

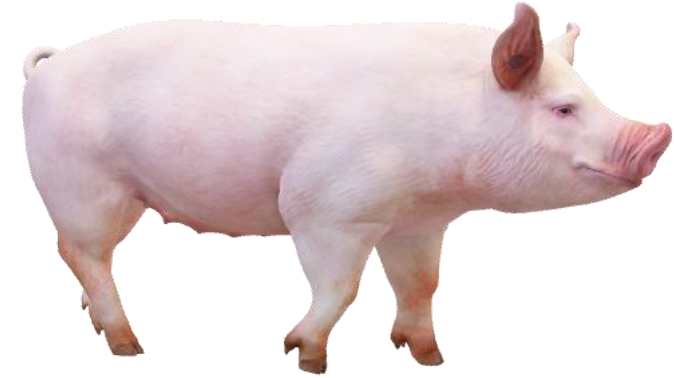
Biosecurity in a practical manner

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This presentation

- Play about external biosecurity
- What did we learn from the play
- Human experiences?
- Pigs in and out of farms – how to do it
- Wash
- Survival of bacteria and virus
- Internal biosecurity with the McRebel rules
- What's new?
- African Swinefever and travelling
- Take Home Messages



Where did it go wrong?

- Pig herd owner should have said **STOP!**
 - Lock on the door
 - No access after visiting herds with a lower SPF status
 - Do not bring own tools, pen, mobile phone, clothing and socks into the herd
 - Do not bring food into the herd area
 - No access before quarantine period after visits to black Swine Fever areas
 - Wash hands thoroughly before using disinfection with alcohol
 - Use paper towels only
 - Change from own clothes to the herd's clean clothes and socks

External biosecurity

Always aim for the highest level of biosecurity no matter whether status is unknown, Blue or Red SPF

- We want to keep the infection out!
- Increasing threat of African Swine Fever (ASF)
- Make demands on visitors, employees and cooperation partners!
 - Quarantine rooms, transporters, feed and semen suppliers

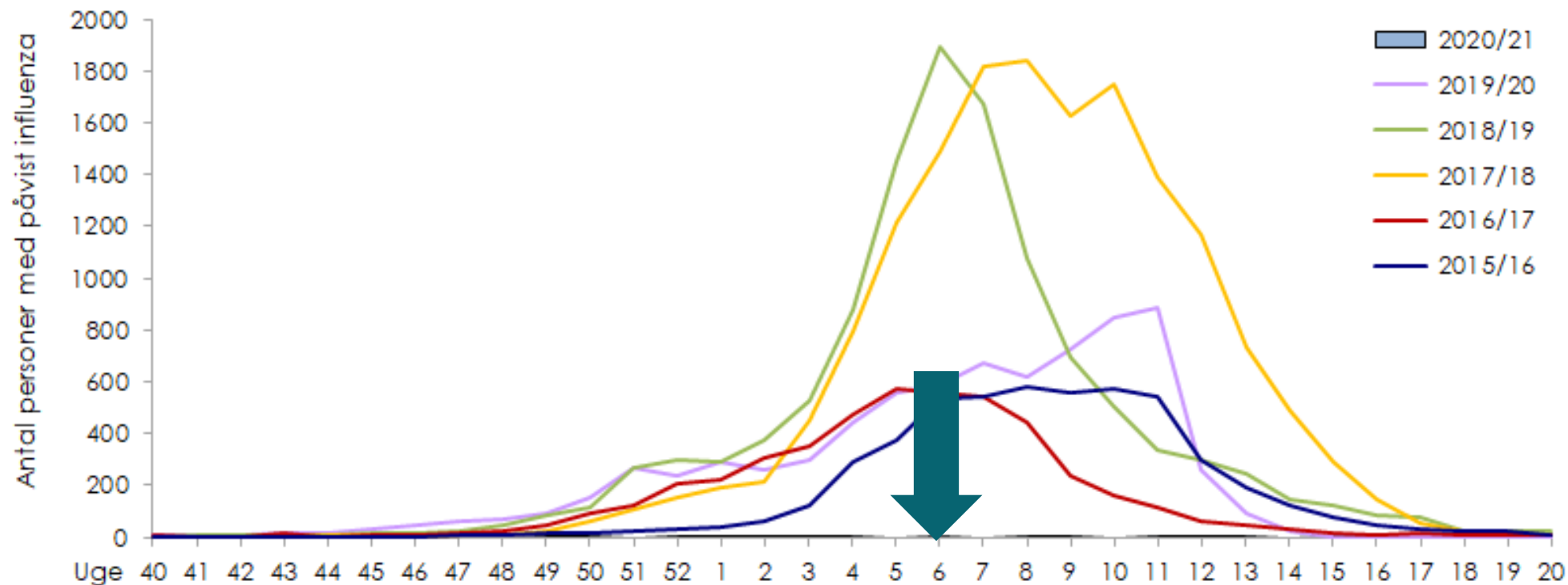


- Human experiences?

