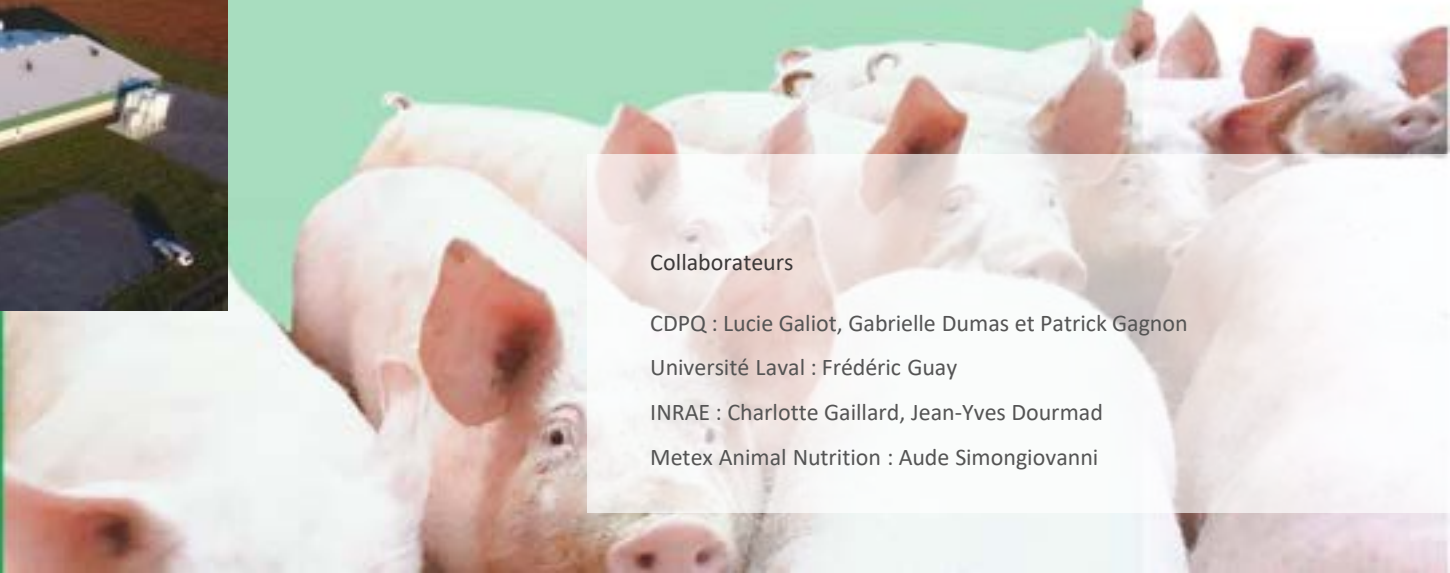




Effects of precision feeding and the bump feeding strategy in gestating sows on performances and body condition in sows monitored for the first two gestation-lactation cycles

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

Midwest section meeting ASAS
March 12-15, Madison, Wisconsin



Collaborateurs

CDPQ : Lucie Galiot, Gabrielle Dumas et Patrick Gagnon

Université Laval : Frédéric Guay

INRAE : Charlotte Gaillard, Jean-Yves Dourmad

Metex Animal Nutrition : Aude Simongiovanni



Centre de développement
du porc du Québec inc.

