	0.23	0.22
1	Pleuromutilins	Oral	99.1%	0.00	0.00	0.02
1	Pleuromutilins	Parenteral	96.8%	0.00	0.00	0.00
1	Tetracyclines	Oral	71.1%	0.00	0.55	0.90
1	Tetracyclines	Parenteral	66.8%	0.00	0.06	0.12
1	Trimethoprim/sulfonamides	Oral	84.1%	0.00	0.00	0.22
1	Trimethoprim/sulfonamides	Parenteral	98.6%	0.00	0.00	0.00
2	Aminoglycosides	Oral	99.6%	0.00	0.00	0.00
2	Aminopenicillins	Oral	95.8%	0.00	0.00	0.10
2	Aminopenicillins	Parenteral	85.7%	0.00	0.00	0.03
2	Fixed-dose combinations	Oral	99.6%	0.00	0.00	0.02
2	Fixed-dose combinations	Parenteral	96.9%	0.00	0.00	0.00
2	Long-acting macrolides	Parenteral	96.6%	0.00	0.00	0.08
3	Polymyxins	Oral	99.1%	0.00	0.00	0.02
3	Polymyxins	Parenteral	99.6%	0.00	0.00	0.00

Goat farming sector

Dairy goats

1. $DDDA_F$

Number of farms: 342
Number of farms with $DDDA_F$ = 0: 60 (17.5%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 9 (2.6%)
Number of farms that used polymyxins: 4 (1.2%)

Table A31. Antibiotic use in $DDDA_F$ at farms with dairy goats for 2024 and 2025

Year	N	Mean	Median	P75	P90
2024	353	1.0	0.5	1.3	2.5
2025	342	1.6	0.6	1.7	3.0

Table A32. Antibiotic use in $DDDA_F$ at dairy goat farms in 2025, by pharmacotherapeutic group and route of administration

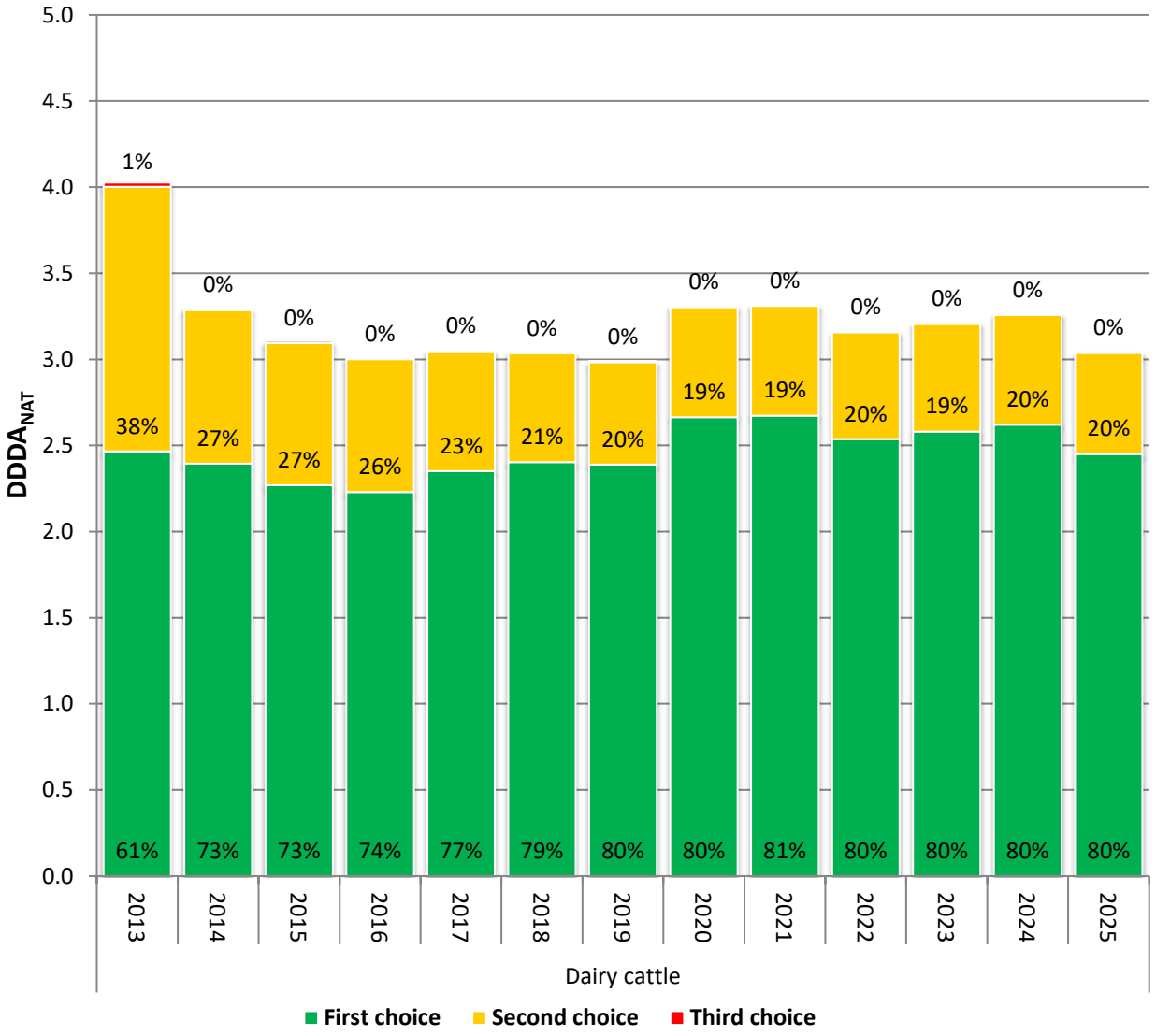
Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Parenteral	58.5%	0.00	0.04	0.04
1	Macrolides/lincosamides	Oral	98.2%	0.00	0.00	0.01
1	Macrolides/lincosamides	Parenteral	91.2%	0.00	0.00	0.01
1	Penicillins	Intramammary	92.7%	0.00	0.00	0.06
1	Penicillins	Intramammary for dry cow therapy	99.7%	0.00	0.00	0.00
1	Penicillins	Parenteral	54.7%	0.00	0.06	0.08
1	Tetracyclines	Oral	71.3%	0.00	0.07	0.36
1	Tetracyclines	Parenteral	50.3%	0.00	0.10	0.12
1	Tetracyclines	Intrauterine	91.8%	0.00	0.00	0.00
1	Trimethoprim/sulfonamides	Oral	83.9%	0.00	0.00	0.06
1	Trimethoprim/sulfonamides	Parenteral	80.4%	0.00	0.00	0.01
2	Aminoglycosides	Oral	78.4%	0.00	0.00	0.04
2	Aminopenicillins	Intramammary	93.3%	0.00	0.00	0.00
2	Aminopenicillins	Oral	71.3%	0.00	0.16	0.26
2	Aminopenicillins	Parenteral	45.0%	0.01	0.05	0.07
2	1st- and 2nd-gen. cephalosporins	Parenteral	96.8%	0.00	0.00	0.00
2	Quinolones	Oral	96.5%	0.00	0.00	0.03
2	Fixed-dose combinations	Intramammary	94.4%	0.00	0.00	0.00
2	Fixed-dose combinations	Parenteral	87.4%	0.00	0.00	0.02
2	Long-acting macrolides	Parenteral	58.2%	0.00	0.26	0.35
2	Macrolides/lincosamides	Parenteral	93.6%	0.00	0.00	0.02
3	3rd- and 4th-gen. cephalosporins	Intramammary	99.7%	0.00	0.00	0.00
3	Fluoroquinolones	Parenteral	97.4%	0.00	0.00	0.00
3	Polymyxins	Oral	99.1%	0.00	0.00	0.01
3	Polymyxins	Parenteral	99.7%	0.00	0.00	0.00

Cattle farming sector

Dairy cattle

1. $DDDA_{NAT}$

Figure A26. $DDDA_{NAT}$ trends in the dairy cattle farming sector over the 2013-2025 period, by antibiotics category



2. $DDDA_F$

Number of farms: 13,462
Number of farms with $DDDA_F$ = 0: 377 (2.8%)
Number of farms that used third- and fourth-generation cephalosporins: 42 (0.3%)
Number of farms that used fluoroquinolones: 984 (7.3%)
Number of farms that used polymyxins: 26 (0.2%)

Table A33. Antibiotic use at dairy cattle farms, presented as overall antibiotic use from 2012 to 2025 (A), use of dry cow (intramammary) antibiotics (B), use of mastitis injectors (C), and use of oral antibiotics in calves (D)

A **Overall antibiotic use, in $DDDA_F$***

Year	N	Mean	Median	P75	P90
2012	18,053	2.9	2.7	3.8	4,9
2013	18,005	2.8	2.8	3.7	4,7
2014	17,747	2.3	2.2	3.0	3,9
2015	17,737	2.2	2.1	2.9	3,7
2016	17,529	2.1	2.1	2.9	3,7
2017	17,121	2.1	2.1	2.9	3,8
2018	16,499	2.1	2.1	2.9	3,8
2019	15,871	2.2	2.1	3.0	3,9
2020	15,522	2.4	2.3	3.3	4,2
2021	15,379	2.3	2.3	3.2	4,2
2022	14,474	2.3	2.2	3.1	4,0
2023	14,080	2.3	2.2	3.1	4,0
2024	13,739	2.3	2.2	3.2	4,1
2025	13,462	2.2	2.1	3.0	3,9

* Only years for which similar $DDDA_F$ calculation methods were used have been included.

B **Use of dry cow (intramammary) antibiotics, in $DDDA_F$ (animals >2 years of age)**

N	Mean	Median	P75	P90
13,462	1.1	1.1	1.7	2.4

C **Use of mastitis injectors, in $DDDA_F$ (animals >2 years of age)**

N	Mean	Median	P75	P90
13,462	0.6	0.4	0.8	1.3

D **Use of oral antibiotics in calves, in $DDDA_F$ (animals <56 days of age)**

N	Mean	Median	P75	P90
13,462	2.1	0.0	0.0	5.1

Figure A27. 2012 and 2025 $DDDA_F$ distributions for dairy cattle farms

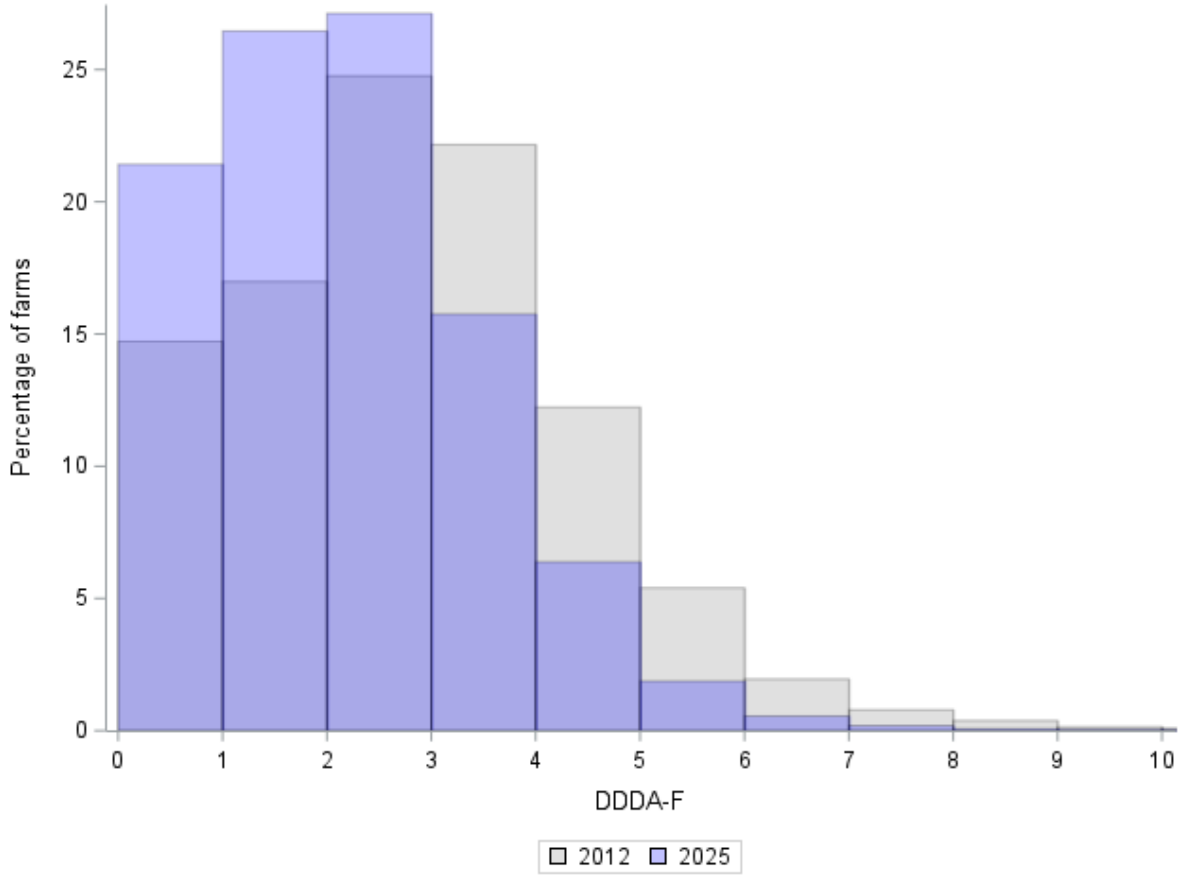


Table A34. Benchmark results for farms with dairy cattle

	Dairy cattle	
	2024	**2025**
In target zone	13,240 (96%)	13,077 (97%)
In action zone	499 (4%)	385 (3%)
With persistently high usage levels	183 (1%)	166 (1%)

