



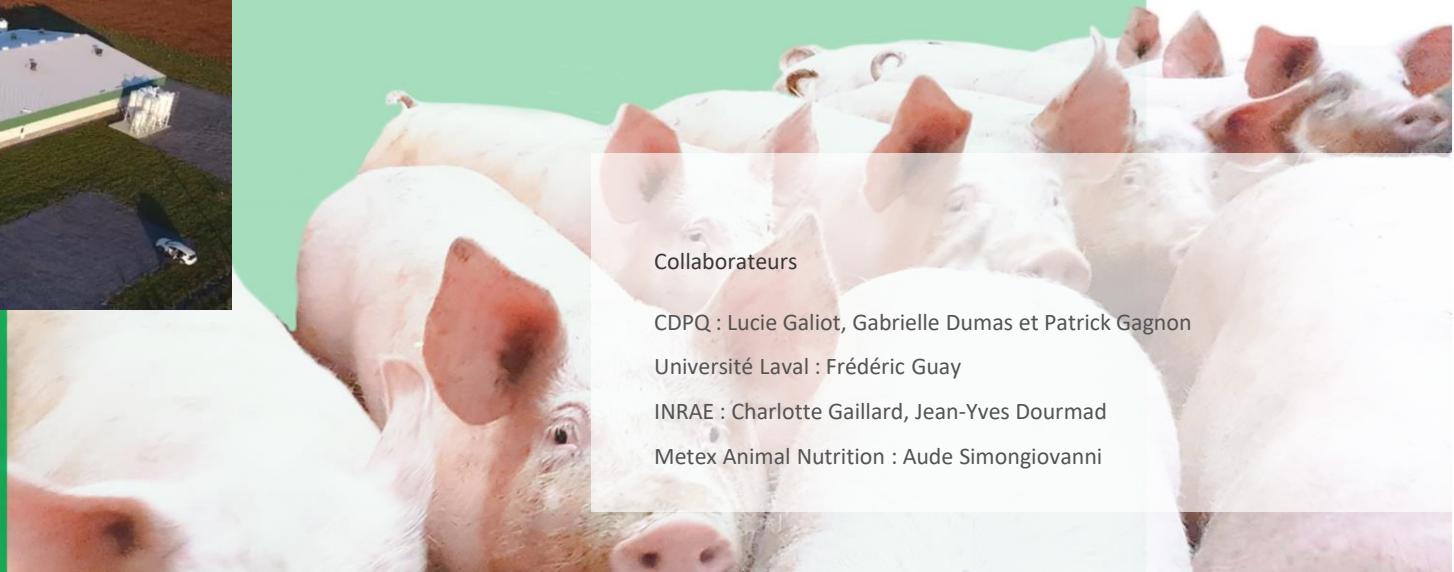
## Effects of precision feeding and the bump feeding strategy in gestating sows on performances and body condition in sows monitored for the first two gestation-lactation cycles

Laetitia Cloutier, M. Sc., Centre de développement du porc du Québec inc.

Midwest section meeting ASAS  
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Centre de développement  
du porc du Québec inc.



