



# Sunde pattegrise fra fødsel til fravænning

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**26. oktober 2022**

STØTTET AF  
**Svineafgiftsfonden**

**SEGES**  
INNOVATION

# Agenda

- Hvem er jeg, og hvem er vi?
- Vejen før valg af byggeri
- Anlægsdesign og sektionsbilleder
- Management-fordele ved sektioner
  - Flow af søer
  - Arbejdsflow
- Anslået merpris
- Næste step for os



# Hvem er jeg?



- 29 år, nybagt far og bosiddende i Ringkøbing med Marlene og Irma
- Uddannet landmand, produktionsleder, jordbrugsteknolog og HD(R)
- 3 år som forretningsudvikler i DLG
- Daglig leder af soholdet på Mogensgaard siden september
- Aktiv i biogasprojekt med 45 andre landbrug
- I planlægning med bror og forældre om generationsskifte

# Hvem er vi?



- Mogensgaard Fødevarerproduktion, beliggende nær Ringkøbing
- 35 medarbejdere
- 2.600 årssøer med full-line slagtegriseproduktion
- 1.000 hektar i drift med foderkorn, frøgræs, kartofler, kernemajs og raps
- Griseproduktionen drives ud fra 4 sites/kantiner med en leder hvert sted
- Fokus i dag er på soholdet med 2.000 årssøer

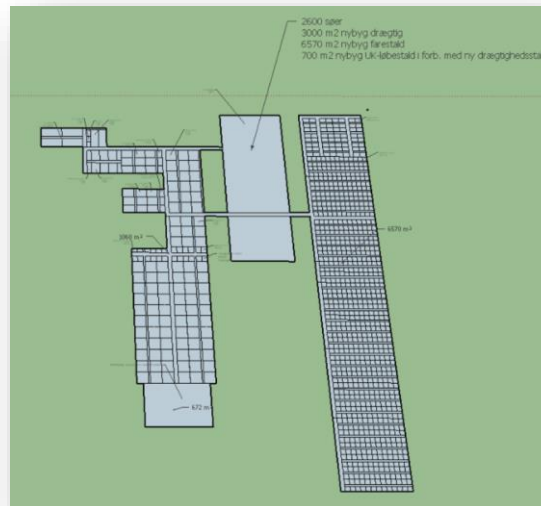
# Vejen før valg af byggeri

- Omkring 2016 skulle der ske noget nyt med vores staldanlæg til søer
  - Low-cost? Flere grise? Opstaldningsmuligheder?
  - Fra inddragelse af Ejerservice ved Danish Crown til utallige staldbesøg