Conventional feeding program VS precision feeding

Conventional

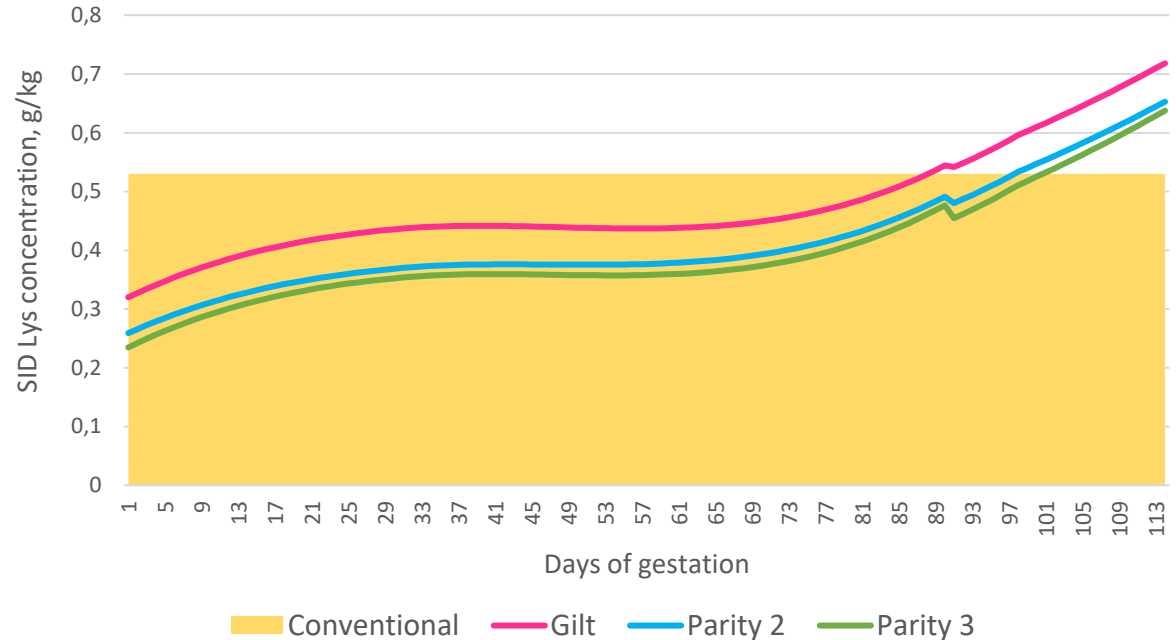
One feed

- constant Lys concentration

Precision

Blend of 2 feed

- variation of Lys concentration



Conventional feeding program VS precision feeding

Conventional

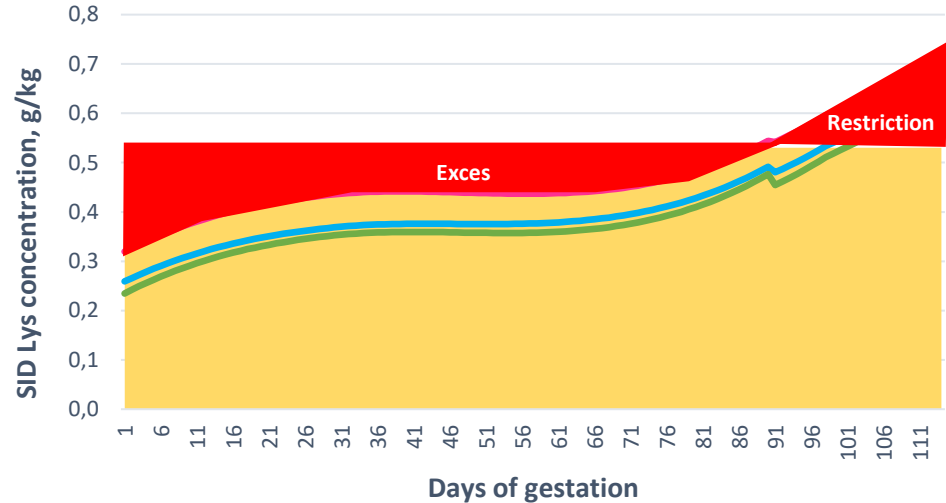
One feed

- constant Lys concentration

Precision

Blend of 2 feed

- variation of Lys concentration



Restriction at the end of gestation

Excess of nutrients = \$

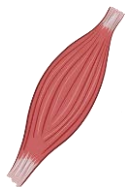


Better fit nutrient requirement of sows

✓ 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

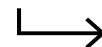


Promising results, but just tendency...

Conventional feeding program VS precision feeding

BUMPFEEEDING

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



Questioning the strategy



Objective

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.

