

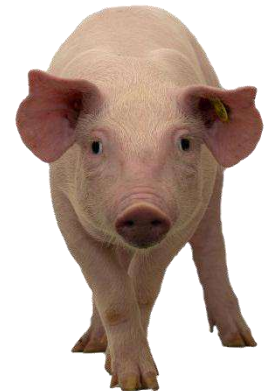
A close-up, grayscale photograph of a pig's face, showing its eyes, ears, and snout. The pig is looking directly at the camera.

Dutch experiences with reduction of antibiotics and Management XLIII SIPAS 2017

R. Janssen DVM
“The Swinepractice”
and
Vice-president EAPHM

Content

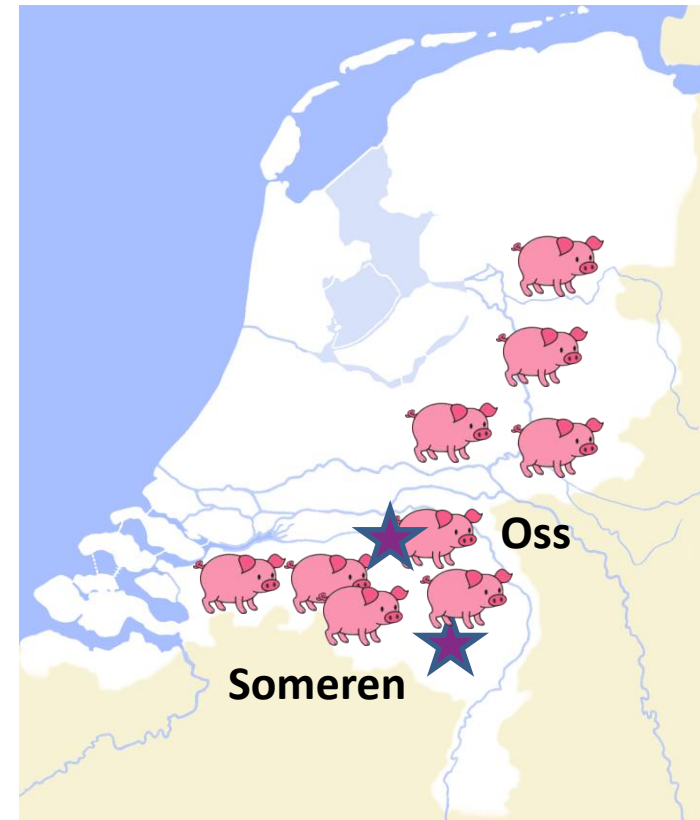
- “The Swinepractice” / De Varkenspraktijk
- Antibiotic reduction, rules and guidelines in the Netherlands.
- Herd health management
- Practical aspects
- The future in Europe



“The Swinepractice”

De varkenspraktijk

- Netherlands: 930.000 sows
(south and east)
- De Varkenspraktijk:
 - 11 vets
 - 2 locations
 - 13% of Swine production
 - Consultancy (Germany / Hungary / Belgium)



History 2008 -2009



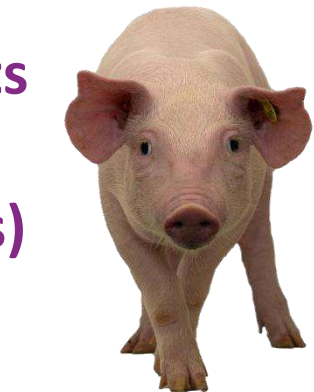
Within the EU:
The Netherlands had
the **lowest** use of antibiotics in human medicine and
the **highest** use of antibiotics in veterinary medicine.



