

# Managing more pigs born alive

Reed deere Swine Technology Workshop Conference

## Agenda

1. What is more piglets born alive
2. Management before farrowing
3. Management during farrowing
4. Management after farrowing

## Danish annual results, Sow herds

Sow Productivity	2022	Top 25% 2022
Live born/Litter	18,0	18,8
Weaned/ litter	15,3	16,4
Nursing period, days	31	30
Weight at weaning, Kg	6,3	6,0
Farrowing rate, %	87,3	90,6
Weaned per sow/Year	34,1	35,8

## **Gilts:**

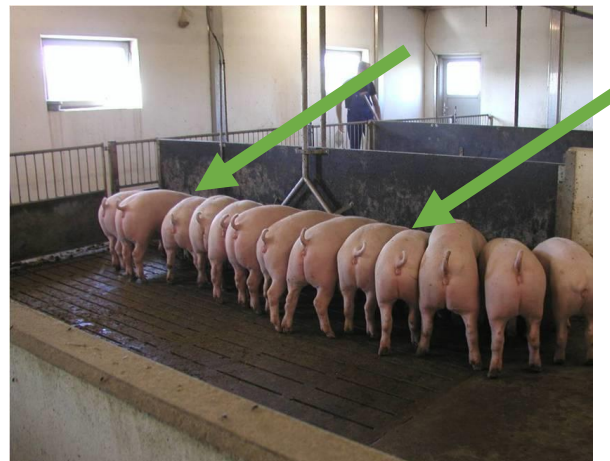
**Have clear goals of age, size in pounds and backfat at first insemination**

### **Gilts with higher growth go first**

- Inseminate younger
- Control growth
- Weight vs Age

### **Slower and lean gilts**

- Inseminate older
- Increase feed intake



# Gilts

## Growth control



Ficha seguimiento primerizas

	Edad Objetivo Semanas	Semana Plan	Semana Real
Semana Nacimiento:			
Total Destetadas Abuelas/F1:	Edad 4 Número 8/49		
Total Movidas Adaptador 1 Abuelas/F1:	Edad 9 Número 7/44		
Total Movidas Adaptador 2 Abuelas/F:1	Edad 26 Número 6/40		
1ª Vacuna Micoplasma:	2		
Vacuna Circovirus:	3		
2ª Vacuna Micoplasma:	25 Antes Adaptador 2		
1ª Vacuna Parvo-Mal rojo:	26		
2ª Vacuna Parvo-Mal rojo:	29		
Comienzo Recela:	29 Después Vacuna		
Adaptación Jaula:	29-33		
Inseminación:	33-36		

Observaciones:

## Gestation

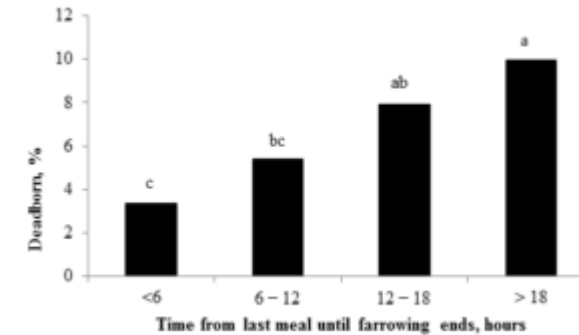
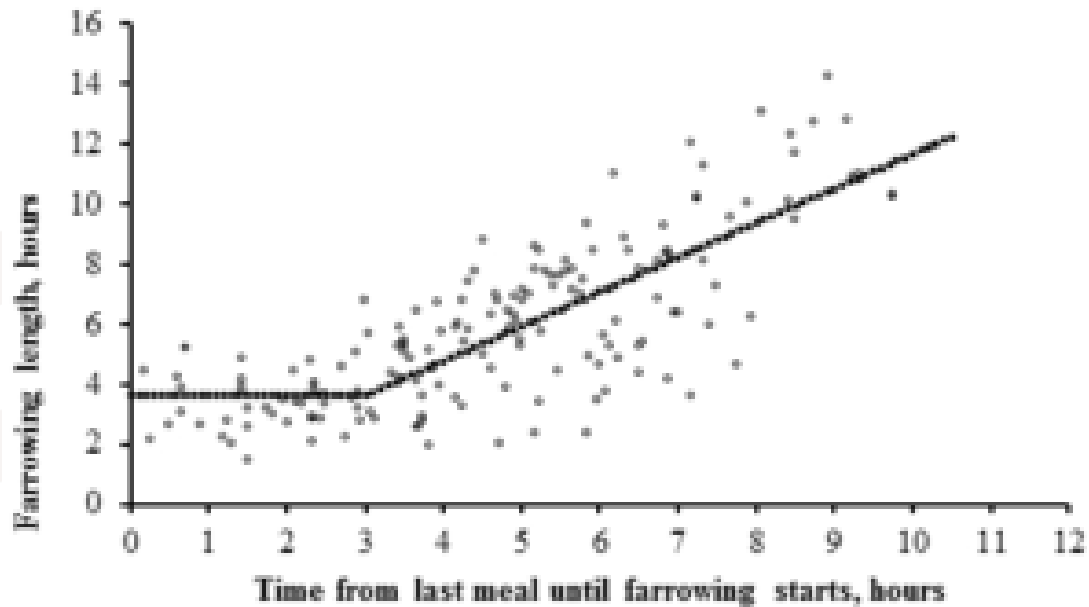
**Have clear goals in how to feed to arrive to farrowing in optimal condition**

- Selecciona primerizas uniform
- Mantenerlas en grupos pequeños sin mezclas
- Asegurar espacio
- Contacto humano diario
- Foco en:
  - Buenas tetas
  - Buenos aplomos
- Inseminar en al menos Segundo celo
- Ambiente relajado inseminación