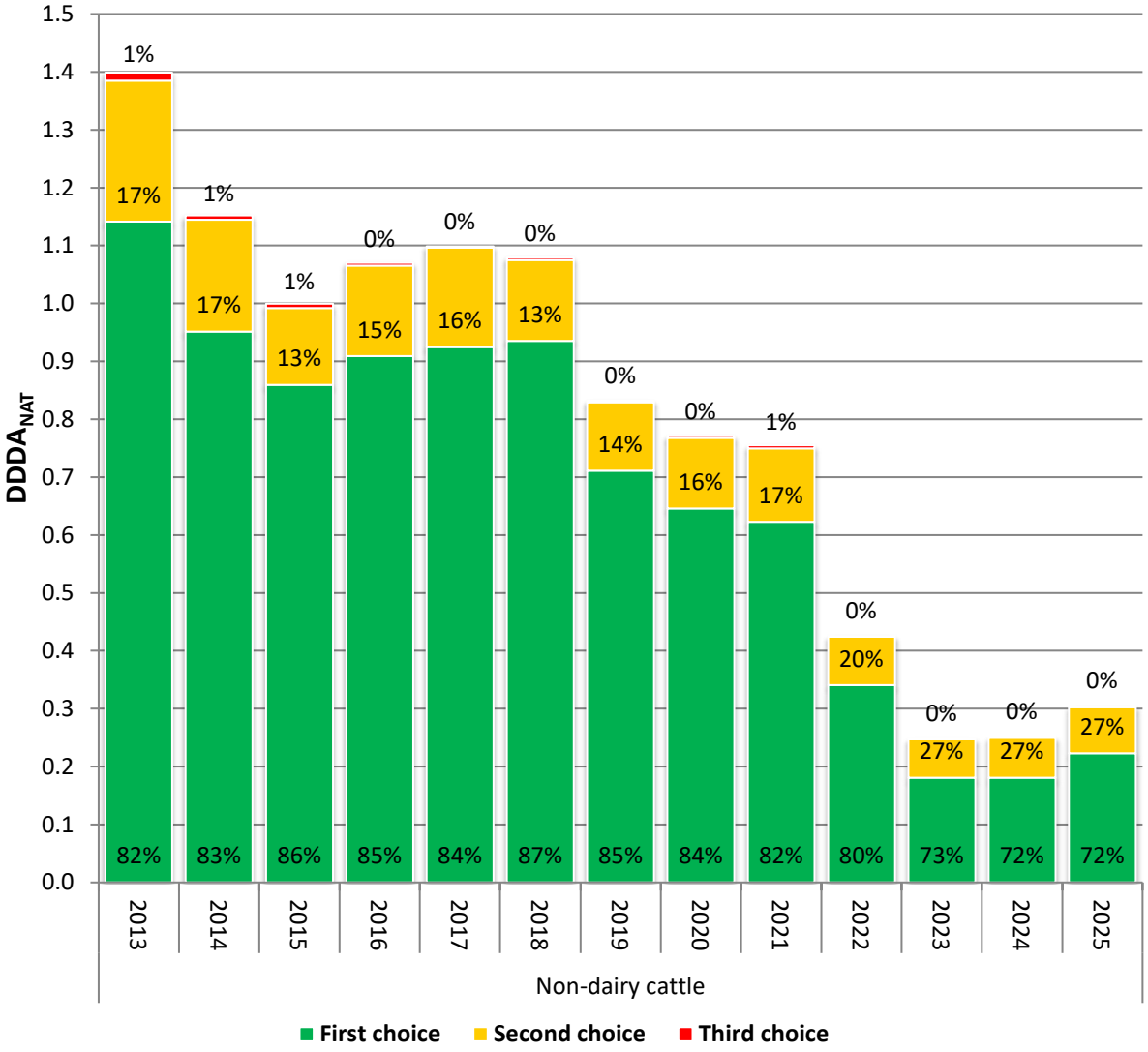
Table A35. Antibiotic use in $DDDA_F$ at dairy cattle farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Amphenicols	Parenteral	58.9%	0.00	0.04	0.03
1	Macrolides/lincosamides	Oral	100.0%	0.00	0.00	0.00
1	Macrolides/lincosamides	Parenteral	57.0%	0.00	0.07	0.07
1	Penicillins	Intramammary	61.8%	0.00	0.26	0.19
1	Penicillins	Intramammary for dry cow therapy	21.4%	0.85	1.38	0.90
1	Penicillins	Parenteral	22.5%	0.12	0.31	0.22
1	Tetracyclines	Oral	98.9%	0.00	0.00	0.00
1	Tetracyclines	Parenteral	27.3%	0.06	0.16	0.11
1	Tetracyclines	Intrauterine	61.6%	0.00	0.06	0.04
1	Trimethoprim/sulfonamides	Oral	99.1%	0.00	0.00	0.00
1	Trimethoprim/sulfonamides	Parenteral	19.3%	0.11	0.24	0.17
2	Aminoglycosides	Oral	76.2%	0.00	0.00	0.01
2	Aminoglycosides	Parenteral	96.6%	0.00	0.00	0.00
2	Aminopenicillins	Intramammary	41.8%	0.05	0.18	0.12
2	Aminopenicillins	Oral	100.0%	0.00	0.00	0.00
2	Aminopenicillins	Parenteral	37.5%	0.03	0.09	0.07
2	1st- and 2nd-gen. cephalosporins	Intramammary	93.7%	0.00	0.00	0.01
2	1st- and 2nd-gen. cephalosporins	Intramammary for dry cow therapy	100.0%	0.00	0.00	0.00
2	1st- and 2nd-gen. cephalosporins	Parenteral	96.8%	0.00	0.00	0.00
2	1st- and 2nd-gen. cephalosporins	Intrauterine	83.0%	0.00	0.00	0.00
2	Quinolones	Oral	100.0%	0.00	0.00	0.00
2	Fixed-dose combinations	Intramammary	50.6%	0.00	0.19	0.14
2	Fixed-dose combinations	Intramammary for dry cow therapy	96.9%	0.00	0.00	0.02
2	Fixed-dose combinations	Parenteral	65.0%	0.00	0.03	0.03
2	Long-acting macrolides	Parenteral	84.2%	0.00	0.00	0.01
2	Macrolides/lincosamides	Parenteral	98.2%	0.00	0.00	0.00
3	3rd- and 4th-gen. cephalosporins	Intramammary	99.7%	0.00	0.00	0.00
3	3rd- and 4th-gen. cephalosporins	Parenteral	99.8%	0.00	0.00	0.00
3	Fluoroquinolones	Parenteral	92.7%	0.00	0.00	0.00
3	Polymyxins	Oral	99.9%	0.00	0.00	0.00
3	Polymyxins	Parenteral	100.0%	0.00	0.00	0.00

Non-dairy cattle

1. $DDDA_{NAT}$

Figure A28. $DDDA_{NAT}$ trends in the non-dairy cattle farming sector over the 2013-2025 period, by antibiotics category



2. $DDDA_F$

2.1 Rearing farms

Number of farms: 653
Number of farms with $DDDA_F$ = 0: 481 (73.7%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 0 (0.0%)

Table A36. Antibiotic use in $DDDA_F$ at rearing farms from 2012 to 2025*

Year	N	Mean	Median	P75	P90
2012**	-	-	-	-	-
2013	472	1.1	0.0	0.2	2.3
2014	474	1.4	0.0	0.2	1.8
2015	470	0.8	0.0	0.2	1.7
2016	435	0.8	0.0	0.1	1.3
2017	520	1.0	0.0	0.0	1.6
2018	544	1.0	0.0	0.0	1.4
2019	573	1.0	0.0	0.1	1.5
2020	634	0.9	0.0	0.2	1.6
2021	664	0.8	0.0	0.2	1.2
2022	713	0.6	0.0	0.2	1.2
2023	694	0.5	0.0	0.0	0.8
2024	569	0.6	0.0	0.0	1.9
2025	653	0.9	0.0	0.1	0.9

* Only years for which similar DDDAF calculation methods were used have been included.
** Rearing and beef farms were grouped together for 2012, as the available data did not allow for categorization based on sex.

Figure A29. 2013 and 2025 $DDDA_F$ distributions for rearing farms

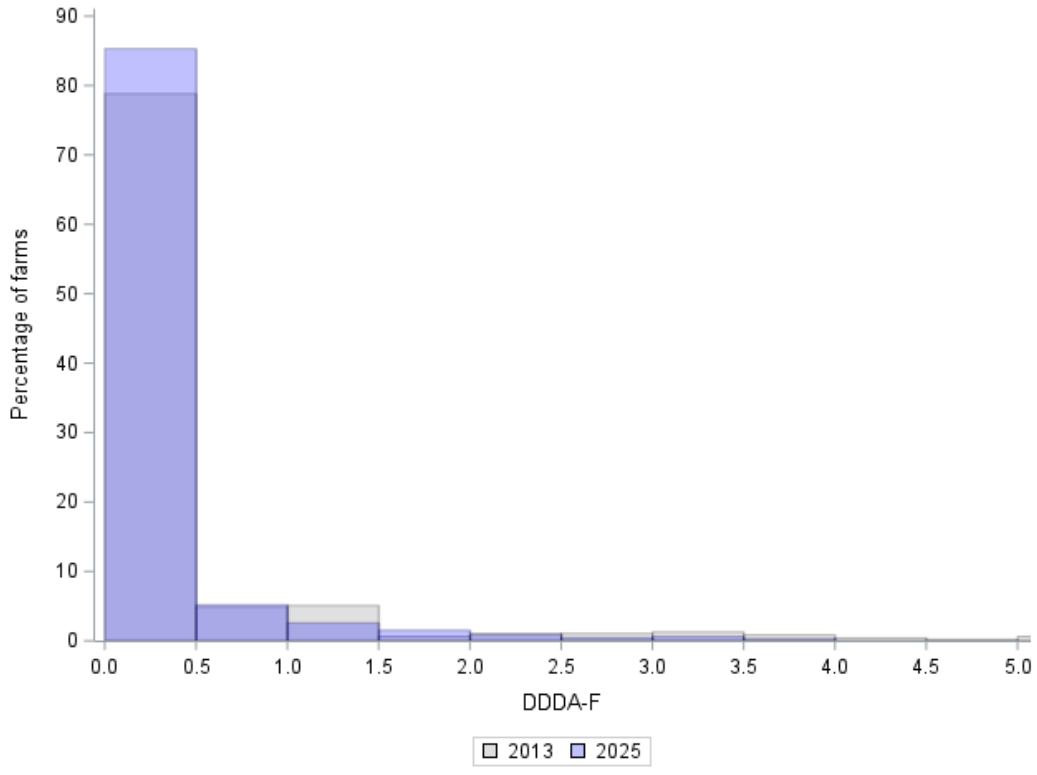


Table A37. Benchmark results for rearing farms

	Rearing farms	
	2024	**2025**
In target zone	542 (95%)	618 (95%)
In action zone	27 (5%)	35 (5%)
With persistently high usage levels	7 (1%)	11 (2%)

Table A38. Antibiotic use in $DDDA_F$ at rearing farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	**Pharmacotherapeutic group**	**Route of administration**	**% of farms with $DDDA_F$=0**	**$DDDA_F$**		
				Median	**P75**	**Mean**
1	Amphenicols	Parenteral	85.3%	0.00	0.00	0.18
1	Macrolides/lincosamides	Oral	98.6%	0.00	0.00	0.08
1	Macrolides/lincosamides	Parenteral	95.9%	0.00	0.00	0.01
1	Penicillins	Parenteral	91.3%	0.00	0.00	0.08
1	Tetracyclines	Oral	97.2%	0.00	0.00	0.28
1	Tetracyclines	Parenteral	95.1%	0.00	0.00	0.05
1	Tetracyclines	Intrauterine	99.5%	0.00	0.00	0.00
1	Trimethoprim/sulfonamides	Oral	98.2%	0.00	0.00	0.07
1	Trimethoprim/sulfonamides	Parenteral	95.9%	0.00	0.00	0.01
2	Aminoglycosides	Oral	98.5%	0.00	0.00	0.01
2	Aminoglycosides	Parenteral	98.9%	0.00	0.00	0.01
2	Aminopenicillins	Intramammary	99.8%	0.00	0.00	0.00
2	Aminopenicillins	Oral	99.5%	0.00	0.00	0.01
2	Aminopenicillins	Parenteral	94.0%	0.00	0.00	0.01
2	Fixed-dose combinations	Parenteral	97.5%	0.00	0.00	0.01
2	Long-acting macrolides	Parenteral	94.3%	0.00	0.00	0.09
2	Macrolides/lincosamides	Parenteral	98.9%	0.00	0.00	0.02

2.2 Suckler cow farms

Number of farms: 7,455
Number of farms with $DDDA_F$ = 0: 4,140 (55.5%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 76 (1.0%)
Number of farms that used polymyxins: 2 (0.0%)

Table A39. Antibiotic use in $DDDA_F$ at suckler cow farms from 2012 to 2025*

Year	N	Mean	Median	P75	P90
2012	11,927	0.9	0.0	0.6	2.0
2013	9,857	0.7	0.1	0.8	2.2
2014	9,588	0.7	0.1	0.7	2.0
2015	9,305	0.6	0.1	0.7	2.0
2016	9,067	0.6	0.1	0.7	1.9
2017	9,351	0.5	0.0	0.6	1.7
2018	8,932	0.6	0.0	0.6	1.8
2019	8,263	0.6	0.0	0.6	1.9
2020	7,914	0.6	0.0	0.6	2.0
2021	7,540	0.6	0.0	0.6	1.9
2022	7,876	0.5	0.0	0.5	1.7
2023	7,937	0.5	0.0	0.5	1.6
2024	7,833	0.5	0.0	0.5	1.6
2025	7,455	0.5	0.0	0.4	1.5

* Only years for which similar $DDDA_F$ calculation methods were used have been included.