History

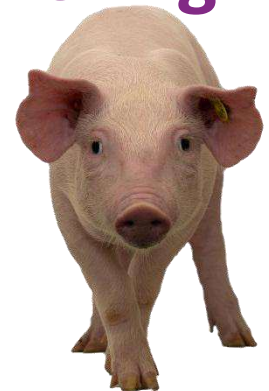


**From 2000 in Dutch hospitals more patients
are found with
multi-resistant bacteria (MRSA and ESBL's)**

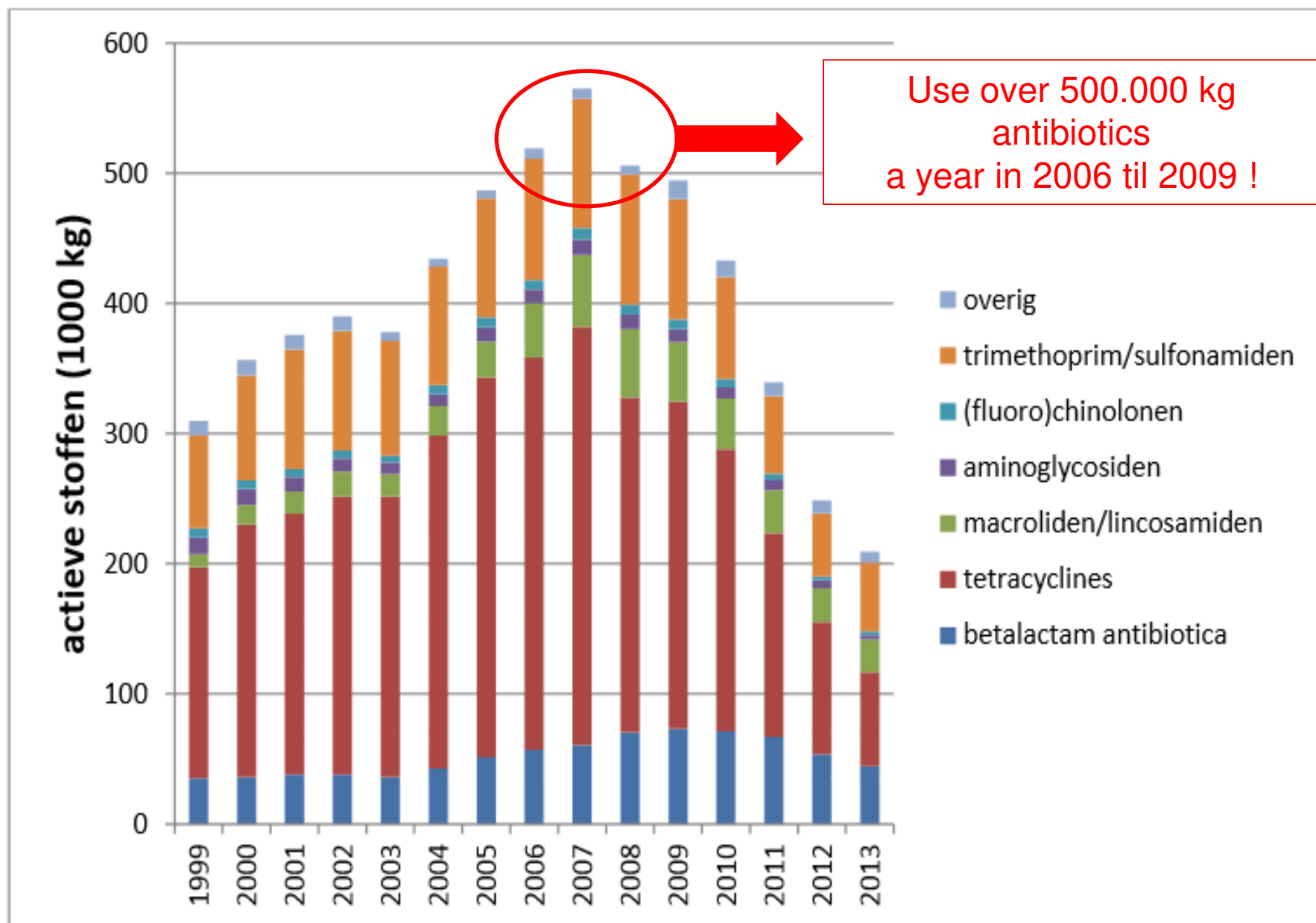


Situation till 2009

- High use of antibiotics in animal production
- Zinc oxide level maximum 150 ppm
- Veterinary practices have a pharmacy
- Farmers have antibiotics in stock at the farm
- Farmers could have more vets delivering antibiotics
- Preventive medication is common



Figuur 1. Verloop van de verkoopcijfers van antimicrobiële diergeneesmiddelen, uitgedrukt in aantal kilogrammen actieve stoffen (x 1000) van 1999 tot 2014 (bron FIDIN) naar hoofdcategorie in 2013.



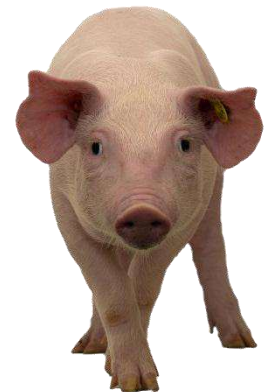
November 2009



Report of Committee Antibiotic Resistance:

Reduction of 20% in 2011

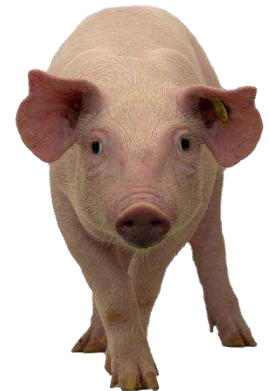
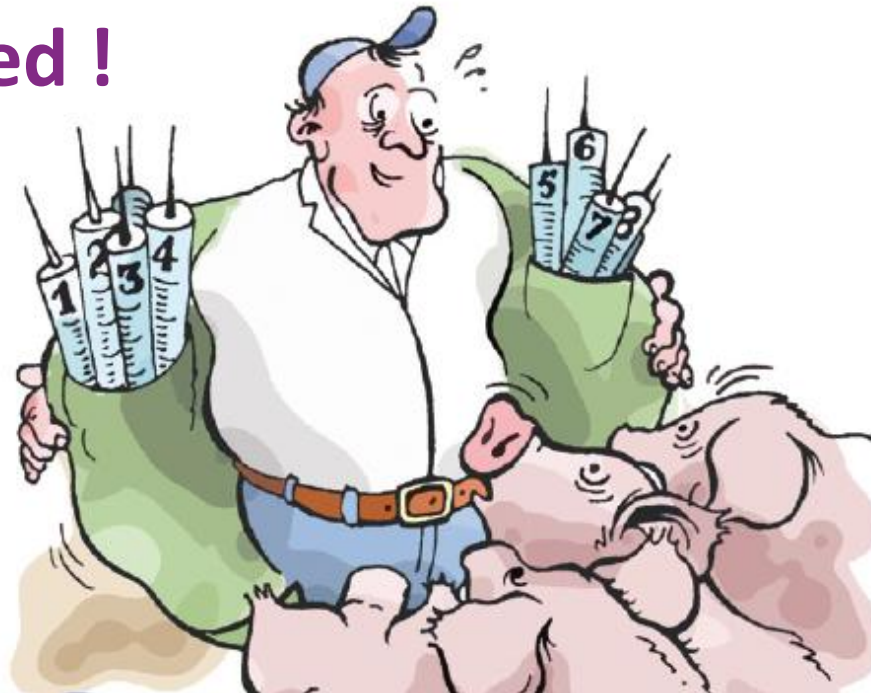
Reduction of 50% in 2013



November 2009

Ministry of Agriculture:

- 50 % reduction of antibiotic use in 2013 (compared to 2009)
- Preventive use of antibiotics is no longer allowed !