### Collaborateurs

CDPQ : Lucie Galiot, Gabrielle Dumas et Patrick Gagnon

Université Laval : Frédéric Guay

INRAE : Charlotte Gaillard, Jean-Yves Dourmad

Metex Animal Nutrition : Aude Simongiovanni

# Conventional feeding program VS precision feeding

## Conventional

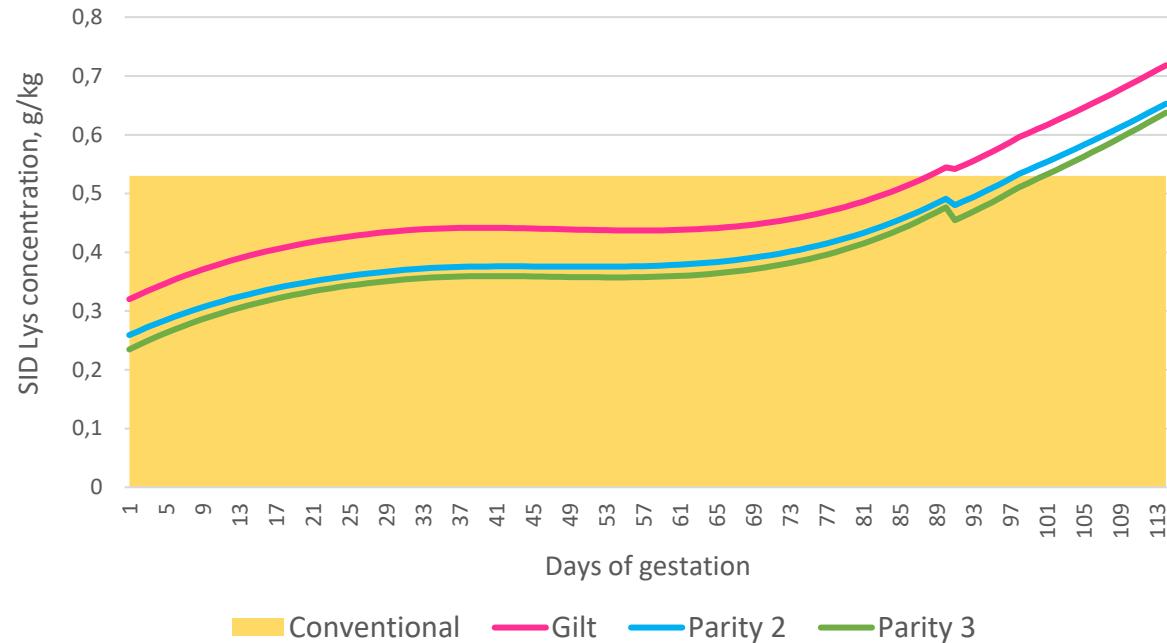
One feed

- constant Lys concentration

## Precision

Blend of 2 feed

- variation of Lys concentration



# Conventional feeding program VS precision feeding

## Conventional

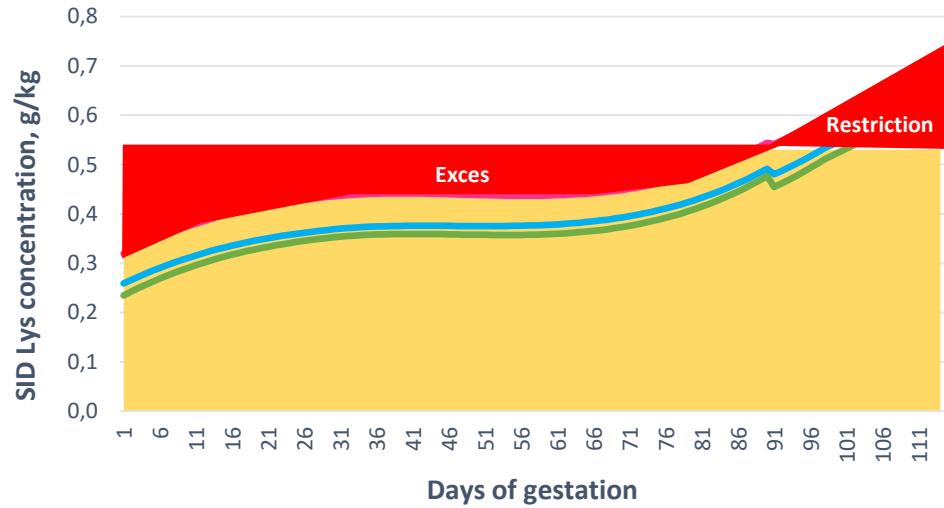
One feed

- constant Lys concentration

## Precision

Blend of 2 feed

- variation of Lys concentration



Restriction at the end of gestation

Excess of nutrients =

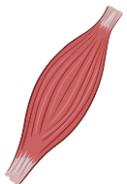


Better fit nutrient requirement of sows

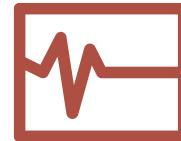
- ✓ Reduces excess and restriction

# Conventional feeding program VS precision feeding

Trial in 2017 – 144 gilts



- ✓ Better muscle gain - Gestation



- ✓ Reduction of piglet mortality
- ✓ Weight gain



Promising results, but just tendency...

# Conventional feeding program VS precision feeding

## BUMPFEEING

→ Fixed quantity before 90 day of gestation, then increase of 20 to 30 % till farrowing.



→ Questioning the strategy

# Objective



## OPTIMAL STRATEGY

- Nutrient requirement
- Performances
- Longevity

To evaluate the impact of gestation feeding strategy, the bump feeding and precision feeding (by parity or by considering individual weight of sows) on body condition of sows and litters performances.