Figure A30. 2012 and 2025 $DDDA_F$ distributions for suckler cow farms

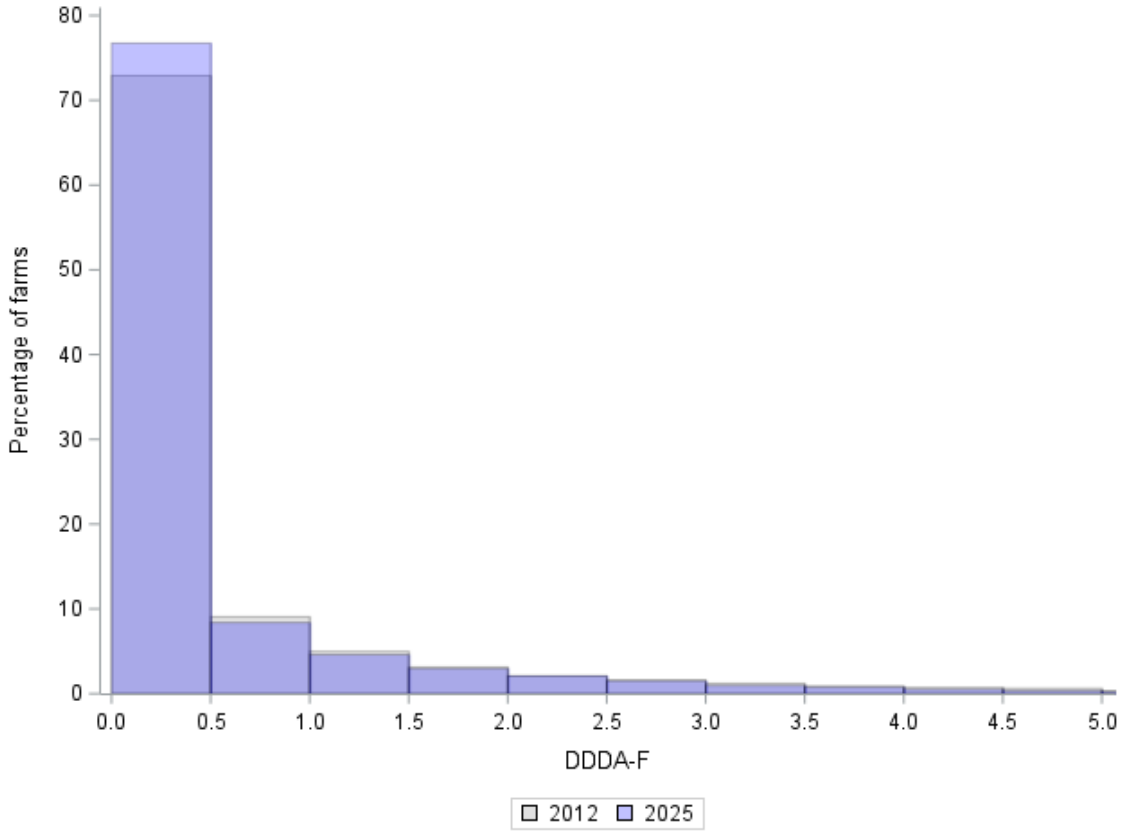


Table A40. Benchmark results for suckler cow farms

	Suckler cow farms	
	2024	**2025**
In target zone	7,233 (92%)	6,908 (93%)
In action zone	600 (8%)	547 (7%)
With persistently high usage levels	297 (4%)	269 (4%)

Table A41. Antibiotic use in $DDDA_F$ at suckler cow farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	**Pharmacotherapeutic group**	**Route of administration**	**% of farms with $DDDA_F$=0**	**$DDDA_F$**		
				Median	**P75**	**Mean**
1	Amphenicols	Parenteral	87.6%	0.00	0.00	0.04
1	Macrolides/lincosamides	Oral	99.9%	0.00	0.00	0.00
1	Macrolides/lincosamides	Parenteral	93.8%	0.00	0.00	0.01
1	Penicillins	Intramammary	99.0%	0.00	0.00	0.01
1	Penicillins	Intramammary for dry cow therapy	98.0%	0.00	0.00	0.02
1	Penicillins	Parenteral	78.6%	0.00	0.00	0.15
1	Tetracyclines	Oral	99.2%	0.00	0.00	0.01
1	Tetracyclines	Parenteral	87.5%	0.00	0.00	0.04
1	Tetracyclines	Intrauterine	92.9%	0.00	0.00	0.01
1	Trimethoprim/sulfonamides	Oral	99.7%	0.00	0.00	0.01
1	Trimethoprim/sulfonamides	Parenteral	91.4%	0.00	0.00	0.02
2	Aminoglycosides	Oral	98.1%	0.00	0.00	0.00
2	Aminoglycosides	Parenteral	99.1%	0.00	0.00	0.00
2	Aminopenicillins	Intramammary	97.9%	0.00	0.00	0.01
2	Aminopenicillins	Oral	100.0%	0.00	0.00	0.00
2	Aminopenicillins	Parenteral	84.5%	0.00	0.00	0.06
2	1st- and 2nd-gen. cephalosporins	Intramammary	99.9%	0.00	0.00	0.00
2	1st- and 2nd-gen. cephalosporins	Intramammary for dry cow therapy	100.0%	0.00	0.00	0.00
2	1st- and 2nd-gen. cephalosporins	Parenteral	99.9%	0.00	0.00	0.00
2	1st- and 2nd-gen. cephalosporins	Intrauterine	99.3%	0.00	0.00	0.00
2	Quinolones	Oral	100.0%	0.00	0.00	0.00
2	Fixed-dose combinations	Intramammary	98.5%	0.00	0.00	0.00
2	Fixed-dose combinations	Intramammary for dry cow therapy	99.8%	0.00	0.00	0.00
2	Fixed-dose combinations	Parenteral	88.3%	0.00	0.00	0.07
2	Long-acting macrolides	Parenteral	93.7%	0.00	0.00	0.03
2	Macrolides/lincosamides	Parenteral	99.2%	0.00	0.00	0.01
3	Fluoroquinolones	Parenteral	99.0%	0.00	0.00	0.00
3	Polymyxins	Oral	100.0%	0.00	0.00	0.00
3	Polymyxins	Parenteral	100.0%	0.00	0.00	0.00

2.3 Beef farms

Number of farms: 2,363
Number of farms with $DDDA_F$ = 0: 1,762 (74.6%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 15 (0.6%)
Number of farms that used polymyxins: 1 (0.0%)

Table A42. Antibiotic use in $DDDA_F$ at beef farms from 2012 to 2025*

Year	N	Mean	Median	P75	P90
2012**	-	-	-	-	-
2013	3,316	1.8	0.0	0.6	4.2
2014	3,297	1.7	0.0	0.5	4.4
2015	3,196	1.5	0.0	0.4	2.9
2016	3,046	1.6	0.0	0.4	2.9
2017	2,919	1.3	0.0	0.3	2.3
2018	2,852	1.3	0.0	0.3	2.2
2019	2,778	1.0	0.0	0.2	1.5
2020	2,728	0.9	0.0	0.2	1.4
2021	2,589	1.1	0.0	0.2	1.6
2022	2,614	0.6	0.0	0.2	1.2
2023	2,579	0.3	0.0	0.0	0.7
2024	2,493	0.3	0.0	0.0	1.5
2025	2,363	0.5	0.0	0.0	0.8

* Only years for which similar DDDAF calculation methods were used have been included.
** Rearing and beef farms were grouped together for 2012, as the available data did not allow for categorization based on sex.

Figure A31. 2013 and 2025 $DDDA_F$ distributions for beef farms

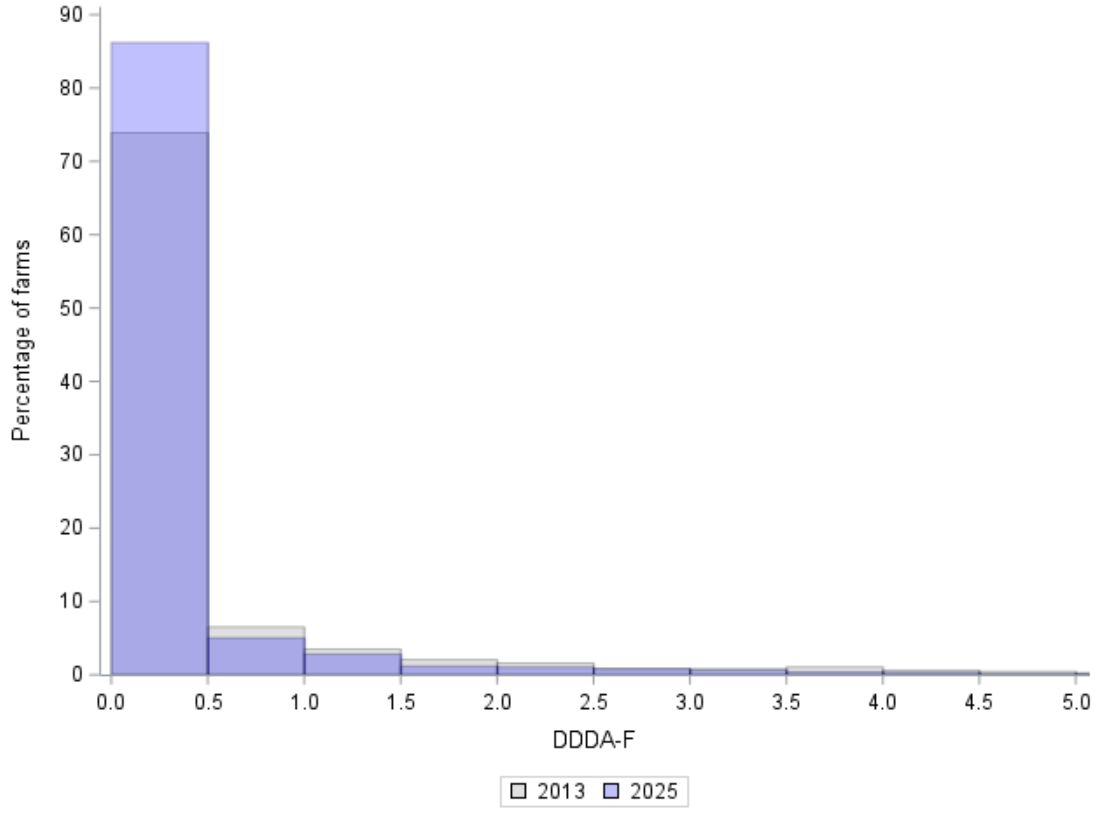


Table A43. Benchmark results for beef farms

	Beef farms	
	2024	2025
In target zone	2,401 (96%)	2,251 (95%)
In action zone	92 (4%)	112 (5%)
With persistently high usage levels	25 (1%)	38 (2%)

Table A44. Antibiotic use in $DDDA_F$ at beef farms in 2025, by pharmacotherapeutic group and route of administration

				$DDDA_F$		
Category of antibiotics	**Pharmacotherapeutic group**	**Route of administration**	**% of farms with $DDDA_F$=0**	**Median**	**P75**	**Mean**
1	Amphenicols	Parenteral	87.5%	0.00	0.00	0.06
1	Macrolides/lincosamides	Oral	99.5%	0.00	0.00	0.03
1	Macrolides/lincosamides	Parenteral	94.6%	0.00	0.00	0.01
1	Penicillins	Intramammary	99.8%	0.00	0.00	0.00
1	Penicillins	Intramammary for dry cow therapy	99.5%	0.00	0.00	0.00
1	Penicillins	Parenteral	88.1%	0.00	0.00	0.05
1	Tetracyclines	Oral	97.6%	0.00	0.00	0.13
1	Tetracyclines	Parenteral	91.9%	0.00	0.00	0.03
1	Tetracyclines	Intrauterine	97.7%	0.00	0.00	0.00
1	Trimethoprim/sulfonamides	Oral	98.9%	0.00	0.00	0.02
1	Trimethoprim/sulfonamides	Parenteral	96.2%	0.00	0.00	0.01
2	Aminoglycosides	Oral	99.4%	0.00	0.00	0.00
2	Aminoglycosides	Parenteral	99.2%	0.00	0.00	0.00
2	Aminopenicillins	Intramammary	99.5%	0.00	0.00	0.00
2	Aminopenicillins	Oral	99.8%	0.00	0.00	0.00
2	Aminopenicillins	Parenteral	88.3%	0.00	0.00	0.02
2	1st- and 2nd-gen. cephalosporins	Intramammary	100.0%	0.00	0.00	0.00
2	1st- and 2nd-gen. cephalosporins	Parenteral	99.9%	0.00	0.00	0.00
2	1st- and 2nd-gen. cephalosporins	Intrauterine	100.0%	0.00	0.00	0.00
2	Quinolones	Oral	100.0%	0.00	0.00	0.00
2	Fixed-dose combinations	Intramammary	99.6%	0.00	0.00	0.00
2	Fixed-dose combinations	Parenteral	95.1%	0.00	0.00	0.01
2	Long-acting macrolides	Parenteral	93.6%	0.00	0.00	0.05
2	Macrolides/lincosamides	Parenteral	98.4%	0.00	0.00	0.02
3	Fluoroquinolones	Parenteral	99.4%	0.00	0.00	0.00
3	Polymyxins	Parenteral	100.0%	0.00	0.00	0.00

Layer farming sector

1. $DDDA_F$

1.1 Layer farms

Number of farms: 789
Number of farms with $DDDA_F$ = 0: 635 (80.5%)
Number of farms that used third- and fourth-generation cephalosporins*: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 54 (6.8%)

Table A45. Antibiotic use in $DDDA_F$ at layer farms from 2017 to 2025**

Year	N	Mean	Median	P75	P90
2017	875	0.9	0.0	0.0	3.1
2018	844	1.6	0.0	0.8	6.1
2019	844	1.8	0.0	1.0	6.6
2020	818	1.7	0.0	1.2	5.9
2021	824	1.4	0.0	0.0	5.1
2022	816	1.0	0.0	0.0	2.0
2023	814	1.5	0.0	0.0	5.4
2024	811	1.8	0.0	0.0	5.3
2025	789	1.4	0.0	0.0	4.9

* These antibiotics are not authorized for use in poultry.
** Only years for which similar DDDAF calculation methods were used have been included.

