

Evolutie in antibioticumresistentie bij de belangrijkste bacteriën in de rundvee-, varkens- en pluimveesector in België.

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Marc Saulmont, ARSIA asbl

AMCRA, 29 juni 2022

Samenvatting

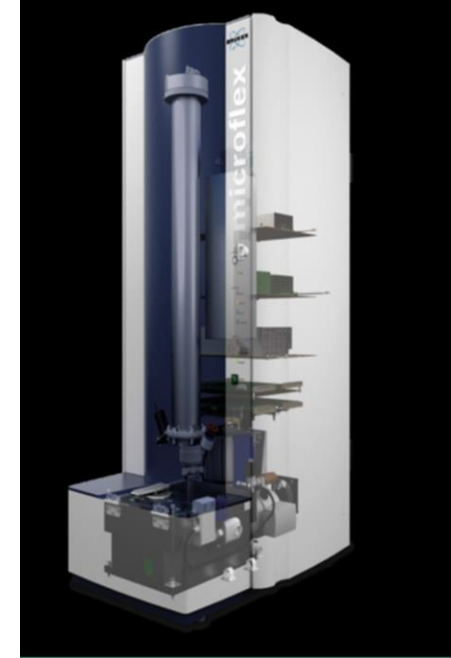
- Inleiding
- Evolutie bij varkens
- Evolutie bij rundvee
- Evolutie bij pluimvee
- Conclusies

Eerstelijns regionale laboratoria

DGZ: Dierengezondheidszorg, Vlaanderen



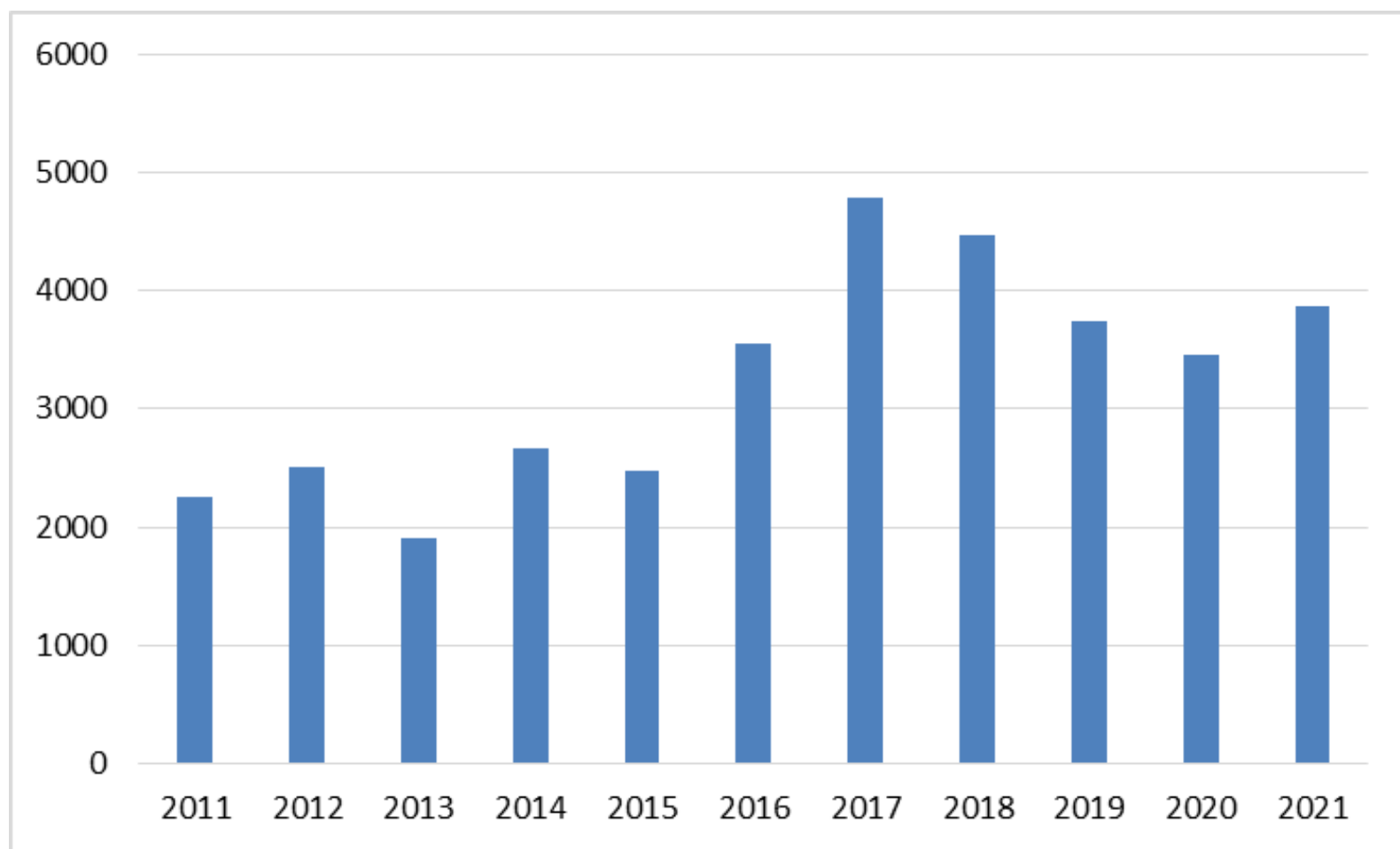
ARSIA asbl: Association régionale de santé et d'identification animale, Wallonie



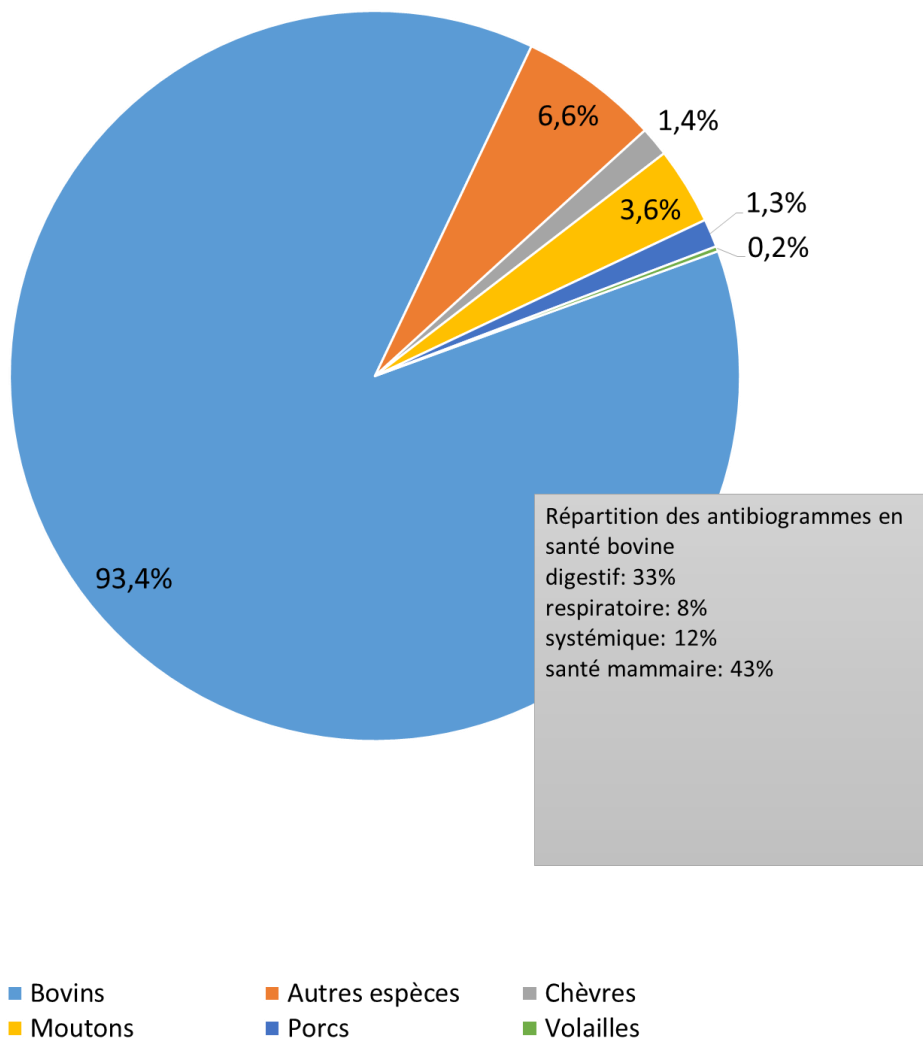
Methode

- Uitsluitend antibiogrammen via disk agar diffusie
- Norm AFNOR UN 47-107
- Referentie CA SFM vétérinaire
- Geaccrediteerd