## Feeding sows before farrowing

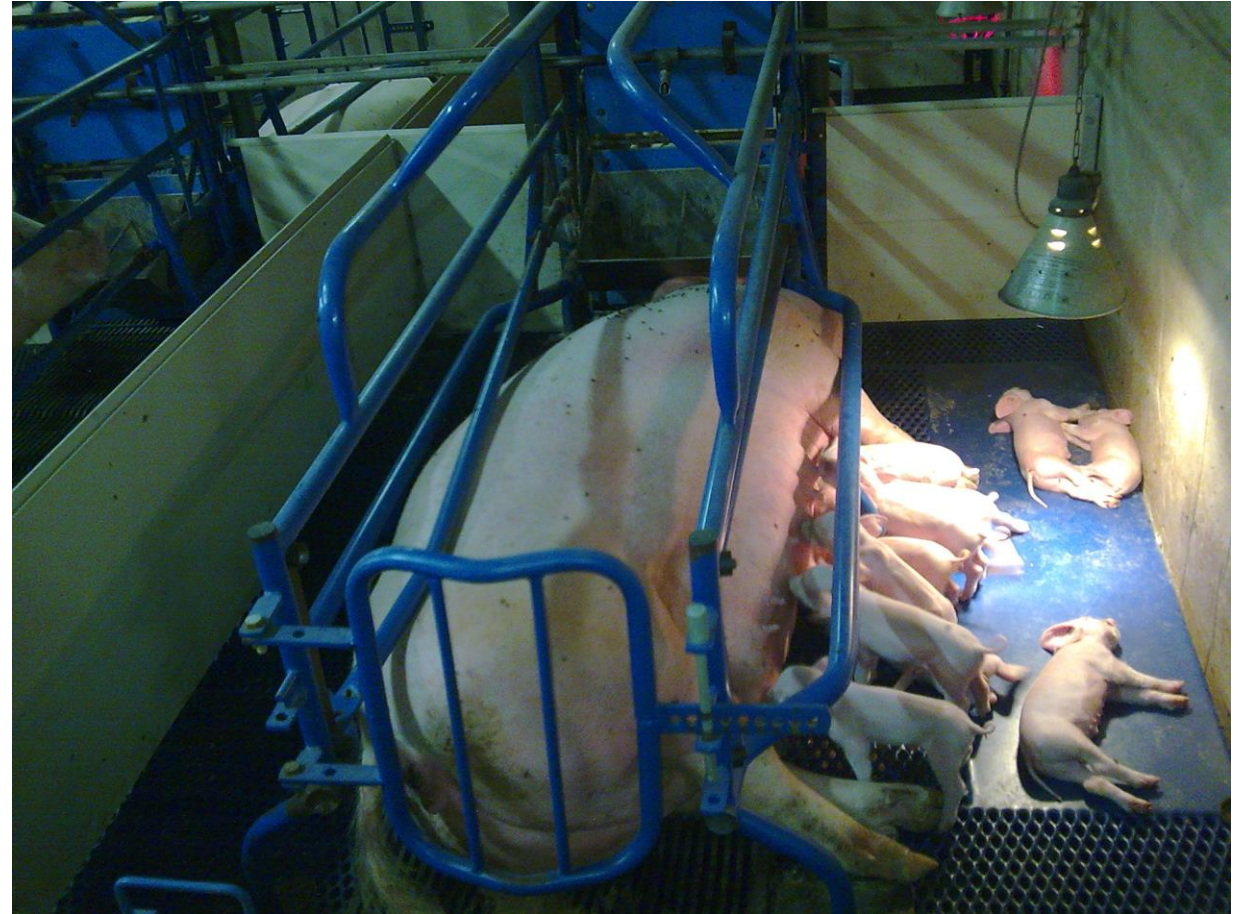
There is a strong correlation between the feeding and farrowing length



## Feeding sows before farrowing

Parameter:	Optimal amount lb/día:
• Farrowing length interval between piglets	9
• Death born	9
• Farrowing assistance	9
• Farrowing vitality	7.5
• Colostrum performance	7.5

## Different farrowing pens: nest on the side





## Different farrowing pens: danish concept older dimensions





## Different farrowing pens: modern designs





Factor	Effect piglet 24 days old	Effect litter 24 days old piglets
Gilt	-200g	-2.4kg
Extra suckling day	+200g	+2.4kg
1 piglet added +2 days after farrowing	-900g(rest -150g)	+6.35
Make the sows stand 5 times per day	+200-400g	+2.4kg
Feed piglets	+100-200g	+1.2-2.4kg
Nurse sow in one step	-800g	-9.6kg
Nurse sow in two steps	0g	0kg

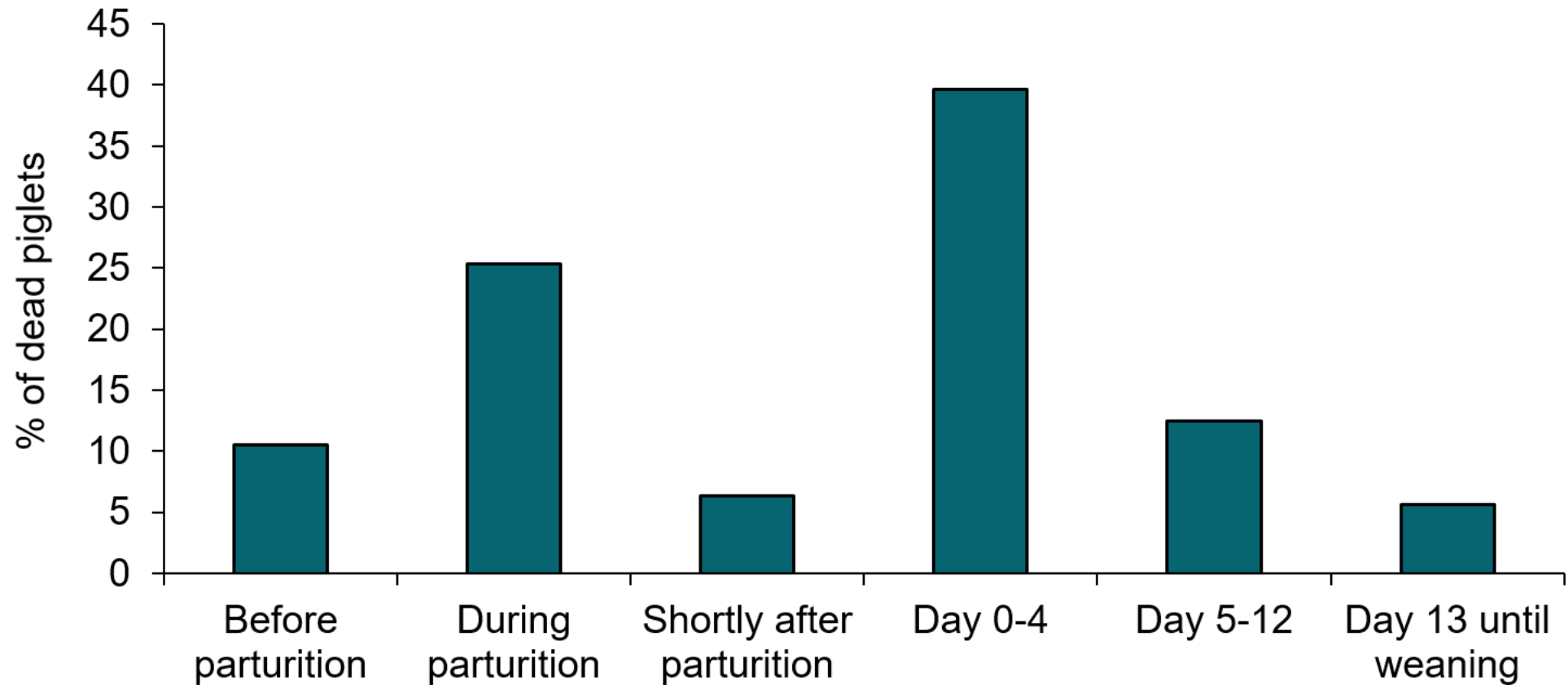
## Factors that influence the management