3 Basic principles



REDUCTION

of antibiotic use



IMPROVEMENT

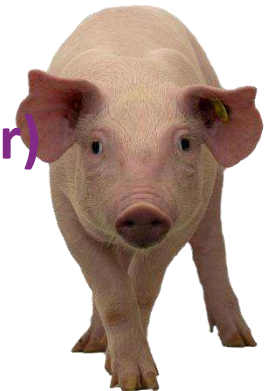
of antibiotic use

TRANSPARENCY

of antibiotic use

Rules Quality System IKB

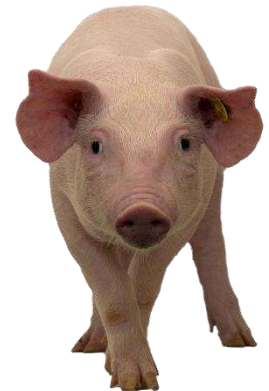
- 2010: Central database: registration of prescribed antibiotics on farm level.
- 2011:
 - ban of in feed medication antibiotics (feed mills).
(growth promoters were already banned in 2006).
 - In pigs: no use of:
 - 3th/4th generation cefalosporinen (ceftiofur)
 - Quinolonen (Baytril)



Rules Quality system IKB

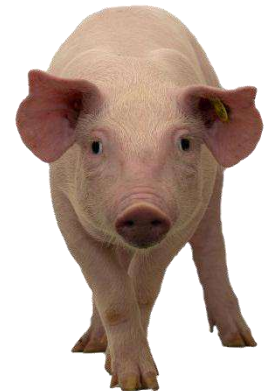
2012-2013:

- One-on-one contract between farmer and vet (prescription and delivery)!
- Annually Health-plan for each farm.



New legislation March 2014

- Only first choice antibiotics for individual treatment can be held in stock on the farm.
- Groupmedication only after farm-visit and prescription of the farm-vet.
- Second choice antibiotics only can be used after after lab-research and antibiogram.
 - Tulathromycine
 - Ampicillins, amoxicillins and colistin

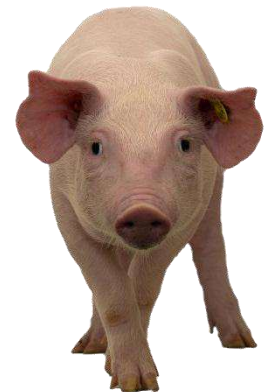


New legislation 2014

- The use of third choice of antibiotics for herd treatment is prohibited by law for food producing animals
 - 3th/4th generation cefalosporinen
 - Quinolonen (some exceptions)