## Material and method - Animal

4

12



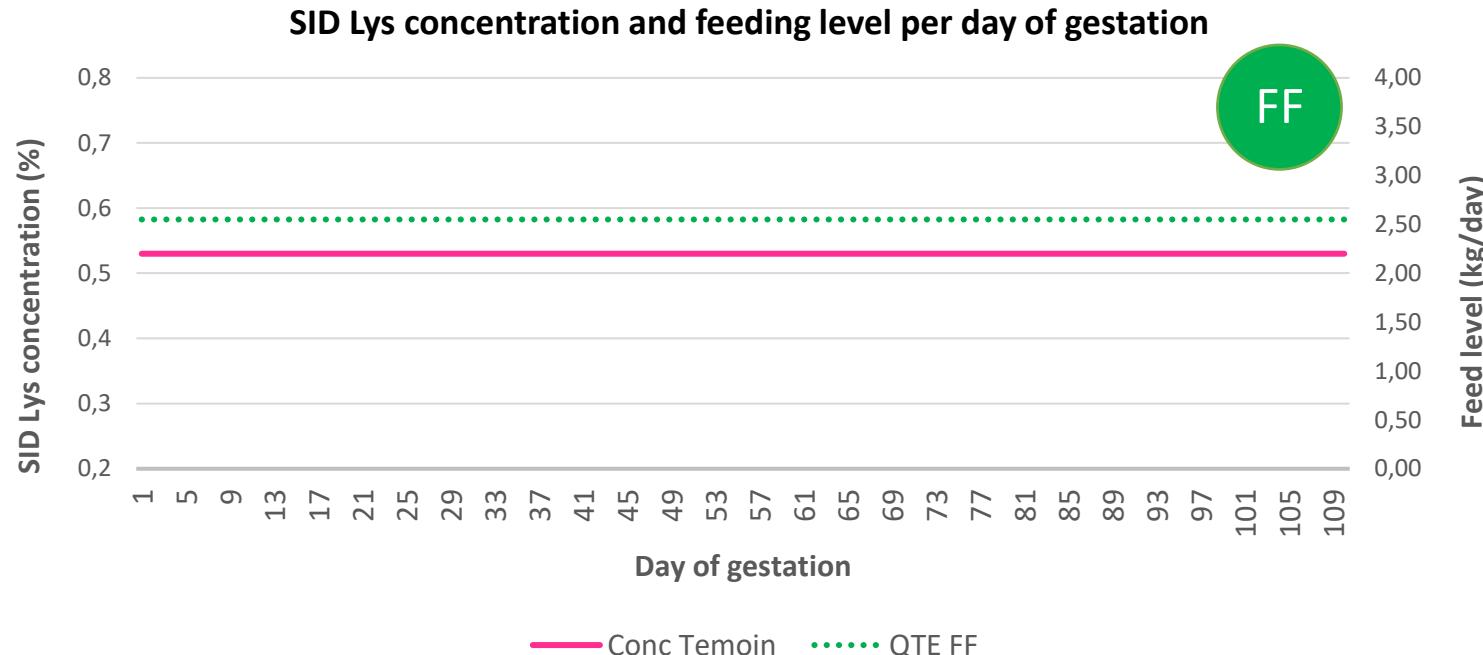
*batches of gilts during 3  
cycles of gestation/lactation*