OPTIMAL STRATEGY

- Nutrient requirement
- Performances
- Longevity

Material and method - Animal

4

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

+ 500 gilts

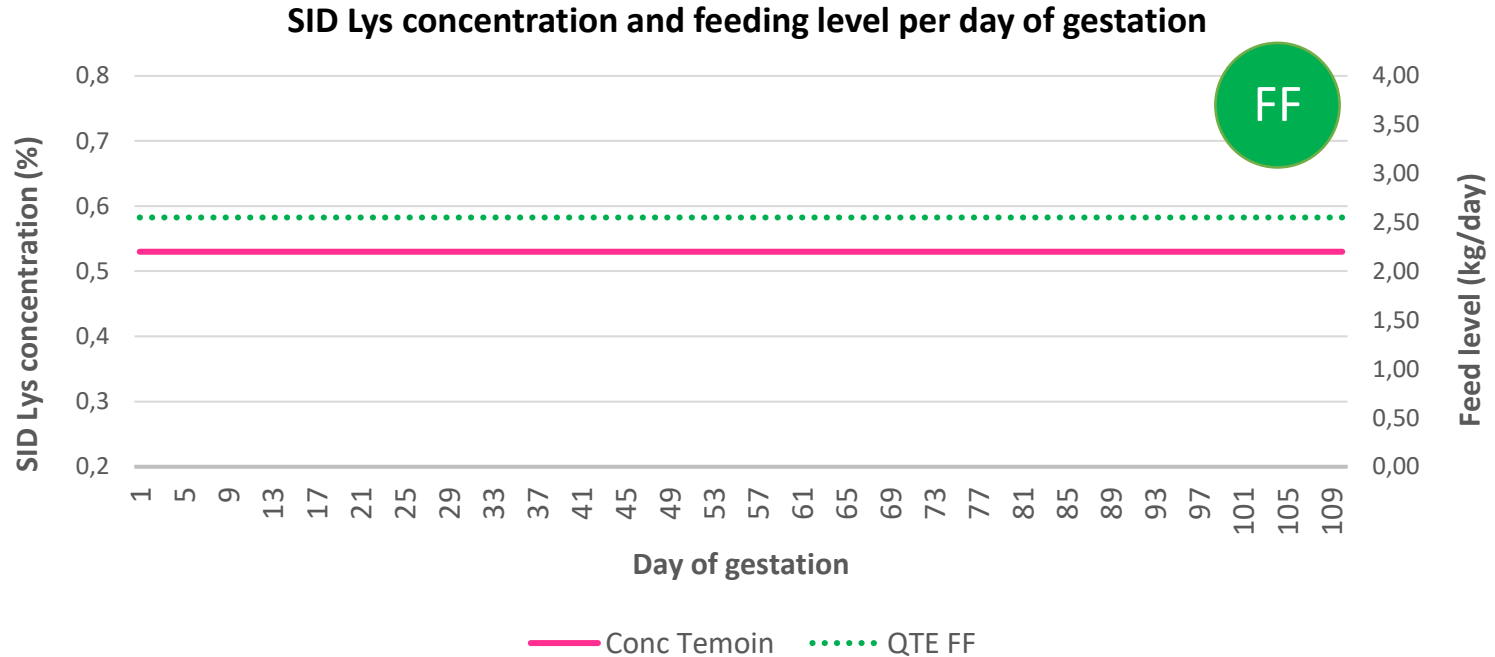
12

batches

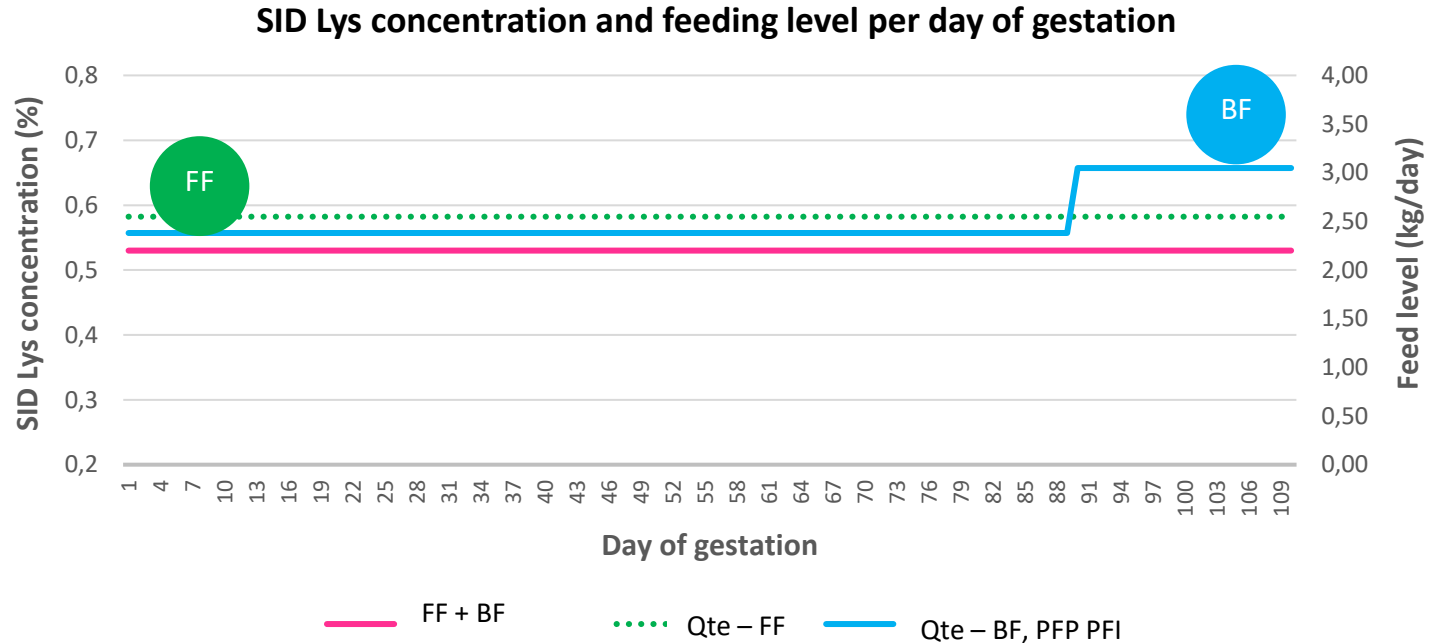
+ 1 000 litters



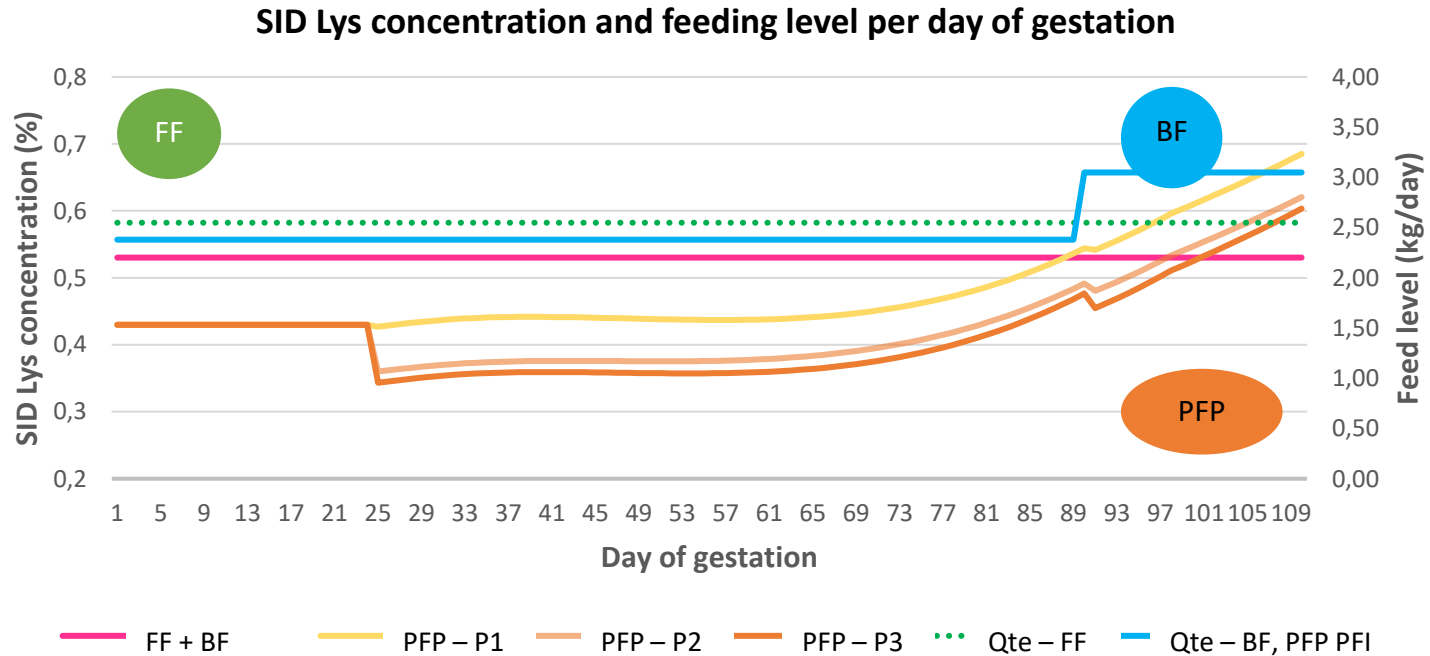
Material and method – 4 feeding treatments



