

Supplementary Table S1 Distribution of sampling dates and utilization types by region

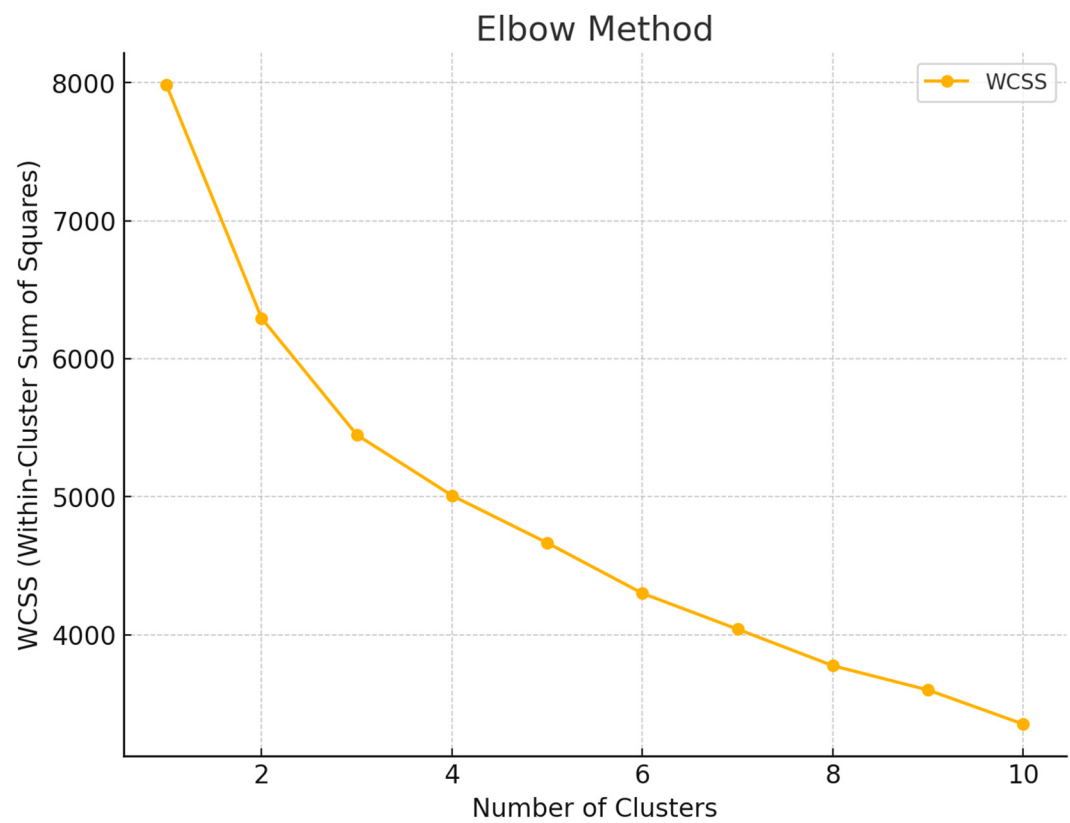
Region	Sampling time	Utilization
Észak-Magyarország	20.10.2022.	laying
	20.10.2022.	laying
	23.06.2023.	meat
Észak-Alföld	23.05.2023.	meat
	23.05.2023.	meat
	23.05.2023.	meat
Dél-Alföld	12.02.2022.	laying
	16.02.2022.	meat
	16.02.2022.	meat
Közép-Magyarország	06.10.2022.	laying
	24.04.2023.	breeding
	24.04.2023.	meat
Dél-Dunántúl	25.03.2022.	meat
	17.04.2023.	meat
	16.05.2023.	laying
Nyugat-Dunántúl	19.07.2022.	breeding
	09.05.2023.	breeding
	09.05.2023.	breeding
Közép-Dunántúl	28.03.2022.	laying
	04.04.2022.	laying
	04.04.2022.	meat
	19.07.2022.	breeding
	09.05.2023.	breeding

Supplementary Table S2 The p-values obtained from the statistical test of the degree of drug resistance used in the correlation analysis