+ 500 gilts

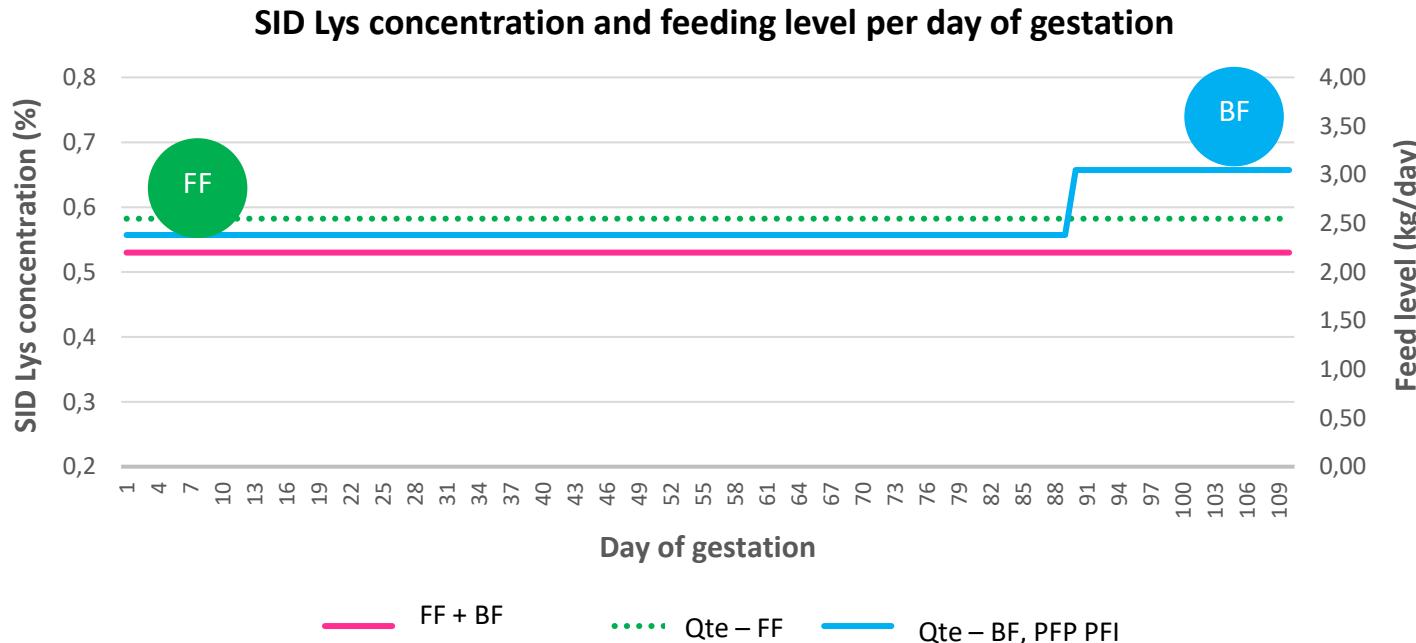
*batches*

+ 1 000 litters

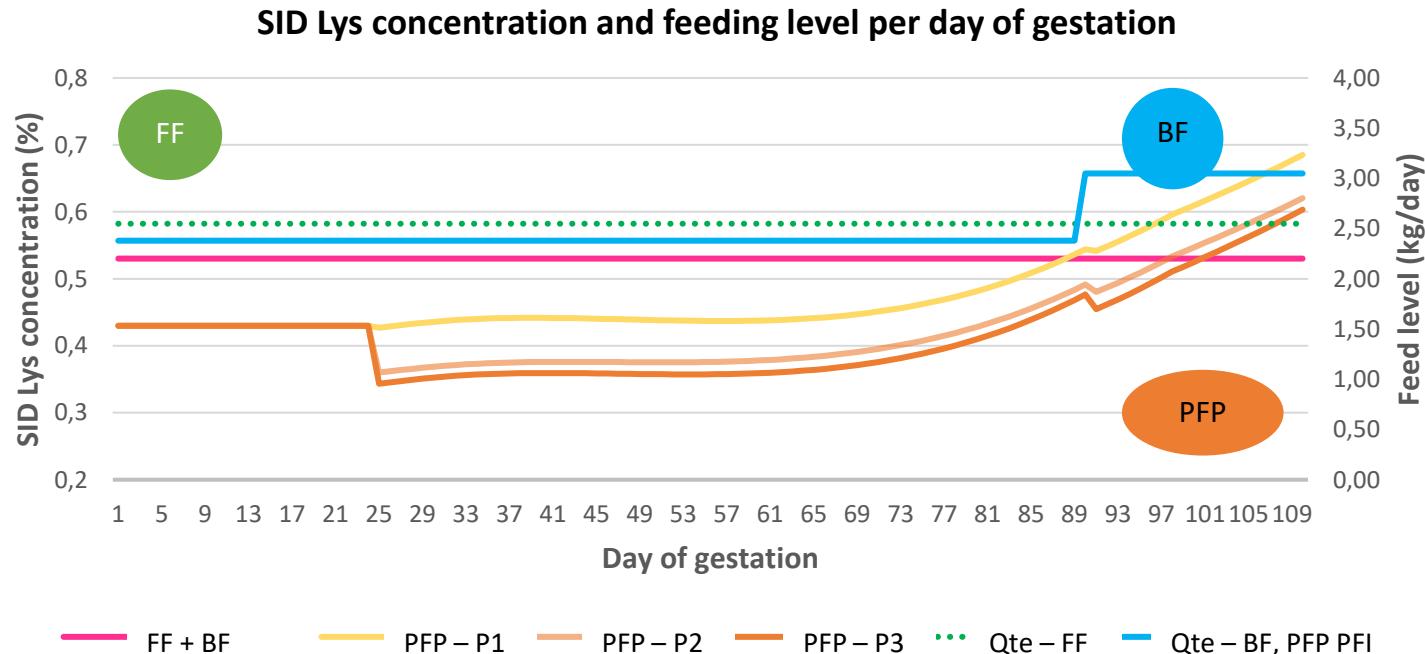
## Material and method – 4 feeding treatments