Strategi



Dimensionering  
og overordnet  
design



Staldbesøg

Højde i stald

Små sektioner  
og indgang

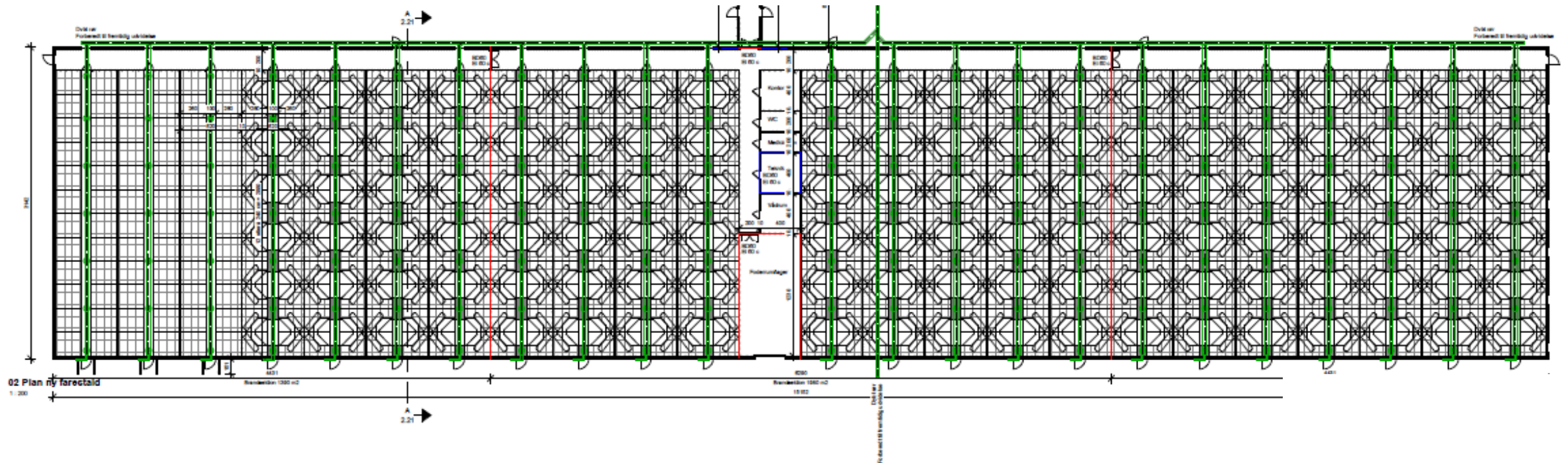
Optimale huler

ESF /  
langkrybber

Gulvudformning

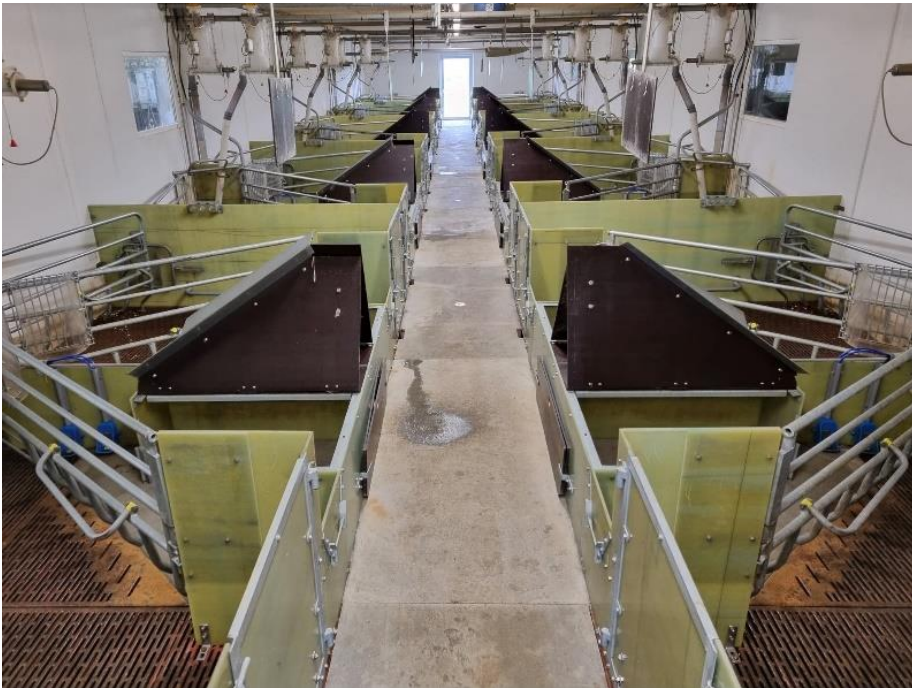
# Anlægsdesign

- Skitseplan af anlægget:
  - 20 sektioner, 24 farestier pr. sektion
  - 4 sektioner med babystalde
  - Kontor, WC, foderlade/buffer siloer mv.