Material and method – 4 feeding treatments

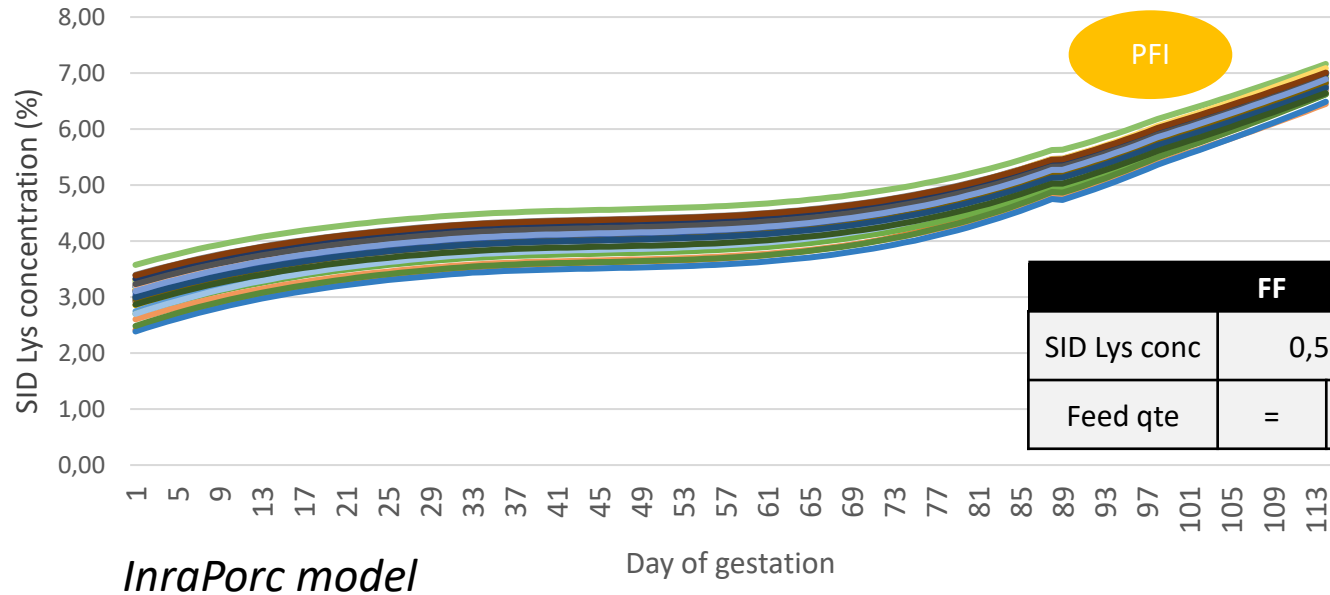


Material and method – 4 feeding treatments



Material and method – 4 feeding treatments

SID Lys concentration per day of gestation



Material and methods - Data collected

Sow

Statistics :
MIXED SAS with Tukey-Kramer

- Weight
- Backfat thickness