Absence of flu in season 20/21

Source: graph from ssi.dk

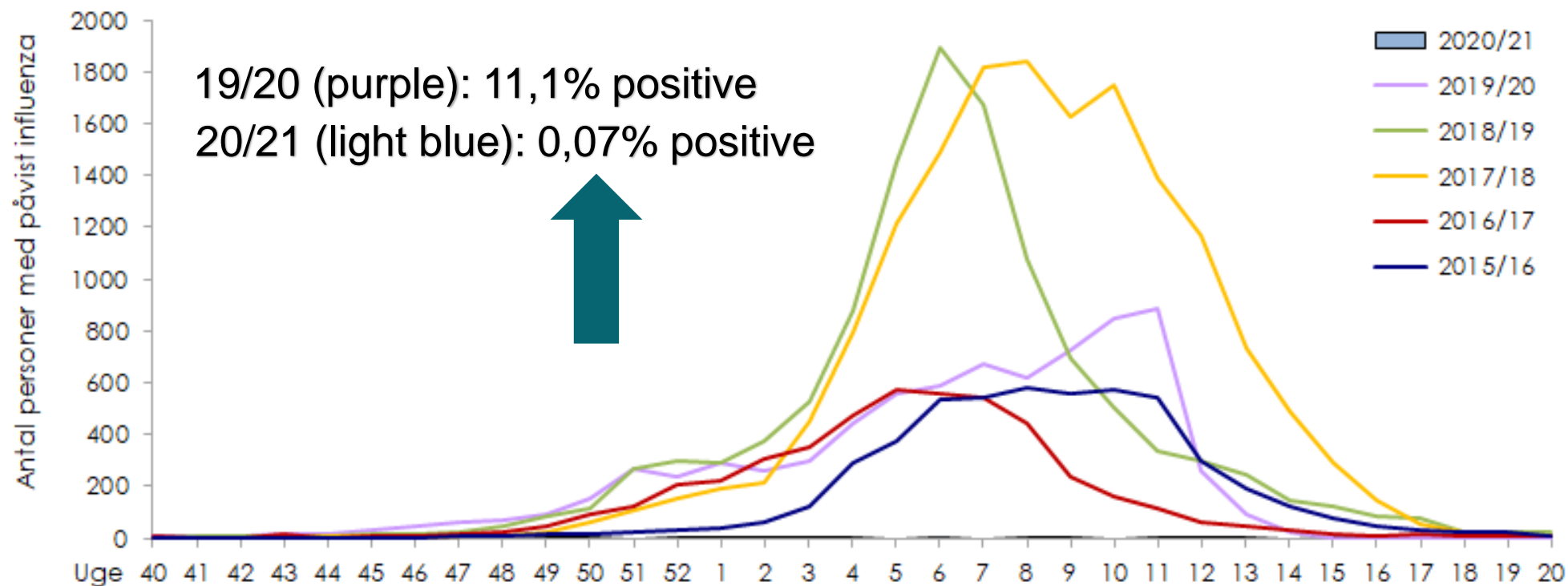
Laboratoriepåvist influenza i sæson 2020/21 sammenholdt med de fem forrige sæsoner