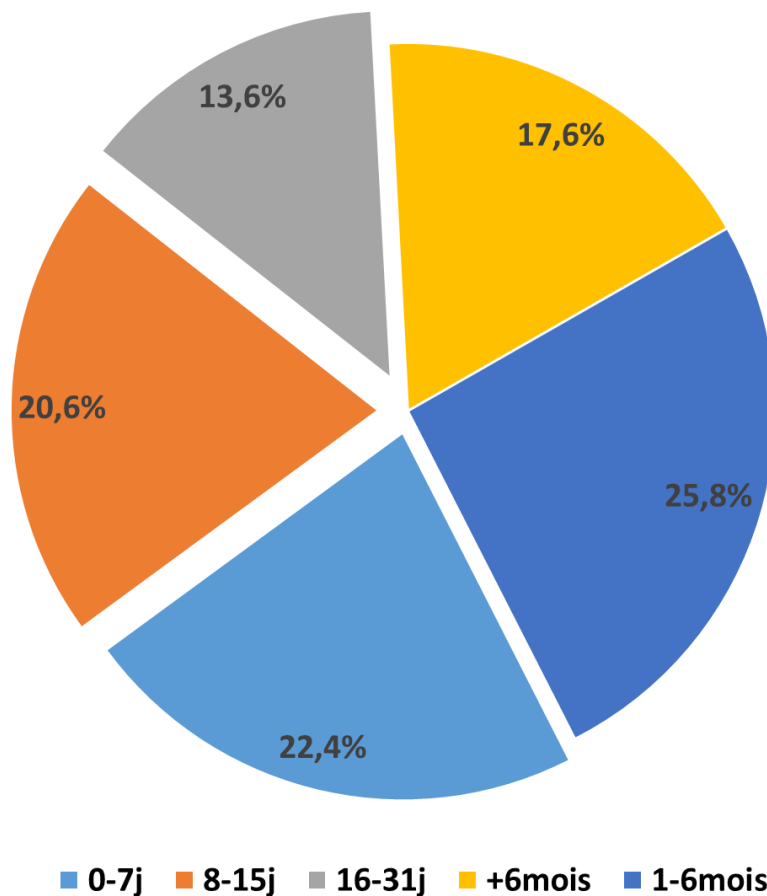




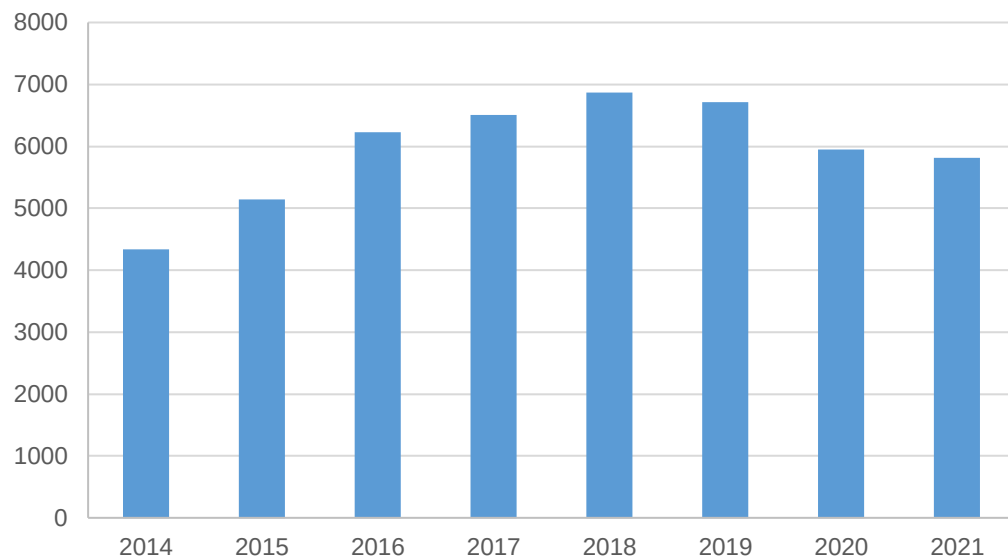
Hoofdzakelijk in rundveesector



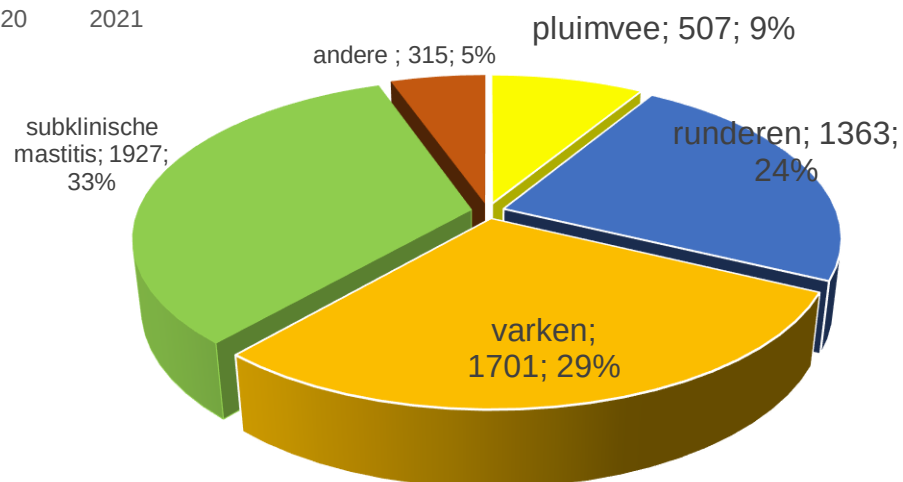
Hoofdzakelijk in rundveesector



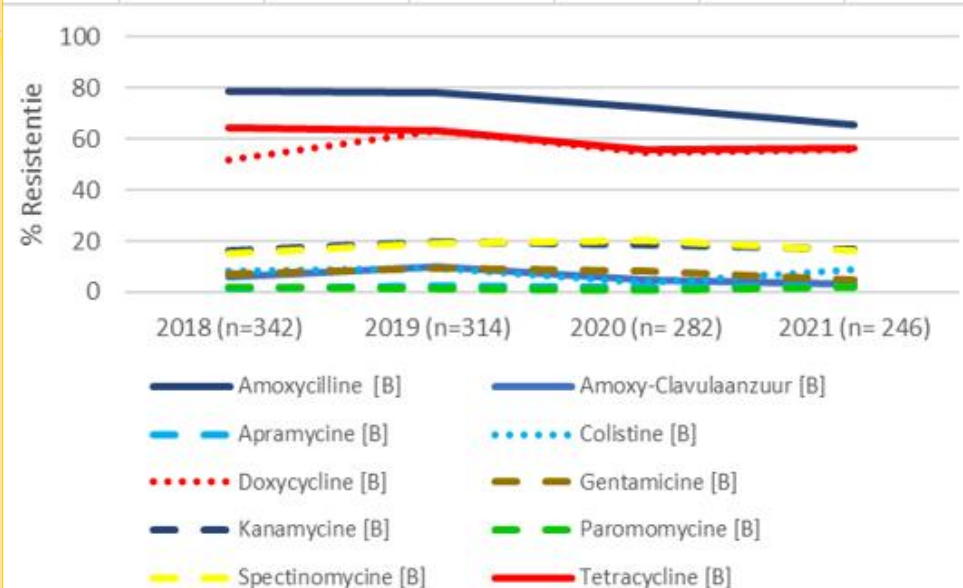
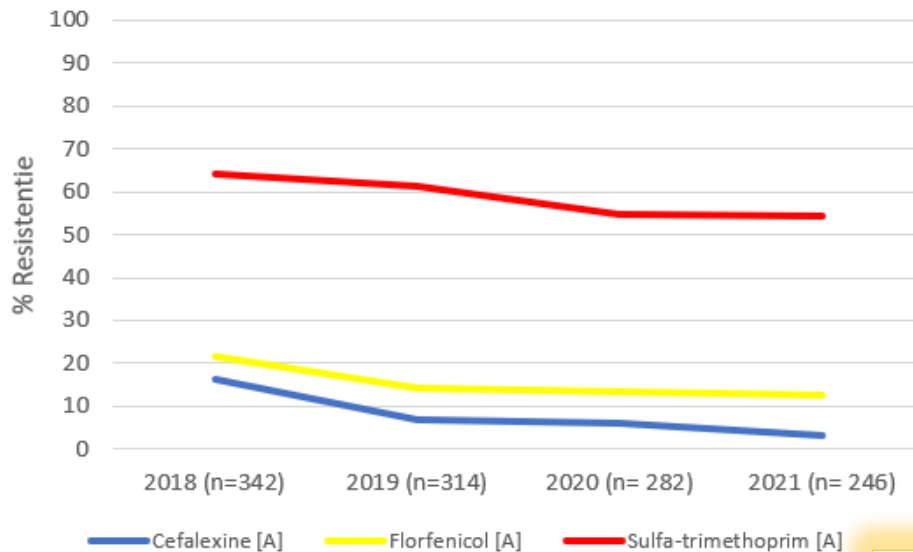
aantal aangelegde ABG



aantal AB (n=5813)