Figure A32. 2017 and 2025 $DDDA_F$ distributions for layer farms

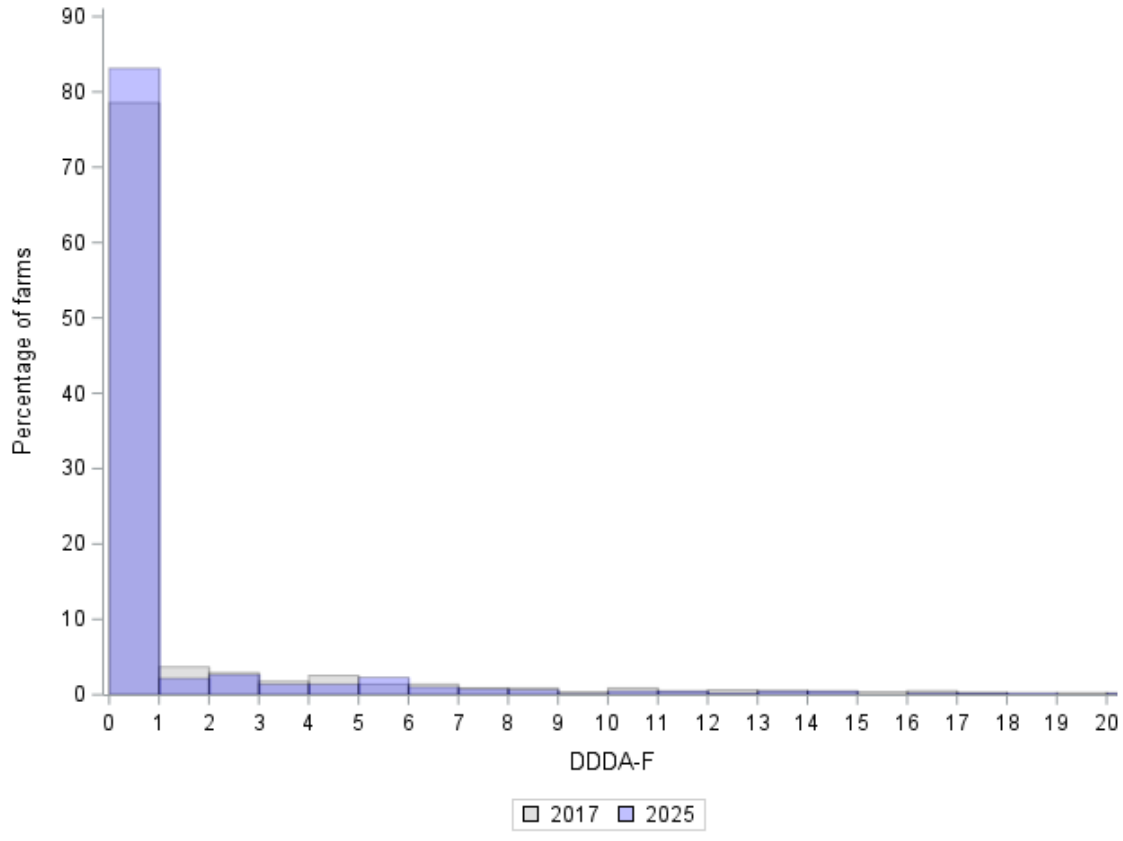


Table A46. Antibiotic use in $DDDA_F$ at layer farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	93.9%	0.00	0.00	0.57
1	Pleuromutilins	Oral	97.6%	0.00	0.00	0.12
1	Tetracyclines	Oral	99.9%	0.00	0.00	0.01
1	Trimethoprim/sulfonamides	Oral	99.9%	0.00	0.00	0.00
2	Aminoglycosides	Oral	97.0%	0.00	0.00	0.16
2	Quinolones	Oral	99.9%	0.00	0.00	0.00
2	Macrolides/lincosamides	Oral	93.0%	0.00	0.00	0.12
3	Polymyxins	Oral	93.2%	0.00	0.00	0.42

Layer pullet and layer parent/grandparent stock farming sectors

1.2 Pullet rearing farms

Number of farms: 144
Number of farms with $DDDA_F$ = 0: 82 (56.9%)
Number of farms that used third- and fourth-generation cephalosporins*: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 0 (0.0%)

Table A47. Antibiotic use in $DDDA_F$ at pullet rearing farms from 2017 to 2025**

Year	N	Mean	Median	P75	P90
2017	187	2.4	0.0	3.6	5.9
2018	176	2.3	0.0	2.7	5.8
2019	177	2.0	0.0	2.9	6.0
2020	175	1.8	0.0	2.7	5.8
2021	175	1.7	0.0	2.4	5.0
2022	169	1.8	0.0	2.8	6.3
2023	166	2.3	0.0	3.0	6.5
2024	158	2.3	0.0	3.4	8.3
2025	144	2.1	0.0	3.3	7.3

* These antibiotics are not authorized for use in poultry.
** Only years for which similar $DDDA_F$ calculation methods were used have been included.

Figure A33. 2017 and 2025 $DDDA_F$ distributions for pullet rearing farms

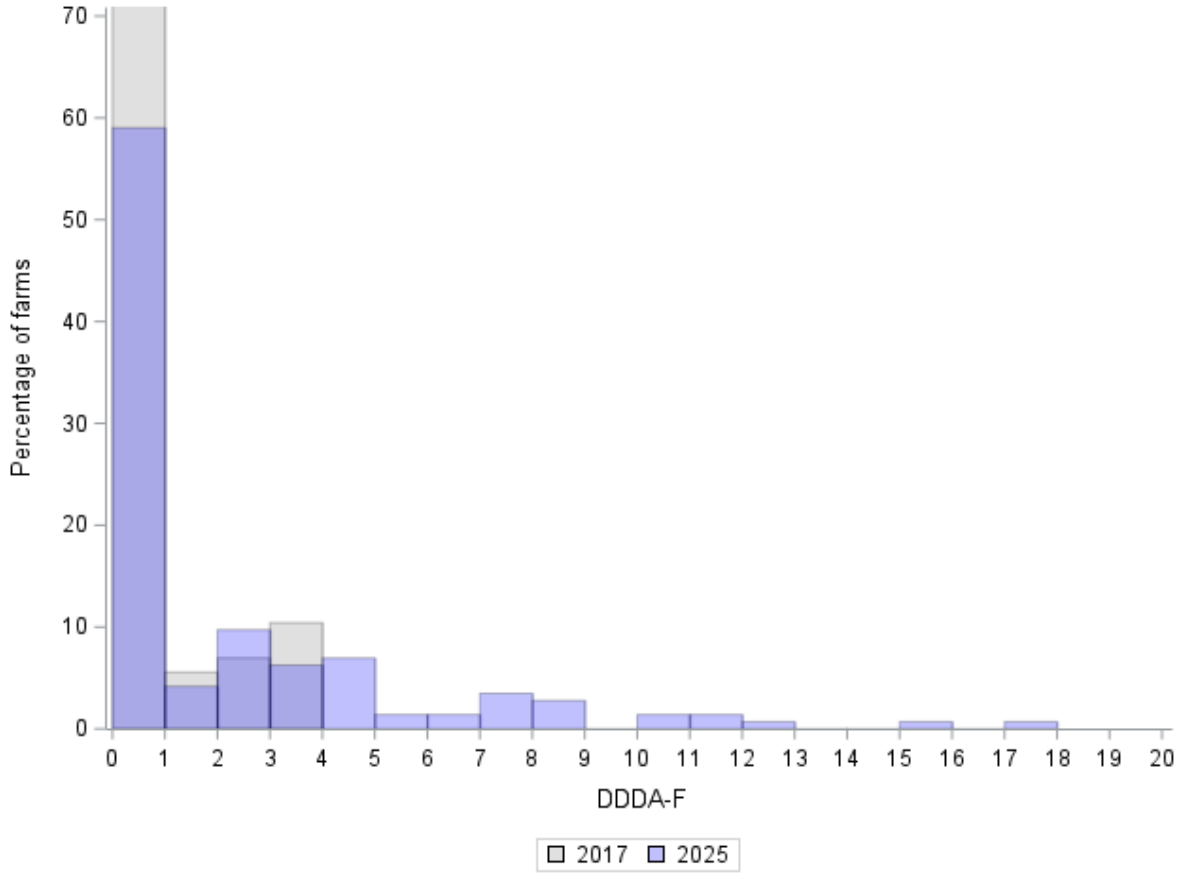


Table A48. Antibiotic use in $DDDA_F$ at pullet rearing farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	73.6%	0.00	1.37	1.24
1	Tetracyclines	Oral	86.1%	0.00	0.00	0.52
1	Trimethoprim/sulfonamides	Oral	98.6%	0.00	0.00	0.01
2	Aminopenicillins	Oral	98.6%	0.00	0.00	0.06
2	Quinolones	Oral	98.6%	0.00	0.00	0.08
2	Macrolides/lincosamides	Oral	86.1%	0.00	0.00	0.23

1.3 Parent/grandparent stock rearing farms

Number of farms: 30
Number of farms with $DDDA_F$ = 0: 19 (63.3%)
Number of farms that used third- and fourth-generation cephalosporins*: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 0 (0.0%)

Table A49. Antibiotic use in $DDDA_F$ at parent/grandparent stock rearing farms from 2017 to 2025**

Year	N	Mean	Median	P75	P90
2017	20	4.1	0.0	8.6	13.1
2018	20	7.2	0.0	10.8	25.5
2019	19	6.4	0.0	10.5	20.9
2020	17	5.3	0.0	8.7	14.8
2021	21	10.7	0.0	14.4	21.2
2022	24	8.2	0.0	13.5	23.5
2023	25	8.1	0.0	16.3	25.4
2024	38	17.6	0.0	11.6	30.6
2025	30	9.0	0.0	12.4	28.4

* These antibiotics are not authorized for use in poultry.
** Only years for which similar DDDAF calculation methods were used have been included.

Figure A34. 2017 and 2025 $DDDA_F$ distributions for parent/grandparent stock rearing farms

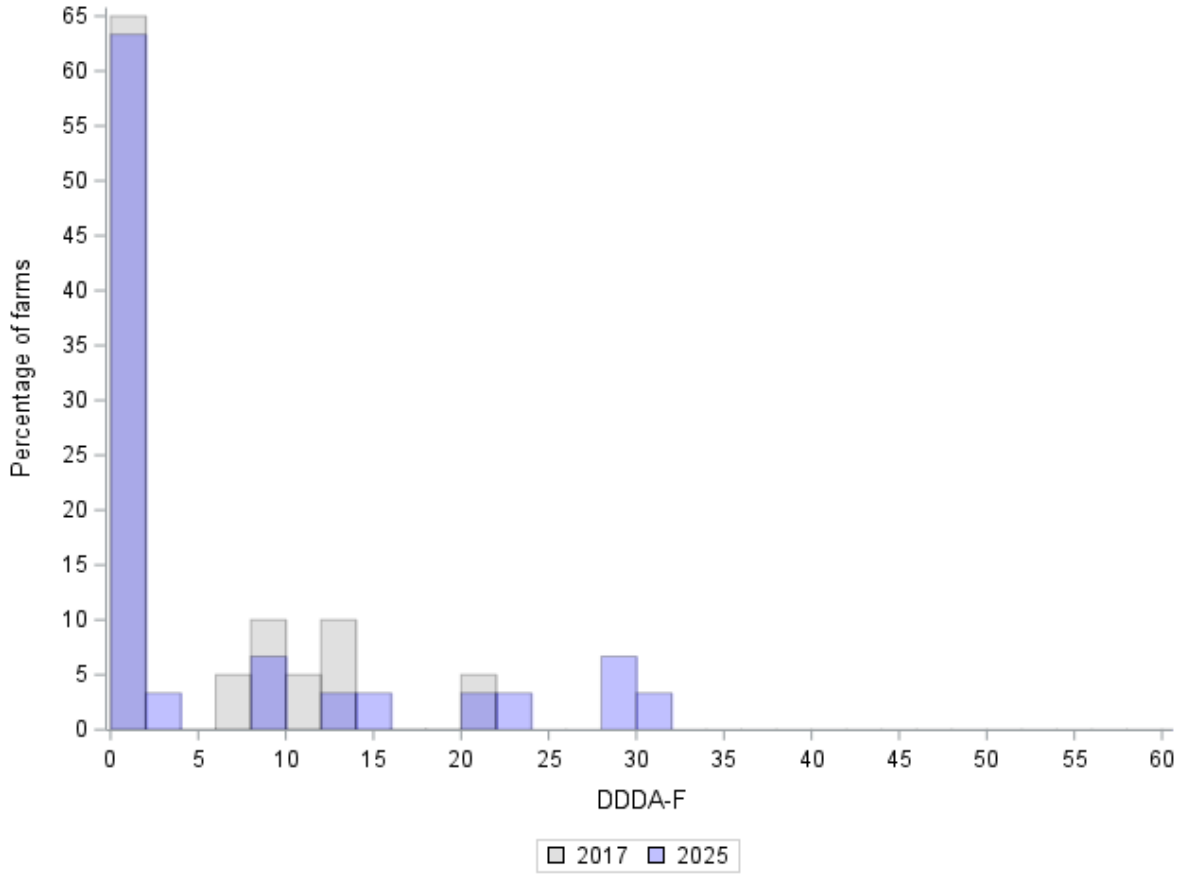


Table A50. Antibiotic use in $DDDA_F$ at parent/grandparent stock rearing farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	86.7%	0.00	0.00	1.67
1	Tetracyclines	Oral	96.7%	0.00	0.00	0.41
2	Aminopenicillins	Oral	83.3%	0.00	0.00	5.11
2	Quinolones	Oral	90.0%	0.00	0.00	1.73
2	Macrolides/lincosamides	Oral	96.7%	0.00	0.00	0.08

1.4 Parent/grandparent stock production farms

Number of farms: 48
Number of farms with $DDDA_F$ = 0: 37 (77.1%)
Number of farms that used third- and fourth-generation cephalosporins*: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 4 (8.3%)

Table A51. Antibiotic use in $DDDA_F$ at parent/grandparent stock production farms from 2017 to 2025**

Year	N	Mean	Median	P75	P90
2017	43	3.3	0.0	5.9	9.6
2018	43	3.2	0.0	5.5	9.7
2019	51	3.5	0.0	2.8	10.5
2020	48	3.0	0.3	4.0	8.9
2021	53	1.9	0.0	2.5	5.9
2022	54	1.6	0.0	1.1	6.4
2023	50	1.2	0.0	0.0	4.6
2024	48	2.0	0.0	1.6	9.4
2025	48	1.7	0.0	0.0	5.5

* These antibiotics are not authorized for use in poultry.
** Only years for which similar DDDAF calculation methods were used have been included.