Absence of flu in season 20/21

Source: graph from ssi.dk

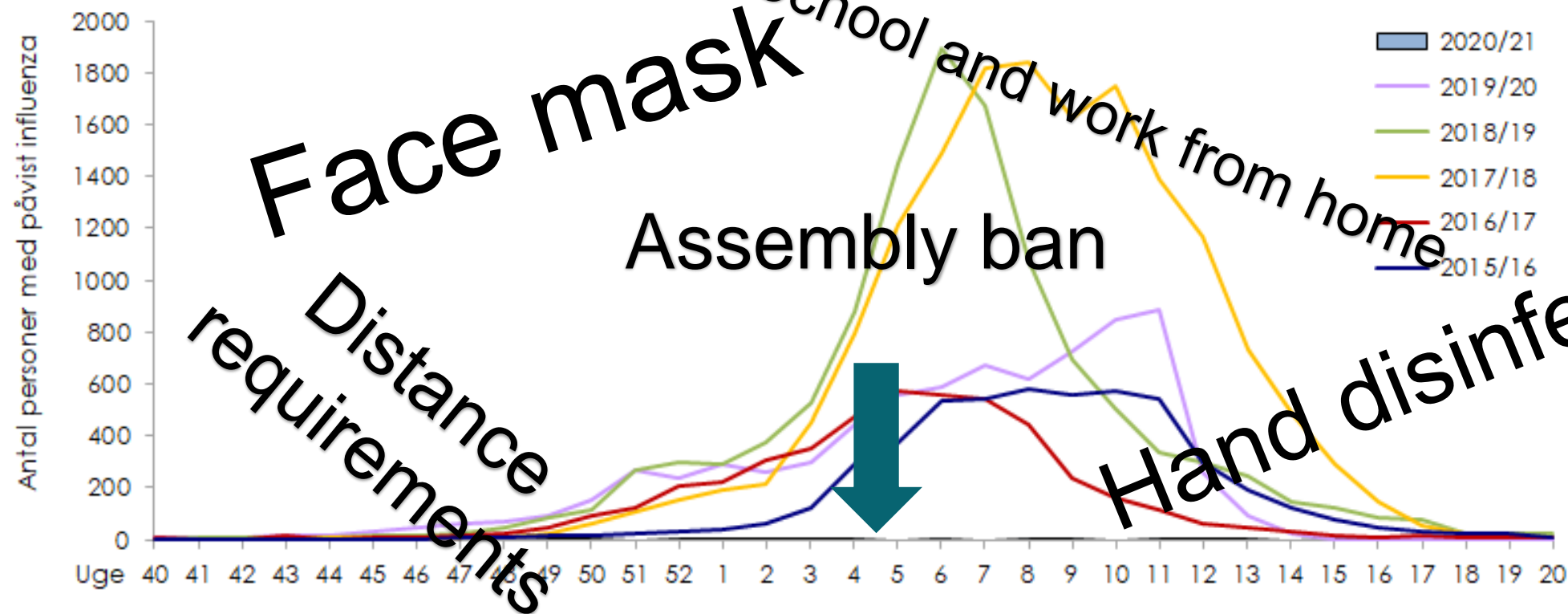
Laboratoriepåvist influenza i sæson 2020/21 sammenholdt med de fem forrige sæsoner



Absence of flu in season 20/21 – Corona restrictions

Source: graph from ssi.dk

Laboratoriepåvist influenza i sæson 2020/21 sammenholdt med de fem forrige sæsoner



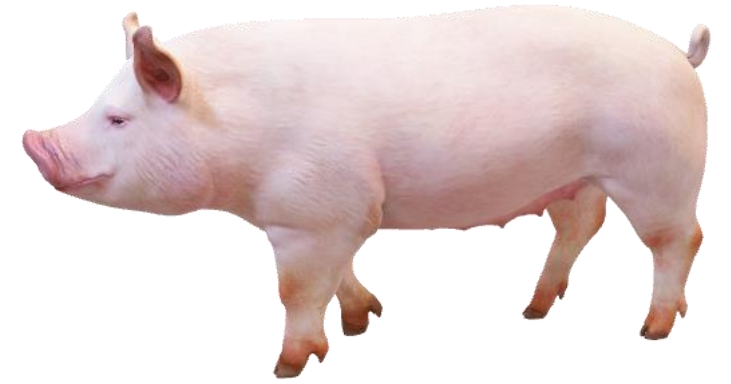
Face mask requirements

Distance requirements

Assembly ban

School and work from home

Hand disinfection



- How to receive and deliver pigs from farms

Quarantine room



- Separate room / property
- Must be locked
- Separate staff entrance for hand wash and change of clothes
- Separate ventilation and slurry systems
- Easy to clean
- Must be washed and disinfected between use

- Purpose?

Delivery



- Check Wash certificate and hygiene of the vehicle before it drive to the ramp
- Preferably some distance from the herd area
- Ramps are washed with soap and disinfected after use
- When are they clean enough?

• Wash.....



What is clean?

- SPF-vehicle (trailer) is easy to clean – approx. 2 hours
- Wash and cleaning at eradication programmes – 2 hours / year sow
- Delivery room? Tired, latest arrived schoolboy during closing time?



