






Precision feeding of gestating sows

Indukern Swine Symposium 2018 – Lleida & Madrid

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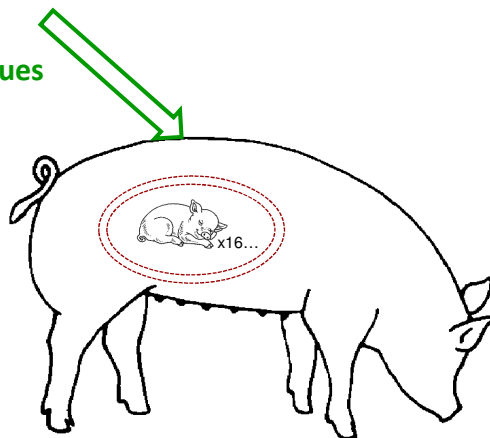


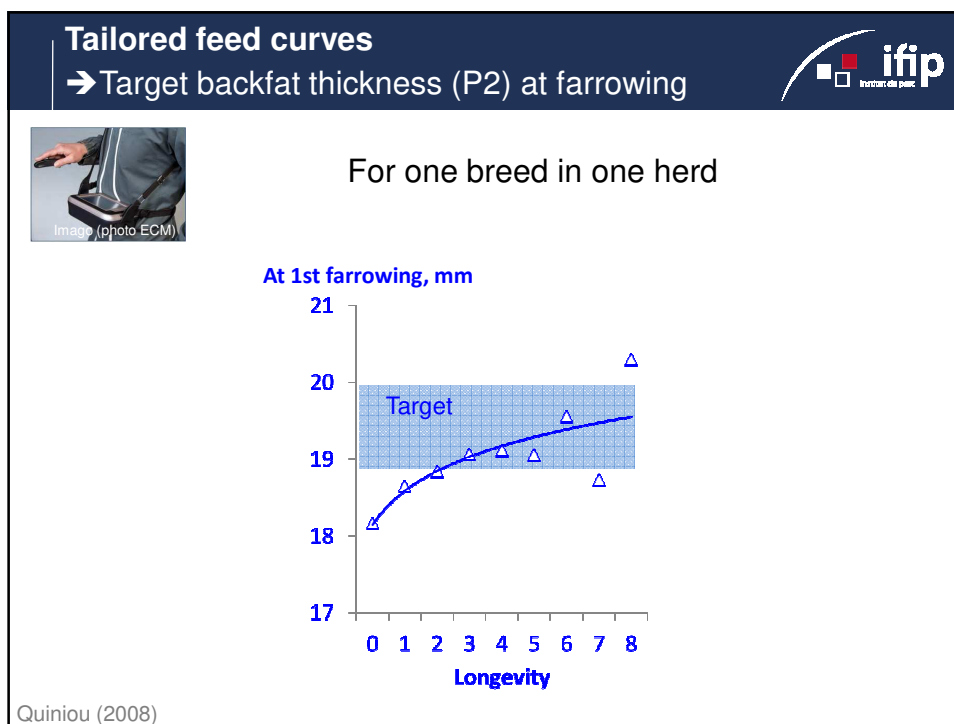
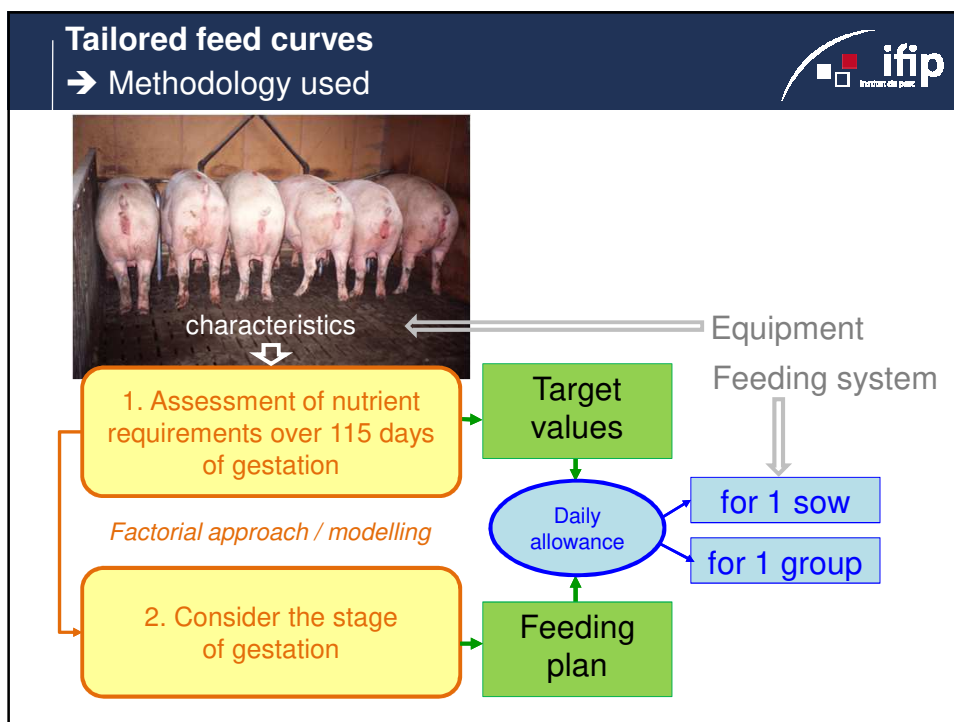
Context /
Nutrition of the gestating hyperprolific sow