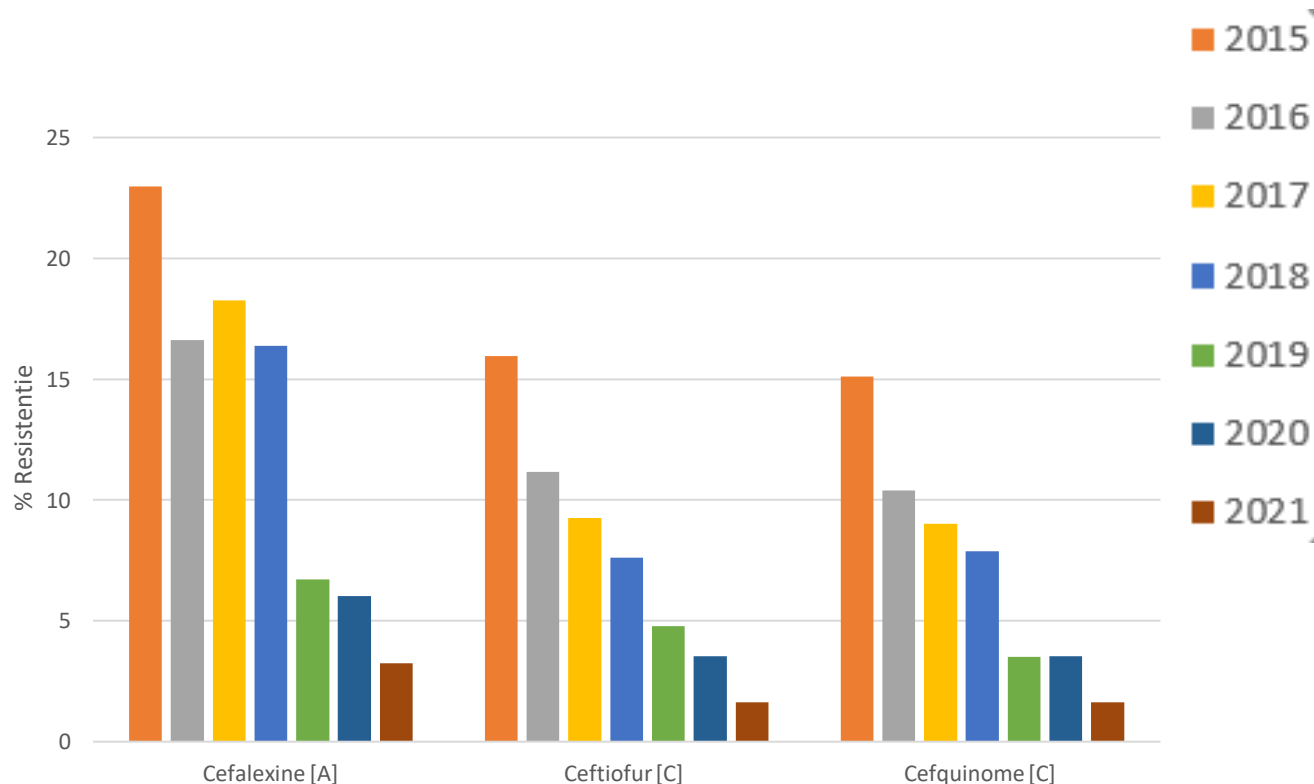
E. coli in de varkensproductie



E. coli bij varken

Evolutie van R tov cefalosporines

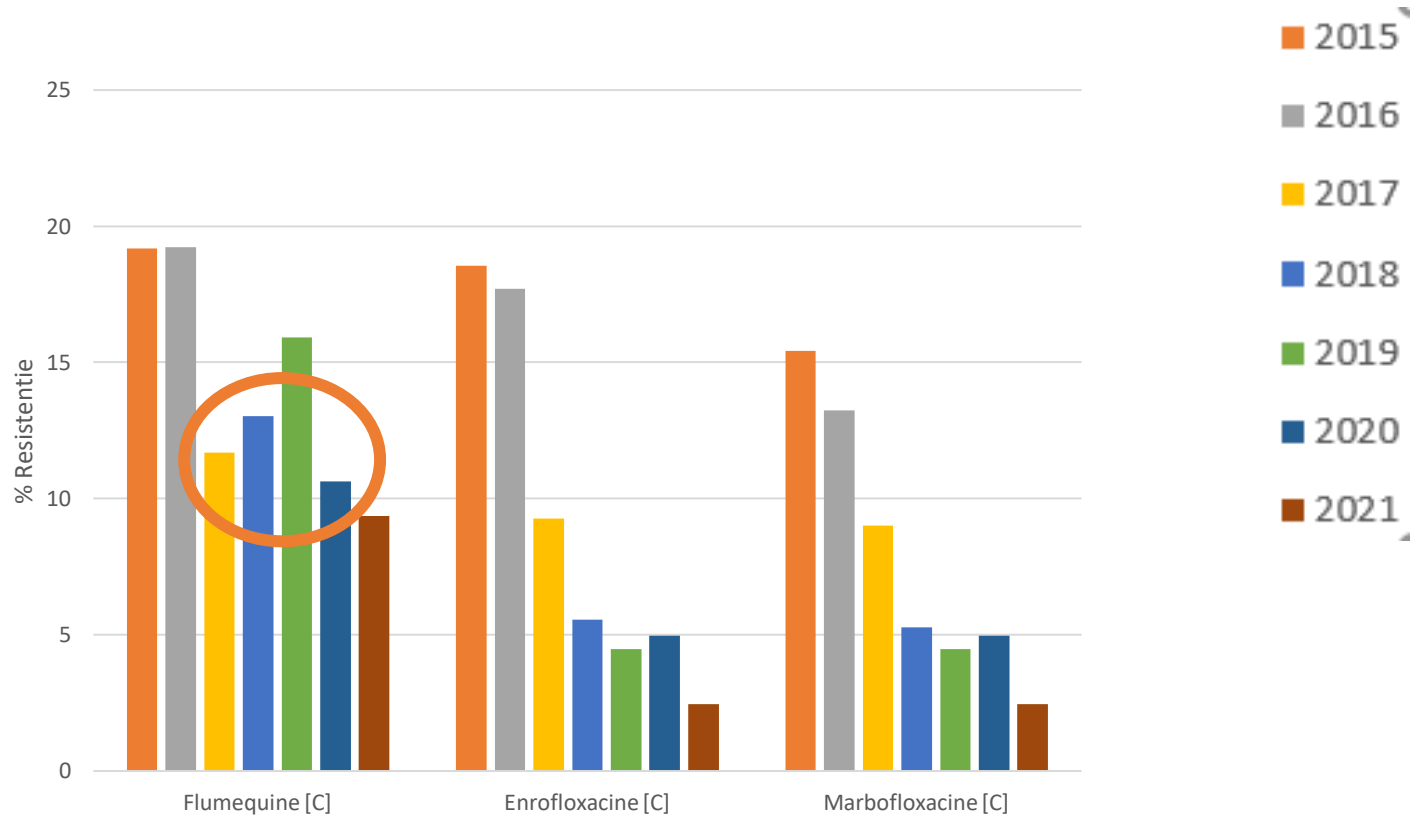
Jaar	2015	2016	2017	2018	2019	2020	2021
Aantal	470	385	411	342	314	282	246



E. coli bij varken

Evolutie van R tov fluoroquinolones

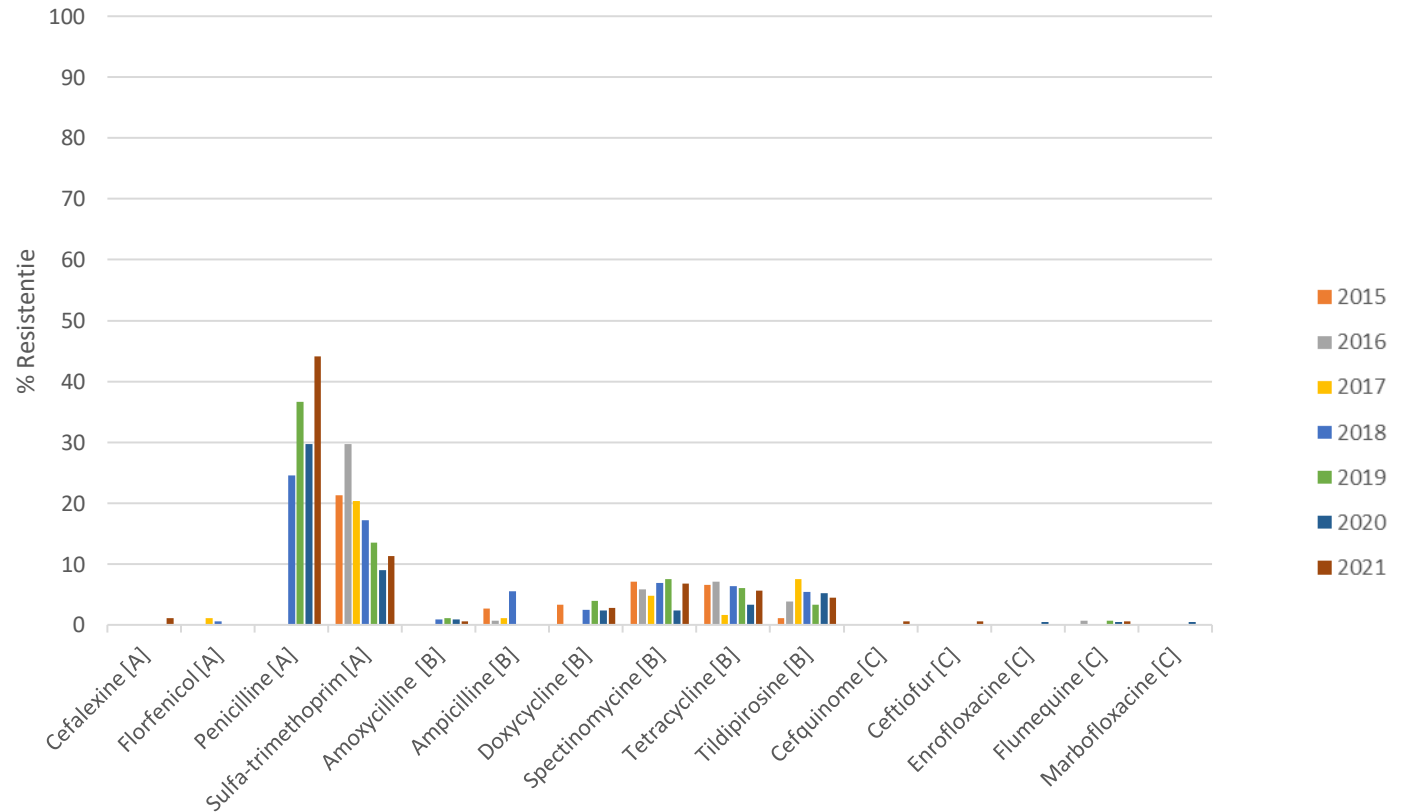
Jaar	2015	2016	2017	2018	2019	2020	2021
Aantal	470	385	411	342	314	282	246