- Survival of bacteria and virus

Number of days viruses and bacteria survive in manure

Sygdom		Overlevelsestid i dage ¹	
Virus	Afrikansk Svinepest	✘	180
	Klassisk Svinepest		60
	Mund- og klovsyge		56
	Aujeszky's syge		14
	PRRS	✘	4
	Influenza	✘	3
Bakterier	Miltbrand		Evigt
	Salmonella		180
	Svinedysenteri		112 ²
	Rødsyge		56
	Ondartet lungesyge	✘	14
	Parasitter	Skab	
Lus			2-3 ³

¹Hvor ikke andet er oplyst er oplysningerne fra Thompson, 2001

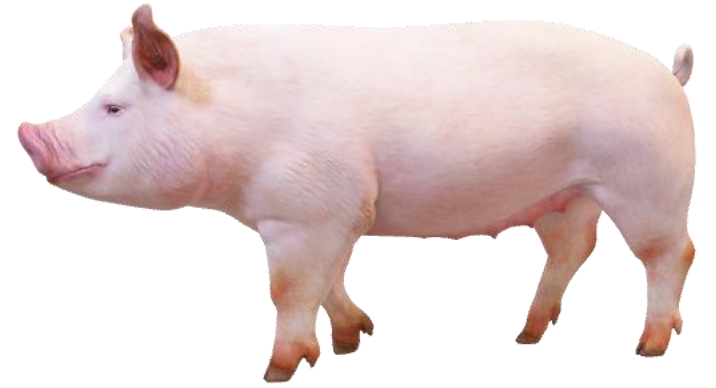
²Boye et al, 2001

³Straw et al, 2006



Viruses and bacteria

- Most common reinfections with mycoplasma and PRRS in pigs
 - Lack of proper cleaning/wash at eradication programmes?
- Vaccination
 - A supplement to other biosecurity measures
 - Lower excretion of virus and bacteria over time, leads to lower infection level!
- THEREFORE ...



- Internal biosecurity with McRebel rules

McREBEL rules – The golden rules

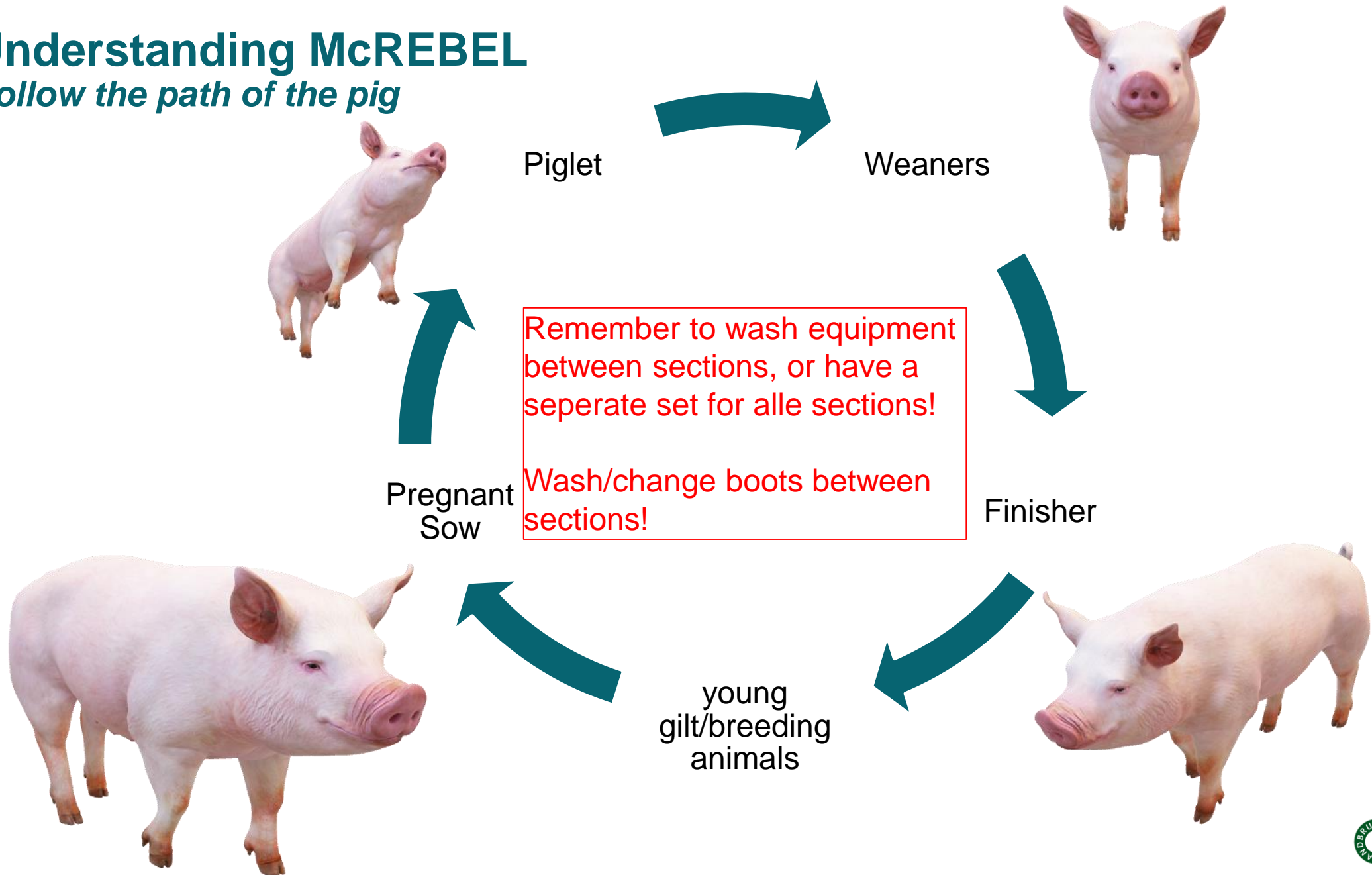
- STOP moving piglets between litters (collection), and do not move piglets or sows between sections
- STOP making nursing sow for the weakest, sick pigs (e.g. PRRS, low gain weight)
- Instead urgently KILL very sick pigs that do not have a chance, spend time on those we can save!
- You can make nursing sows within the first 24 (48) hours after birth