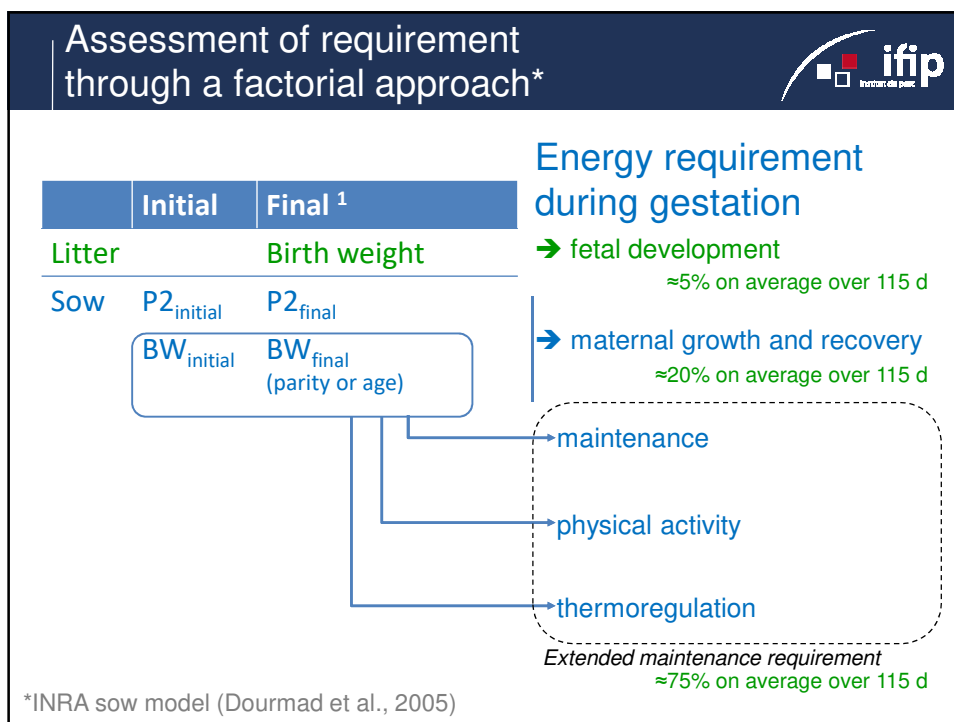
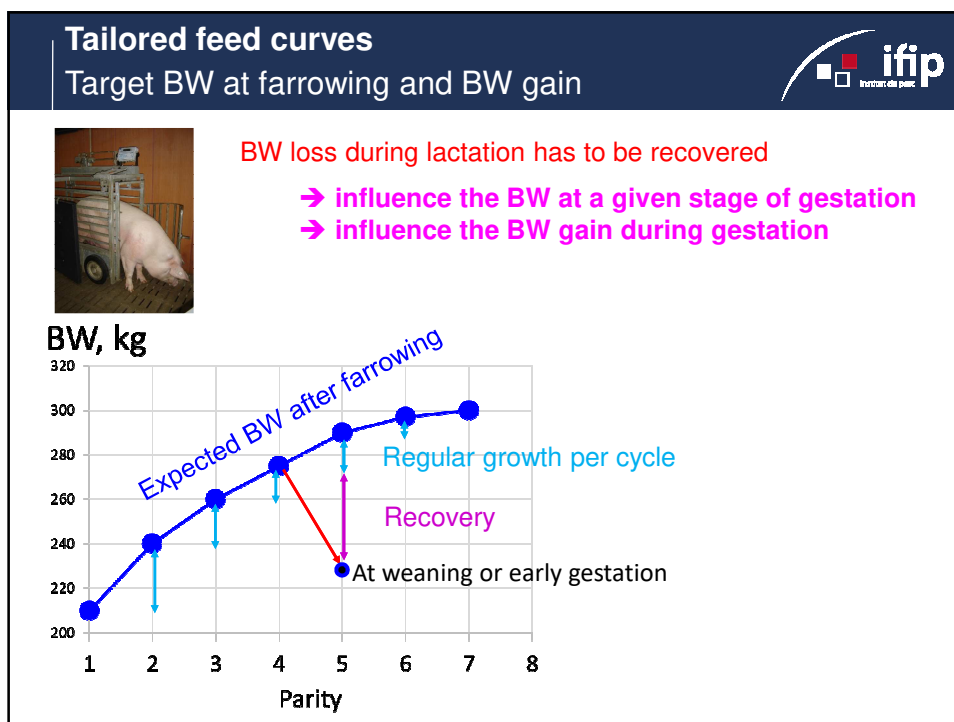


A multiobjective nutrition

- criteria used and target values
- methodology
- nutrient assessment
- examples
 - individual average ration
 - individual curves
- next criteria in the future
- type of nutrients







Assessment of requirement through a factorial approach



P2 is required by components that contribute to **20-25%** of the energy requirement

- measured in a lot of commercial farms
- measured individually, periodically, manually
- first determinant of feed curves (with parity)



BW is required by components that contribute to **95%** of the energy requirement

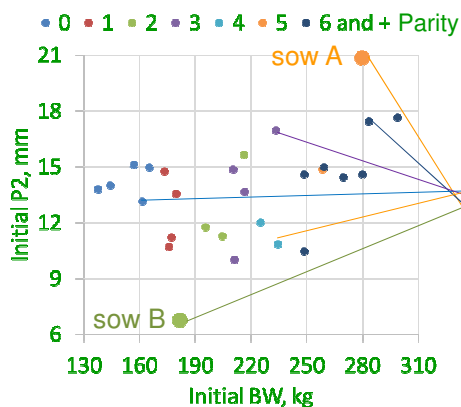
- **measured manually in experimental farms**
- partly taken into account in commercial farms through parity