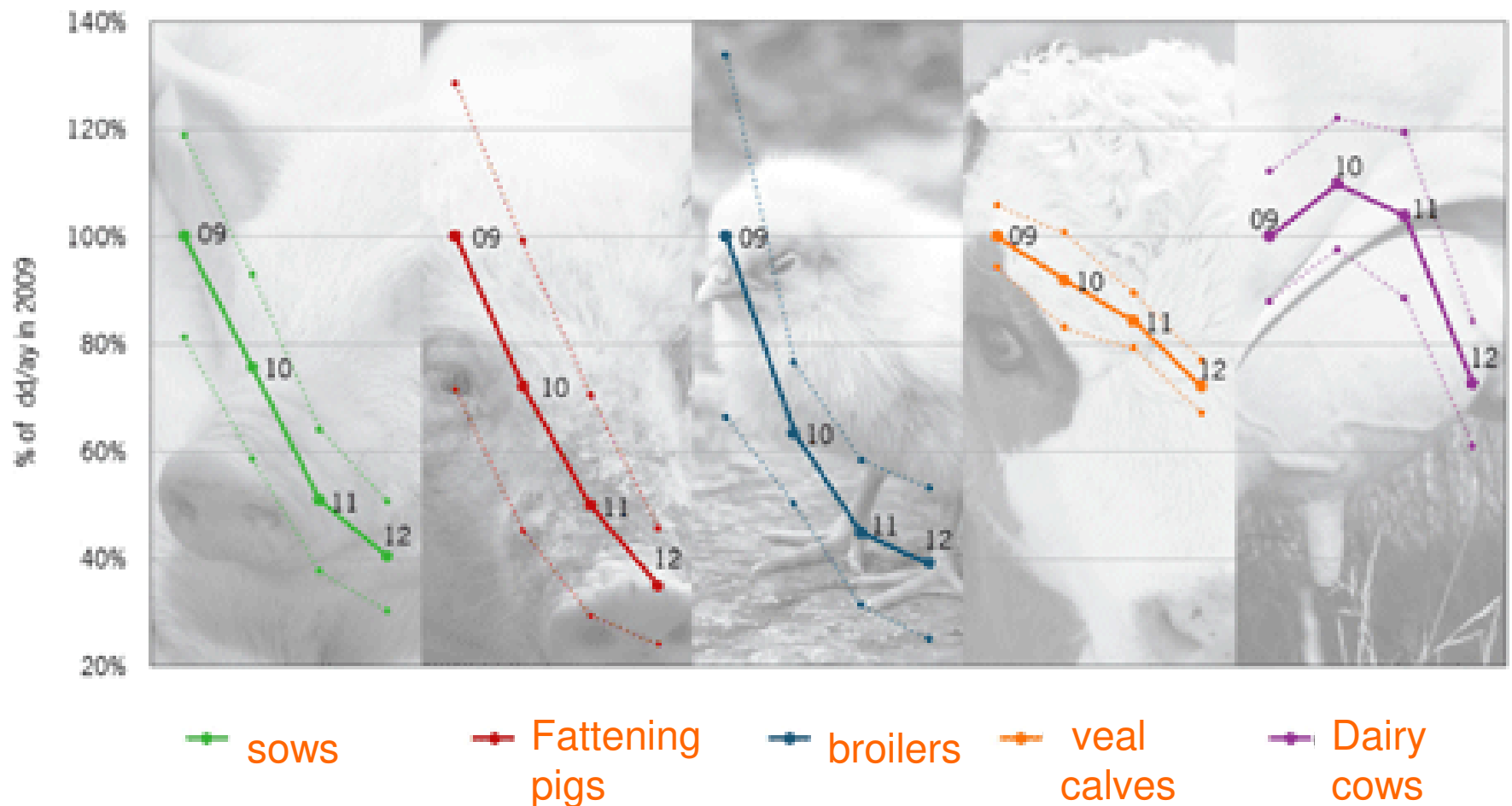


Further restrictions on the use of Ampicillins, Amoxicillins and Colistin in 2017 !?



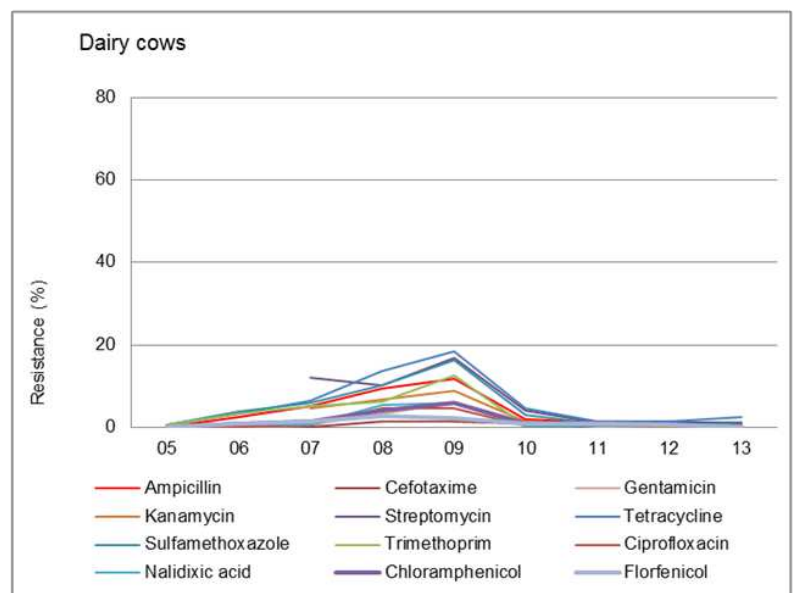
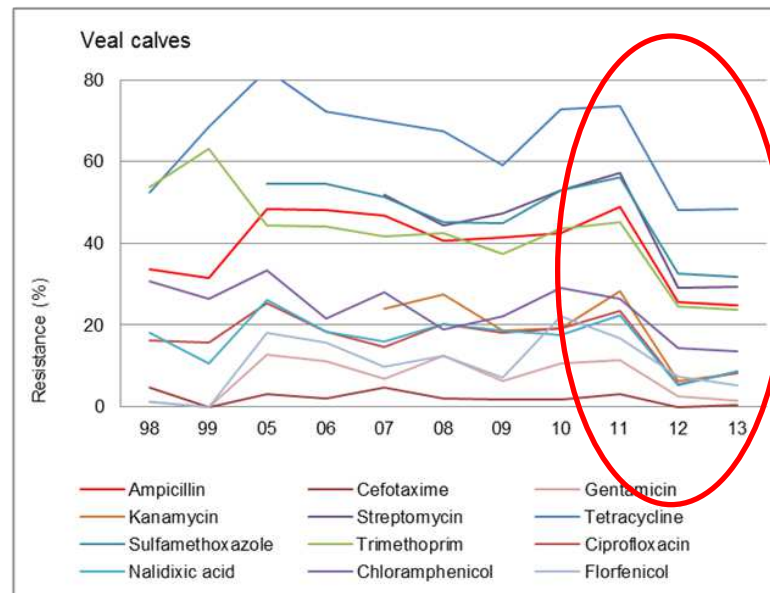
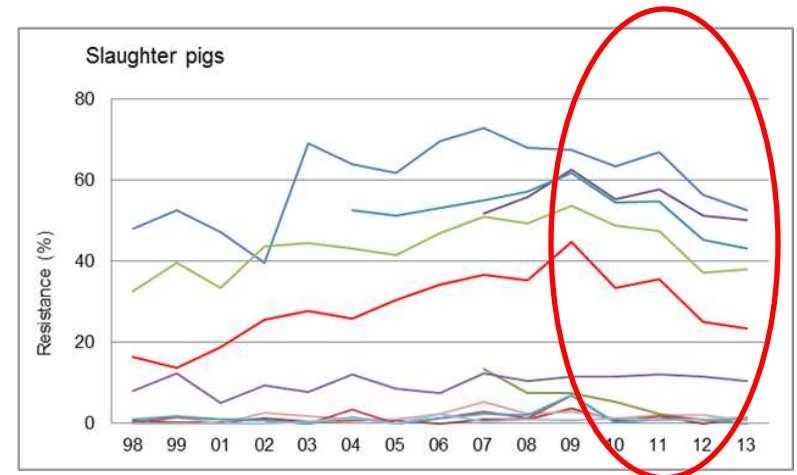
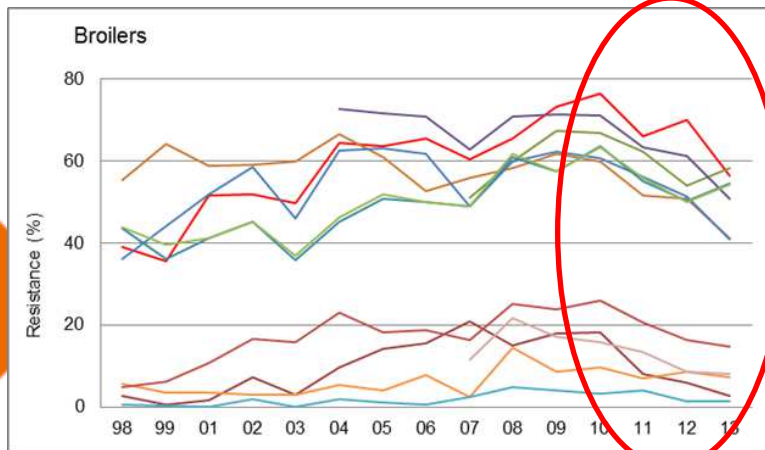
Results (in DDD)