McREBEL rules – The golden rules

- MINIMIZE treatment of pigs (e.g. avoid routine antibiotic treatment, extra iron)
- ALWAYS change needle between teams
- NEVER move pigs backwards in the system (rather kill), and wean all – no weaned pigs in the farrowing section!
- All in / all out (2-3 days for washing and disinfection) between groups

Understanding McREBEL

Follow the path of the pig



Your personal biosecurity rules

- ALWAYS go from smallest to biggest pigs
- WASH boots, hands and equipment often
- WASH clothes every day after use
- SHOWER before you go home
- STAY at home if you have symptoms of influenza/sickness
 - We strongly recommend influenza vaccination!!

- What's new?



New – filter and UVC-light

- Filter
 - Front-filter - rough
 - Absolute-filter - fine
- UVC-light
 - Specific wavelength (250 nm)

New – filter and UVC-light

- Insurance premium
- Correct dimensions, air velocity/distance to light source/energy
- Service part / monitoring / economy
- No years of experience at buildings
- Spent many years for SPF trucks

- African Swinefever and travelling



Visits abroad

1. Drive directly home – Take a shower – Wash clothes at 60 degrees Celsius, wash and disinfect footwear – shoes remain in your private home
2. Keep a 24-hour quarantine from the time you return home before entering the pig unit
3. No food from abroad – why?

Border control



Avoid

African swine fever
Afrikanischen Schweinepest
Afrykańskiego pomoru świń
Pesta porcină africană
Африканской чумы свиней

Be aware not to bring food or dirty boots near farms
Bitte bringen Sie keine Lebensmittel oder schmutzigen Schuhe mit in die Nähe von Bauernhöfen.
Nie wolno wnosić jedzenia ani wchodzić w brudnym obuwiu na teren gospodarstw rolnych
Nesineškite maisto ir purvinų batų prie fermų
Запрещено находиться вблизи фермы с едой или в грязной обуви



Ministeriet for Fødevarer, Landbrug og Fiskeri
Landbrug & Fødevarer

Survival of ASF:

- Several years in frozen / fresh meat
- 1 year in salted or smoked meat
- 5 months in chilled fresh meat
- 4 months in salted, fermented salami

- More than 8 years in test tubes with blood
- 3-6 months in blood on surfaces
- 6 months in manure
- 2 months in urine

You are your own border control !!

- Check Wash certificate and hygiene of the vehicle before it drives to the ramp, preferably some distance from the herd area
- Do not enter the vehicle, if you are going back to the pig unit
- Use your common sense
- Today all is put on the edge 😊

Take Home Messages (1/2)

- **Be critical** when receiving guests – quarantine periods!
- Follow the **biosecurity rules** applying for entrance to farm areas
- **Lock** on the door!
- **Wash** of trucks, quarantine rooms and ramps has to be a high priority.

Take Home Messages (2/2)

- Animals should be included via **quarantine rooms** before entering the farm
- Bacteria and virus can **survive** for a long time
- Use the **McRebel rules** – from small to bigger! **Take handouts** with you!
- Rising **threat with ASF** – take it seriously!

THANKS and remember!

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