Figure A35. 2017 and 2025 $DDDA_F$ distributions for parent/grandparent stock production farms

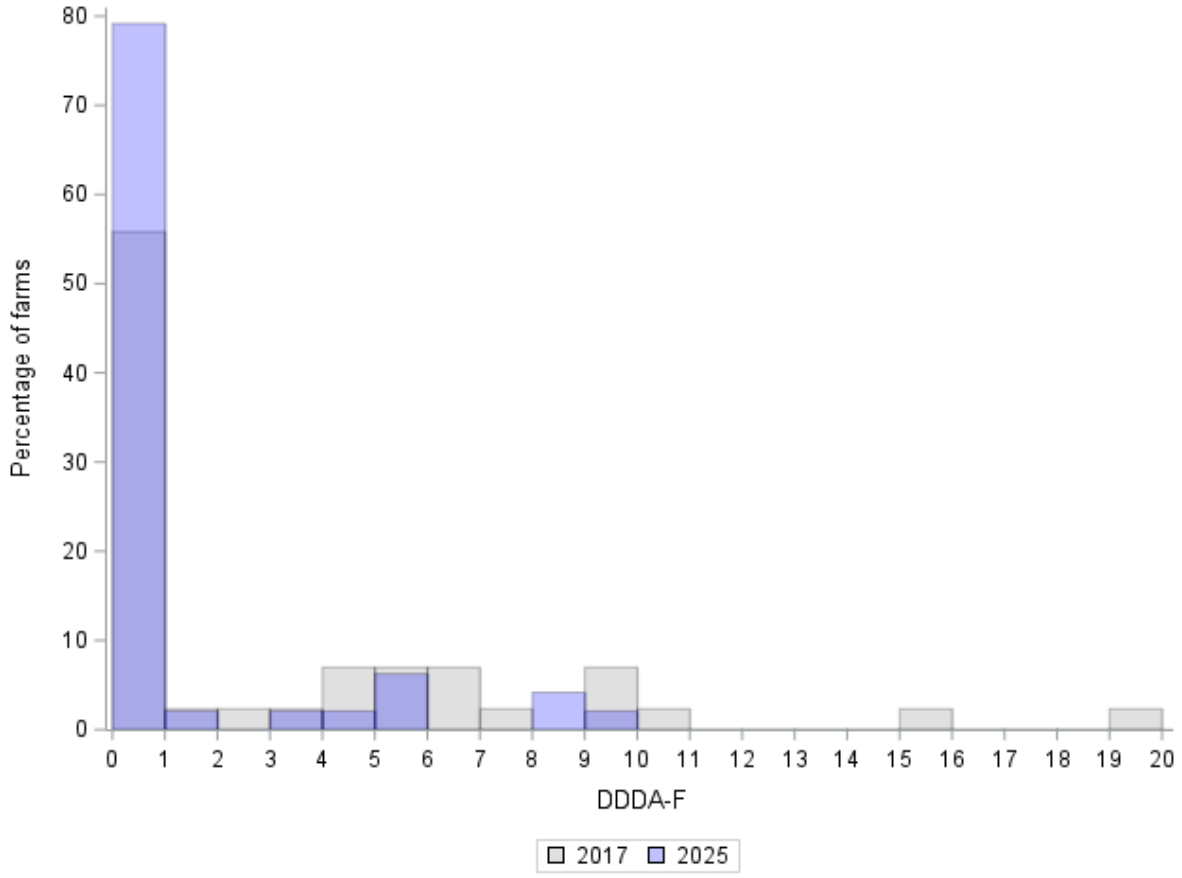


Table A52. Antibiotic use in $DDDA_F$ at parent/grandparent stock production farms in 2025, by pharmacotherapeutic group and route of administration

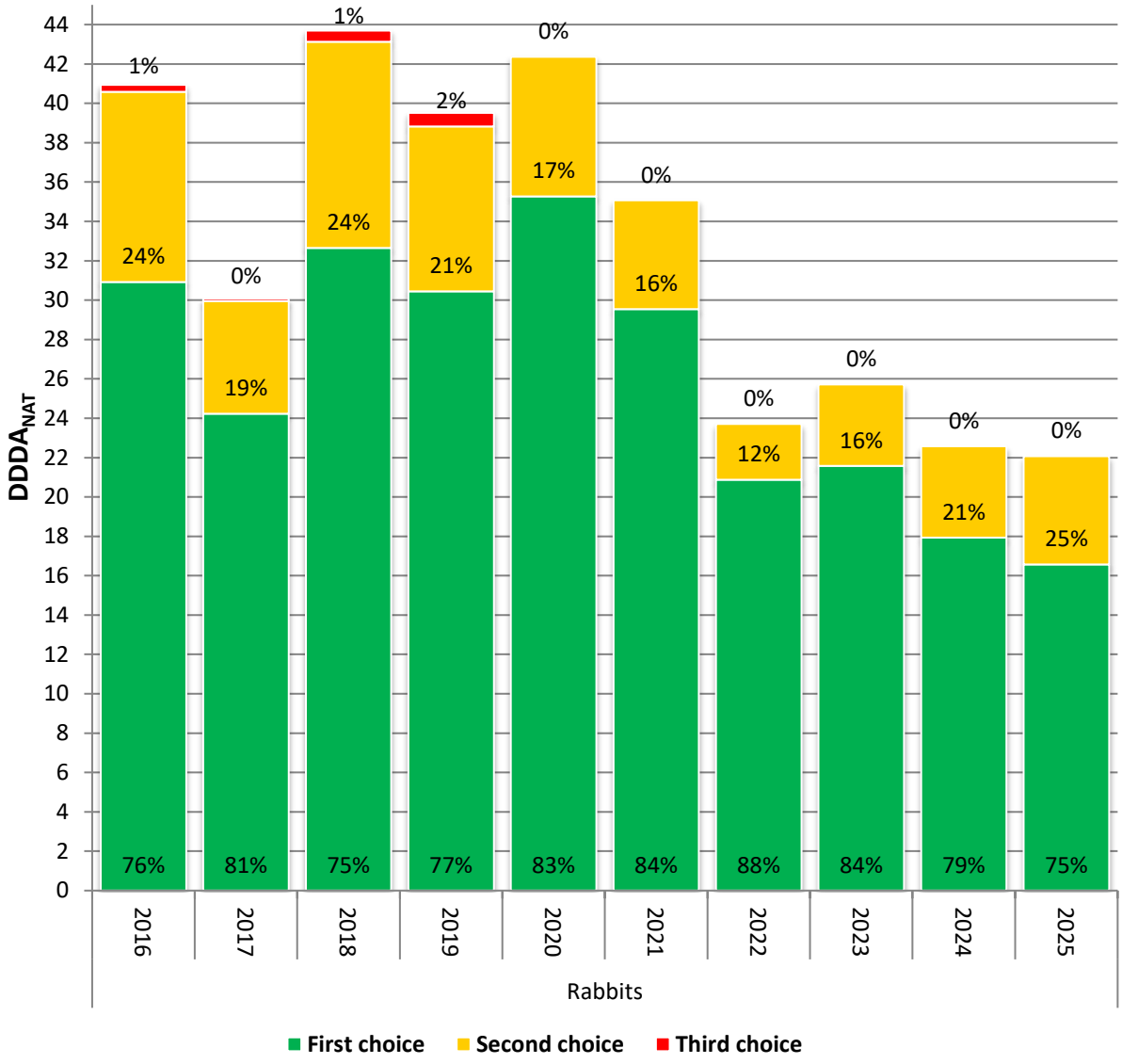
Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	91.7%	0.00	0.00	0.23
1	Pleuromutilins	Oral	97.9%	0.00	0.00	0.06
1	Tetracyclines	Oral	93.8%	0.00	0.00	0.41
2	Aminoglycosides	Oral	95.8%	0.00	0.00	0.14
2	Quinolones	Oral	97.9%	0.00	0.00	0.19
2	Macrolides/lincosamides	Oral	91.7%	0.00	0.00	0.17
3	Polymyxins	Oral	91.7%	0.00	0.00	0.53

Small food producing livestock sectors

Rabbit farming sector

1. $DDDA_{NAT}$

Figure A36. $DDDA_{NAT}$ trends in the rabbit farming sector over the 2016-2025 period, by antibiotics category



2. DDDA$_F$

Number of farms: 27
Number of farms with DDDA$_F$ = 0: 1 (3.7%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 0 (0.0%)

Table A53. Antibiotic use in DDDAF at rabbit farms from 2016 to 2025*

Year	N	Mean	Median	P75	P90
2016	41	40.9	31.8	60.3	84.4
2017	49	25.4	21.7	37.9	49.4
2018	40	47.9	44.2	61.1	96.3
2019	36	42.5	40.4	60.8	75.9
2020	35	53.5	39.9	75.3	124.4
2021	31	43.4	30.7	58.8	80.9
2022	31	24.7	26.3	35.0	45.2
2023	31	24.7	24.3	31.8	40.5
2024	31	20.8	21.2	28.4	44.9
2025	27	22.8	22.0	31.6	40.5

* Only years for which similar DDDA$_F$ calculation methods were used have been included.