Figure 4.1 Trends in antibiotic use per species, 2009-2012 a)



a) Results for 2012 are estimates, based on preliminary data of the first half year.

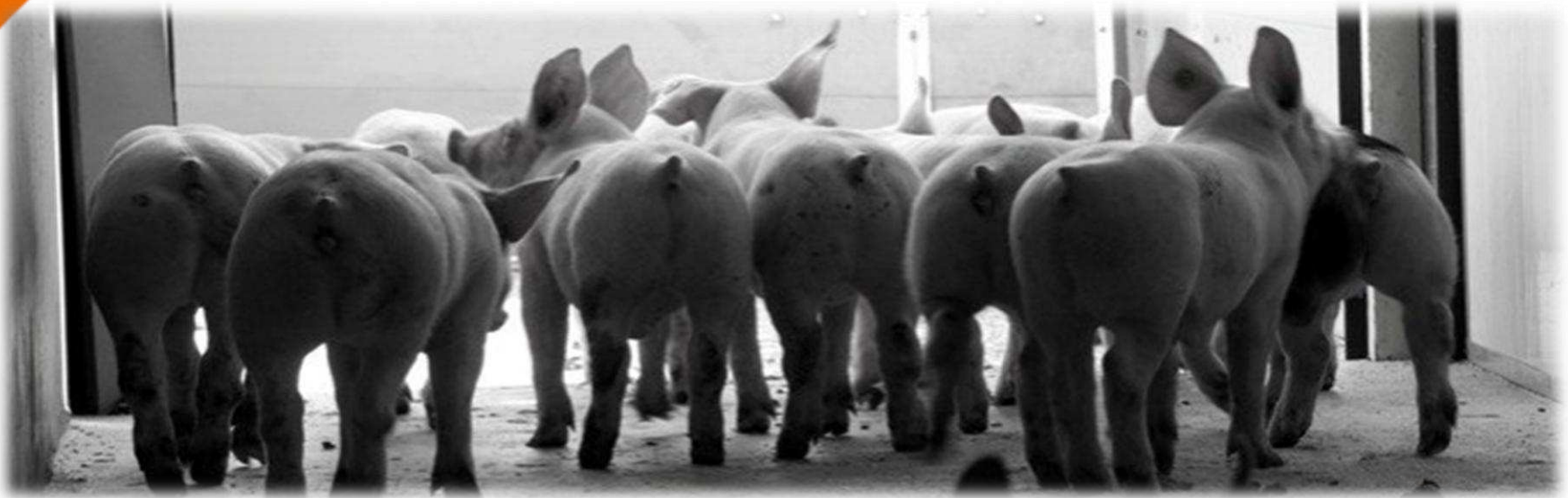
Effect of reductions on the occurrence of antimicrobial resistance in commensal E. coli



A photograph of several young pink piglets huddled together. One piglet in the foreground is looking towards the camera. A white thought bubble with a purple outline is positioned on the left side of the image, containing the text 'How can I stay healthy without antibiotics??'. Three small white circles of increasing size lead from the bubble towards the piglet's head.

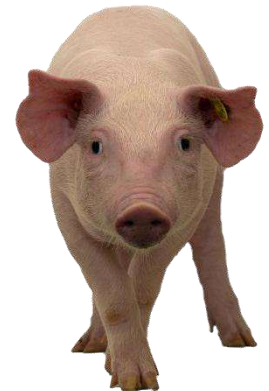
How can I
stay healthy
without
antibiotics??

HERD HEALTH MANAGEMENT



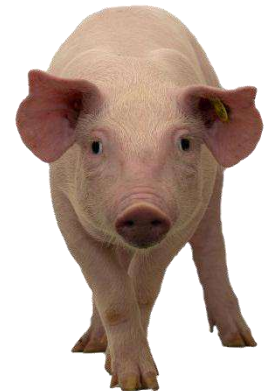
15 Important steps (Madec)

1. all in all out
2. limited cross-fostering
3. improving colostrum intake
4. cleaning and disinfection (reduce the germs in de surrounding)
5. low stocking density
6. good access to clean water
7. good access to a good quality of feed
8. no mixing of pigs = Contact structure (reduce transmission of germs)

