

IMPACT OF PRECISION FEEDING AND “BUMP FEEDING” STRATEGIES DURING GESTATION ON THE PERFORMANCE OF POST-WEANING PIGS



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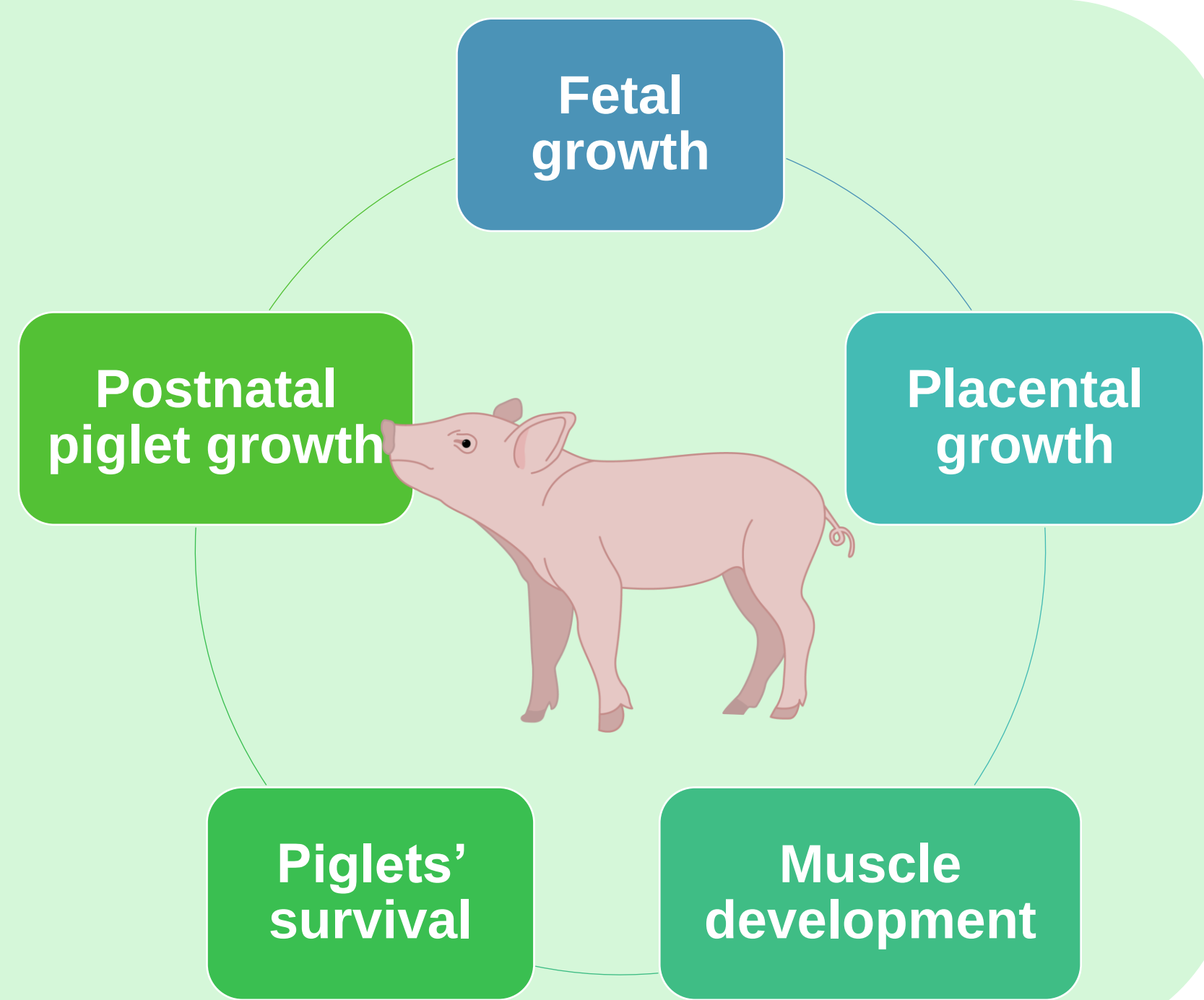
Introduction

Conventional farm: One feed with constant SID Lys concentration, with or without bump feeding for all gestating sows

Nutritional requirements between sows vary depending on parity, gestation stage, weight, etc.

Excess or deficient nutritional intakes during gestation could have impacts on piglets' growth performance.