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

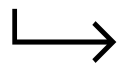
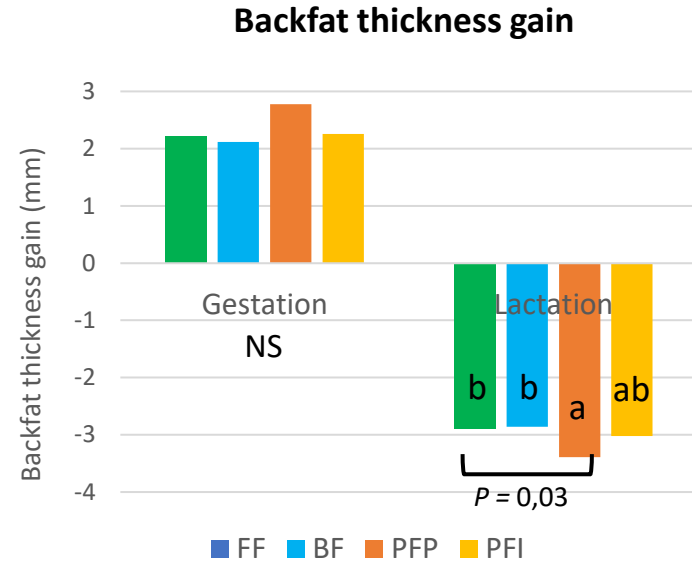
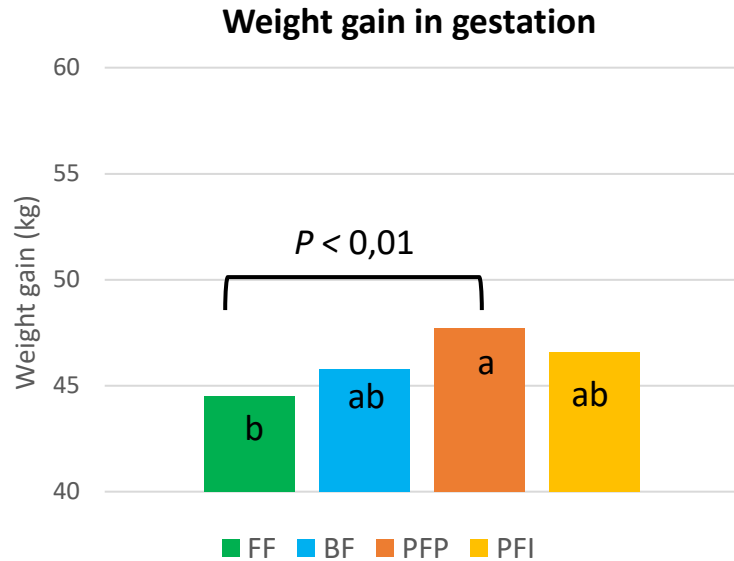
Piglet



Results

Sow – first parity

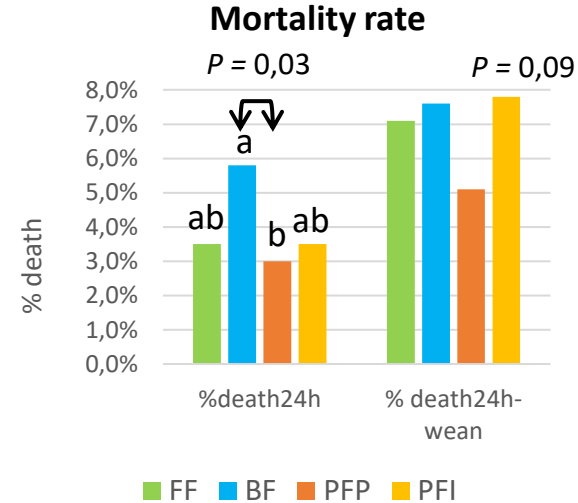
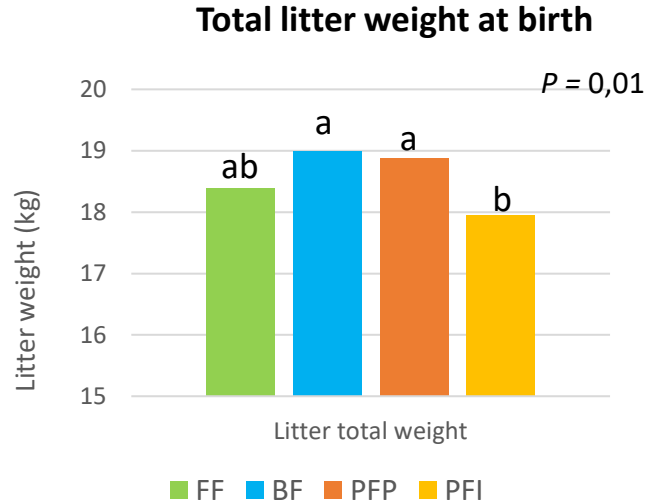
Results – Sow body condition