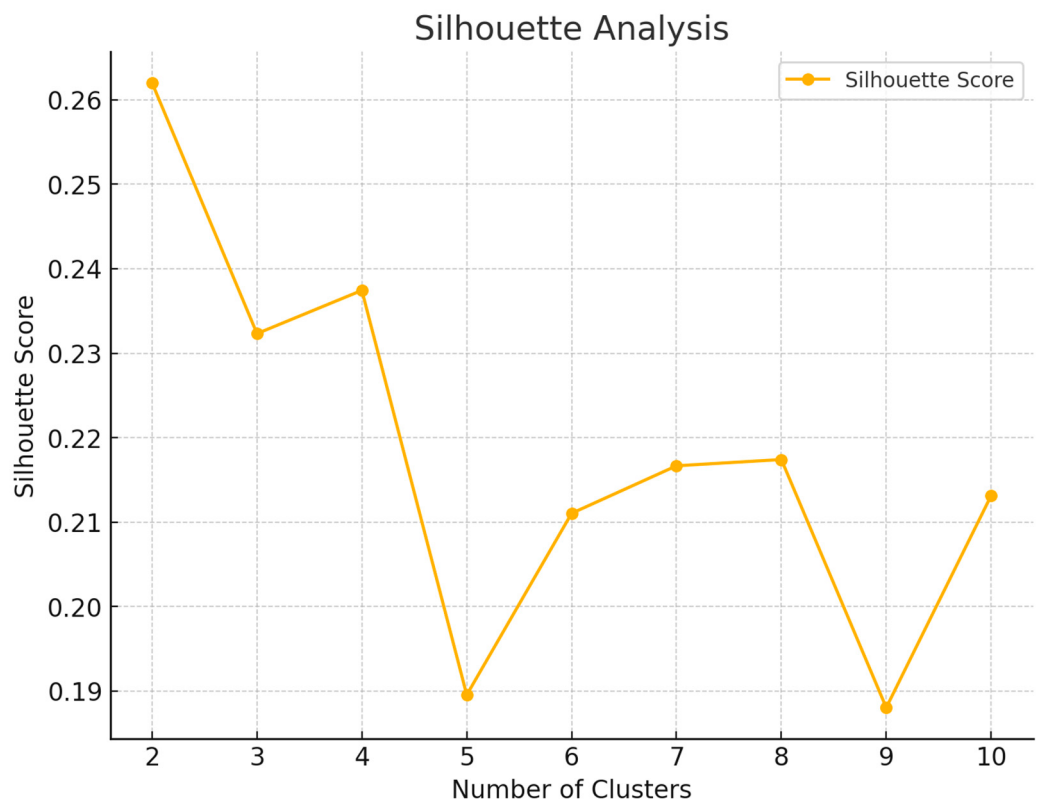
Antibiotics	Doxycycline	Vancomycin	Enrofloxacin	Amoxicillin-clavulanic acid	Florfenicol	Potentiated sulfonamide	Amoxicillin	Imipenem	Neomycin	Tylosin
Doxycycline		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0006	0.0572	<0.0001
Vancomycin	<0.0001		<0.0001	<0.0001	<0.0001	0.0247	<0.0001	0.0028	0.0668	<0.0001
Enrofloxacin	<0.0001	<0.0001		<0.0001	0.0285	<0.0001	<0.0001	0.0083	0.6241	<0.0001
¹ Amoxicillin-clavulanic acid	<0.0001	<0.0001	<0.0001		<0.0001	0.1689	<0.0001	0.0010	0.6935	<0.0001
Florfenicol	<0.0001	<0.0001	0.0285	<0.0001		0.8252	<0.0001	0.7503	0.0581	<0.0001
² Potentiated sulfonamide	<0.0001	0.0247	<0.0001	0.1689	0.8252		0.0078	0.0020	<0.0001	0.6477
Amoxicillin	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0078		0.0005	0.1155	<0.0001
Imipenem	0.0006	0.0028	0.0083	0.0010	0.7503	0.0020	0.0005		0.5242	0.3798
Neomycin	0.0572	0.0668	0.6241	0.6935	0.0581	<0.0001	0.1155	0.5242		0.0033
Tylosin	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.6477	<0.0001	0.3798	0.0033	