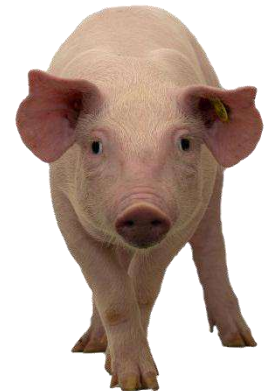


15 Important steps (Madec)

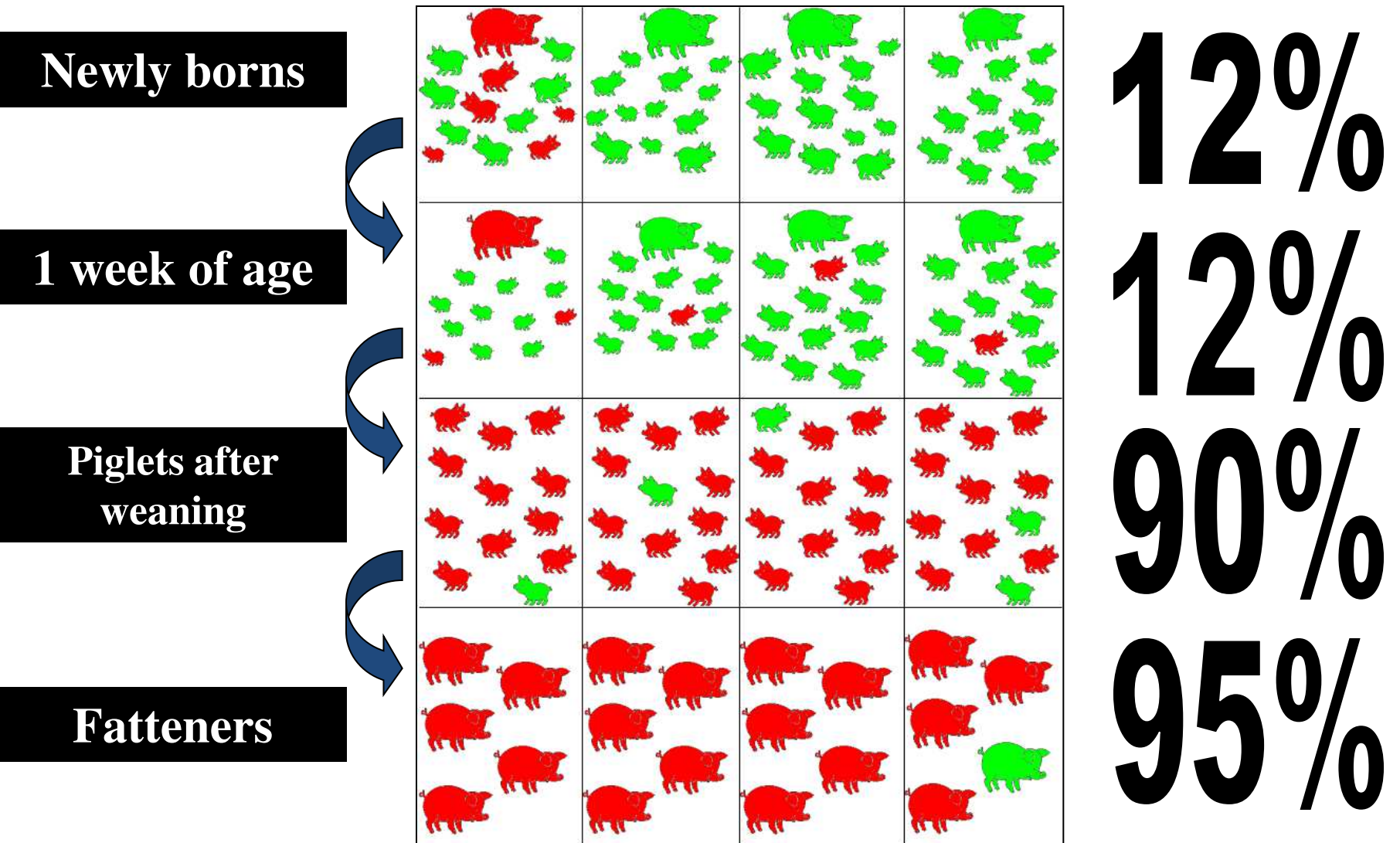
9. a good vaccination protocol
(decrease susceptibility for germs)
10. parasites treatment
11. separated farrowing - post weaning -
grow/finisher facilities
12. proper treatment of sick pigs
13. protocol to euthanize of sick pigs
(Remove Infectious animals)
14. strict hygiene in treatments of pigs
15. controlled temperature and a
good air quality.