- Colostrum is continuous and “fixed amount”
- Milk 20 seconds every hour “variable amount”
- 3 Days tits get dry
- 2 Days for a piglet to mom recognition
- 7 Days and piglets suckle from same tit

## Strategies for handling many born piglets

- Load the sows with more piglets, at least teats +1
- Foster sows, different types
- Milking cups
- Pre weaning rooms
- Reduce the amount of sows but still produce more piglets (also per pen)

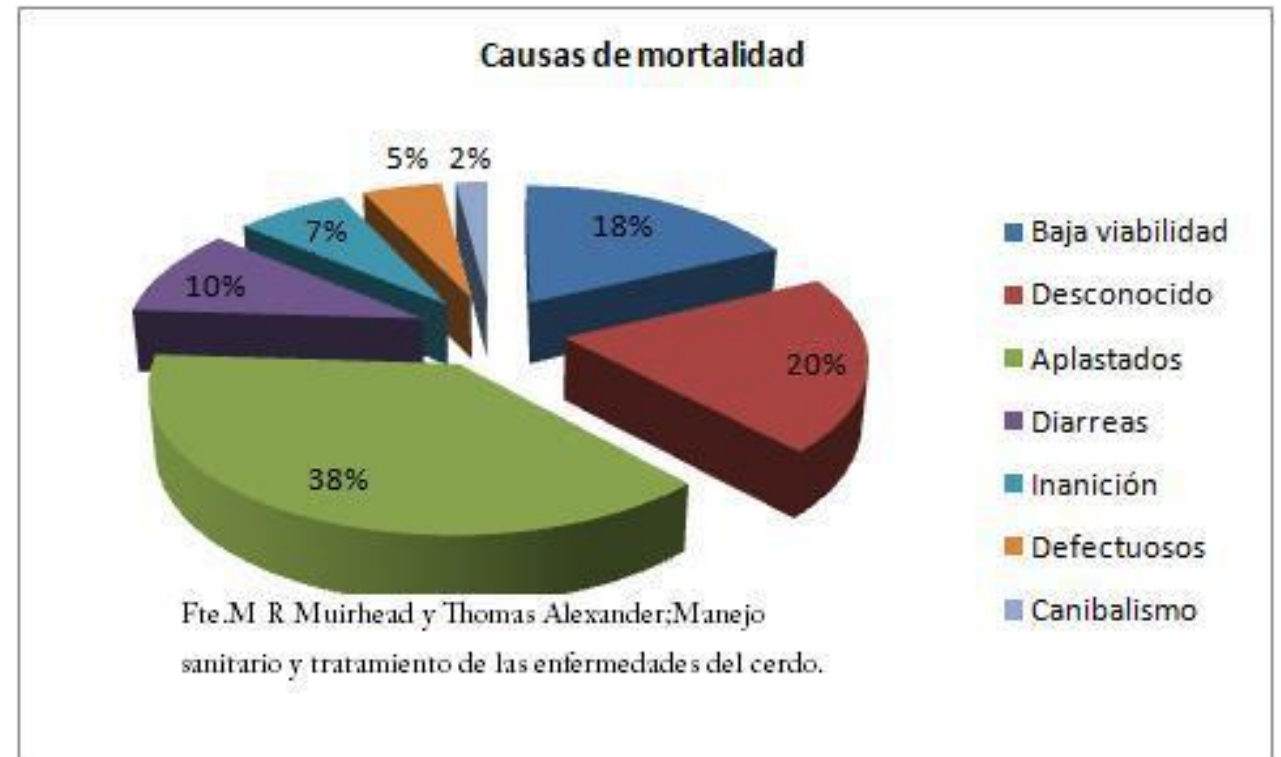
## When piglets die?