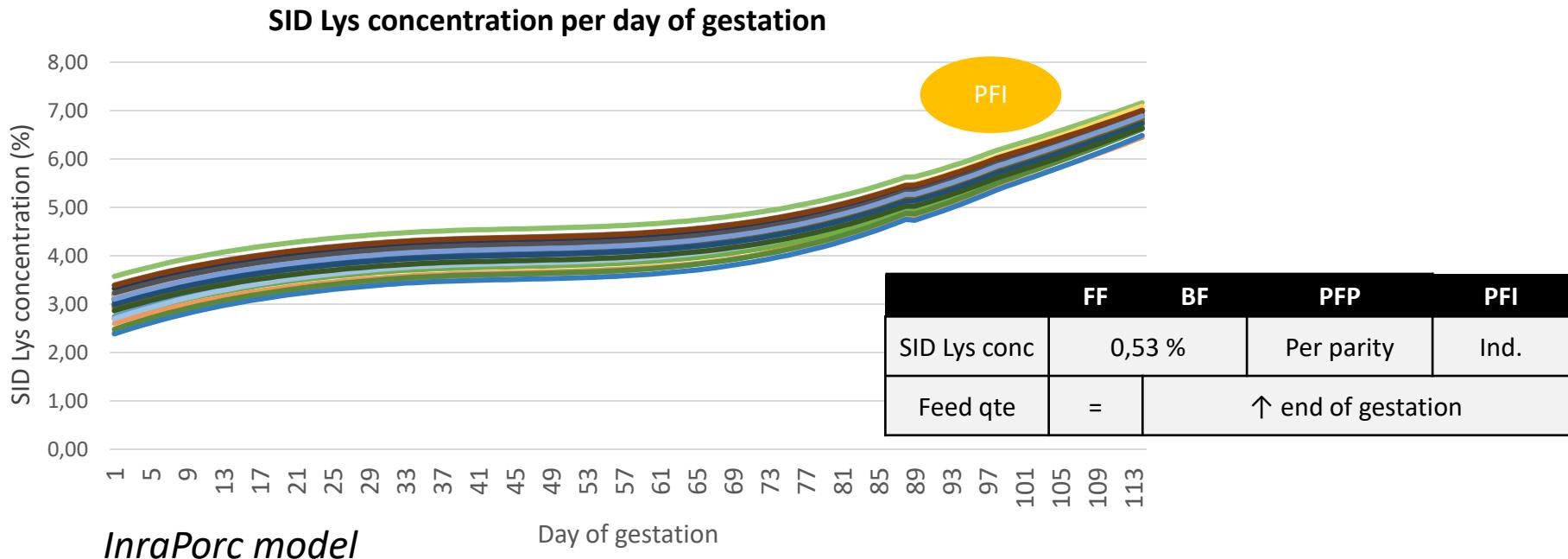
# Material and method – 4 feeding treatments



# Material and method – 4 feeding treatments



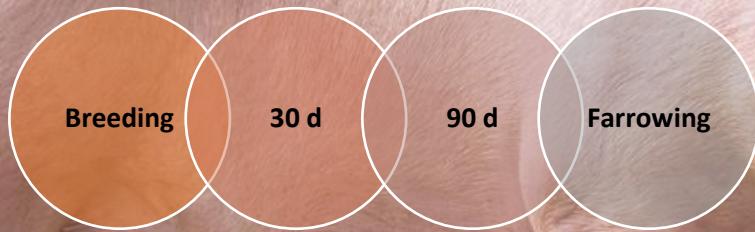
# Material and method – 4 feeding treatments