P. multocida in de varkensproductie



Jaar	2015	2016	2017	2018	2019	2020	2021
Aantal	183	155	187	204	281	212	177



S. suis in de varkensproductie

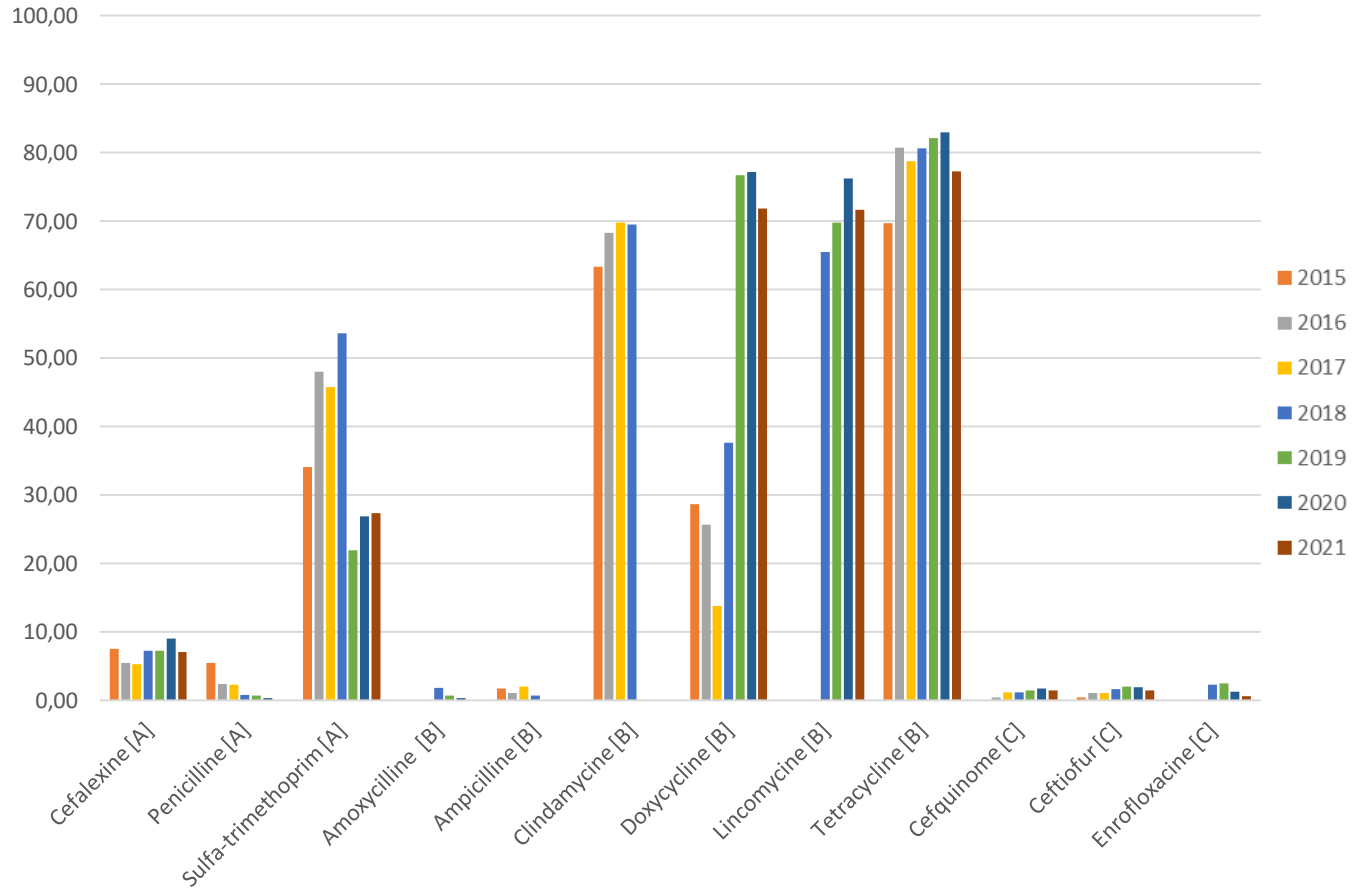
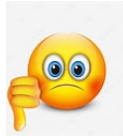


Jaar	2015	2016	2017	2018	2019	2020	2021
Aantal	241	296	400	511	572	647	501

Penicilline R



Sulfa-
trimethoprim
Lincomycine en
Tetracyclines

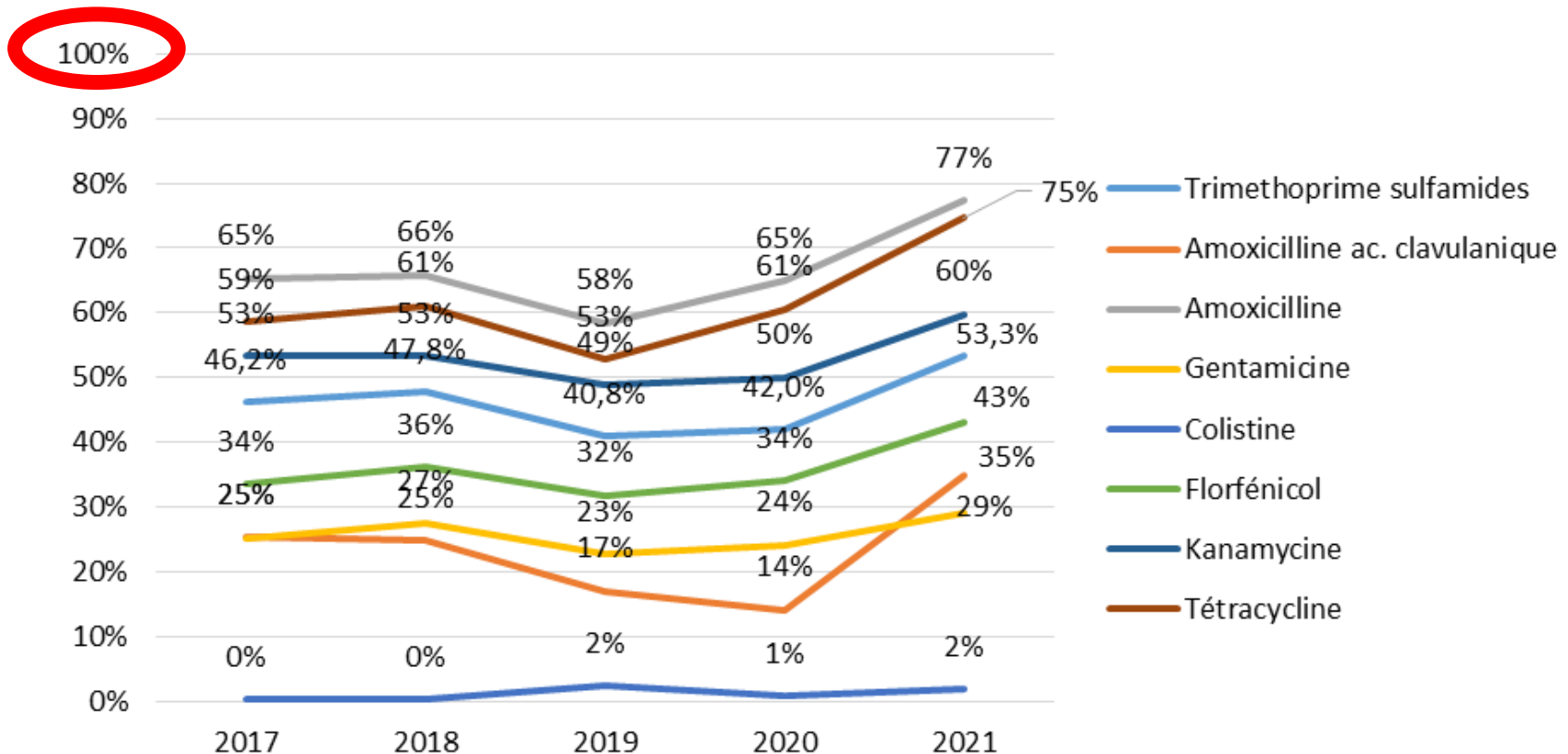


Conclusie antibiotica resistentie bij isolaten varken

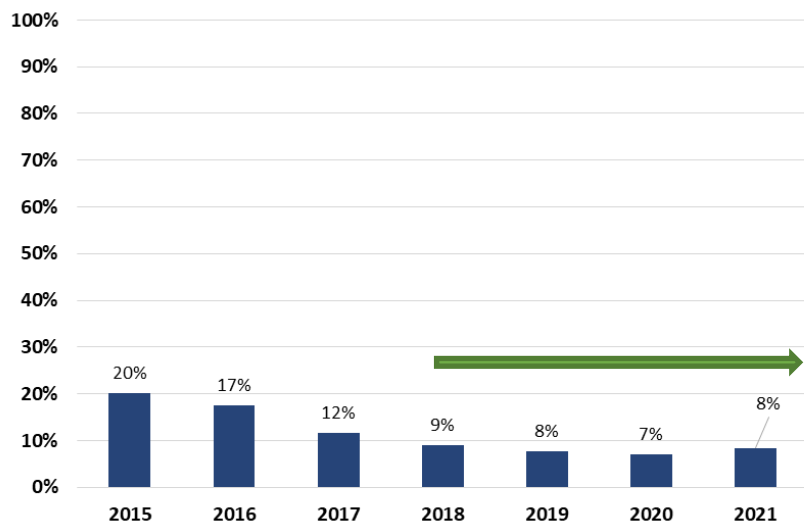
- ✓ Sommige A en B klasse antibiotica vertonen een hoge graad van resistentie ($> 50\%$) en kunnen leiden tot therapiefalen, maar geen grote shifts
- ✓ Diarree veroorzakende kiemen vertonen een hogere resistentie dan ademhalingspathogenen
- ✓ Cephalosporines: duidelijk dalende trend in resistentie $< 5\%$
- ✓ Quinolone resistentie blijft hoog en geen direct dalende trend
- ✓ Fluoroquinolone resistentie kent een dalende trend $< 5\%$
- ✓ *Streptococcus suis* blijft de resistentie tov penicilline nihil