# Mortality Causes

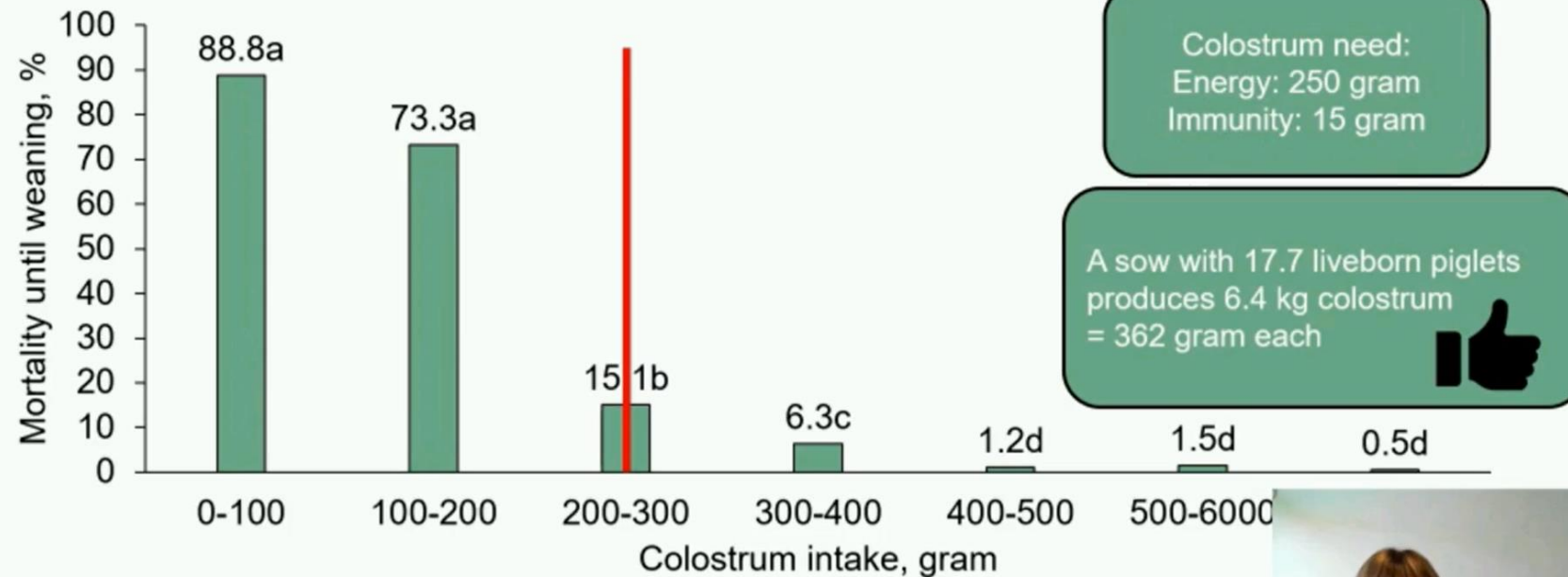
2 reasons

Hunger  
Cold

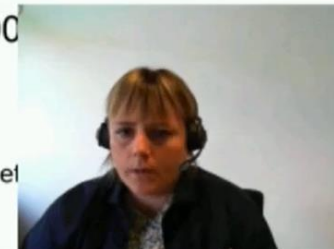


# Colostrum

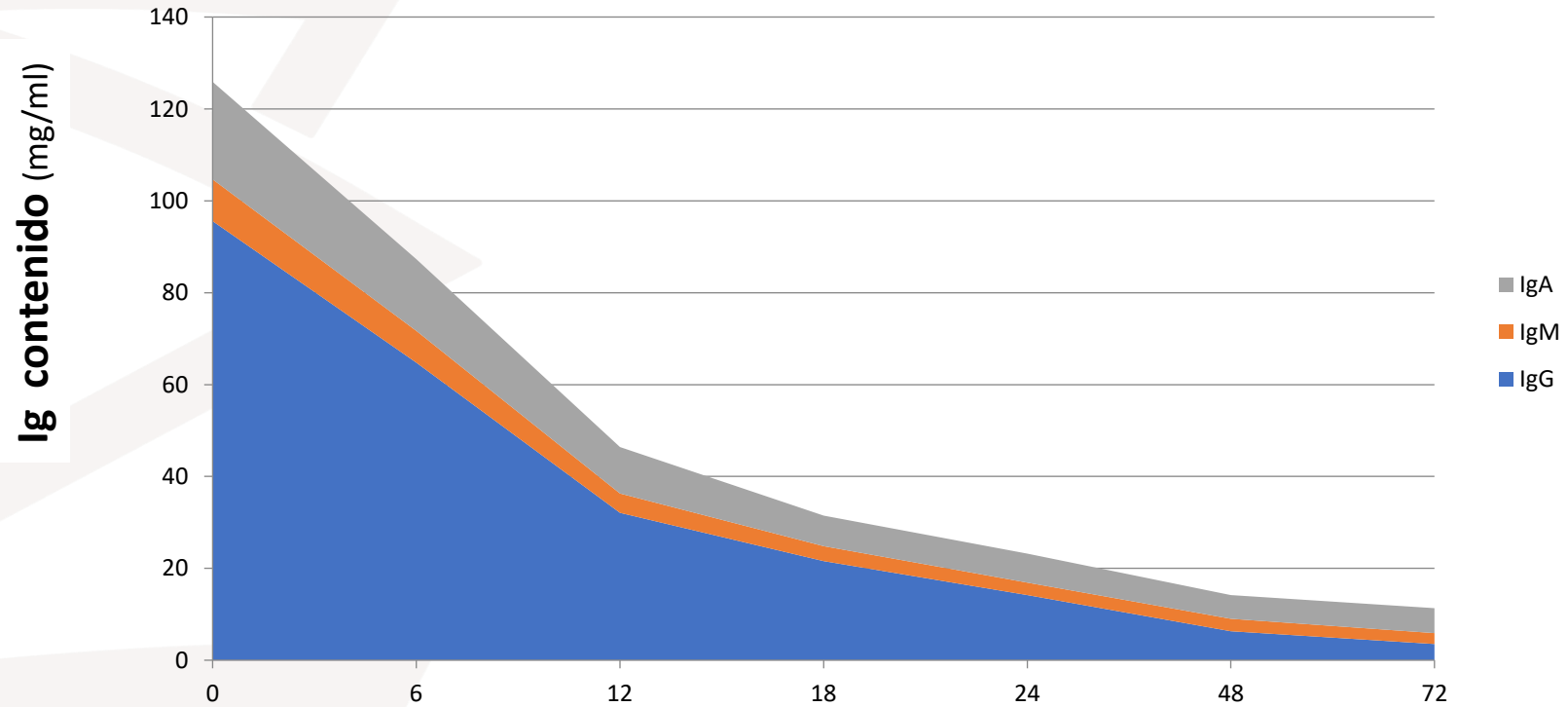
250 gram colostrum = good chance for survival