Better weight gain with mobilization of fat higher in lactation

PFP

Results - Lactation performance



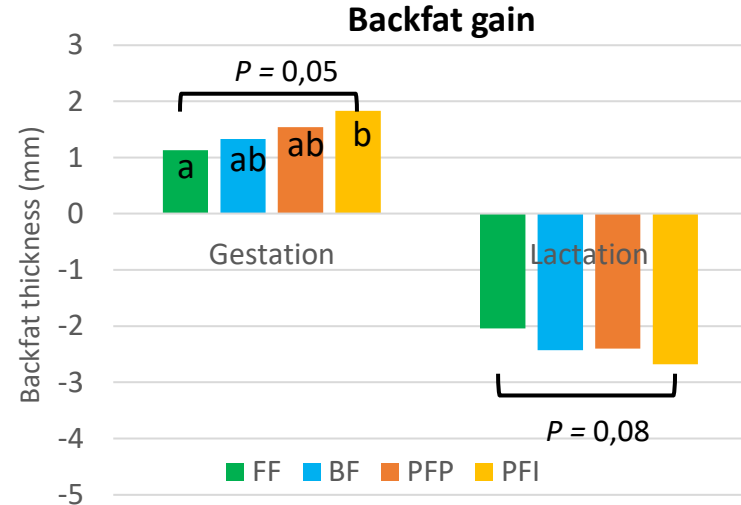
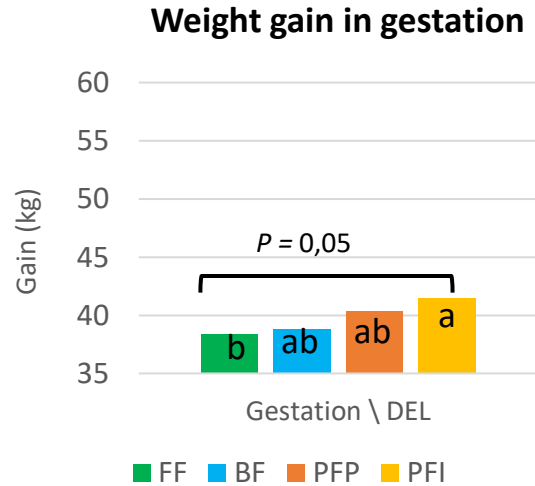
At the end of lactation,
→ +0,6 piglets wean for **PFP** compared to **BF** and **FF** ($P = 0,01$) but no effect on weight gain...