BW → a "simple" but promising criteria to consider in the design of feeding strategies for gestating sows

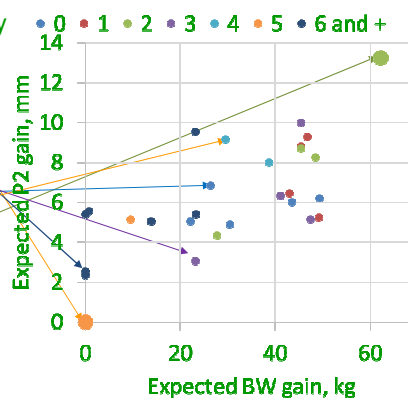
Precision feeding at the batch level (28 sows)



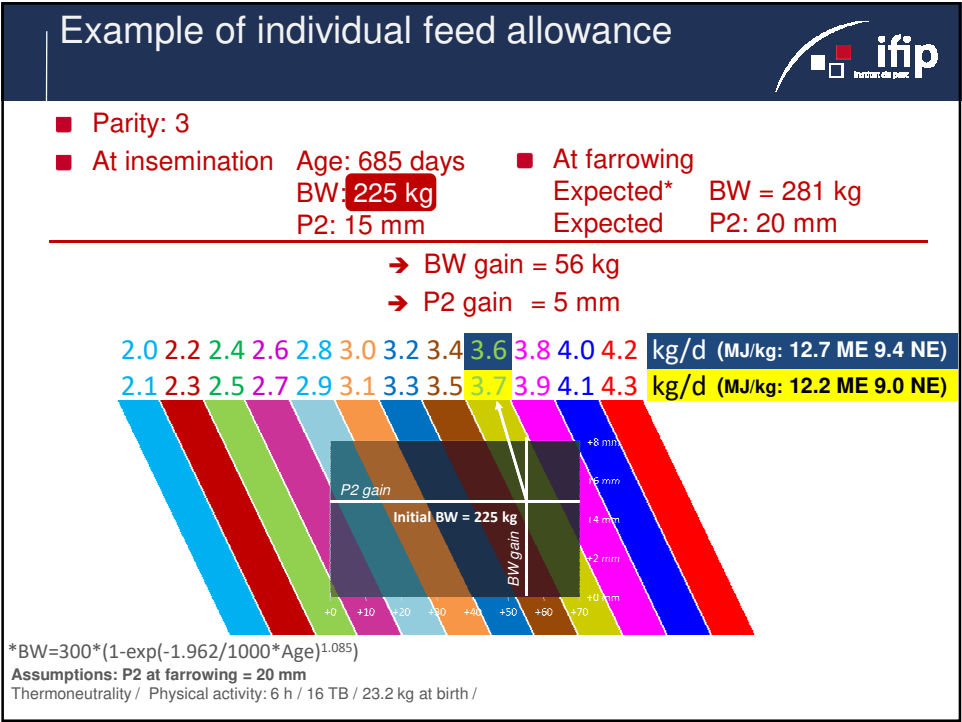
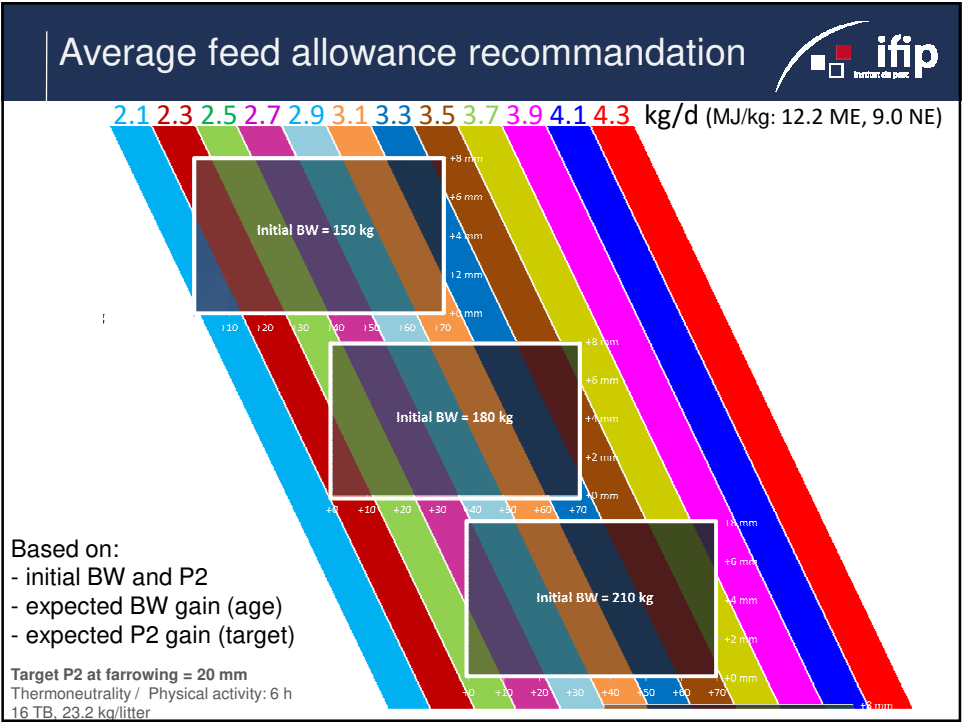
Initial characteristics