Pathologieën bij runderen verschillend van uiergezondheid

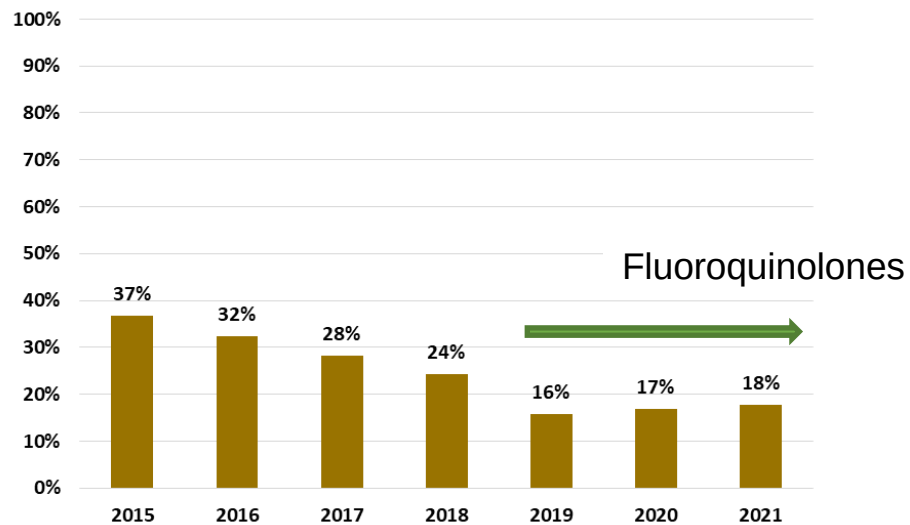
2016	2017	2018	2019	2020	2021
1948	2567	2318	2018	1358	1351



Pathologieën bij runderen verschillend van uiergezondheid



C3G/C4G

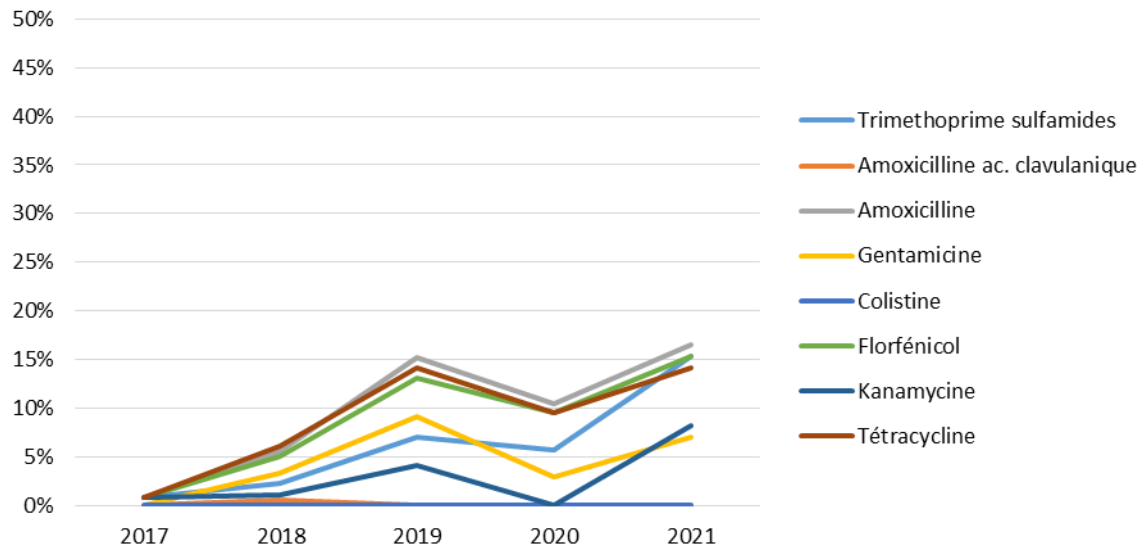


Fluoroquinolones

Salmonella Dublin

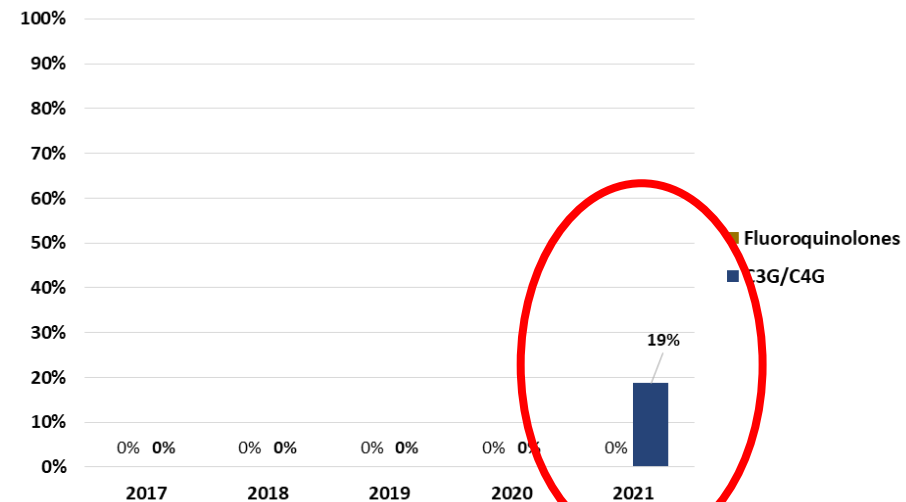
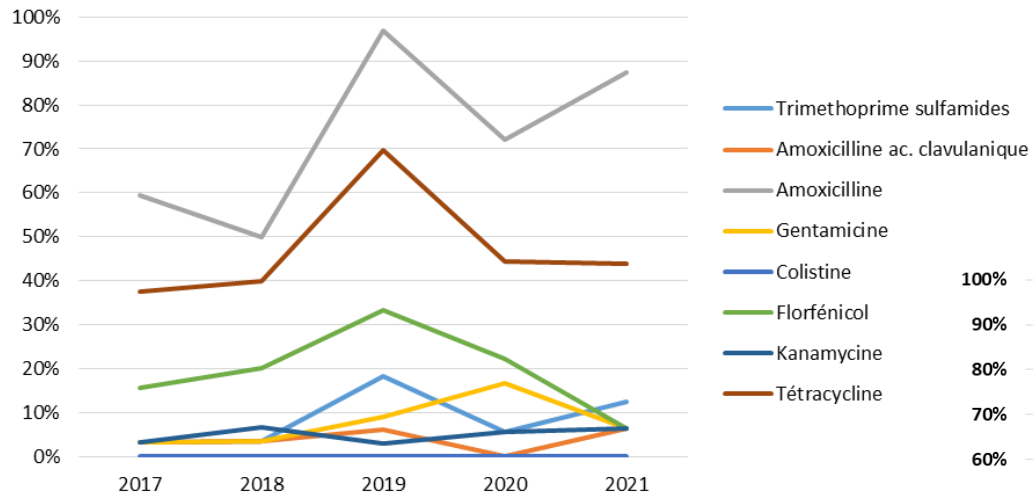
2016	2017	2018	2019	2020	2021
124	261	320	204	195	156