Zhang et al., 2019; Rehfeldt et al., 2011; Bee, 2004



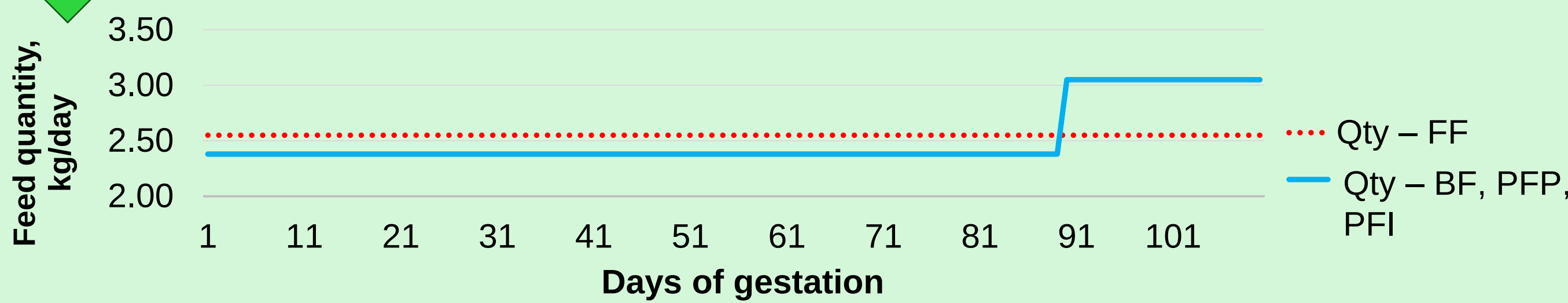
Objective

The objective was to evaluate the effects of **precision feeding** and **feed intake strategies** during gestation on the **growth performance** of post-weaned piglets from sows monitored over **three successive reproductive cycles**.

Material & Methods

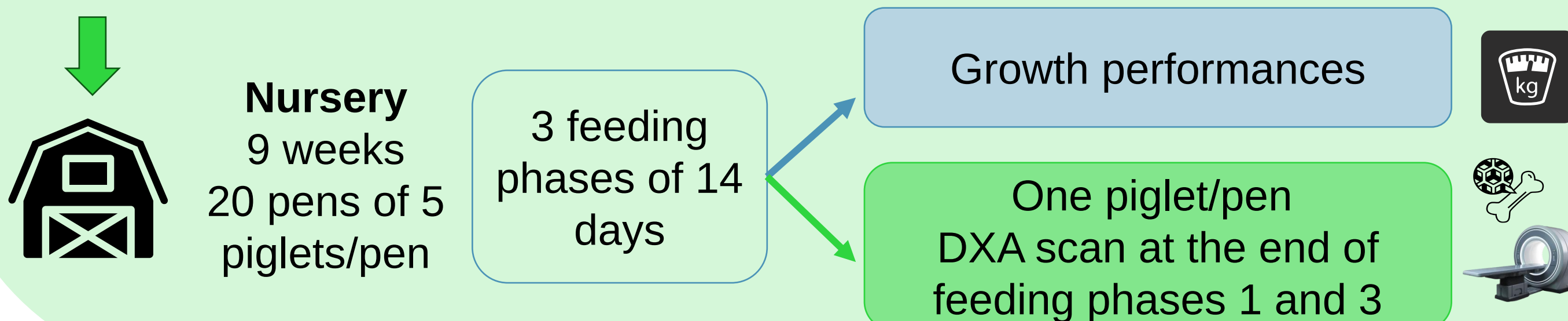
Validation of 4 feeding strategies during gestation

	Flat feeding (FF)	Bump Feeding (BF)	Precision feeding by parity (PFP)	Precision feeding individual (PFI)
SID Lys Concentration	0.53%		Variable (per parity from 26 to 110 days of gestation)	Variable (per sow from 1 to 110 days of gestation)
Feed intake	Constant	Lower before 90 days of gestation, then higher		