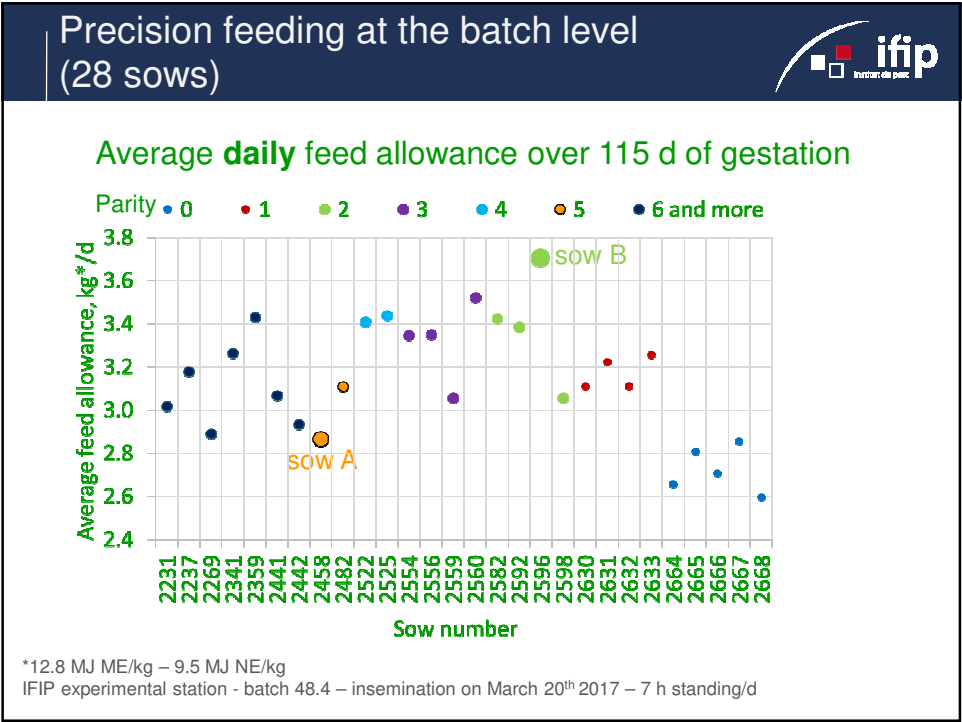
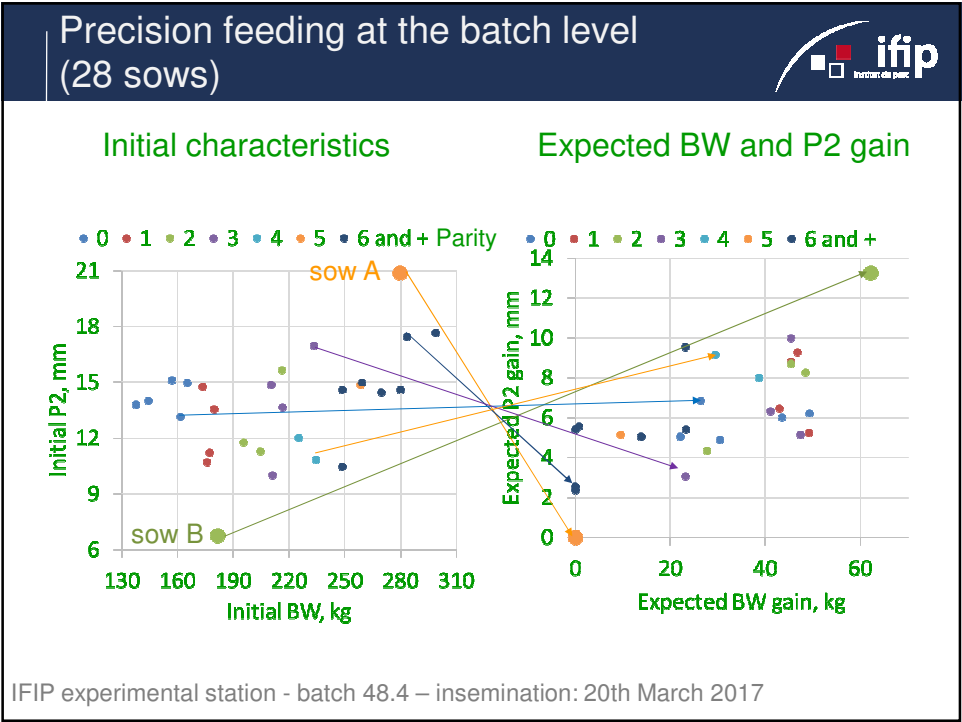