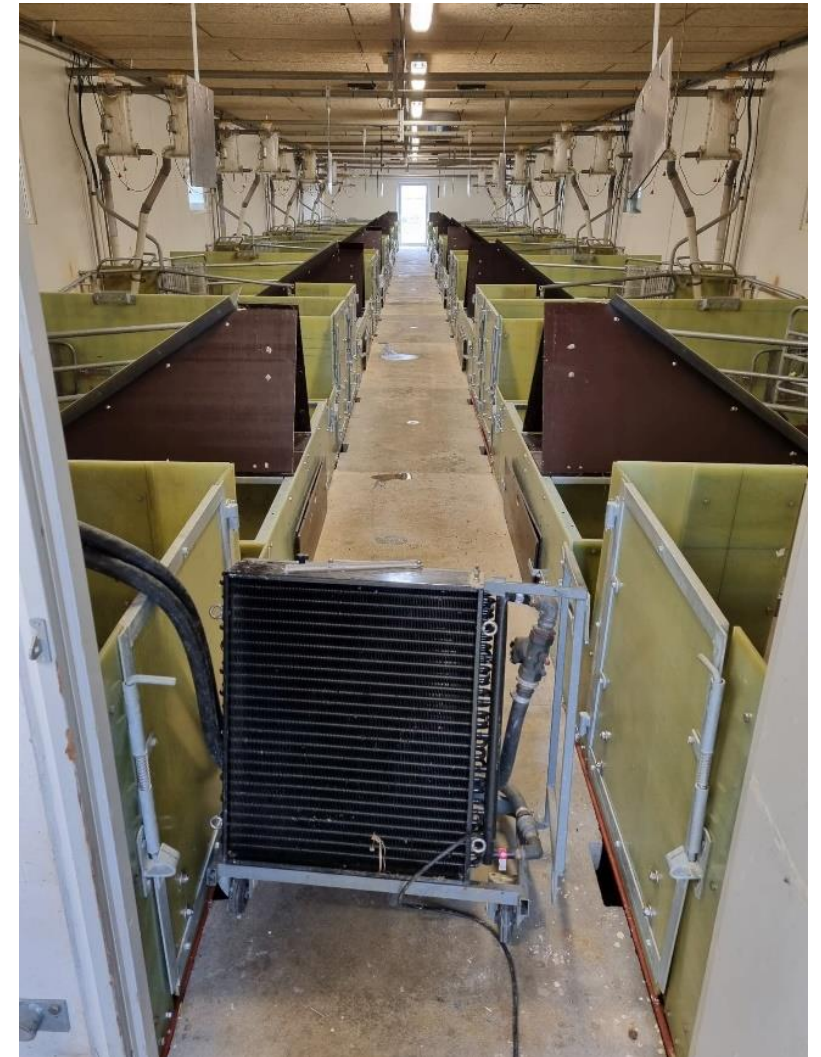
## Den enkelte sektion

- Løsgående farestier 2,4 x 2,6 meter fra Jyden/Skiold
- 25 % fast gulv med gulvvarme (intet under soen)
- Tørfoder, stationær varmelampe
- Fokus: nærmiljø, hygiejne, arbejdsmiljø



# Sektionsopdelte "teknologier"

- Ventilationsstyring + gulvvarme
- Iblødsætning, vaskerobot og tørring
- Udslusning af gylle
- Start af foder



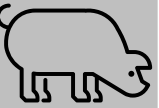
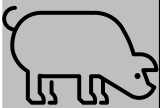
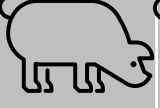
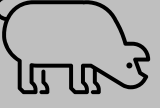
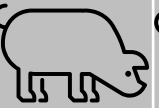
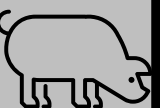
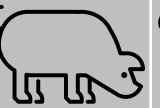
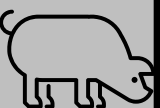
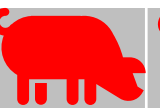


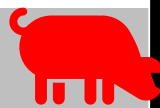
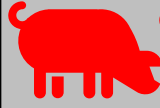
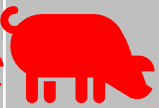
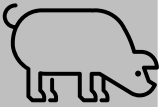
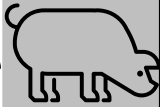

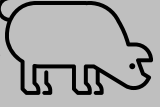
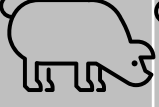
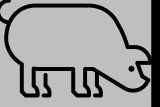
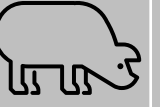
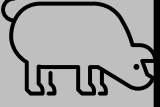
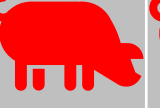
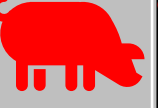

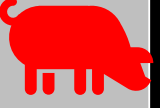
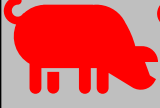
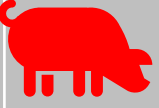



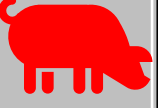
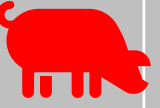

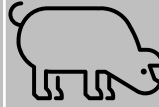

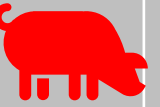


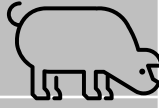



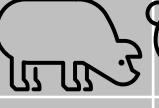
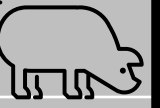




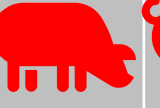
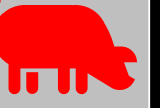