# Material and methods - Data collected

## Sow

- Weight
- Backfat thickness



Statistics :  
MIXED SAS with Tukey-Kramer

- Nb of total born, stillborn, born alive, momified and wean
- Weight (birth, weaning, death)
- Weight gain in lactation

## Piglet



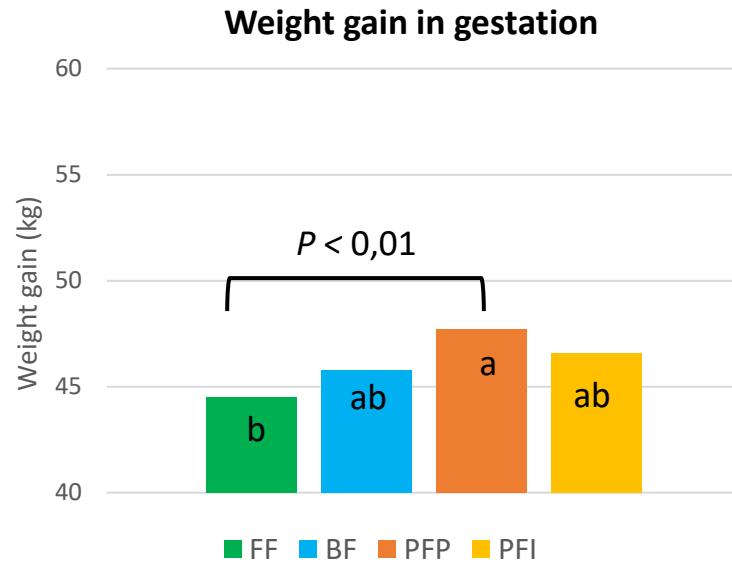
# Results

## Sow – first parity

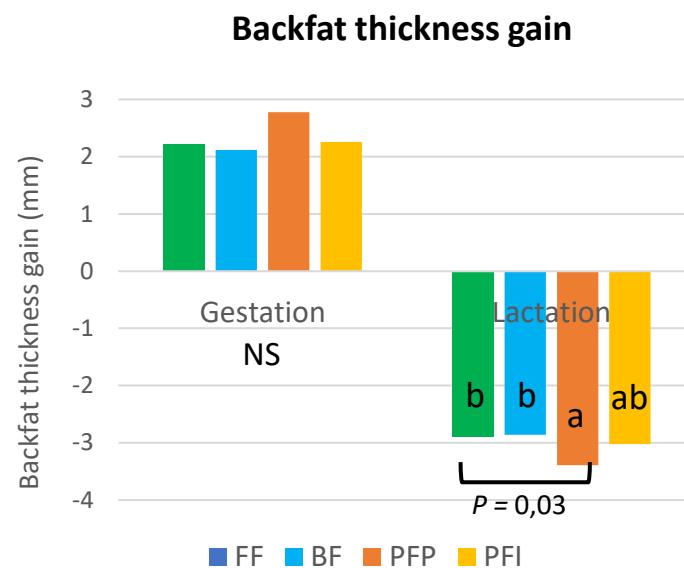


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# Results – Sow body condition

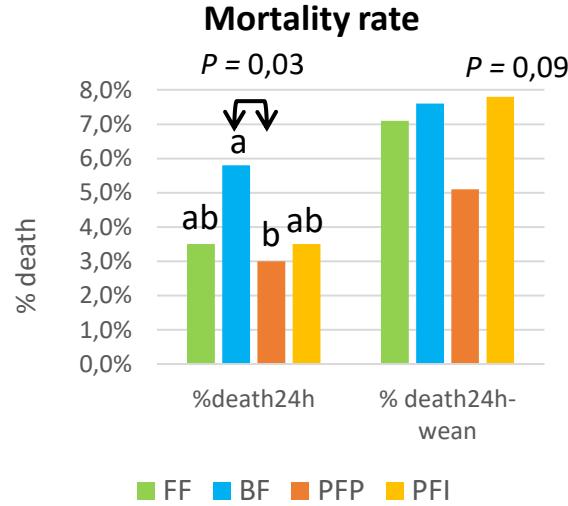
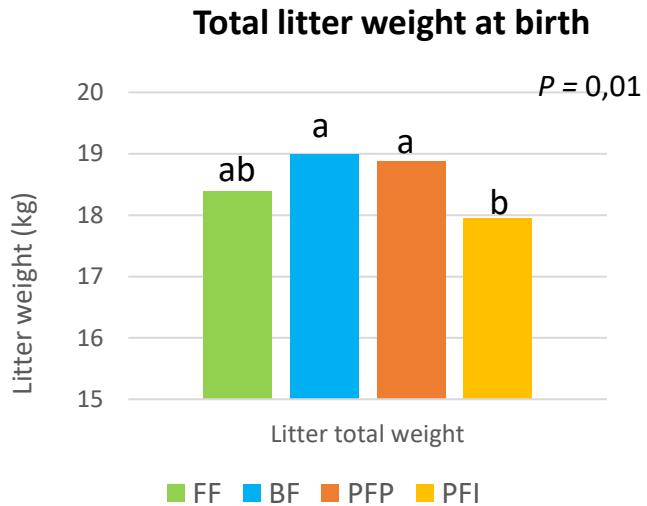