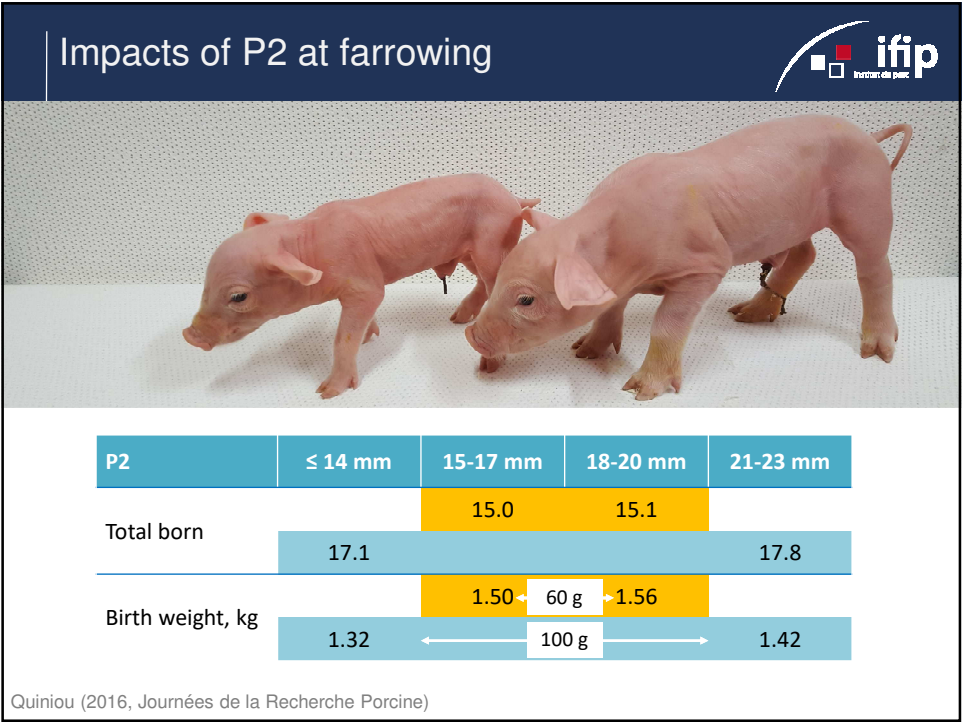
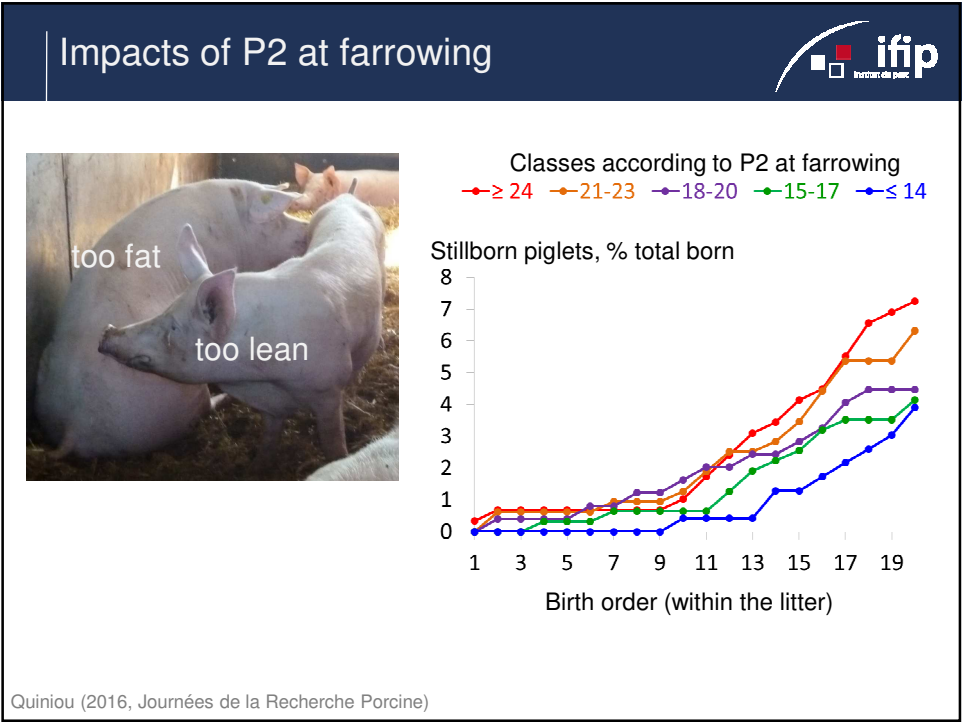
Expected BW and P2 gain