Figure A37. 2016 and 2025 DDDA$_F$ distributions for rabbit farms

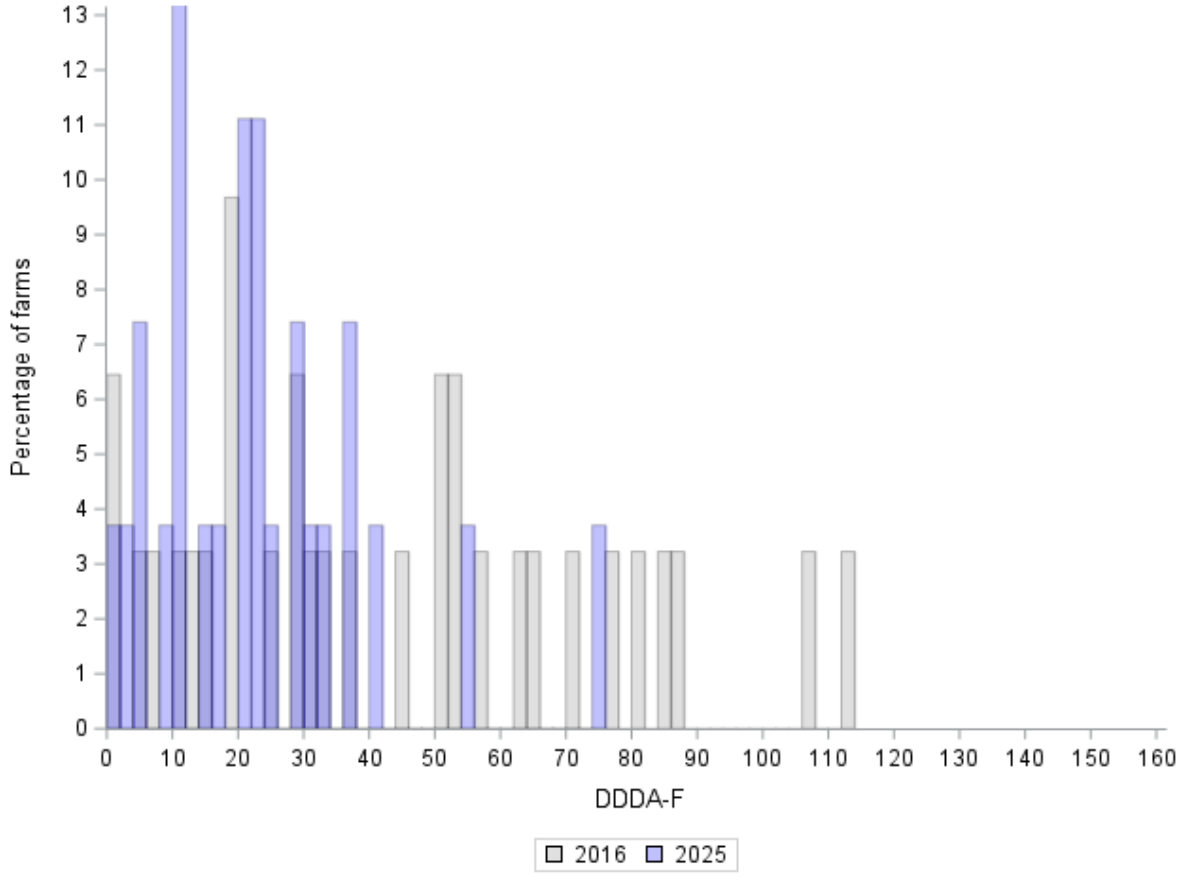


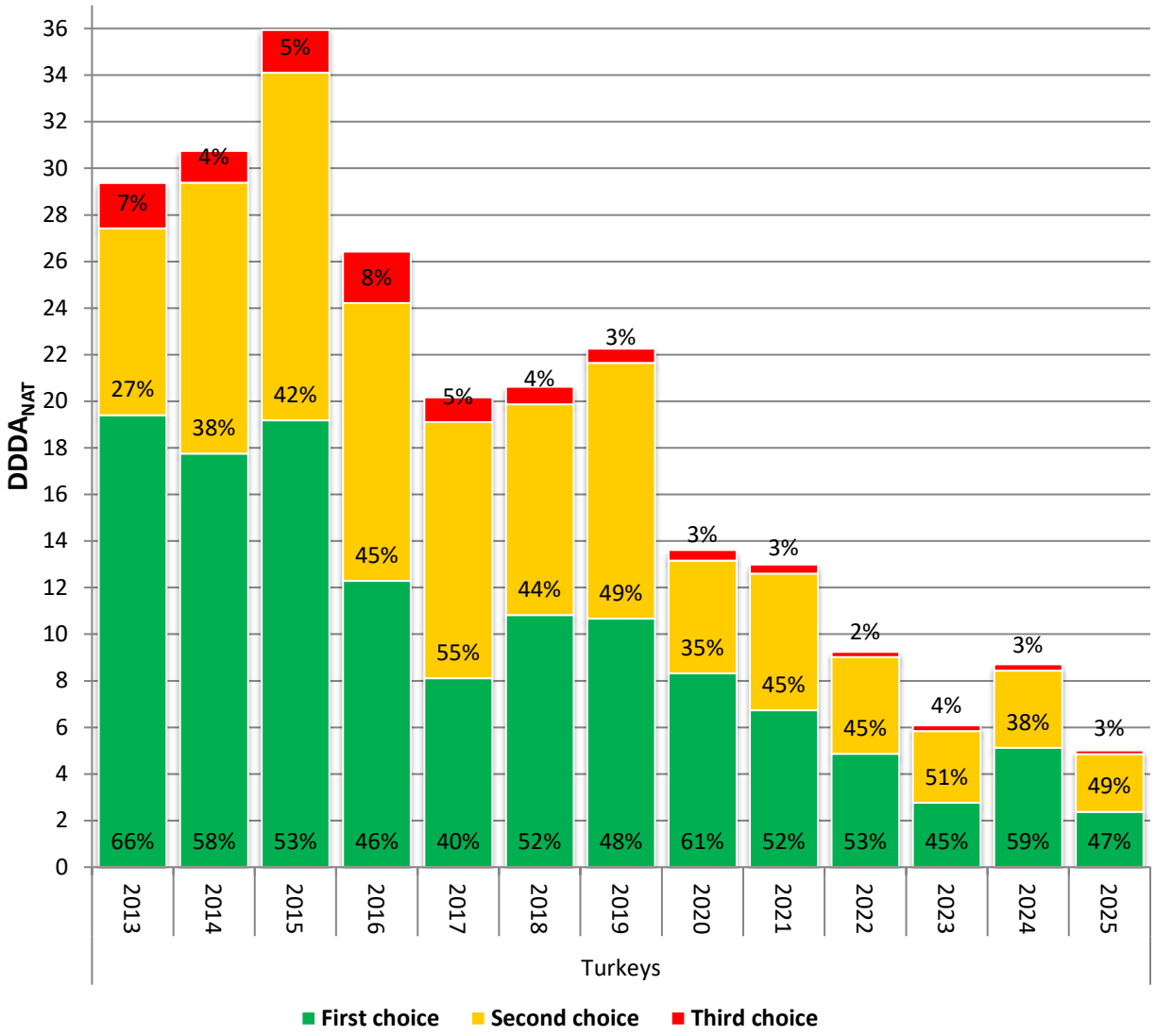
Table A54. Antibiotic use in $DDDA_F$ at rabbit farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Macrolides/lincosamides	Oral	48.1%	1.35	16.76	7.88
1	Macrolides/lincosamides	Parenteral	96.3%	0.00	0.00	0.01
1	Other	Oral	44.4%	0.47	2.64	3.47
1	Pleuromutilins	Oral	81.5%	0.00	0.00	1.09
1	Tetracyclines	Oral	55.6%	0.00	8.48	3.58
1	Tetracyclines	Parenteral	48.1%	0.00	1.35	0.74
1	Trimethoprim/sulfonamides	Oral	96.3%	0.00	0.00	0.15
2	Aminoglycosides	Oral	48.1%	1.56	6.15	5.40
2	Quinolones	Oral	92.6%	0.00	0.00	0.12
2	Long-acting macrolides	Parenteral	85.2%	0.00	0.00	0.40

Turkey farming sector

1. $DDDA_{NAT}$

Figure A38. $DDDA_{NAT}$ trends in the turkey farming sector over the 2013-2025 period, by antibiotics category



2. $DDDA_F$

Number of farms: 29
Number of farms with $DDDA_F$ = 0: 10 (34.5%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 6 (20.7%)
Number of farms that used polymyxins: 0 (0.0%)

Table A55. Antibiotic use in $DDDA_F$ at turkey farms from 2016 to 2025**

Year	N	Mean	Median	P75	P90
2016	46	28.0	19.3	34.2	72.8
2017	45	18.7	10.4	25.5	59.8
2018	38	20.9	11.6	24.1	49.7
2019	43	18.7	13.2	21.5	40.1
2020	43	9.3	6.1	15.7	22.2
2021	39	11.1	8.0	13.2	26.3
2022	38	11.6	5.7	13.7	28.1
2023	33	7.5	2.8	12.3	17.5
2024	30	9.3	5.5	12.6	27.6
2025	29	9.7	2.5	8.1	47.1

* These antibiotics are not authorized for use in poultry.
** Only years for which similar $DDDA_F$ calculation methods were used have been included.

Figure A39. 2016 and 2025 $DDDA_F$ distributions for turkey farms

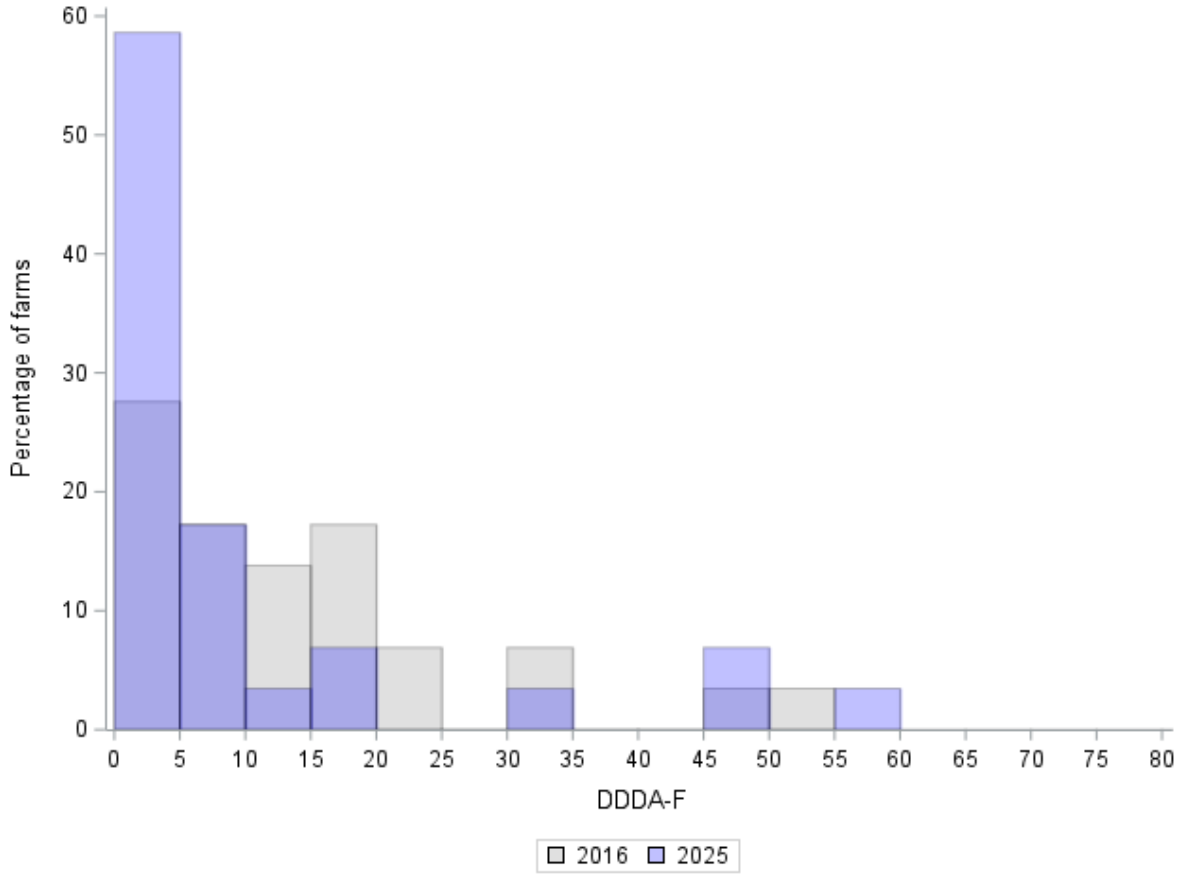


Figure A40. Scatter plot of 2024 and 2025 $DDDA_F$ values for turkey farms. The red solid lines represent the action thresholds defined by the SDa. The red dotted lines represent the transitional action threshold negotiated by the livestock sector. For each type of action threshold, the number of farms with persistently high usage levels is listed in the upper-right corner of the scatter plot

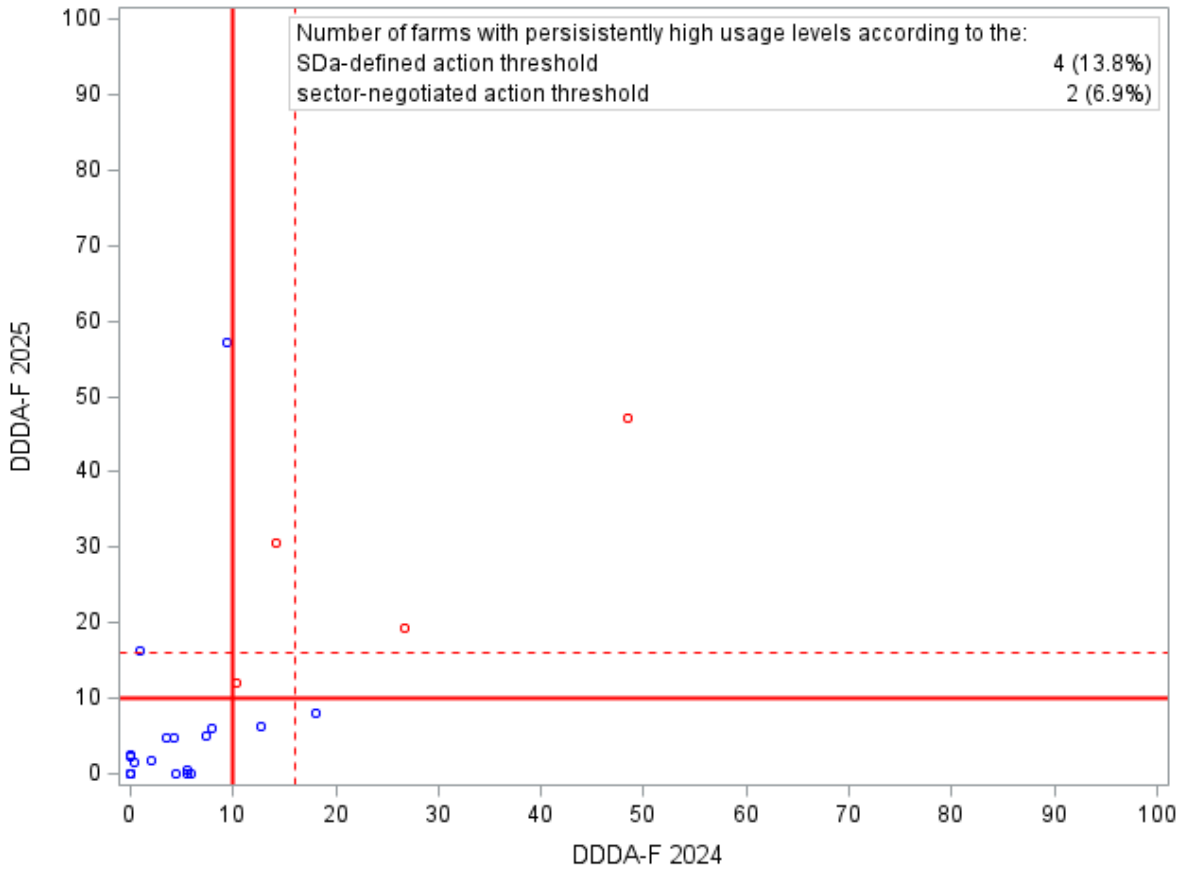


Table A56. Antibiotic use in $DDDA_F$ at turkey farms in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with $DDDA_F$=0	$DDDA_F$		
				Median	P75	Mean
1	Penicillins	Oral	82.8%	0.00	0.00	0.98
1	Tetracyclines	Oral	65.5%	0.00	1.96	1.62
1	Trimethoprim/sulfonamides	Oral	96.6%	0.00	0.00	1.10
2	Aminoglycosides	Oral	96.6%	0.00	0.00	0.07
2	Aminopenicillins	Oral	75.9%	0.00	0.00	4.40
2	Macrolides/lincosamides	Oral	69.0%	0.00	1.06	0.83
3	Fluoroquinolones	Oral	79.3%	0.00	0.00	0.71

Duck farming sector

1.DDDA$_F$

1.1 Farms with fattening ducks

Number of farms: 28
Number of farms with DDDA$_F$ = 0: 22 (78.6%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 1 (3.6%)

Table A57. Antibiotic use in DDDA$_F$ at farms with fattening ducks from 2021 to 2025

Year	N	Mean	Median	P75	P90
2021	42	0.9	0.0	0.0	4.3
2022	41	0.4	0.0	0.0	0.0
2023	37	0.2	0.0	0.0	0.0
2024	33	0.0	0.0	0.0	0.0
2025	28	0.9	0.0	0.0	5.8

Table A58. Antibiotic use in DDDA$_F$ at farms with fattening ducks in 2025, by pharmacotherapeutic group and route of administration

Category of antibiotics	Pharmacotherapeutic group	Route of administration	% of farms with DDDA$_F$=0	DDDA$_F$		
				Median	P75	Mean
1	Trimethoprim/sulfonamides	Oral	96.4%	0.00	0.00	0.08
2	Quinolones	Oral	82.1%	0.00	0.00	0.80
3	Polymyxins	Oral	96.4%	0.00	0.00	0.06

1.2 Rearing farms

Number of farms: 4
Number of farms with $DDDA_F$ = 0: 4 (100%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 0 (0.0%)

Table A59. Antibiotic use in $DDDA_F$ at rearing farms from 2021 to 2025

Year	N	Mean	Median	P75	P90
2021	3	0.6	0.0	1.9	1.9
2022	3	0.0	0.0	0.0	0.0
2023	2	0.8	0.8	1.6	1.6
2024	2	12.5	12.5	25.0	25.0
2025	4	0.0	0.0	0.0	0.0

1.3 Stock production farms

Number of farms: 7
Number of farms with $DDDA_F$ = 0: 7 (100%)
Number of farms that used third- and fourth-generation cephalosporins: 0 (0.0%)
Number of farms that used fluoroquinolones: 0 (0.0%)
Number of farms that used polymyxins: 0 (0.0%)

Table A60. Antibiotic use in $DDDA_F$ at stock production farms from 2021 to 2025

Year	N	Mean	Median	P75	P90
2021	8	0.0	0.0	0.0	0.0
2022	8	3.7	0.0	7.8	14.1
2023	7	2.8	0.0	4.4	15.1
2024	8	0.0	0.0	0.0	0.0
2025	7	0.0	0.0	0.0	0.0