Better weight gain with mobilization of fat higher in lactation



PFP

# Results - Lactation performance



→ At the end of lactation,  
→ +0,6 piglets wean for PFP compared to BF and FF ( $P = 0,01$ ) but no effect on weight gain...

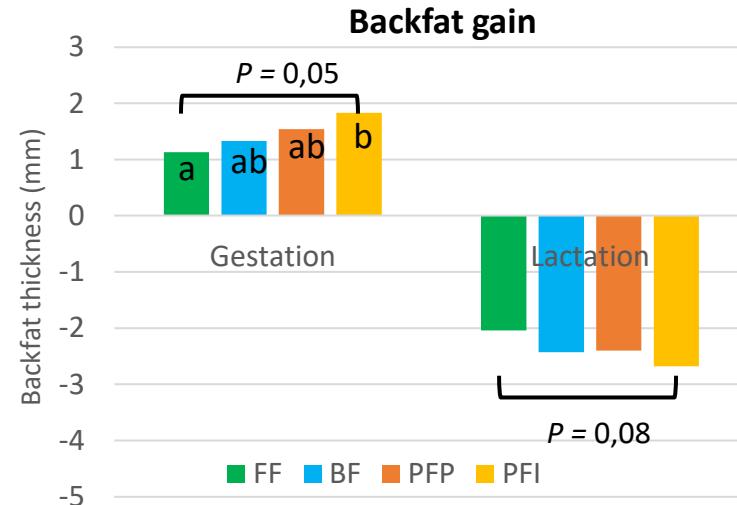
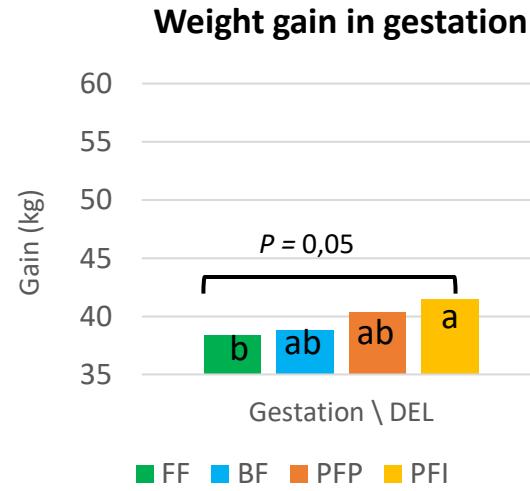
PFP