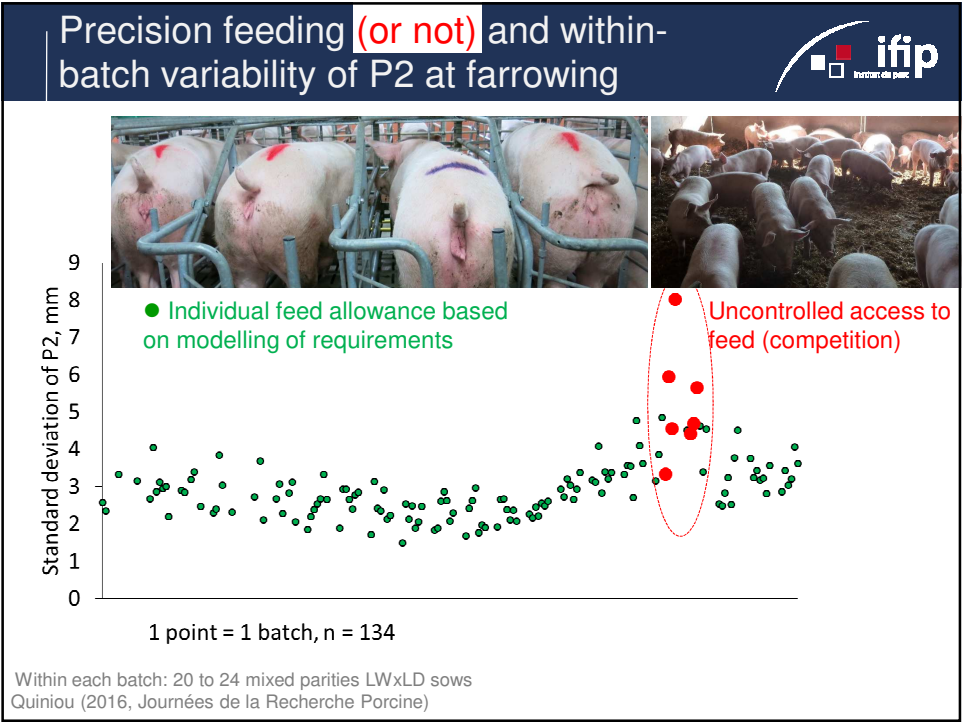
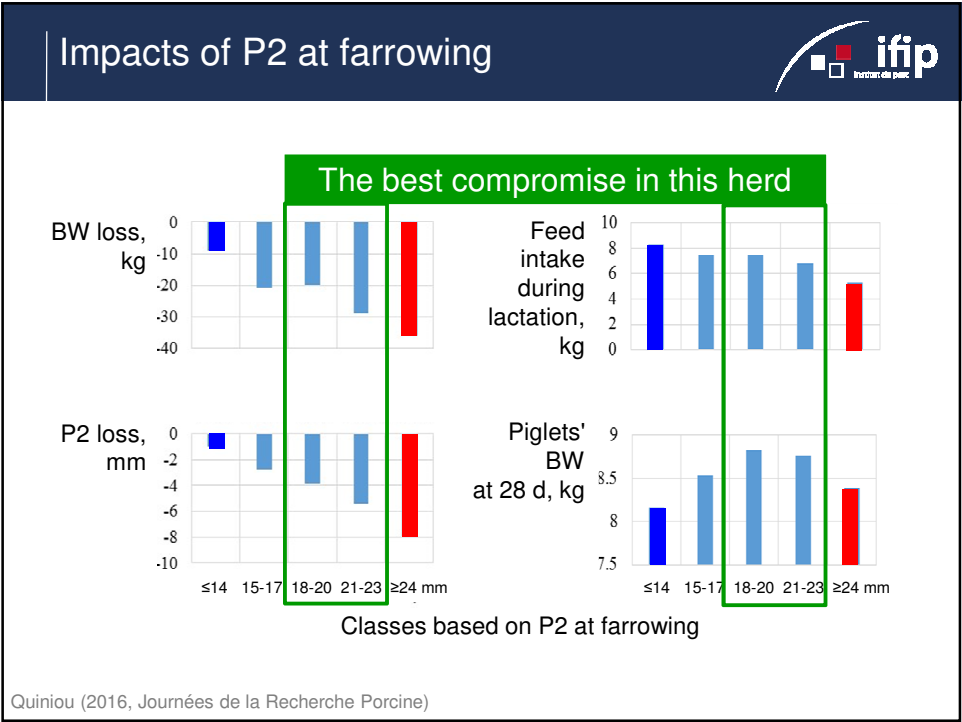


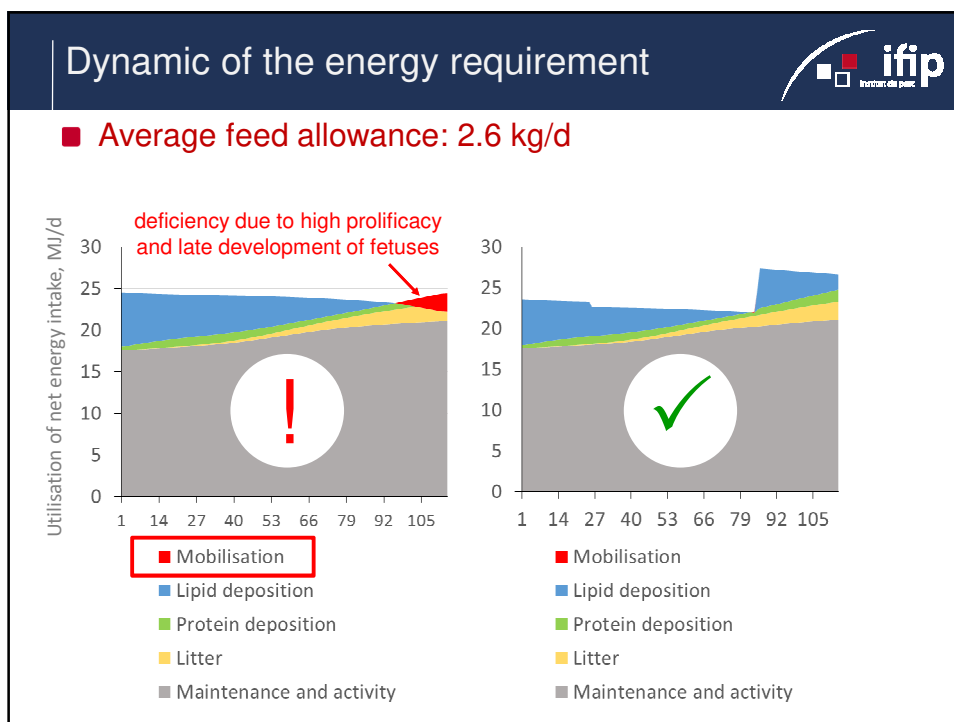
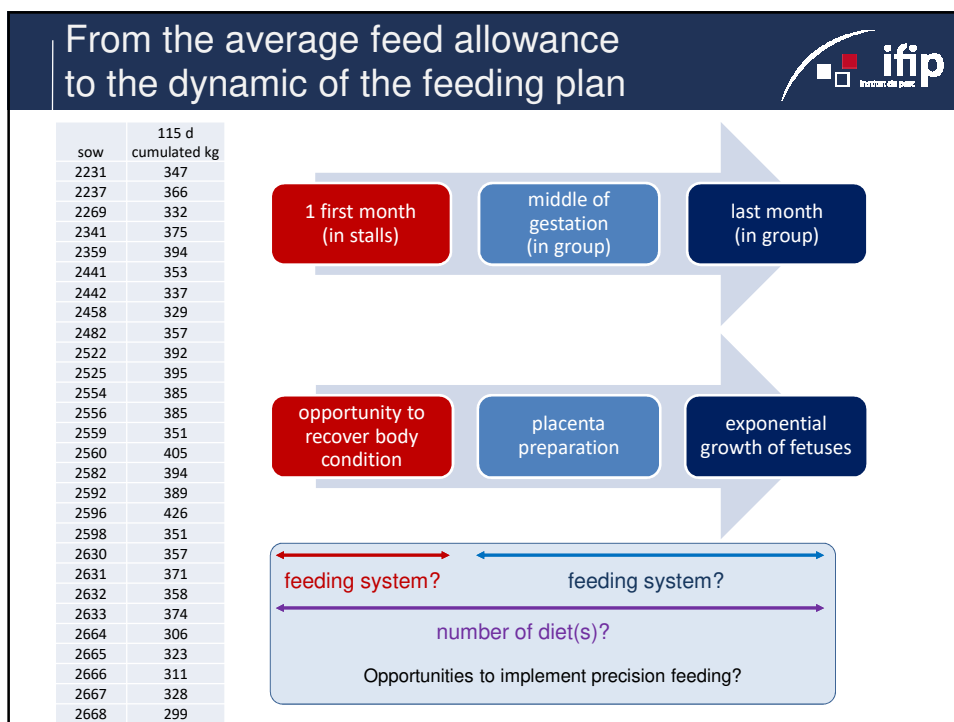
IFIP experimental station - batch 48.4 – insemination: 20th March 2017