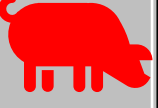





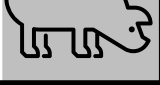
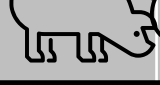



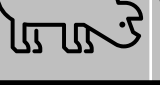




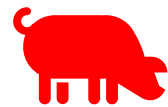


# Management-fordele – flow af søer

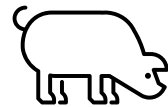
- "Lukker sektioner af":
  - Søer, der ikke har faret endnu, rykkes til de næste sektioner, og ammesøer laves, hvor faringen er → sektioner med lille forskel på faredato (cirka 3-4 dage)
  - Fordel ved ventilation, kastration, arbejdsgange, fodring, ledelse/ansvar, fravænning
- Optimere tomme pladser:
  - Afvente med at lave pladser til ammesøer til den aktuelle faringsuge
  - Afvente med at indsætte den sidste ¼ af søerne

# Tidligere – ugen før faring

Sektion 1	Sektion 2	Sektion 3	Sektion 4	Sektion 5	Sektion 6	Sektion 7
 	 	 	 	 	 	 
 	 	 	 	 	 	 
 					 	
 						
 	 	 	 	 	 	 
 	 	 	 	 	 	 
 	 	 	 	 		


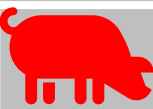









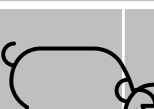

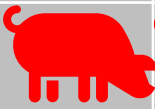
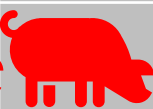







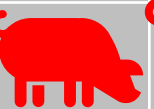



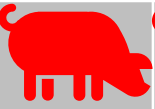










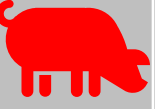
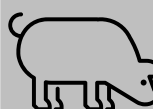
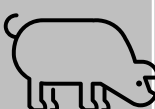



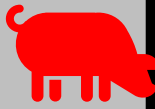

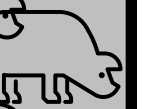
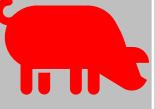
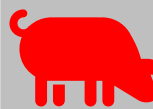












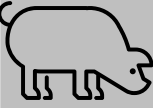

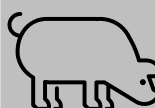



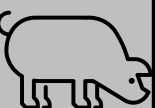
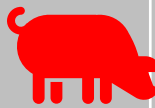
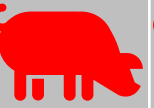
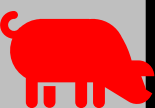



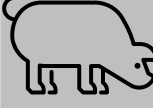
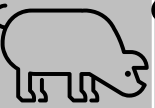
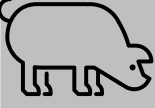


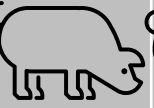
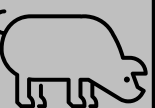
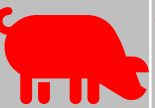
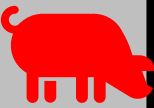
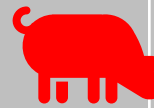
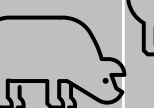



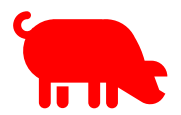
So, der har faret



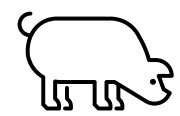
So, der ikke har faret

# Nuværende – ugen før faring

Sektion 1	Sektion 2	Sektion 3	Sektion 4	Sektion 5	Sektion 6	Drægtighedsstald
 	 	 	 	 		 
 	 	 	 		 	 
 	 			 		 
 	 					 
 	 	 	 		 	 
 	 	 	 		 	 
 	 	 	 	 		 



So, der har faret



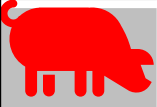

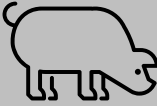
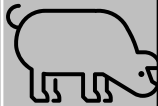
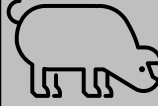
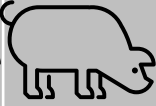
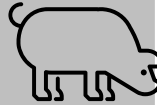
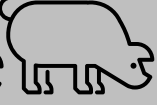
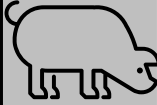
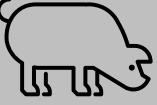


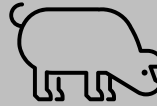
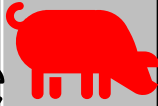