Nuntapaitoon et



## Encalostramiento



Horas después parto

Klobasa 1987 n=25

# Calostro



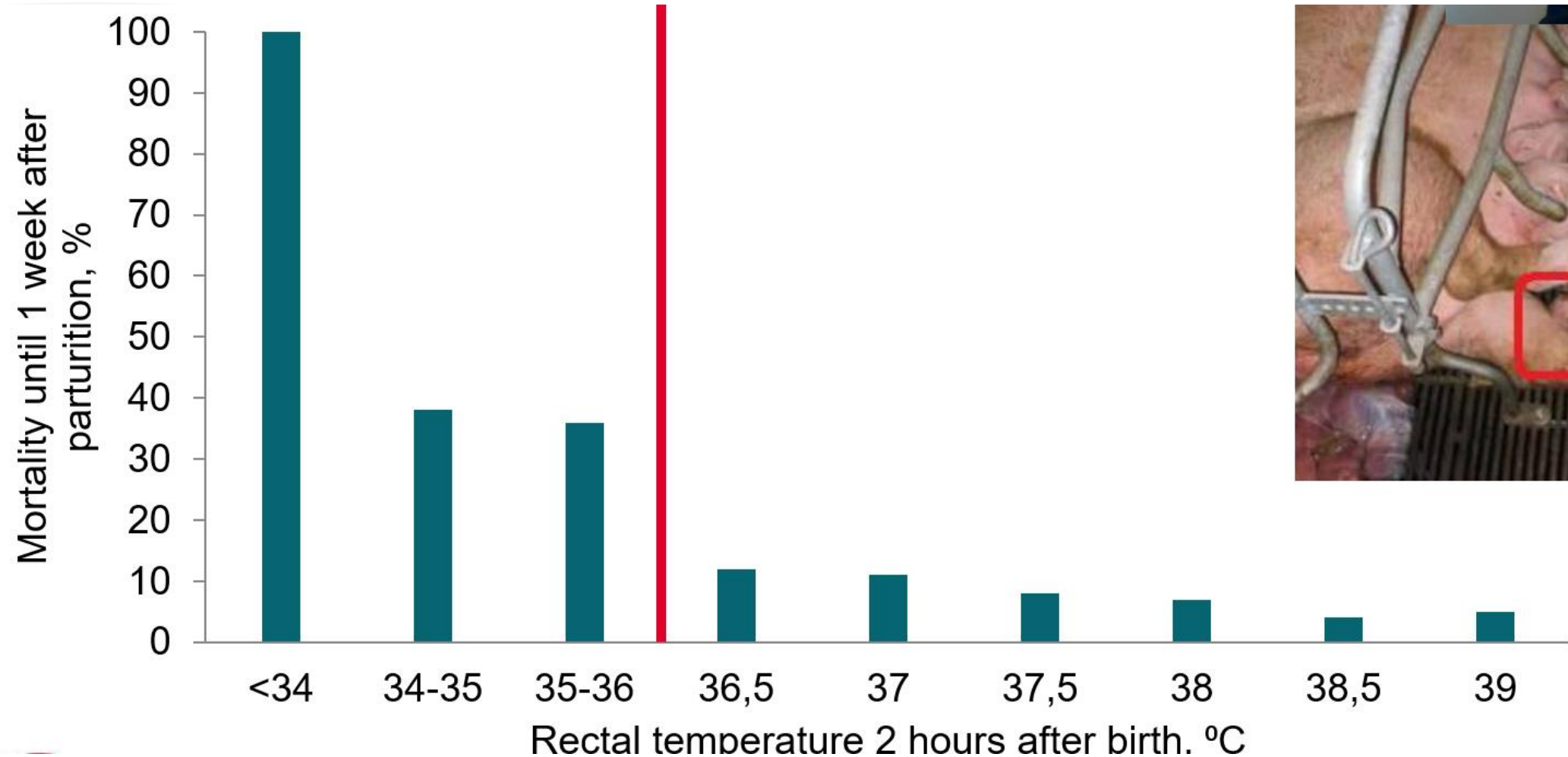
## Colostrum

- Small piglets to the microwave
- Big piglets closed intervals 30 to 60 min maximum
- Control the amount out
- Colostrum= live; lack of colostrum = Death