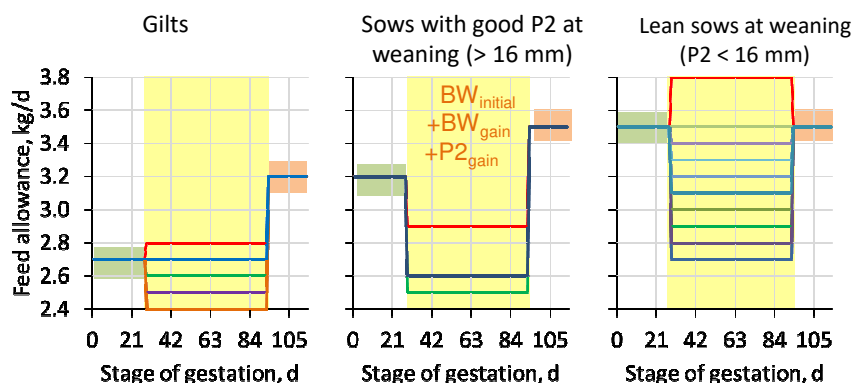


Method applied on an individual basis on a batch of 28 sows (step 3)

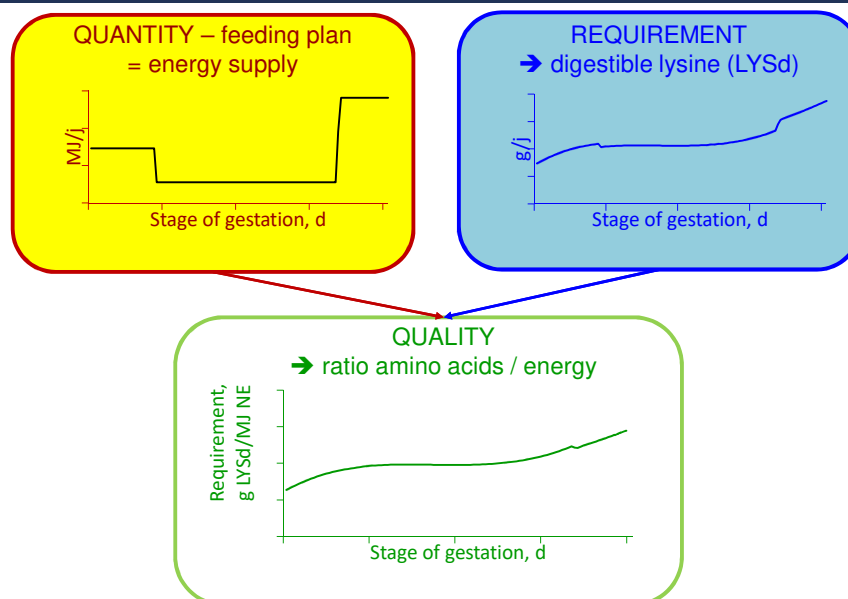