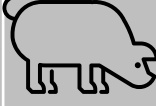
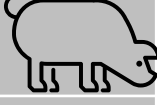

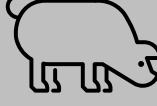
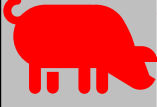
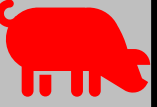
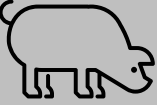
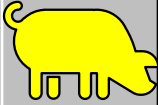
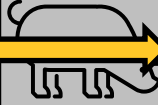
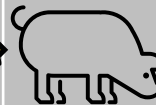
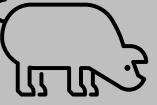
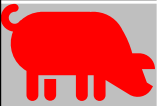


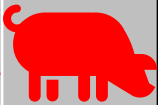
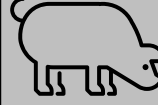
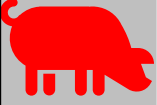


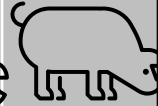
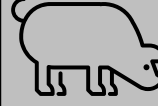
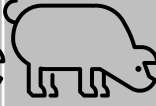

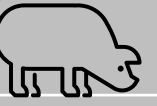

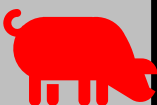
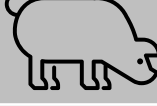
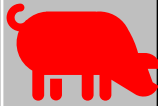


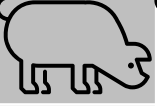



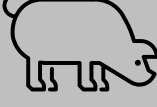


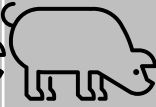

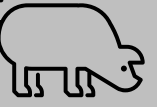
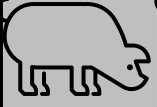

So, der ikke har faret

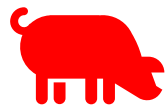
## Indsætning af søer

- Alle søer mærkes op
- Dem med faringer først på ugen indsættes senest fredag ugen før
- Faringer sidst på ugen indsættes mandag op til

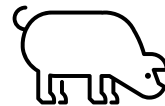


# Nuværende – ugen med faring (mandag)

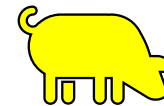
Sektion 1	Sektion 2	Sektion 3	Sektion 4	Sektion 5	Sektion 6	Drægtighedsstald
 	 	 	 	 		
 	 	 	 			
 	 	 				
 	 					
 	 	 	 			
 	 	 	 			
 	 	 	 	 		



So, der har faret

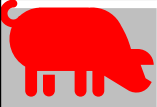

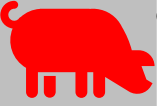
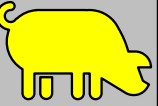
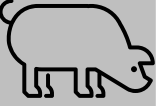
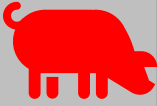

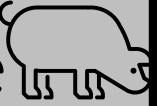
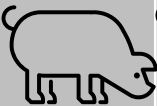
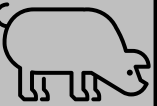




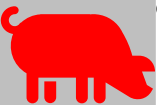
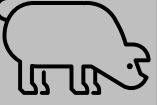
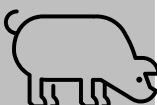
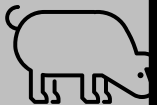
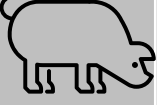
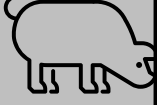
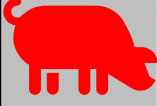
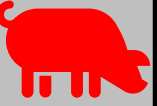
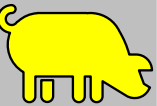
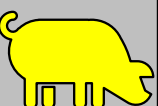
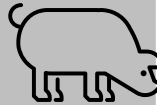
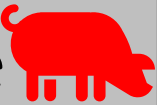
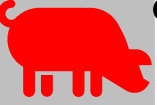
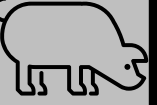




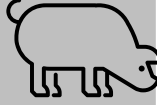
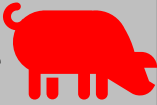
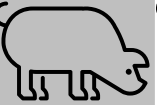
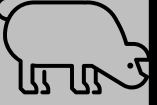

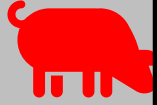
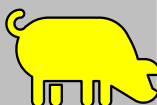