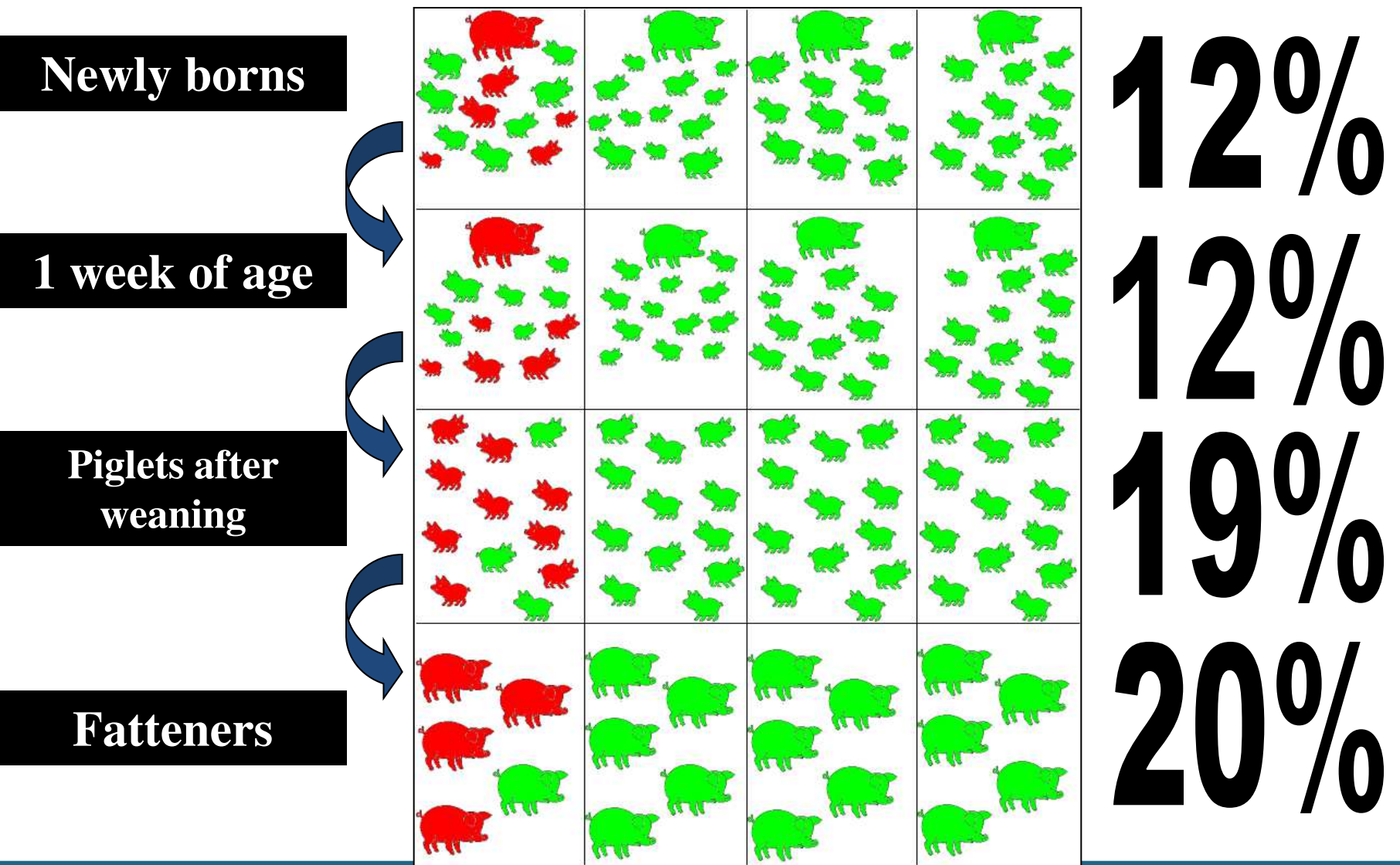
Practical aspects of Herd Health Management



Limited cross-fostering : Restrict mixing litters

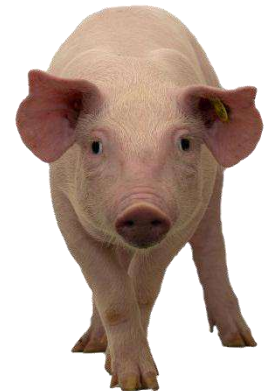


Keeping litters together:



Cross-fostering

- Not the first 12-24 hours (colostrum!)
- The first born piglets (mark them after birth)
- From 1 sow to 1 other sow



Improve Colostrum intake = improve resistance

IgG Concentrations in Colostrum



Adapted from Le Dividich et al., 2006

Split – suckling ?