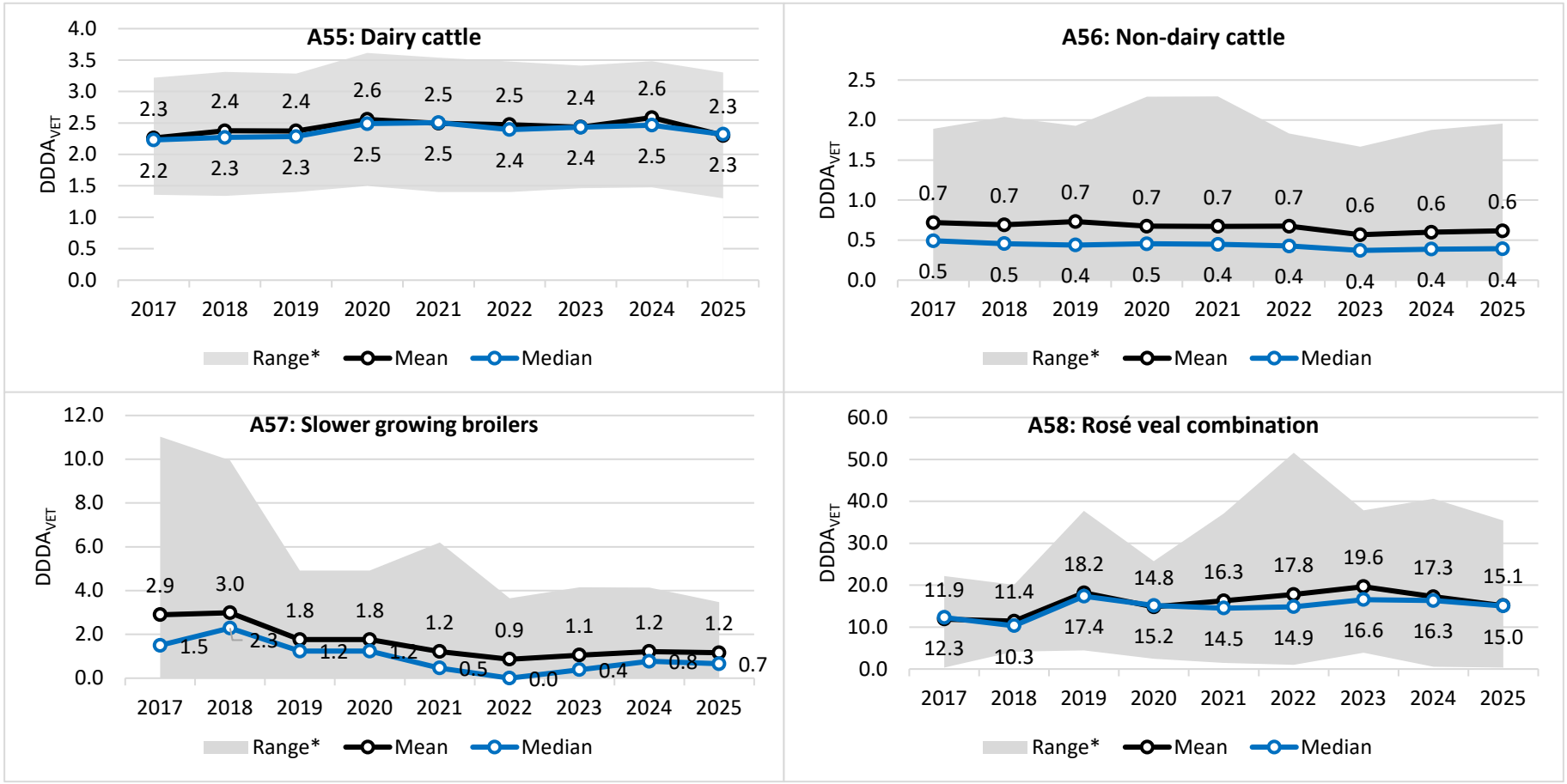
Colistin usage data

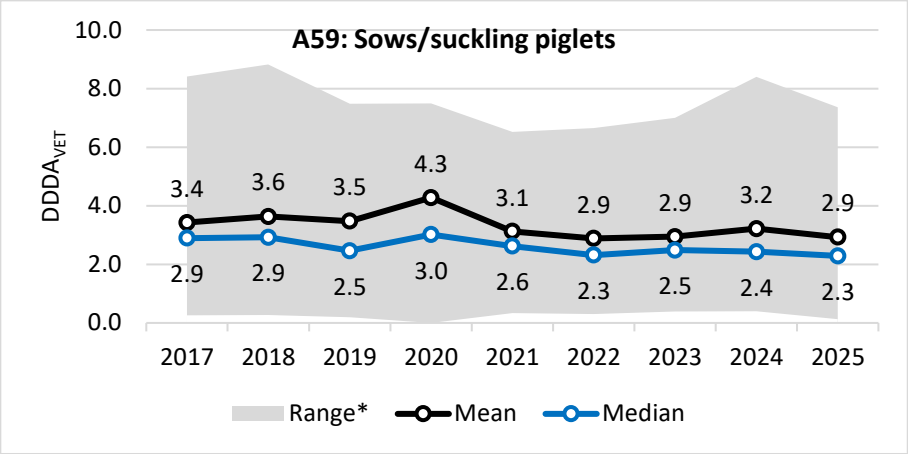
Table A61. Colistin usage data in $DDDA_F$ for 2025, by type of farm/production category. Descriptive statistics are provided for the livestock farms that used colistin, and for all livestock farms combined.

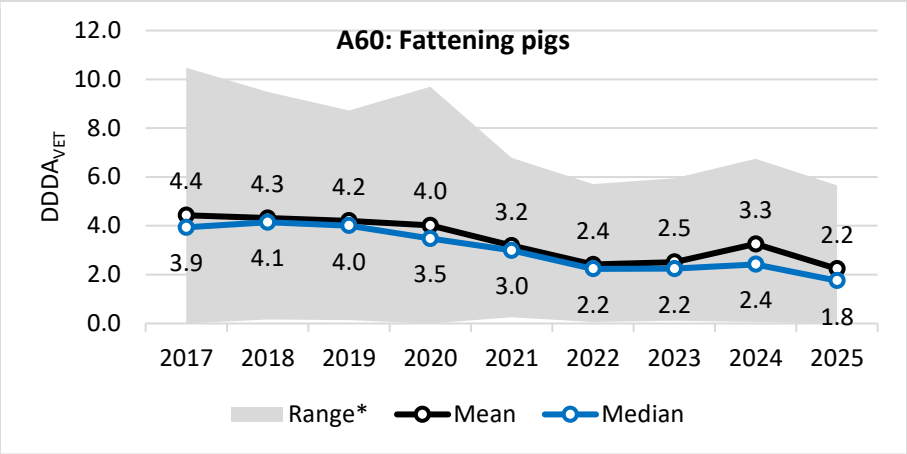
Livestock sector	Type of farm/production category	% of livestock farms that used colistin	Usage data for livestock farms that used colistin				Usage data for all livestock farms combined			
			N	Mean	Med.	P95	N	Mean	Med.	P95
Broiler farming sector	Broiler farms	0.8%	6	1.79	1.78	3.20	798	0.01	0.00	0.00
	- Farms with conventional breeds	1.8%	6	1.79	1.78	3.20	326	0.03	0.00	0.00
	- Farms with slower growing breeds	0.0%	0	0.00	0.00	0.00	591	0.00	0.00	0.00
	Parent/grandparent stock rearing farms	0.0%	0	0.00	0.00	0.00	74	0.00	0.00	0.00
	Parent/grandparent stock production farms	0.6%	1	9.29	9.29	9.29	174	0.05	0.00	0.00
Layer farming sector	Layer farms	6.8%	54	6.09	4.49	13.24	789	0.42	0.00	2.68
	Pullet rearing farms	0.0%	0	0.00	0.00	0.00	144	0.00	0.00	0.00
	Parent/grandparent stock rearing farms	0.0%	0	0.00	0.00	0.00	30	0.00	0.00	0.00
	Parent/grandparent stock production farms	8.3%	4	6.41	6.25	11.38	48	0.53	0.00	3.44
Turkey farming sector	Turkey farms	0.0%	0	0.00	0.00	0.00	29	0.00	0.00	0.00
Pig farming sector	Sows/suckling piglets	10.9%	124	0.27	0.11	0.89	1,135	0.03	0.00	0.13
	Weaner pigs	18.0%	228	4.13	1.71	15.67	1,268	0.74	0.00	3.81
	Fattening pigs	1.3%	33	1.89	0.30	7.22	2,532	0.02	0.00	0.00
Veal farming sector	White veal farms	0.5%	3	2.71	3.08	5.05	654	0.01	0.00	0.00
	Rosé veal starter farms	1.6%	3	0.05	0.03	0.11	193	0.00	0.00	0.00
	Rosé veal fattening farms	0.2%	1	1.23	1.23	1.23	452	0.00	0.00	0.00
	Rosé veal combination farms	0.0%	0	0.00	0.00	0.00	66	0.00	0.00	0.00
Cattle farming sector	Dairy cattle farms	0.2%	26	0.19	0.02	1.04	13,462	0.00	0.00	0.00
	Rearing farms	0.0%	2	0.57	0.57	1.11	7,455	0.00	0.00	0.00
	Suckler cow farms	0.0%	0	0.00	0.00	0.00	653	0.00	0.00	0.00
	Beef farms	0.0%	1	0.02	0.02	0.02	2,363	0.00	0.00	0.00
Rabbit farming sector	Rabbit farms	0.0%	0	0.00	0.00	0.00	29	0.00	0.00	0.00

Veterinarians' prescription patterns

Figures A55-A60. Long term DDDA$_{VET}$ trends by production category. Each production category has its own figure, the production category concerned is shown in the heading of the figure. Here shown are the mean and median DDDA$_{VET}$ values and the DDDA$_{VET}$ ranges. * DDDA$_{VET}$ ranges represent the middle 90% of farms, with the lower limit corresponding to the 5th percentile and the upper limit corresponding to the 95th percentile.




A59: Sows/suckling piglets
DDDA$_{VET}$
10.0
8.0
6.0
4.0
2.0
0.0
3.4 3.6 3.5 4.3 3.1 2.9 2.9 3.2 2.9
2.9 2.9 2.5 3.0 2.6 2.3 2.5 2.4 2.3
2017 2018 2019 2020 2021 2022 2023 2024 2025
Range* Mean Median


A60: Fattening pigs
DDDA$_{VET}$
12.0
10.0
8.0
6.0
4.0
2.0
0.0
4.4 4.3 4.2 4.0 3.2 2.4 2.5 3.3 2.2
3.9 4.1 4.0 3.5 3.0 2.2 2.2 2.4 1.8
2017 2018 2019 2020 2021 2022 2023 2024 2025
Range* Mean Median

Numbers of animals in the Dutch livestock sector

Table A62. Numbers of agricultural livestock (x1,000) in the Netherlands from 2010 to 2025, according to data provided by CBS (for poultry, veal calves, meat rabbits and goats) and EUROSTAT (for the other types of livestock)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Piglets (<20 kg)	4,797	4,993	4,920	5,116	5,408	4,986	5,522	5,287	5,002	4,883	4,773	4,444	4,542	4,577	4,053
Sows	1,106	1,081	1,095	1,106	1,053	1,022	1,066	967	1,047	926	910	888	915	783	744
Fattening pigs	4,179	4,189	4,209	4,087	4,223	4,140	3,967	4,032	4,163	4,032	3,632	3,827	3,548	3,370	3,315
Other pigs	2,021	1,841	1,789	1,765	1,769	1,733	1,741	1,623	1,709	1,697	1,557	1,547	1,466	1,452	1,308
Turkeys	990	827	841	794	863	762	671	556	532	585	604	576	588	517	448
Broilers	44,358	43,285	44,748	47,020	49,107	48,378	48,237	48,971	48,684	49,229	47,056	45,903	40,809	39,501	39,254
Laying hens	44,460	42,810	44,816	46,570	47,684	46,212	46,442	47,302	44,319	43,166	43,160	42,239	42,856	40,470	40,245
Veal calves	906	908	925	921	909	956	953	1,017	1,066	1,071	1,047	1,042	1,024	1,006	966
All cattle	2,993	3,045	3,064	3,230	3,360	3,353	3,082	2,634	2,679	2,689	2,683	2,729	2,701	2,612	2,597
Dairy cattle	1,504	1,541	1,597	1,610	1,717	1,794	1,665	1,552	1,590	1,569	1,554	1,570	1,546	1,521	1,529
Goats	380	397	413	431	470	500	533	588	615	633	643	645	647	636	602
Sheep	1,113	1,093	1,074	1,070	1,032	1,040	1,015	743	758	708	729	724	662	604	629
Weaned meat rabbits	262	284	270	278	333	318	300	291	289	297	283	266	235	231	228
Breeding does	39	43	41	43	48	45	43	41	48	38	38	35	30	32	32

Phased implementation of the new benchmark thresholds

Table A63. The transitional benchmark thresholds for broiler farms with conventional breeds agreed between the broiler farming sector and the Ministry of Agriculture, Nature and Food Quality*

Phase	Signaling threshold	Action threshold
1	14	26
2	12	24
3	**10**	**20**

* The proposed phases for the transitional period are as follows: Phase 1: second half of 2019 + 2020 + 2021; Phase 2: 2022 + 2023; Phase 3: 2024 + 2025. The specified periods are not set in stone. At the end of each phase, evaluation will take place to determine whether it is feasible for broiler farms with conventional breeds to enter the next phase.

Table A64. The transitional benchmark thresholds for broiler farms with slower growing breeds agreed between the broiler farming sector and the Ministry of Agriculture, Nature and Food Quality*

Phase	Signaling threshold	Action threshold
1	8	15
2 and 3	**8**	**12**

* The proposed phases for the transitional period are as follows: Phase 1: second half of 2019 + 2020 + 2021; Phase 2: 2022 + 2023; Phase 3: 2024 + 2025. The specified periods are not set in stone. At the end of each phase, evaluation will take place to determine whether it is feasible for broiler farms with conventional breeds to enter the next phase.

Table A65. The transitional benchmark thresholds for turkey farms agreed between the turkey farming sector and the Ministry of Agriculture, Nature and Food Quality*

Phase	Signaling threshold	Action threshold
1	14	20
2	12	16
3	**10**	**12**
4	-	10

* The proposed phases for the transitional period are as follows. Phase 1: 2021 and 2022; Phase 2: 2023 and 2024; Phase 3: 2025 and 2026; Phase 4: from 2027. The specified periods are not set in stone. At the end of each phase, evaluation will take place to determine whether it is feasible for broiler farms with conventional breeds to enter the next phase.