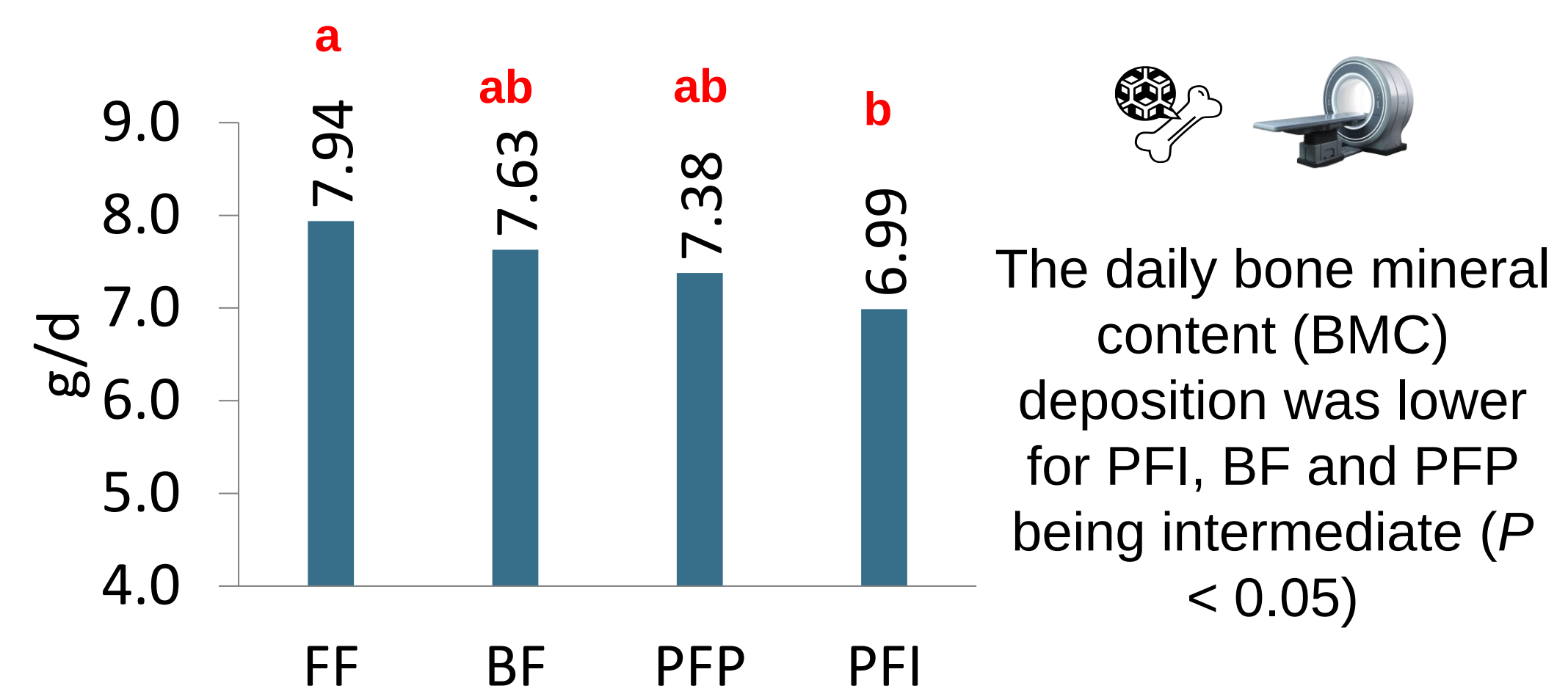


Sows followed over 3 cycles, starting with gilts

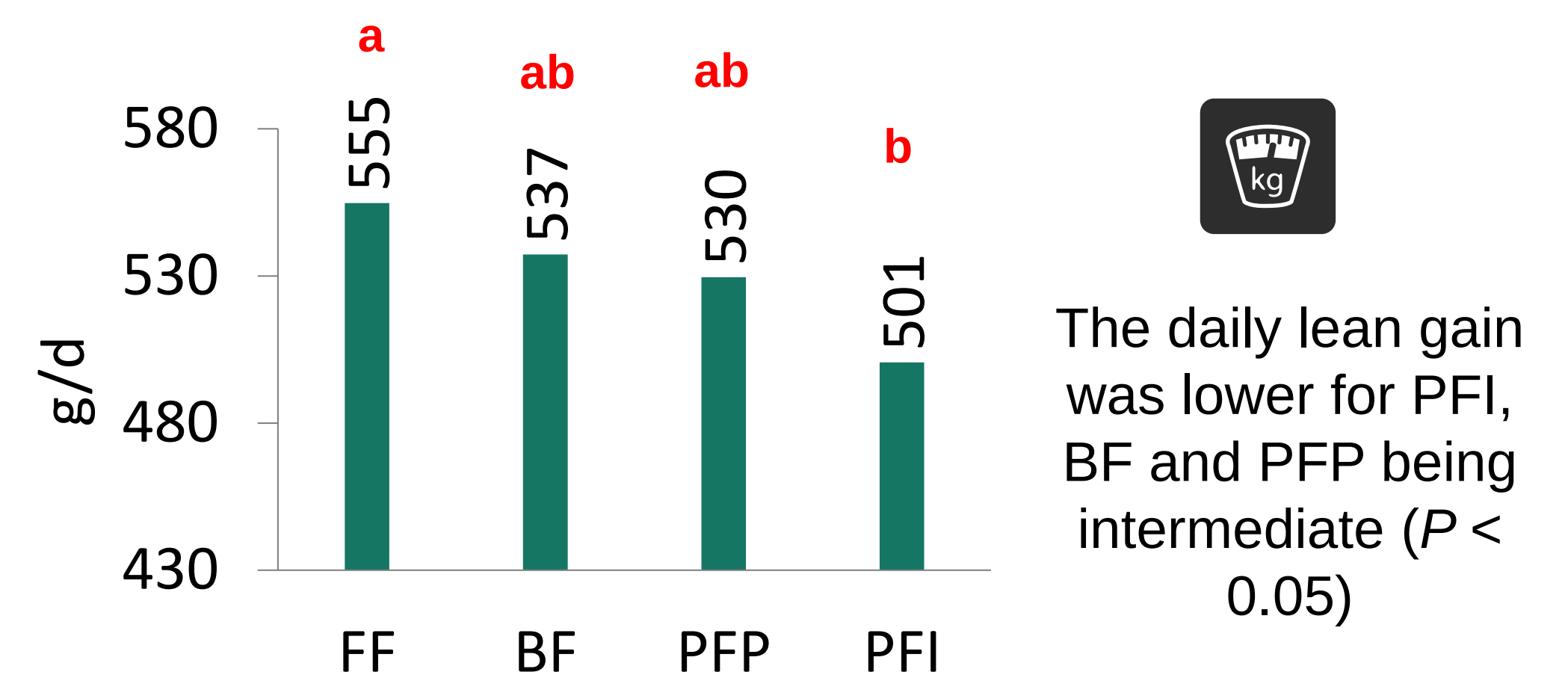
At weaning, 5 sows/treatment were selected and 5 average piglets /litter were transferred to a research nursery



Results from body composition (14 to 42 days)



The daily bone mineral content (BMC) deposition was lower for PFI, BF and PFP being intermediate ($P < 0.05$)



The daily lean gain was lower for PFI, BF and PFP being intermediate ($P < 0.05$)