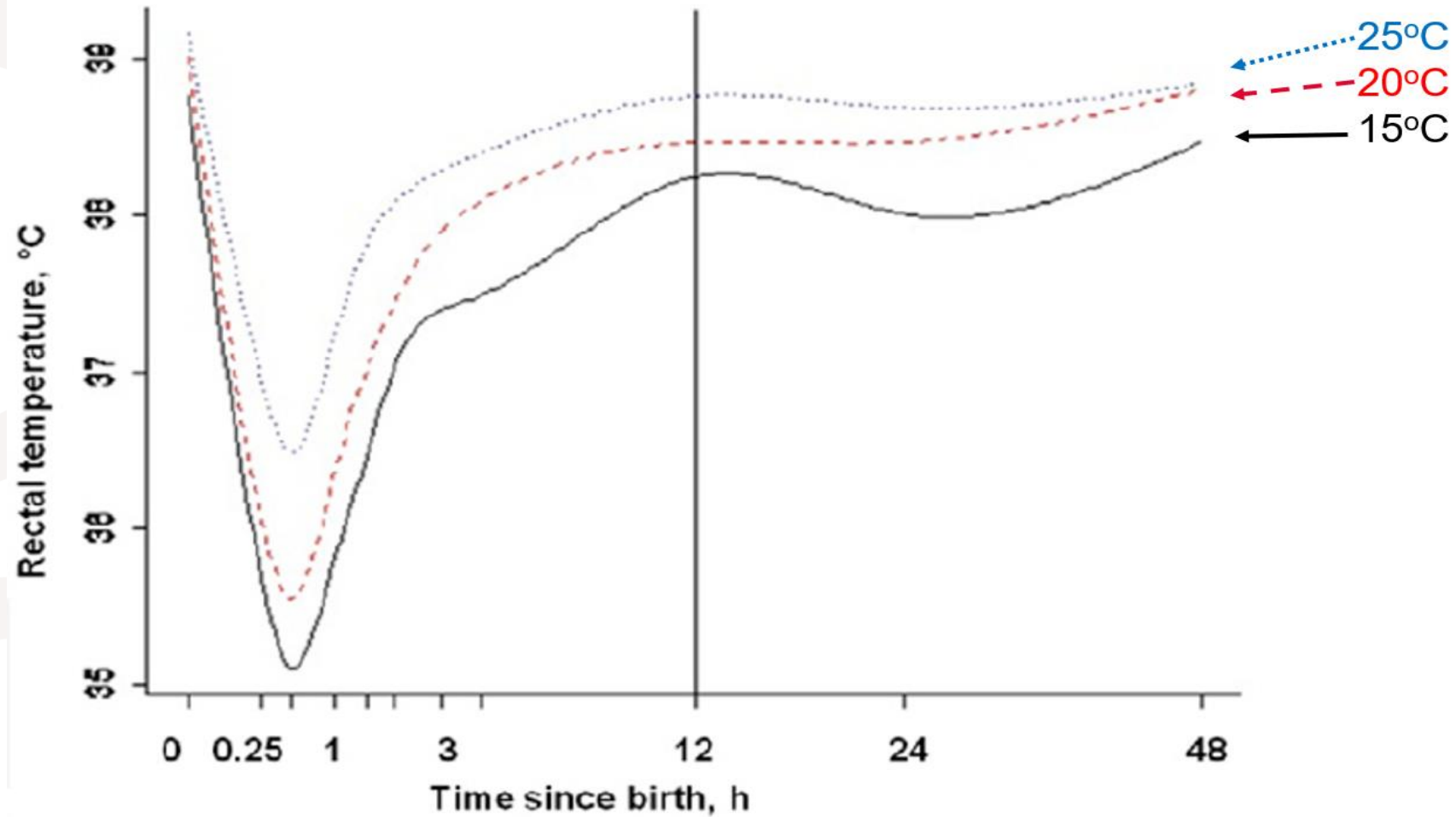
## Colostrum

- Room temperature control
- Dry
- No currents
- Close the small piglets first (warm up)
- Close the big, first born, driest to benefit the weakest

# Temperature



# Temperature





## Adoptions types

- Even litters at birth
- Hungry piglets < 3 days
- Hungry piglets > 3 days
- Full litters

## Adoptions Rules

- **Make sure colostrum to piglets 8 hours**
- Count tits?
- Make a plan between number of piglets and sows
- 3 first days try to recup tits
- > 3 days, nurse sow
- **Move as Little as possible, but as much as necessary**
- **Do not leave huge litter without fostering before going home**

## Adoptions Rules

- 1<sup>o</sup> farrowing medium to big piglets more than tits
- **Small ones in a Younger sow + ++que tits**
- **Rest of sows at least tits +1**
- Nurse sows make them after feeding time
- 2 hours empty
- Adequate the amount of feed
- Make sure they accept the piglets

## Small piglets nurse sow

	Moved immediately	Moved after 12 hours	P value
Piglets, n	121	123	-
Birth weight, kg	0.85	0.85	NS
Daily gain, g/day	187	185	NS
Survival, %	78.5 <sup>a</sup>	69.1 <sup>b</sup>	0.03

a,b: Differ significantly

*SEGES: Thorup & Lybye, 2012*

## Small piglets nurse sow

	Own mother	Small nurse	P value
Piglets, n	140	209	-
Weight <sup>1</sup> , kg	0.84	0.82	-
Daily gain, gram/day	145 <sup>b</sup>	164 <sup>a</sup>	0.007
Survival, %	89	91	0.46

1:At litter equalization  
a,b: Differ significantly

*SEGES: Thorup & Nielsen, 2017*

## **Small piglets nurse sow**

The nurse sow for small piglets is beneficial:

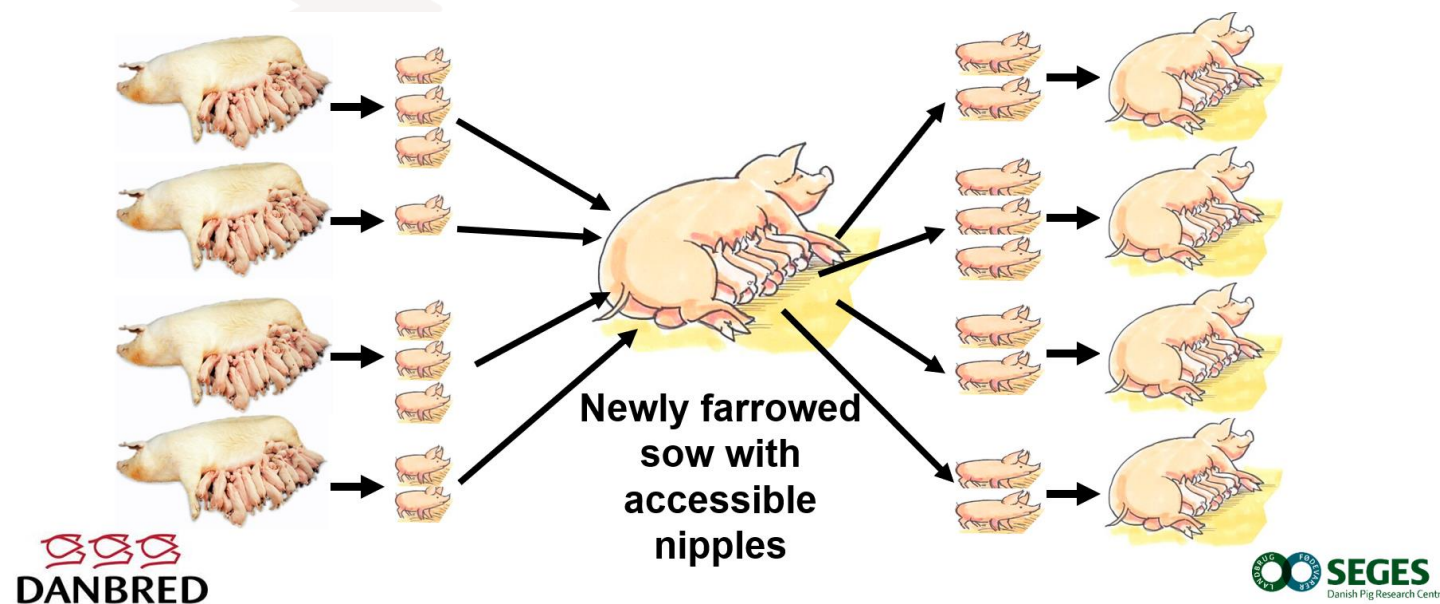
1. For piglet survival
2. For piglet growth