# Results Sow – Parity 2



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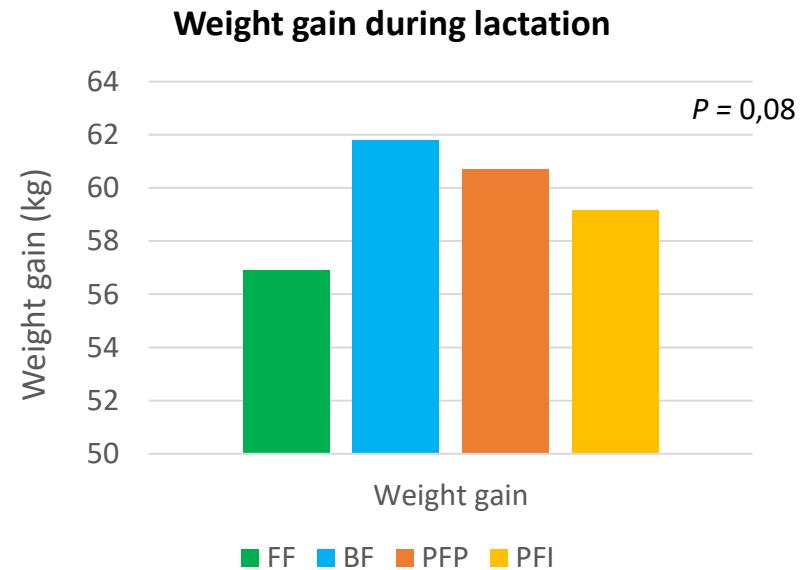
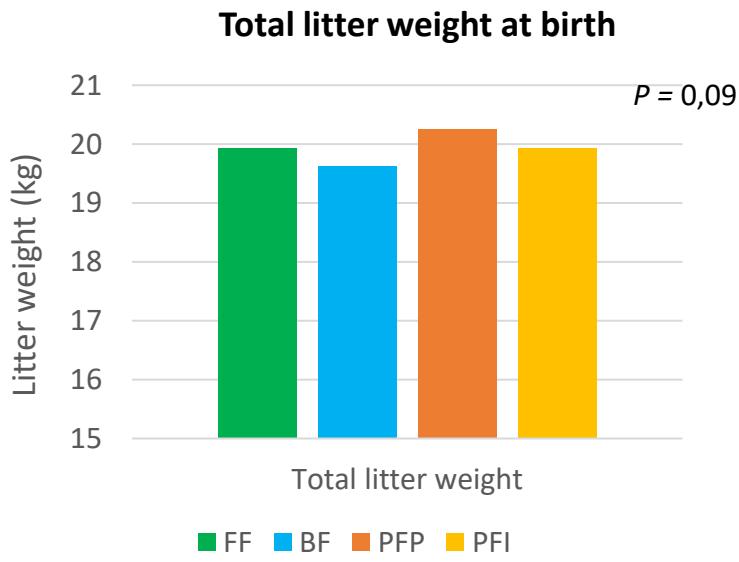
# Results – Sow body condition



*Better weight gain with mobilization of fat higher in lactation*

PFI

# Results – Lactation performance



Low effect on litter and piglets

## FF and BF

No clear effect of bumpfeeding

Effects on longevity ?

Third parity to be analyzed soon...

## Precision feeding Parity or individual

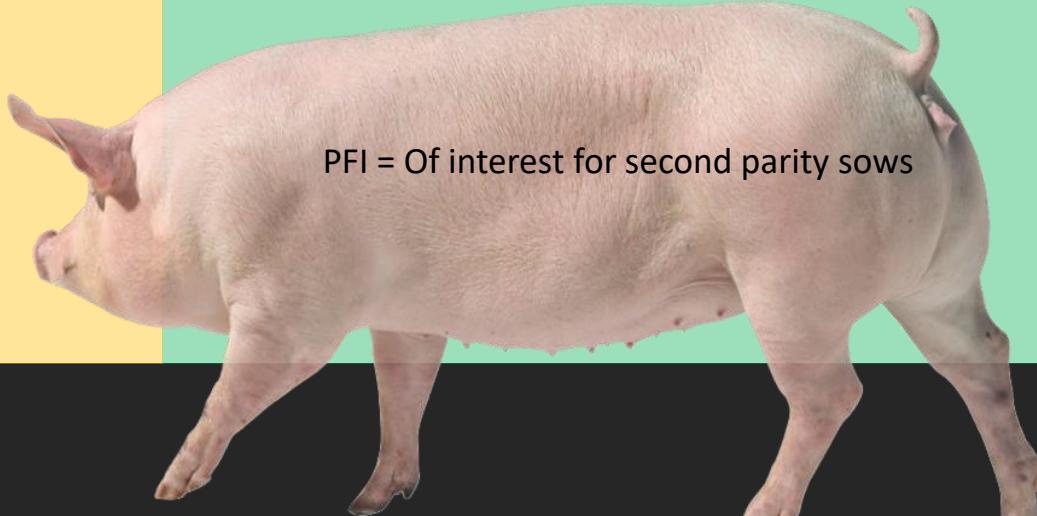
PFP = Optimal treatment for gilts



20% Lys and P intake  
10% N intake



PFI = Of interest for second parity sows



# Thanks to all partners !

PARTENARIAT  
CANADIEN pour  
l'AGRICULTURE

Canada Québec

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**NOOVISTA** GO



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CÉRÈS INC**

**INRAE**

**trouw nutrition**  
a Nutreco company

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