Conclusion

- When varying only **energy distribution (FF, BF)**, piglets from FF sows had better ADG than BF in nursery.
- When varying only **SID Lys concentration (BF, PFP, PFI)**, few differences were observed.

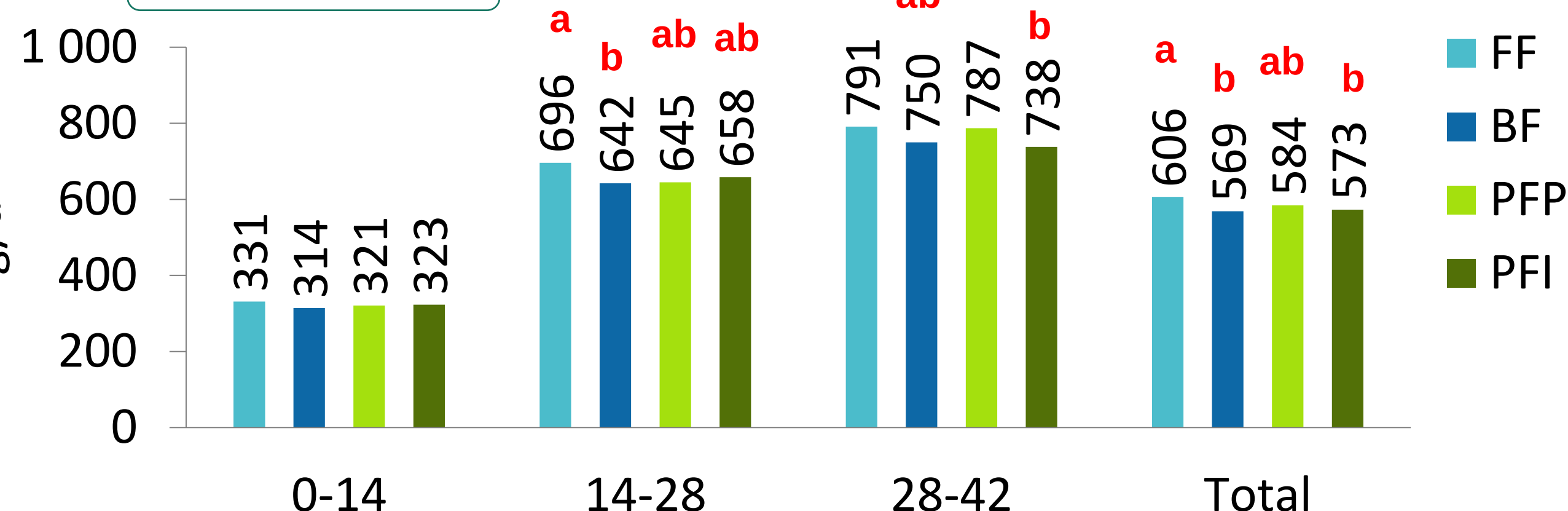
- Piglets from **PFI** had **lower** bone deposition and lean deposition, probably due to the lower intake of phosphorus, calcium and proteins in the first third of gestation.