ONDERWERP: Immunocrit

Datum monstername : 2 september 2013

Uitslag: 4 september 2013

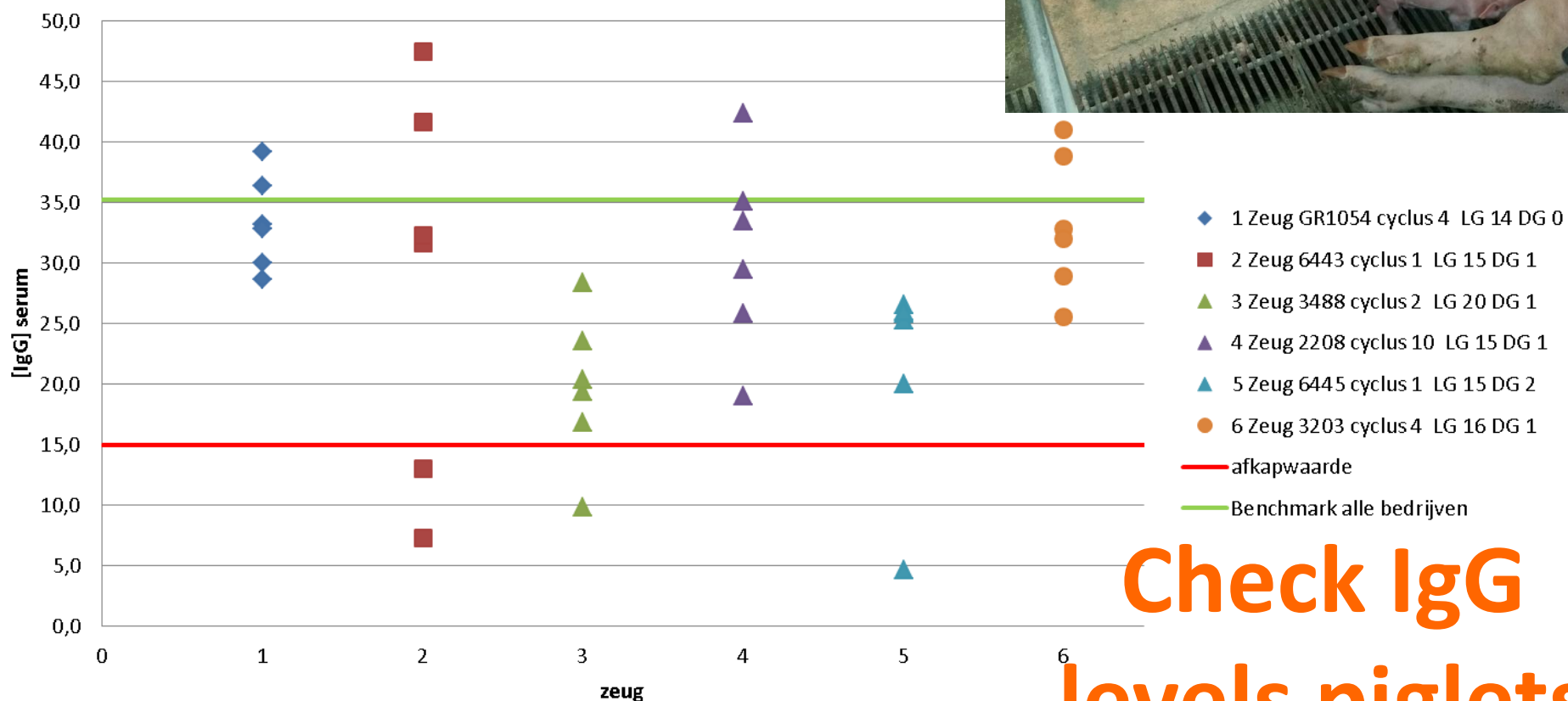
Gemiddelde [IgG] : 27,9 mg/ml

Gemiddelde overige bedrijven: 35,2 mg/ml

Waarden tov overige bedrijven: 79,25%



[IgG] per toom
individuele biggen per zeug boven elkaar w

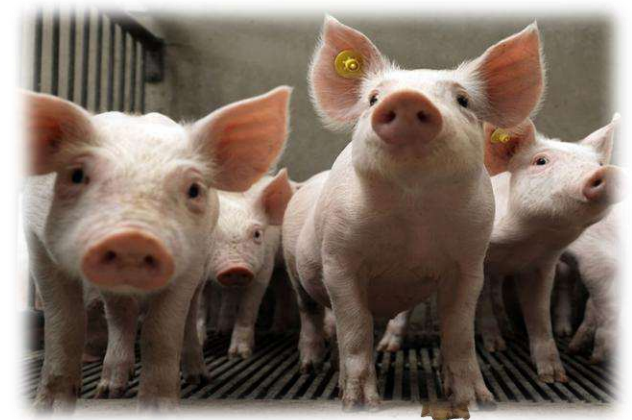


Check IgG
levels piglets

Important before weaning

- Colostrum intake: > 250 ml/pig
- Weaning age: > 25 days
- Feed intake before weaning: > 450 gr/pig
- Learn to chew solid feed
- Water intake before weaning !
(use the nipple)

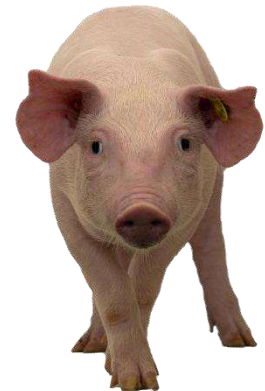
**As a vet, you should
check this !!!**



Water intake after weaning!

Extra water:

- Nippel bar / extra drink cup
- First 3 days extra water in water bowl



Feed intake

Pigs like to eat
together !



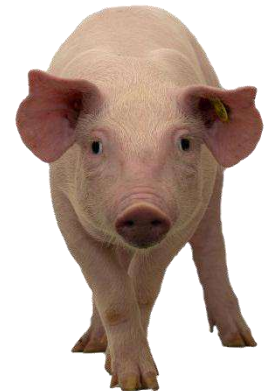
Use clothes and disposable gloves, materials in different colors: it works!



Internal biosecurity

Different compartments for:

- Gilts/ Quarantaine
- Sows in gestation
- Farrowing units (one age/farrowing group /compartment)
- Weaner (same age /farrowing/litter/ group/pen)
- Fatteners (no mixing; keep litters /week groups / farrowing groups together)



Hygiëne

(Cleaning and disinfection)

Some aspects:

- Aerosols → Spread of bacteria and viruses → First disinfect !

AND:

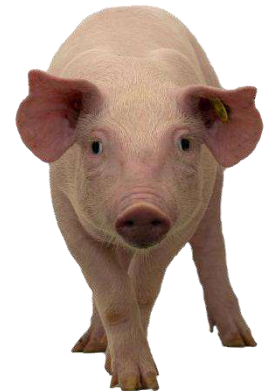
- No feed back!!



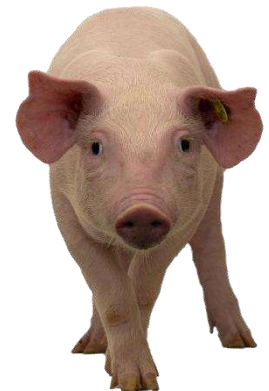
Climate



- Flap with roof ventilation !
 - ➔ Less air flow
- Resting place for the piglets (dark – no defecate area).



**Diseased pigs need drugs,
healthy pigs need a good
manager!**



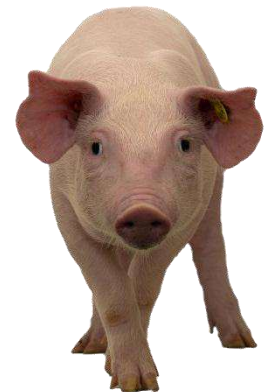
The future in Europe

- Now:
 - Differences in the use of antibiotics
 - Differences in regulations
- Required:
 - Uniform regulations within the EU



EUROPEAN ASSOCIATION OF PORCINE HEALTH MANAGEMENT

Become member
of the EAPHM:
www.eaphm.org



Thank you for your attention!

something
wrong with the
sphincter ?



DVM Rick Janssen
De Varkenspraktijk

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