# Nurse sow small piglets

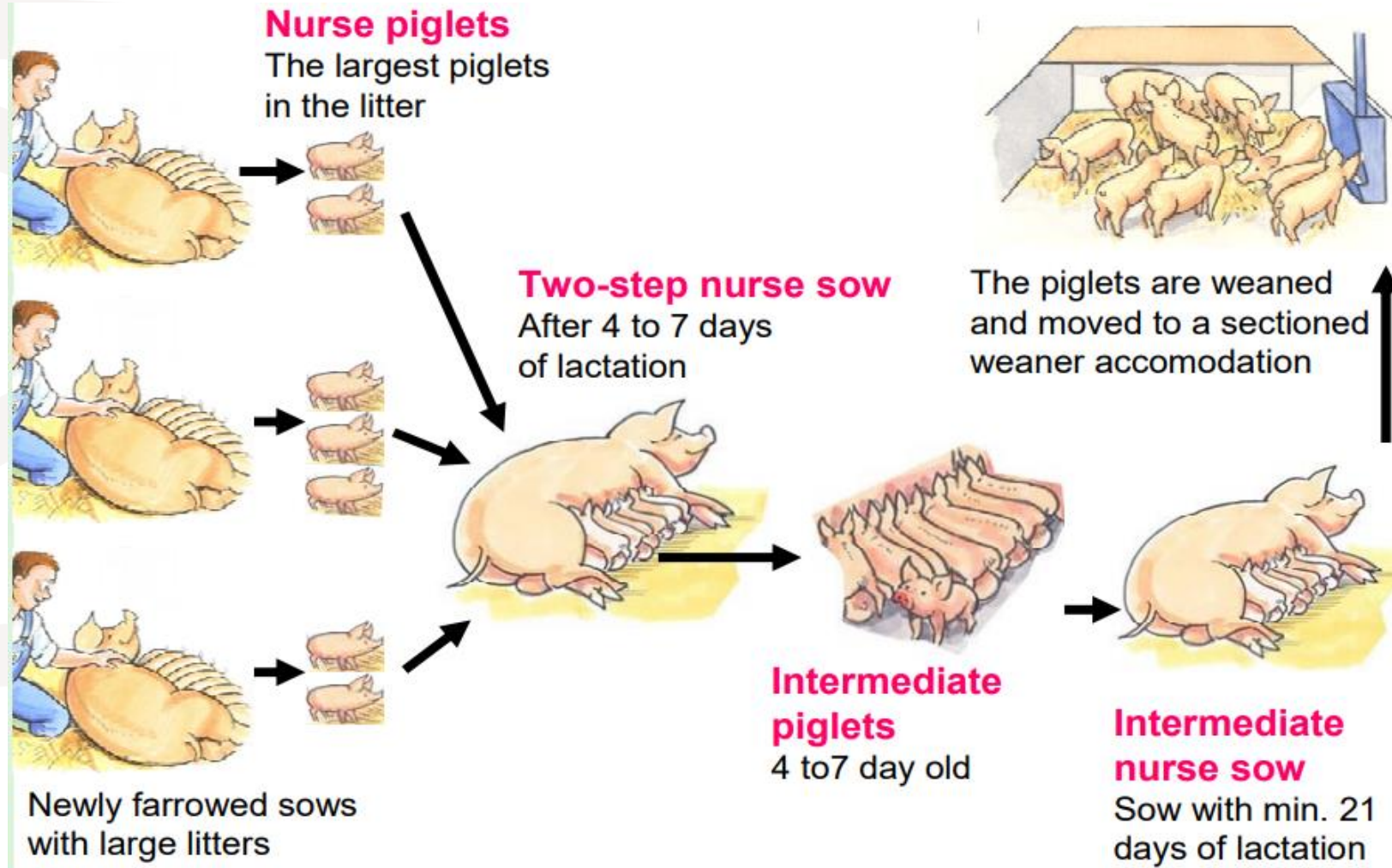
## Nurse for small piglets

Sows with a few small newborn piglets

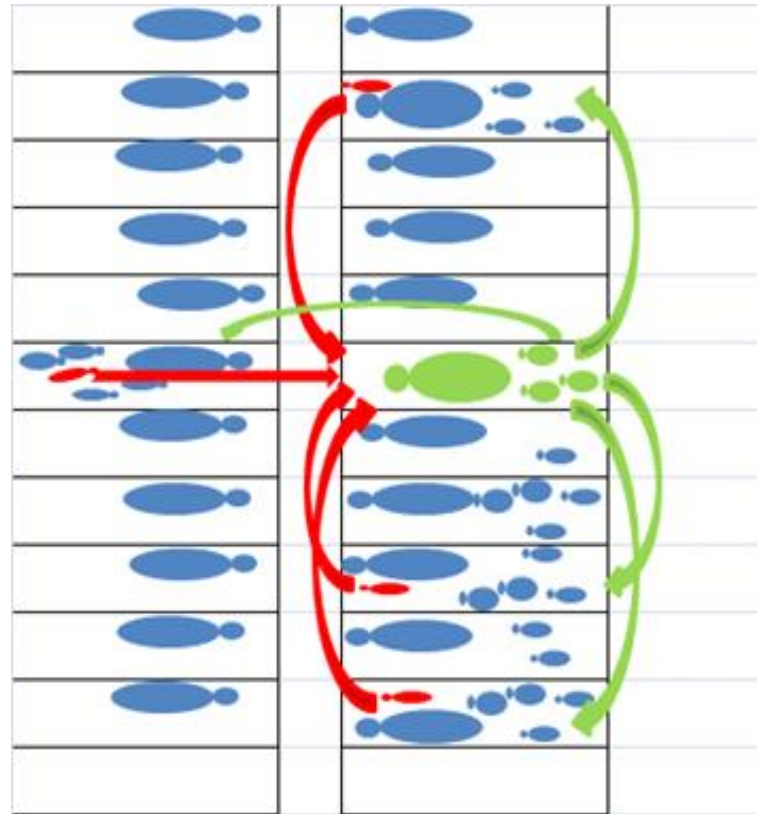
8 hours after farrowing:  
The largest piglets are taken to other sows