¹1:2 ratio; ²trimetoprim-sulphametoxazole 1:19 ration

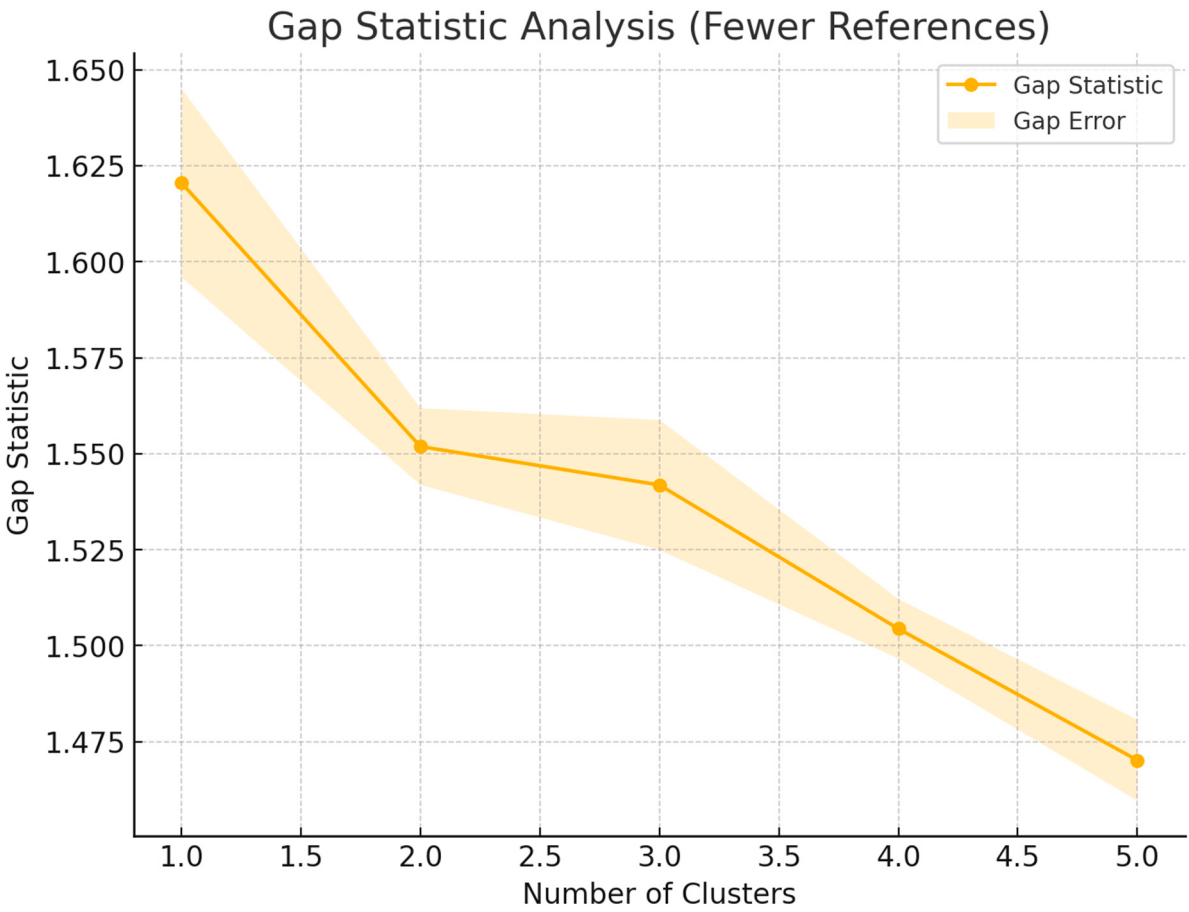
Supplementary Figure S1 Reducing distances within clusters



Supplementary Figure S2 Qualitative result of the cluster analysis



Supplementary Figure S3 Gap statistics with reduced cluster count and reduced reference data



Supplementary Table S3 Frequency table of the minimum inhibitory concentration (MIC) values ($\mu\text{g/mL}$) for agents without breakpoints in *Enterococcus* samples derived from chickens ($n=499$). The top row for each agent shows the count, while the bottom row shows the percentage.

Antibiotic	0.001	0.002	0.004	0.008	0.016	0.03	0.06	0.125	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	MIC ₅₀	MIC ₉₀
																						$\mu\text{g/mL}$	
Ceftriaxone					1	9	10	8	8	21	15	6	20	24	27	15	24	44	65	102	100	256	1024
					0.2%	1.8%	2.0%	1.6%	1.6%	4.2%	3.0%	1.2%	4.0%	4.8%	5.4%	3.0%	4.8%	8.8%	13.0%	20.4%	20.0%		
Spectinomycin														1	12	53	143	108	69	45	68	128	1024
														0.2%	2.4%	10.6%	28.7%	21.6%	13.8%	9.0%	13.6%		
Tiamulin										2	8	11	3	3	22	25	43	106	92	115	69	256	1024
										0.4%	1.6%	2.2%	0.6%	0.6%	4.4%	5.0%	8.6%	21.2%	18.4%	23.0%	13.8%		
Lincomycin										3	19	18	27	14	35	46	41	26	28	77	165	256	1024
										0.6%	3.8%	3.6%	5.4%	2.8%	7.0%	9.2%	8.2%	5.2%	5.6%	15.4%	33.1%		
Colistin														21	19	9	22	24	37	101	266	1024	1024
														4.2%	3.8%	1.8%	4.4%	4.8%	7.4%	20.2%	53.3%		