Table A66. The transitional benchmark thresholds for farms with weaner pigs agreed between the turkey farming sector and the Ministry of Agriculture, Nature and Food Quality*

Year	Action threshold
2025	**20**
2026	19
2027	17
2028	15

Standardized body weights

Table A67. Standardized average body weights used for determining $DDDA_{NAT}$ values, by livestock sector and production category

Livestock sector	Production category	Standardized body weight in kg[1]
Veal farming sector	Veal calves	172
Pig farming sector	Piglets (<20 kg)	10
	Sows	220
	Fattening pigs	70.2
	Other pigs	70
Broiler farming sector	Broilers	1
Turkey farming sector	Turkeys	6
Cattle farming sector	Dairy cattle	600
	Non-dairy cattle	500
Rabbit farming sector	Weaned meat rabbits	1.8
	Breeding does with kits	8.4

[1] Body weights as defined by LEI Wageningen UR, determined at the start of the agricultural census in the Netherlands. The standardized body weights are to be multiplied by the numbers of animals reported by CBS/EUROSTAT.

Table A68. Standardized average body weights used by the SDa for determining $DDDA_F$ values, by livestock sector and production category

Livestock sector	Production category	Age group	Standardized body weight in kg[1]
Veal farming sector	Calves at white veal farms	0 - 222 days	160
	Calves at rosé veal starter farms	0 - 98 days	77.5
	Calves at rosé veal fattening farms	98 - 256 days	232.5
	Calves at rosé veal combination farms	0 - 256 days	205
Pig farming sector	Sows (all females that have been inseminated), breeding boars and heat-check boars		220
	Suckling piglets	0 - 25 days	4.5
	Replacement gilts	7 months - 1st insemination	135
	Weaned piglets	25 - 74 days	17.5
	Fattening pigs	Until ready for slaughter	70
	Gilts	74 days - 7 months	70
Broiler farming sector[2]	Conventional broilers	0 - 45 days	n/a
	Slower growing broiler breeds	0 - 70 days	n/a
	Parent stock at rearing farms	0 - 20 weeks	n/a
	Grandparent stock at rearing farms	0 - 20 weeks	n/a
	Parent stock at production farms	>20 weeks	3
	Grandparent stock at production farms	>20 weeks	3
Layer farming sector[2]	Layers	>18 weeks	1.6
	Layer pullets at rearing farms	0 - 18 weeks	n/a
	Parent stock at rearing farms	0 - 18 weeks	n/a
	Grandparent stock at rearing farms	0 - 18 weeks	n/a
	Parent stock at production farms	>18 weeks	1.9
	Grandparent stock at production farms	>18 weeks	1.9
Turkey farming sector[2]	Toms		n/a
	Hens		n/a
Rundvee[3] Cattle farming sector[3]	Dairy cattle	>2 years	600
	Heifers	1 - 2 years	440
	Yearlings	56 days - 1 year	235
	Calves (female)	<56 days	56.5
	Beef bulls	>2 years	800
	Beef bulls	1-2 years	628
	Beef bulls	56 days - 1 year	283
	Calves (male)	<56 days	79
Rabbit farming sector	Breeding does/kits	>4 months and <4.5 weeks	8.4
	Weaned meat rabbits	4.5 - 12 weeks	1.8
	Replacement breeding does	12 weeks - 4 months	3.4
Goat farming sector		<60 days	11.5
		60 days – 1 year	42
		>1 year	75
Ducks[2]			n/a

[1] Body weights (in kilograms) as determined in consultation with the livestock sectors concerned. They may be adjusted if deemed necessary (e.g., in order to refine the benchmarking method).

[2] As of 2017, the body weights used for determining poultry farms' $DDDA_F$ values are based on the age of the animals at the time of treatment, unless a standardized body weight has been defined for the production category concerned.

[3] Livestock farms in the cattle farming sector are categorized based on whether or not they produce milk. They are classified as either dairy cattle farms or non-dairy cattle farms. Non-dairy cattle farms include rearing farms (with <40% of cattle present being male and none of the animals being over 2 years of age), suckler cow farms (with <40% of cattle present being male and some of the animals being over 2 years of age), and beef farms (with >40% of cattle present being male).

Antibiotic use in terms of DDD_{VET}/animal-year

Table A69. Antibiotic use in terms of DDD_{VET}/animal-year from 2021 to 2025, by livestock sector (intramammary and intrauterine use of antibiotics not included)

	Broiler farming sector					Turkey farming sector					Pig farming sector				
Pharmacotherapeutic group	**2021**	**2022**	**2023**	**2024**	**2025**	**2021**	**2022**	**2023**	**2024**	**2025**	**2021**	**2022**	**2023**	**2024**	**2025**
1st-choice antibiotics	**2.73**	**2.47**	**2.76**	**2.54**	**4.03**	**10.21**	**7.48**	**3.57**	**8.23**	**3.73**	**5.49**	**3.76**	**4.21**	**4.42**	**3.93**
As a proportion of overall AB use	**37.15%**	**36.67%**	**35.12%**	**41.60%**	**48.43%**	**62.48%**	**63.34%**	**53.12%**	**68.10%**	**56.16%**	**72.45%**	**68.78%**	**68.49%**	**63.29%**	**62.12%**
Amphenicols	*	*	*	*	*	*	*	*	*	*	0.25	0.23	0.25	0.25	0.23
Macrolides/lincosamides	0.15	0.08	0.06	0.01	*	*	*	*	*	*	0.49	0.33	0.38	0.48	0.51
Penicillins	0.57	0.39	0.55	0.51	0.91	0.94	0.64	0.94	0.48	0.35	0.52	0.46	0.46	0.46	0.43
Pleuromutilins	*	*	*	*	*	0.13	*	*	*	*	0.03	0.03	0.04	0.04	0.03
Tetracyclines	0.77	0.78	1.14	1.12	1.51	8.98	6.75	2.49	7.69	3.38	2.63	1.57	1.71	1.98	1.67
Trimethoprim/sulfonamides	1.25	1.22	1.02	0.90	1.62	0.16	0.09	0.14	0.06	0.01	1.58	1.13	1.37	1.21	1.07
2nd-choice antibiotics	**4.60**	**4.22**	**5.04**	**3.52**	**4.23**	**5.75**	**4.11**	**2.94**	**3.58**	**2.75**	**1.70**	**1.43**	**1.66**	**2.33**	**2.23**
As a proportion of overall AB use	**62.60%**	**62.67%**	**64.15%**	**57.53%**	**50.85%**	**35.17%**	**34.75%**	**43.64%**	**29.62%**	**41.43%**	**22.39%**	**26.17%**	**27.06%**	**33.41%**	**35.14%**
Aminoglycosides	0.00	0.00	0.02	0.05	0.03	*	*	*	*	0.05	0.01	0.01	0.02	0.01	0.01
Aminopenicillins	3.63	3.28	3.91	2.81	2.66	3.61	2.73	2.42	2.41	2.25	0.95	0.70	0.90	1.05	0.94
1st- and 2nd-gen. cephalosporins	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Quinolones	0.88	0.83	1.02	0.58	0.77	0.23	0.04	0.13	*	*	0.01	0.00	0.00	0.00	0.00
Fixed-dose combinations	0.02	*	0.03	*	0.66	*	*	*	*	*	0.02	0.04	0.04	0.34	0.30
Long-acting macrolides	*	*	*	*	*	*	*	*	*	*	0.65	0.68	0.70	0.71	0.97
Macrolides/lincosamides	0.07	0.11	0.07	0.08	0.11	1.91	1.33	0.38	1.17	0.45	0.05	*	*	0.22	*
3rd-choice antibiotics	**0.02**	**0.04**	**0.06**	**0.05**	**0.06**	**0.38**	**0.23**	**0.22**	**0.28**	**0.16**	**0.39**	**0.28**	**0.27**	**0.23**	**0.17**
As a proportion of overall AB use	**0.25%**	**0.66%**	**0.74%**	**0.87%**	**0.72%**	**2.35%**	**1.91%**	**3.25%**	**2.28%**	**2.41%**	**5.16%**	**5.05%**	**4.45%**	**3.31%**	**2.74%**
3rd- and 4th-gen. cephalosporins	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Fluoroquinolones	0.01	0.02	0.03	0.02	0.02	0.38	0.23	0.15	0.28	0.16	0.00	0.00	0.00	0.00	0.00
Polymyxins	0.01	0.02	0.02	0.03	0.04	*	*	0.07	*	*	0.39	0.28	0.27	0.23	0.17
Overall antibiotic use	**7.36**	**6.73**	**7.86**	**6.11**	**8.32**	**16.34**	**11.81**	**6.73**	**12.08**	**6.64**	**7.58**	**5.46**	**6.14**	**6.98**	**6.33**

Table A69. (continued)

Pharmacotherapeutic group	Dairy cattle farming sector					Veal farming sector					Non-dairy cattle farming sector				
	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025	2021	2022	2023	2024	2025
1st-choice antibiotics	**0.89**	**0.83**	**0.86**	**0.88**	**0.78**	**13.60**	**13.42**	**14.12**	**13.90**	**13.71**	**0.58**	**0.29**	**0.11**	**0.12**	**0.17**
As a proportion of overall AB use	**83.32%**	**82.75%**	**81.62%**	**81.80%**	**80.27%**	**87.66%**	**87.63%**	**85.53%**	**86.91%**	**86.08%**	**83.32%**	**81.46%**	**69.99%**	**72.47%**	**75.91%**
Amphenicols	0.04	0.04	0.03	0.03	0.03	0.84	0.80	0.81	0.75	0.72	0.05	0.03	0.02	0.02	0.03
Macrolides/lincosamides	0.05	0.05	0.05	0.06	0.07	3.36	3.45	3.63	3.63	3.69	0.11	0.05	0.01	0.01	0.02
Penicillins	0.18	0.17	0.18	0.19	0.17	0.18	0.17	0.14	0.13	0.13	0.04	0.03	0.03	0.03	0.03
Pleuromutilins	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Tetracyclines	0.22	0.19	0.19	0.20	0.17	7.69	7.41	7.55	7.31	7.10	0.31	0.13	0.04	0.04	0.07
Trimethoprim/sulfonamides	0.41	0.38	0.40	0.39	0.35	1.54	1.60	1.99	2.09	2.08	0.07	0.04	0.02	0.02	0.03
2nd-choice antibiotics	**0.17**	**0.17**	**0.19**	**0.19**	**0.19**	**1.88**	**1.87**	**2.34**	**2.08**	**2.18**	**0.11**	**0.06**	**0.05**	**0.04**	**0.05**
As a proportion of overall AB use	**15.99%**	**16.64%**	**17.81%**	**17.77%**	**19.21%**	**12.11%**	**12.19%**	**14.20%**	**13.01%**	**13.68%**	**15.90%**	**18.19%**	**29.59%**	**27.17%**	**23.88%**
Aminoglycosides	0.01	0.01	0.01	0.01	0.01	0.07	0.08	0.16	0.18	0.12	0.00	0.00	0.00	0.00	0.00
Aminopenicillins	0.12	0.12	0.13	0.13	0.12	1.25	1.10	1.46	1.32	1.43	0.06	0.03	0.02	0.02	0.02
1st- and 2nd-gen. cephalosporins	*	*	*	*	0.00	*	*	*	*	0.00	*	*	*	*	0.00
Quinolones	0.00	0.00	*	0.00	0.00	0.43	0.56	0.57	0.42	0.46	0.02	0.01	0.00	0.00	0.00
Fixed-dose combinations	0.04	0.03	0.03	0.04	0.04	0.00	0.00	0.01	0.01	0.01	0.02	0.01	0.02	0.02	0.02
Long-acting macrolides	0.01	0.01	0.01	0.01	0.01	0.12	0.13	0.16	0.14	0.14	0.01	0.01	0.01	0.01	0.01
Macrolides/lincosamides	*	*	*	0.00	0.00	*	*	*	0.02	0.03	*	*	*	0.00	0.00
3rd-choice antibiotics	**0.01**	**0.01**	**0.01**	**0.00**	**0.01**	**0.04**	**0.03**	**0.04**	**0.01**	**0.04**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**
As a proportion of overall AB use	**0.69%**	**0.61%**	**0.57%**	**0.43%**	**0.52%**	**0.23%**	**0.18%**	**0.27%**	**0.08%**	**0.24%**	**0.78%**	**0.35%**	**0.43%**	**0.36%**	**0.21%**
3rd- and 4th-gen. cephalosporins	0.00	0.00	0.00	0.00	0.00	*	*	*	*	*	0.00	*	*	0.00	*
Fluoroquinolones	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Polymyxins	0.00	0.00	0.00	0.00	0.00	0.03	0.02	0.02	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Overall antibiotic use	**1.07**	**1.01**	**1.05**	**1.07**	**0.97**	**15.52**	**15.32**	**16.51**	**15.99**	**15.93**	**0.69**	**0.35**	**0.16**	**0.16**	**0.22**

Computational basis for Figure 4: Long-term developments in antibiotic use

- Until 2010, defined daily doses animal were based on data reported by LEI Wageningen UR (DD/AY data). From 2011 onwards, SDa-reported defined daily doses animal ($DDDA_F$ data) have been used.
- The 2011 $DDDA_{NAT}$ values were estimated as follows:
    - For the veal and pig farming sectors: by means of the 2011:2012 $DDDA_F$ ratio (with weighting based on the average number of kilograms present at individual farms);
    - For the dairy cattle farming sector: by means of the 2011:2012 DD/AY ratio;
    - For the broiler farming sector: by means of the 2011:2012 treatment days ratio (with weighting based on the number of animal-days at individual farms).
- Data on the overall number of kilograms of animal in a particular livestock sector, required for calculating the $DDDA_{NAT}$ values, were provided by EUROSTAT (for the pig and dairy cattle farming sectors) and Statistics Netherlands (for the broiler, turkey and veal farming sectors).
- 95% confidence intervals were based on the corresponding confidence intervals for the weighted $DDDA_F$ values.

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Appendix to the report Usage of Antibiotics in Agricultural Livestock in the Netherlands in 2025
Trends and benchmarking of livestock farms and veterinarians
SDa/1166/2026