Take home message

FF treatment during gestation led to better post-weaning performance, suggesting that energy or nutrient intake in early gestation might impact offspring growth and development in post-weaning period.

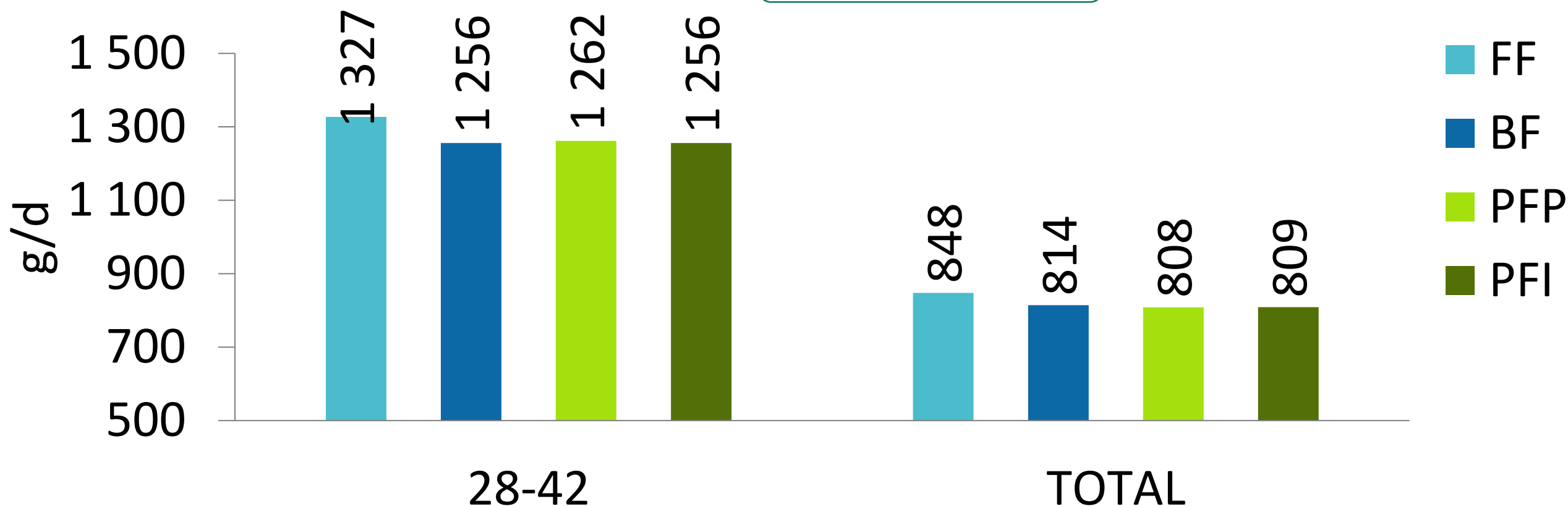
Results for Average Daily Gain (ADG)

ADG $P < 0.05$



Results for Average Daily Feed Intake (ADFI)

ADFI $P < 0.05$



Partners

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