AMX, TE, FF, SXT

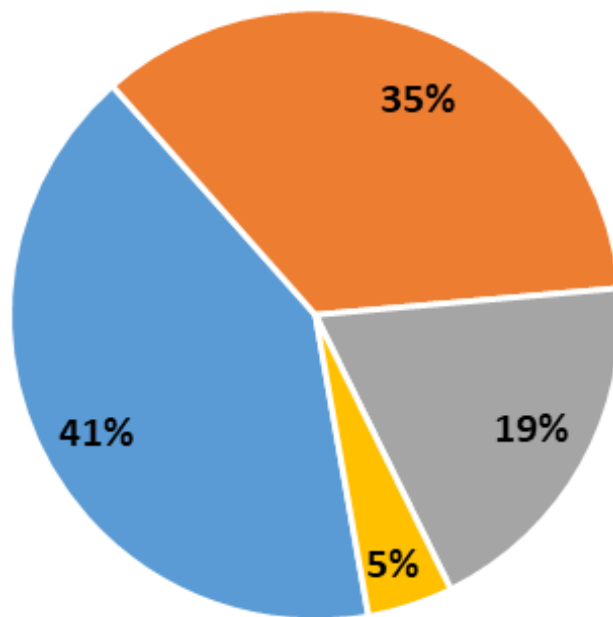


Salmonella Typhimurium

2016	2017	2018	2019	2020	2021
26	32	30	33	18	16

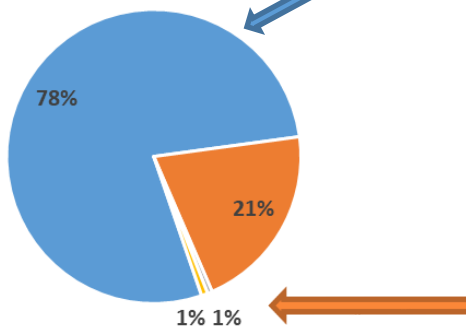


Uiergezondheid bij runderen



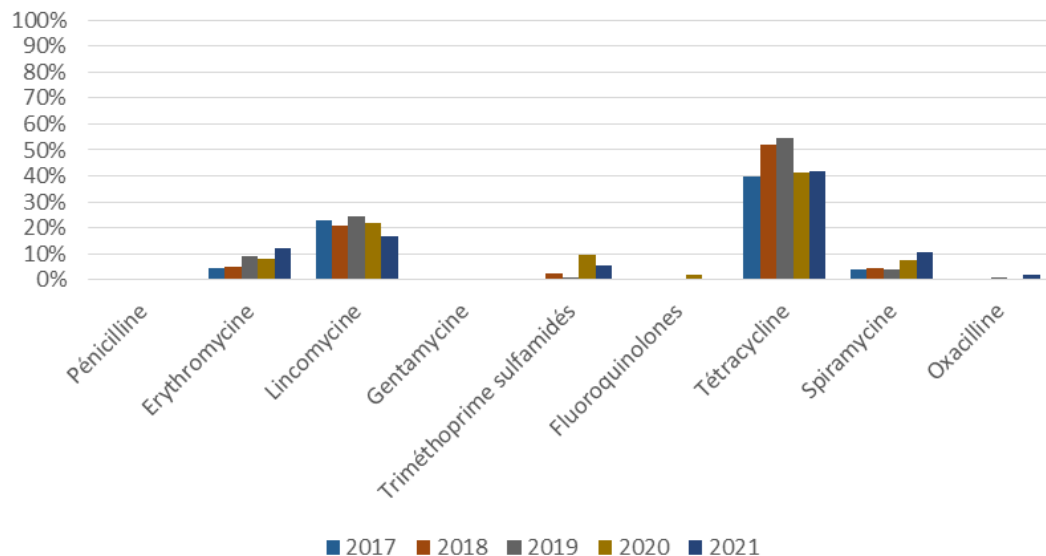
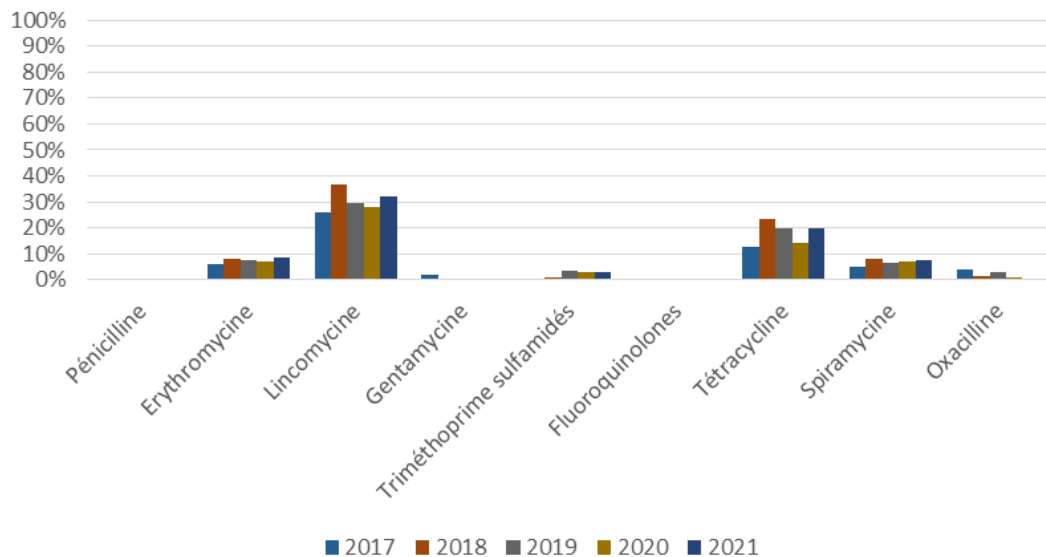
■ Streptococcaceae ■ Enterobacteriaceae ■ Staphylococcaceae ■ Autres

Uiergezondheid bij runderen



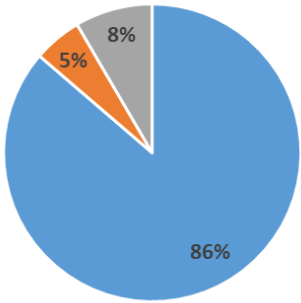
■ Streptococcus uberis ■ Streptococcus dysgalactiae
■ Streptococcus agalactiae ■ Streptococcus spp.

	2021
Streptococcus uberis	450
Streptococcus dysgalactiae	119
Streptococcus agalactiae	3



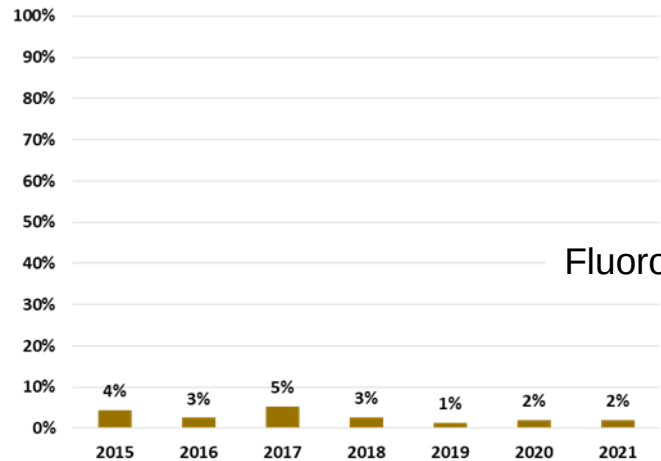
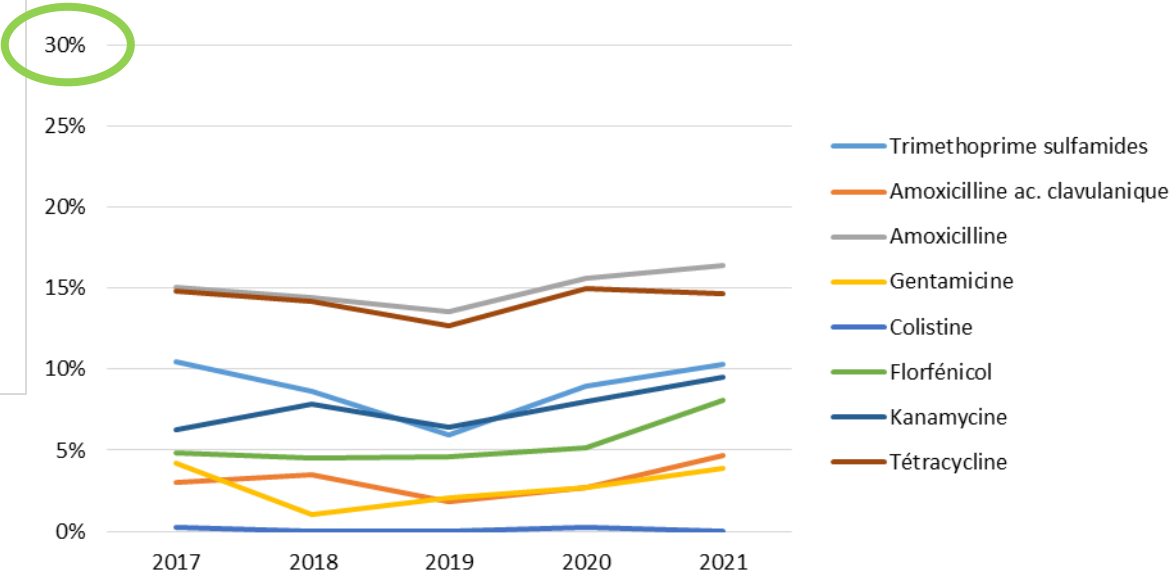
Uiergezondheid bij runderen

2016	2017	2018	2019	2020	2021
275	431	486	435	448	409

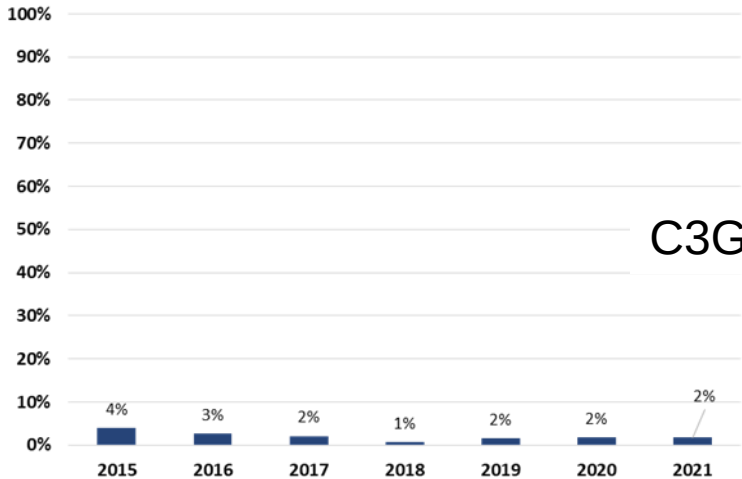


■ Escherichia coli ■ Klebsiella spp. ■ Serratia spp.