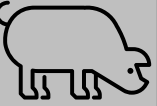
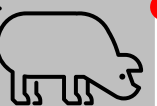
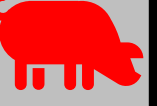

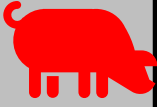
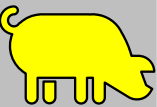
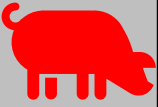

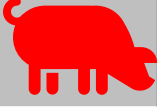
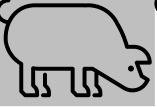
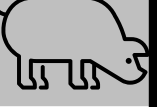

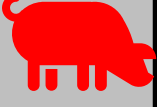
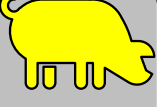









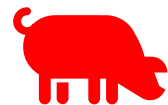
So, der ikke har faret



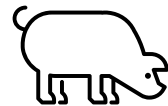
Ammeso

# Nuværende – ugen med faring (tirsdag)

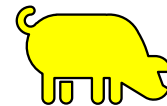
Sektion 1	Sektion 2	Sektion 3	Sektion 4	Sektion 5	Sektion 6	Drægtighedsstald
 	 	 	 	 		
 	 	 	 	 		
 	 	 	 			
 	 	 	 			
 	 	 	 			
 	 	 	 			
 	 	 	 	 		



So, der har faret



So, der ikke har faret



Ammeso

# Management-fordele – arbejdsflow

## Ro ved arbejds gange

- Faringer, kastration, åbning af bokse, fodringer
- Centralt ved løsgående i forhold til ihjellagte
- Vi er hurtigt væk igen

## Flow i forhold til vask og holdskift

- Vi lukker helt af ved vask, tørring, desinfektion mv.
- Robotten kan vaske en stald, imens en anden stald vaskes af person, og den tredje stald er i gang med at tørre
- Midt på ugen er der en ekstra sektion klar, da der er lavet ammesøer

# Management-fordele – sektionsansvar

Mandag overgår ansvaret for alle sektioner, der er færdige med at fare

- Fokus for Team S (mall piglets) på de nyfarende søer
- Team B (ig pigs) har fordelt ansvaret på enkelte sektioner og fodrer, tjekker grise mv. i disse sektioner fra kastration til fravænning
- Alle hjælper omkring faringerne hver morgen
- Hvem sætter øremærke i? Hvem tjekker temperaturen? Hvem har ansvaret?

	w39	w40
ALIN	1-7	4-7 + 15-16
ASGER	8-12	8-14
TEAM S	13-20	1-3 + 17-20



# Hvad koster det så?

## Tillægsomkostninger

- Element skillevægge
  - Ventilationsstyringer
  - Spjældmotorer
  - Nødopluk
- + 938.000 kr.

## Besparelser

- Mursøjler
  - Punktfundamenter
  - Inventar mellem søerne
  - Brand-skillevæg
- 440.000

**+500.000 kr.**

20 år, 5% i rente ≈ 83 kr./faresti pr. år

<50 g  
afgangsvægt i  
farestald

~ 0,3% mindsket  
dødelighed

~ 230 arbejdstimer pr. år

## Hvad er vores næste step?

- Sektionsansvarlige: tjek-/afkrydningslister ved vask, fravænning mv.
- Nøgletal på sektionsniveau – fx egenfravænning efter faring og ved fravænning
  - Nøgletal, der er lette at påvirke for den sektionsansvarlige
- Udvidelse
- Hygiejnezone omkring faringssektionerne
- Forsøg

## Hvad viser forsøgsresultaterne vedr. flytning/sortering?



# Sortering = Flytninger

Farestaldens dilemma - En gris, der er ikke flyttes, vil måske dø...

Kan vi flytte for meget på grisen, så det påvirker dens performance?

## Betydende faktorer for grisens daglige tilvækst i slagtegrisestalden

(i prioriteret orden):

1. Daglig tilvækst i farestalden
2. Indgangsvægt i slagtegrisestalden
3. Fravænningsvægten
4. Alder ved fravænnning
5. Daglig tilvækst i smågrisestalden



### HISTORIK

Et nyt forstudie fra SEGES Innovation peger i retning af, at historik i fare- og smågrisestald kan give en mere præcis forudsigelse af tilvækst i slagtegrisestalden på individniveau.