## Two step nurse sow



## Piglet change the first 3 days

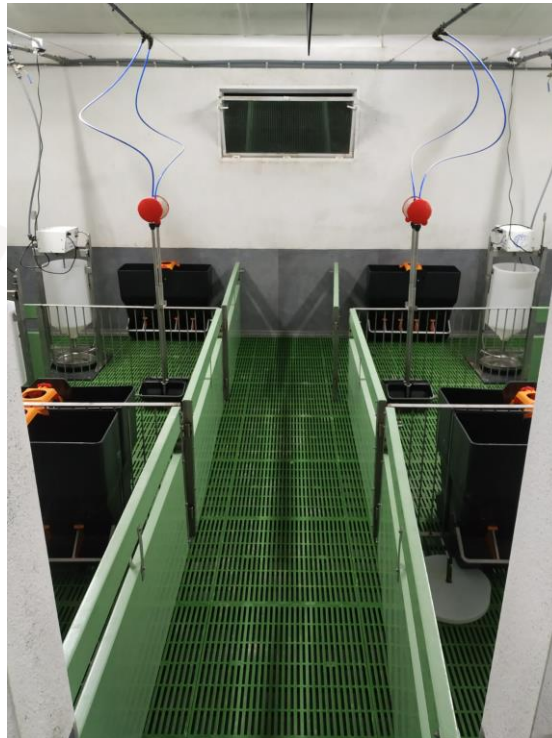


## Management of high live born

- Load the sows with piglets to maximum milking capacity
- Generate space for the extra piglets
- Nurse sows
- think in the strategy and alternatives

## Managing the big amount of piglets: preweaning room

6m<sup>2</sup> pens with feeding system for 50 piglets



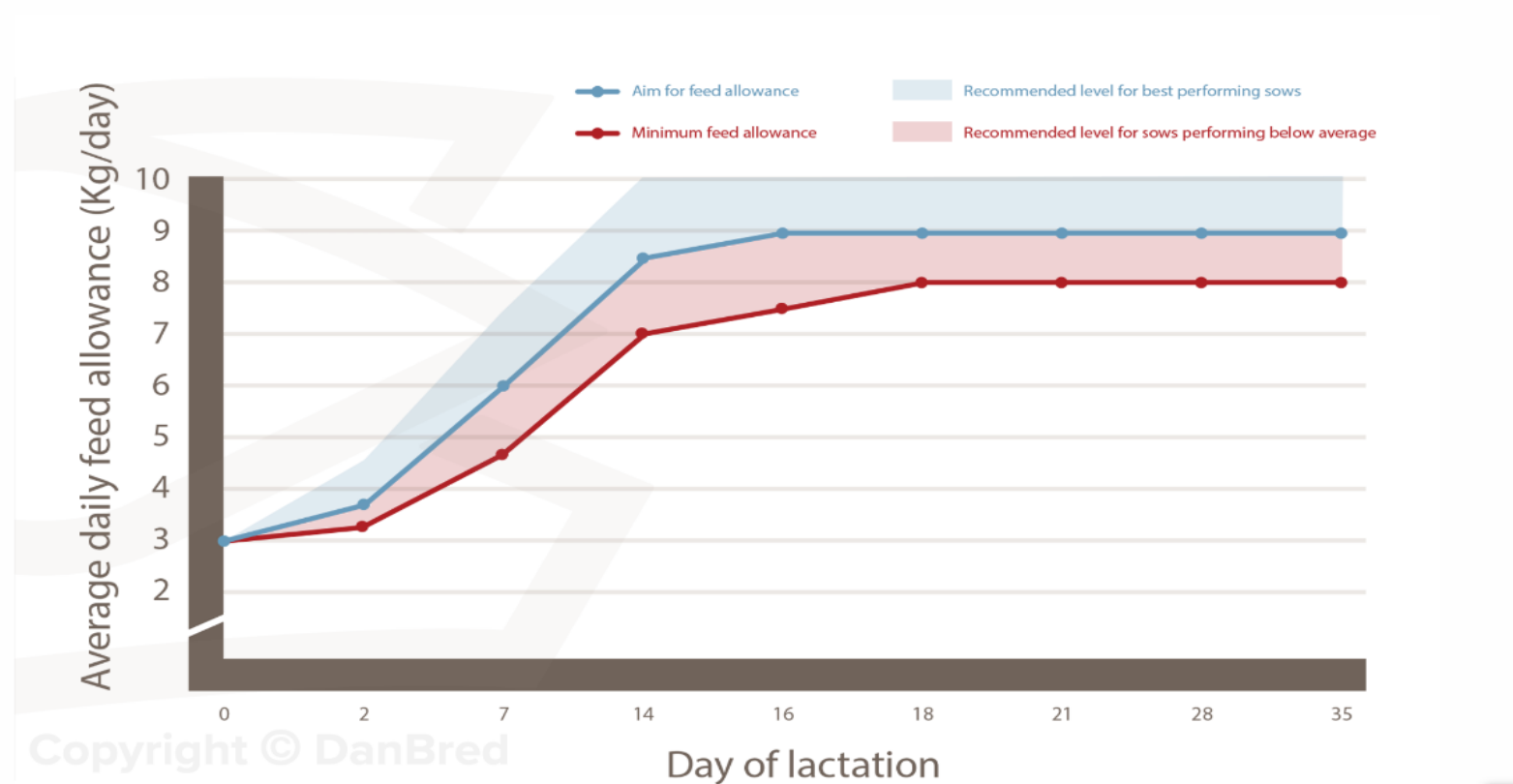


## Feeding farrowing

- 1-3 mm loss of backfat from farrowing to weaning
- 0-15 kg weight loss from farrowing to weaning
- >92 % of the weaned sows bred 0-7 days later

# Feeding farrowing

Feed curve for lactating sows



The above graphics show both the minimum feed allowance as well as the aim for feed allowance.

**Feeding farrowing**

**8 liters per min**



**Thank you!**