	2021
Escherichia coli	409
Klebsiella spp.	25
Serratia spp.	40



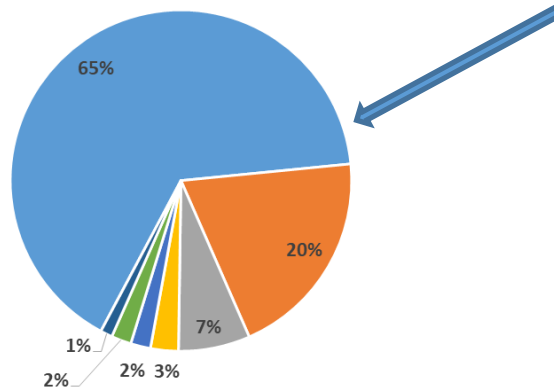
Fluoroquinolones



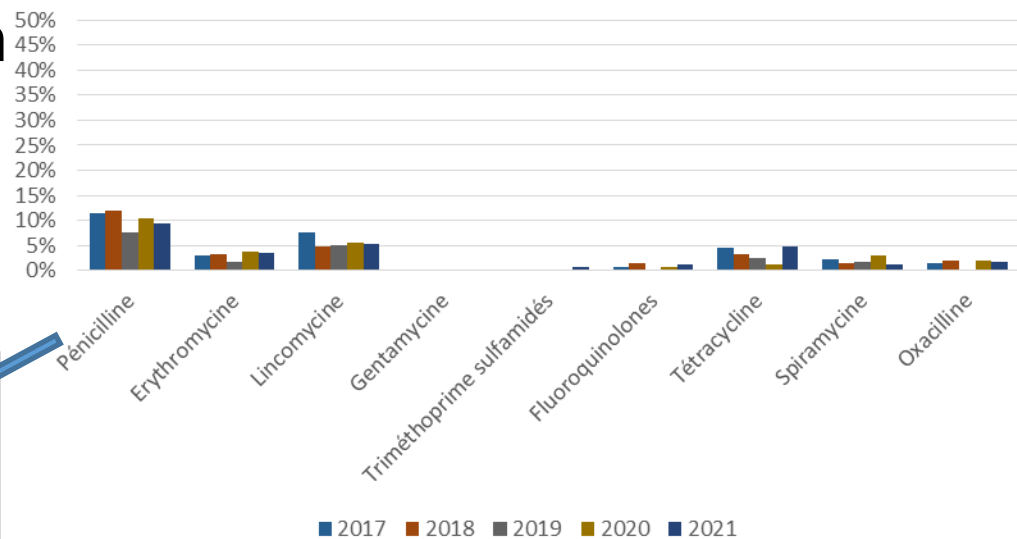
C3G/C4G

Uiergezondheid bij runderen

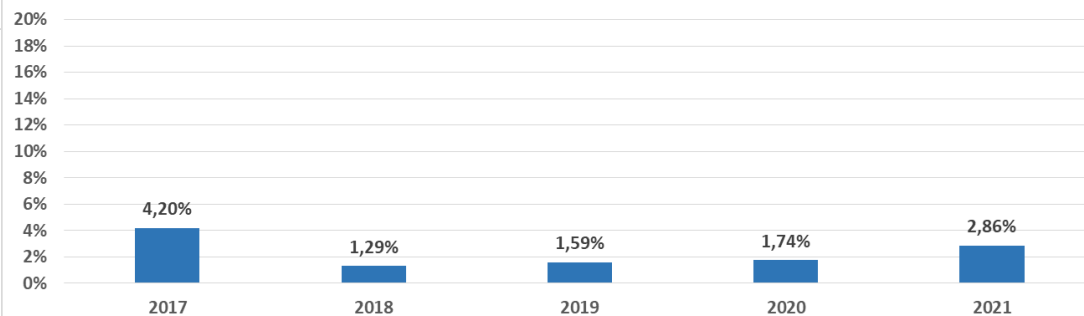
Colonne1	2021
Staphylococcus aureus	174
Staphylococcus haemolyticus	53
Staphylococcus chromogenes	18



■ Staphylococcus aureus
 ■ Staphylococcus haemolyticus
 ■ Staphylococcus chromogenes
■ Staphylococcus xylosus
 ■ Staphylococcus equorum
 ■ Staphylococcus sciuri
■ Staphylococcus warneri

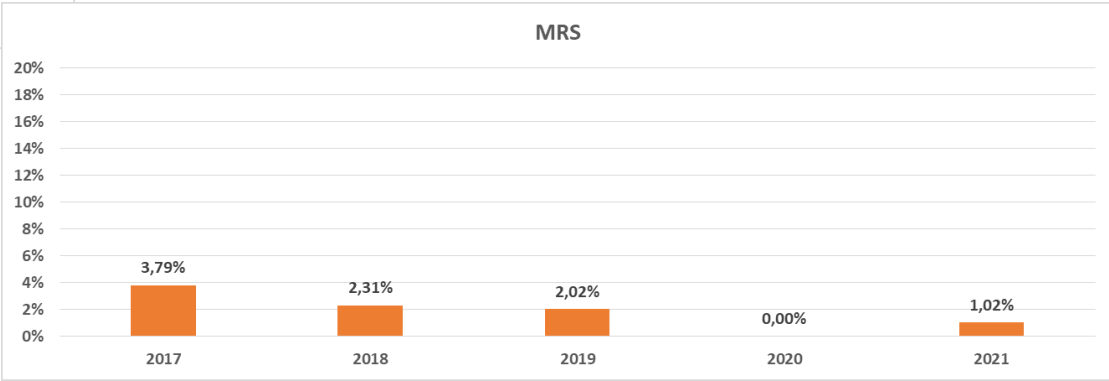
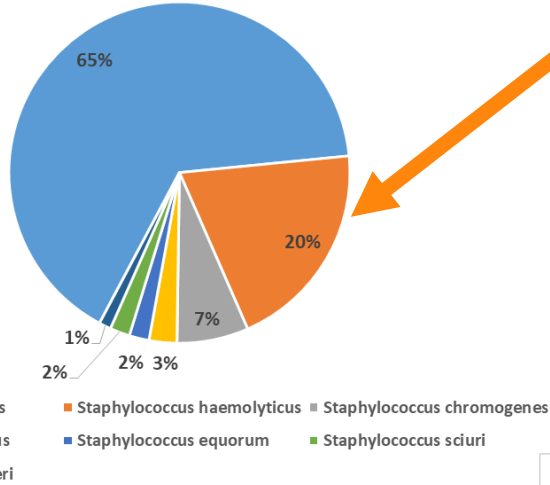
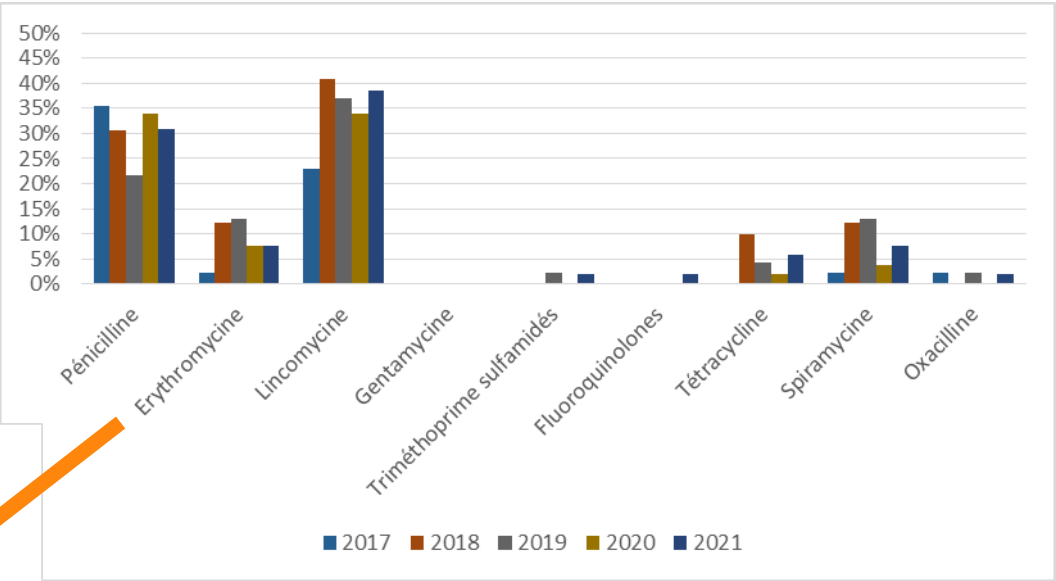


MRSA



Uiergezondheid bij runderen

Colonne1	2021
Staphylococcus aureus	174
Staphylococcus haemolyticus	53
Staphylococcus chromogenes	18