Et forstudie, der bygger på en analyse af 5.079 grise fra 7 besætninger, har til formål at

# Flytningens effekt på tilvæksten

## Flytning mere end 1 døgn efter fødsel (1998):

- Grisen vejer **300-900 gram mindre** ved fravænning
- Grise i det nye kuld vejer **140 gram mindre** ved fravænning

Sammenlignet med grise, der blev flyttet indenfor det første levedøgn

## Flytning af gris mellem kuld (2021):

- Flytning af en gris -> -18 gram/dag fra dag 3 til dag 63

## Flyt grisen indenfor det første levedøgn

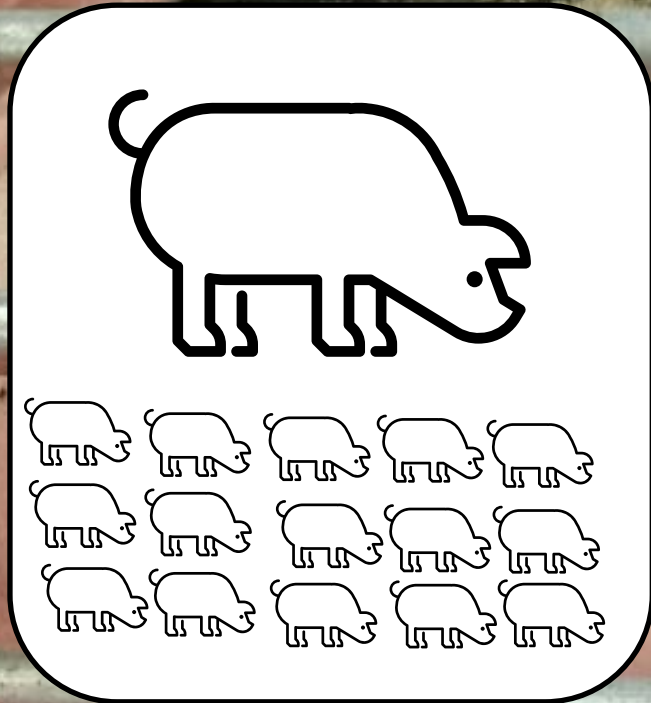
....Hvis nødvendigt at flytte en gris efter det første levedøgn, så flyt de mindste grise væk, hvis du vil have flere grise, der vokser mere.....