Results

Sow – Parity 2

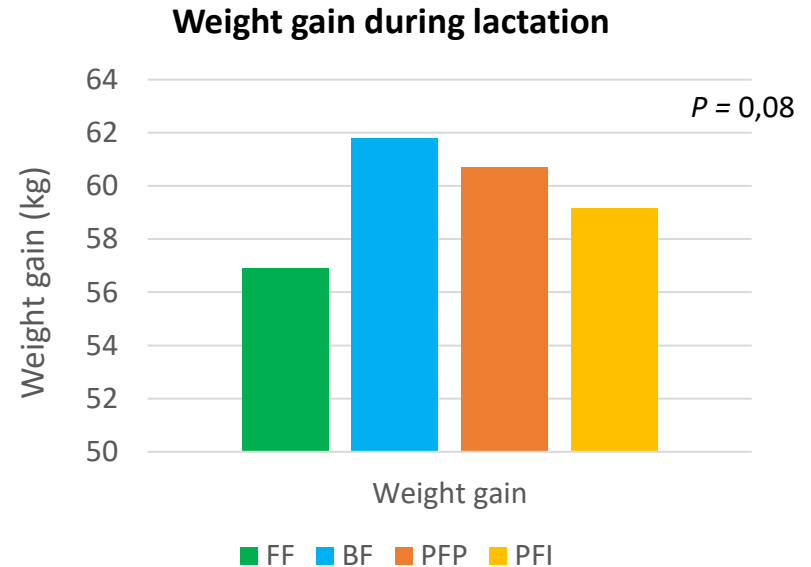
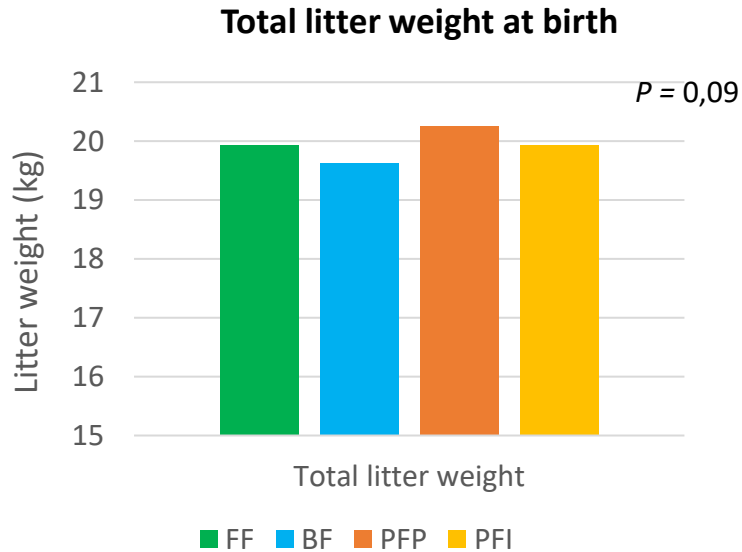
Results – Sow body condition



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

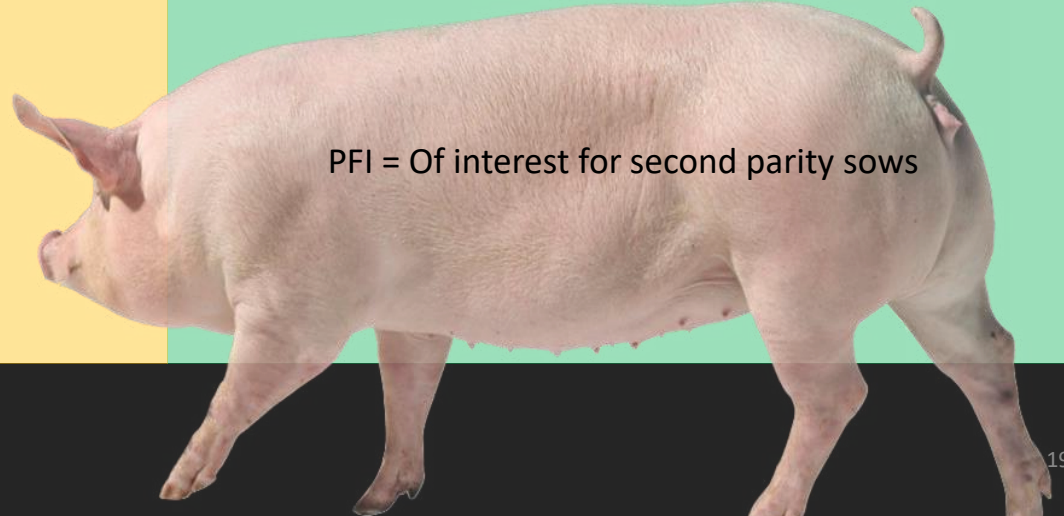
PFP = Optimal treatment for gilts



20% Lys and P intake
10% N intake



PFI = Of interest for second parity sows



Thanks to all partners !

 PARTENARIAT
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 UNIVERSITÉ
LAVAL

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