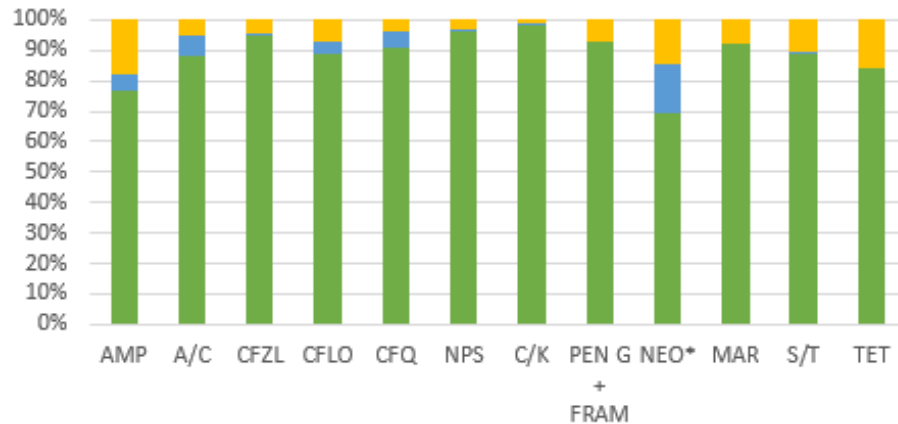


Conclusies

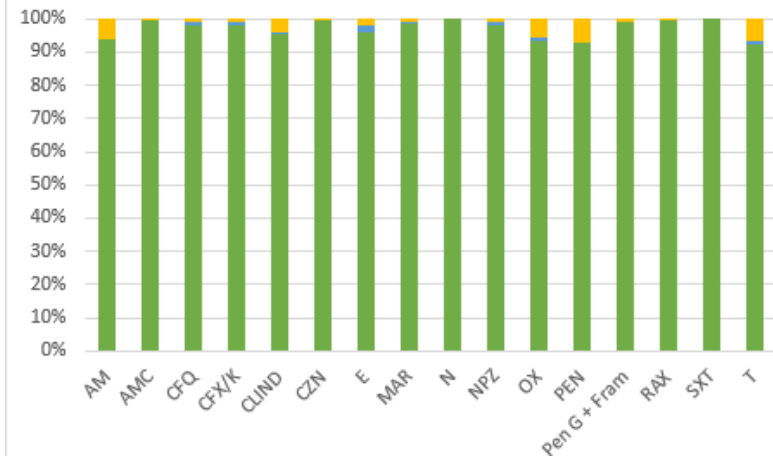
- Resistentie tegen C3G:C4G en tegen fluoroquinolones: stabiel sinds 3 jaar voor *E. coli*
- Lichte toename in resistentie tegen « niet kritisch belangrijke » antibiotica voor *E. coli*
- Resistente is zeer laag in uiergezondheid

Klinische mastitis

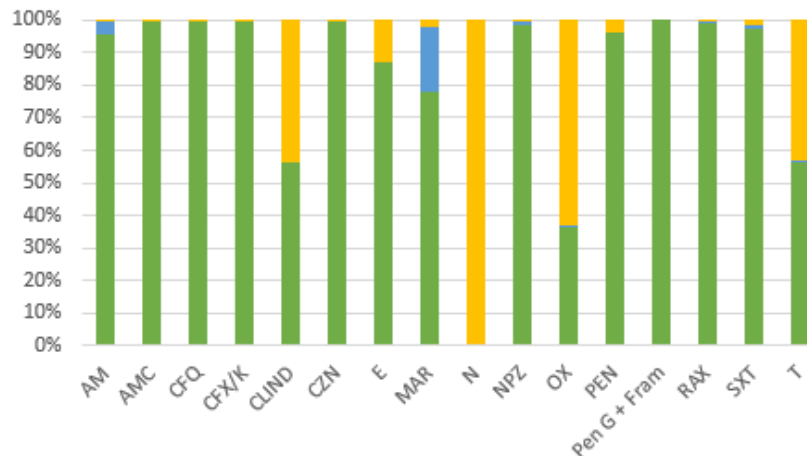
Escherichia coli - klinische mastitis (n = 676)



Staphylococcus aureus - klinische mastitis (n=271)



Streptococcus uberis - klinische mastitis (n=479)



Gevoelig [S] Intermediair [I] Resistent [R]

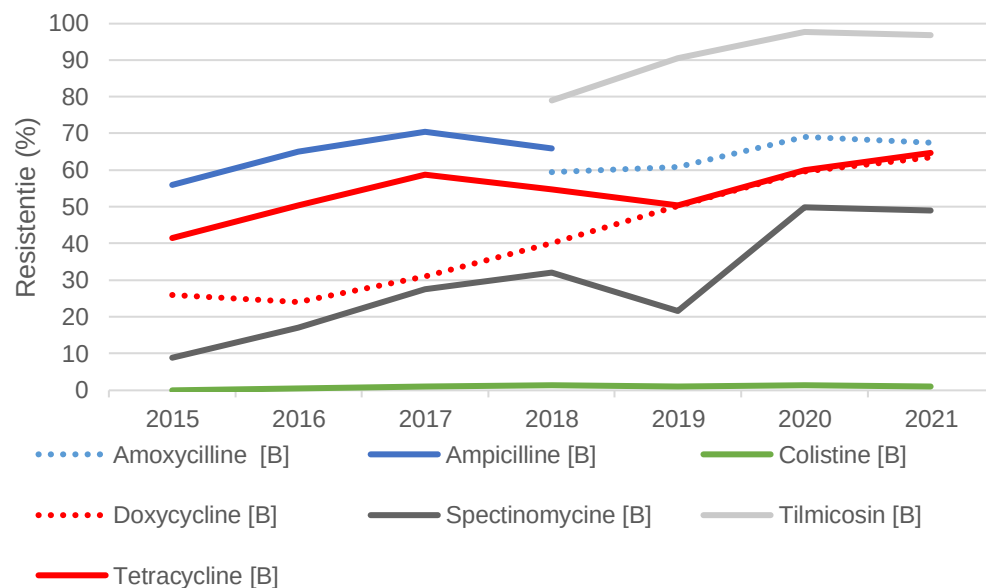
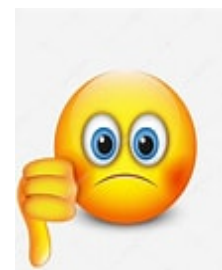
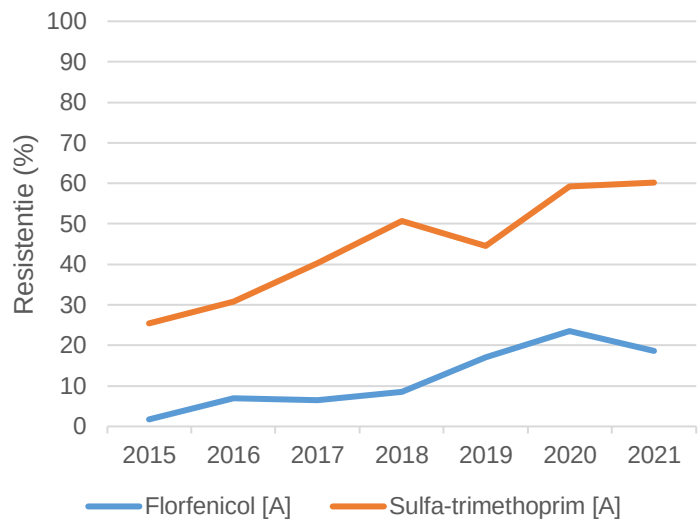


Conclusie isolaten klinische mastitis

- ✓ Resistentie bij *E. coli* en *S. aureus* is laag
- ✓ Bij *S. uberis* hoge resistentie tov clindamycine, tetracycline en oxacilline
- ✓ De resistentie tov kritische antibiotica is heel laag
- ✓ Stabiele trend

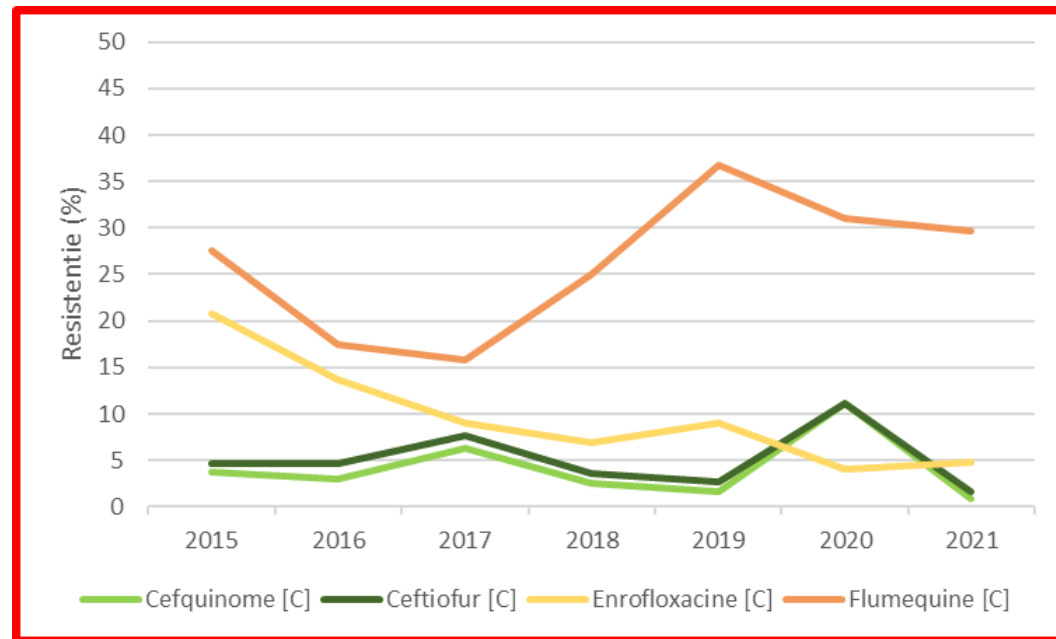
E. coli in pluimvee

Jaar	2015	2016	2017	2018	2019	2020	2021
Aantal	236	234	378	449	381	297	371



E. coli in pluimvee

Jaar	2015	2016	2017	2018	2019	2020	2021
Aantal	236	234	378	449	381	297	371



Conclusie : Antibiotica resistentie *E.coli* kippen



- ✓ Bij *E.coli* algemeen stijgende trend in resistentie voor de A en B klasse antibiotica
- ✓ Voor sommige molecules een hoge graad van resistentie (> 50%)
- ✓ Cephalosporines: dalende resistentie bij *E.coli* pluimvee
- ✓ Quinolone resistentie blijft hoog met een licht dalende trend in 2021
- ✓ Fluoroquinolone resistentie kent een dalende trend