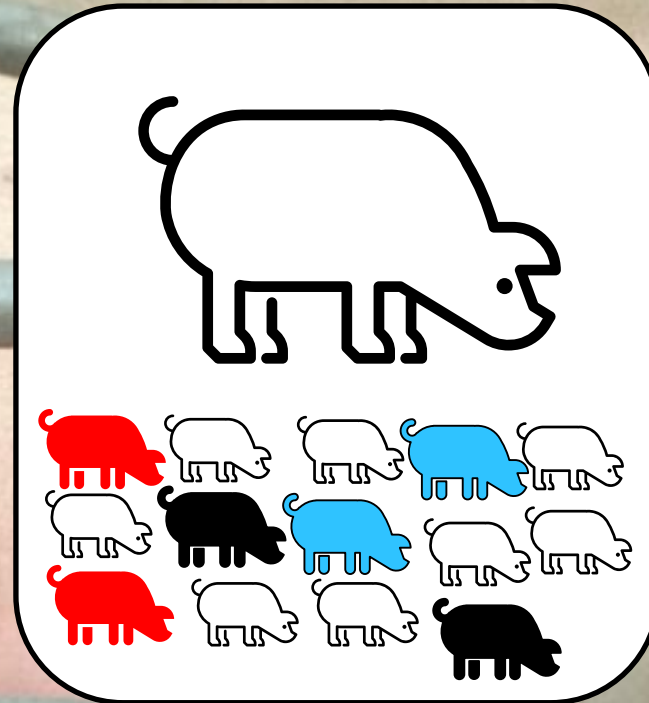
# Låste kuld versus ikke-låste kuld



# Hvad er ikke-låste kuld ?

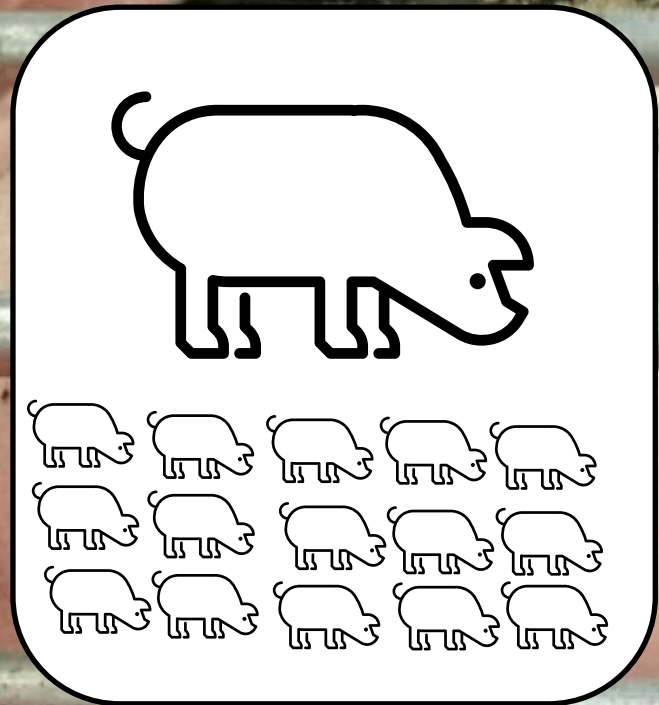


Kuldudjævning

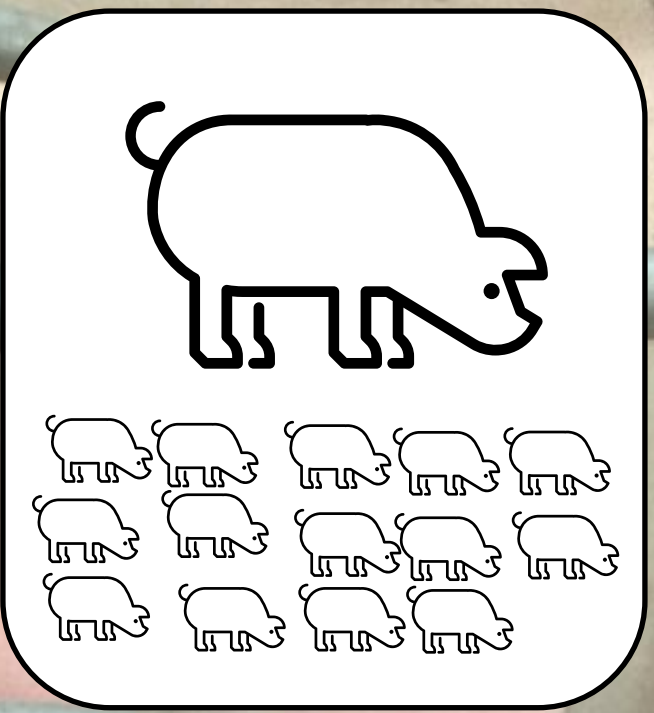


Fravænning

# Hvad er låste kuld ?



Kuldudjævning



Fravænning



## Låste kuld versus ikke-låste kuld

- Ingen forskel på dødelighed og daglig tilvækst indtil fravænning
- Grise i ikke-låste kuld:
  - Havde 1,58 gange større risiko for at blive behandlet med antibiotika end grise i låste kuld ( $P < 0,001$ )
  - Blev behandlet mod diarré i 15,7-21,3 % af tilfældene, hvor grise i låste kuld blev behandlet mod diarré i mindre end 1 % af tilfældene
  - Havde større sandsynlighed for at blive flyttet til sygesti eller dø ( $P < 0,001$ )

SEGES-afprøvning viste, at grise, der blev behandlet, voksede 66 gram mindre om dagen end ubehandlede grise (fra dag 3 til dag 63)

## Hvis det ikke går som planlagt.... ?



### Opsamlingsløer

- Nogle grise falder fra -> opsamlingsso
- Forbered plads til "opsamlingssoen"
- Antal stier efter behov
- **Omhyggelig kuldudjævning**

# Take home message – Sunde grise fra fødsel til fravænning

- Mindre faresektioner -> godt arbejdsflow og ansvarsopdeling
- Mindre faresektioner -> fleksibilitet ved udvidelser
- Optimere ammeso-pladserne
  
- God hygiejne i pattegrisens nærmiljø
- Alt-ind – Alt-ud
  
- Flyt kun grise indenfor det første levedøgn
- Omhyggelig kuldudjævning = godt match mellem so og grise -> lås kuldene