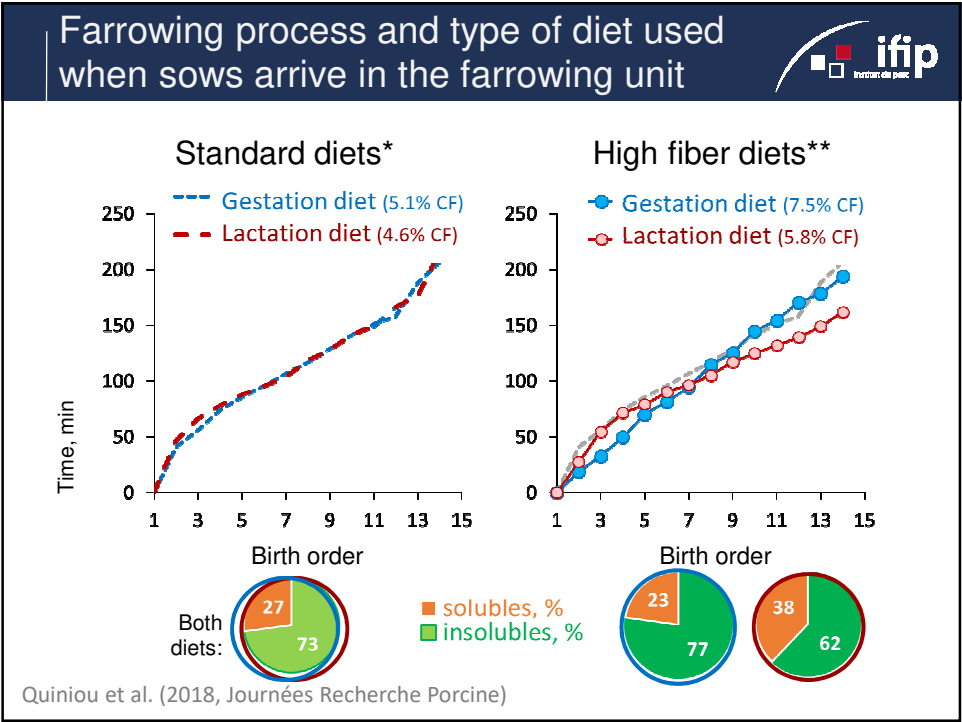
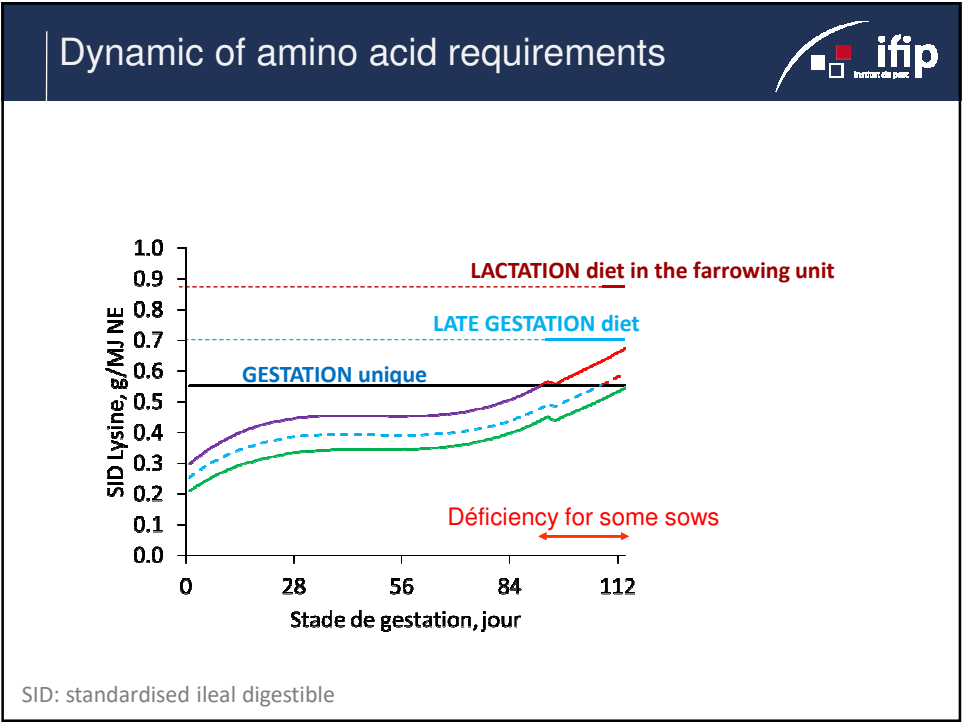
Example of individual U plans:

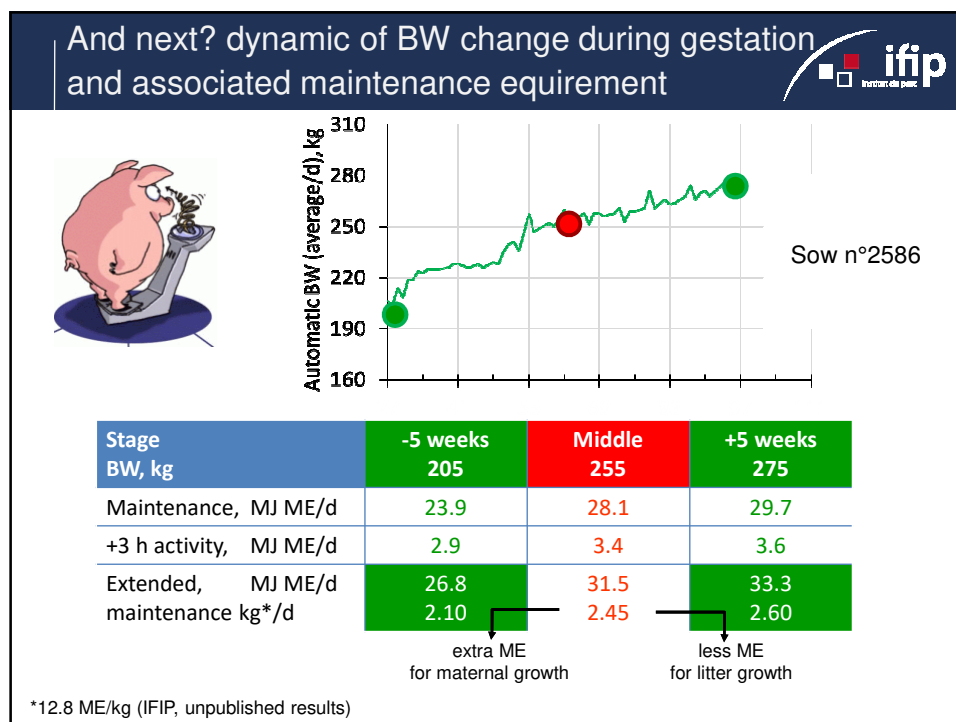
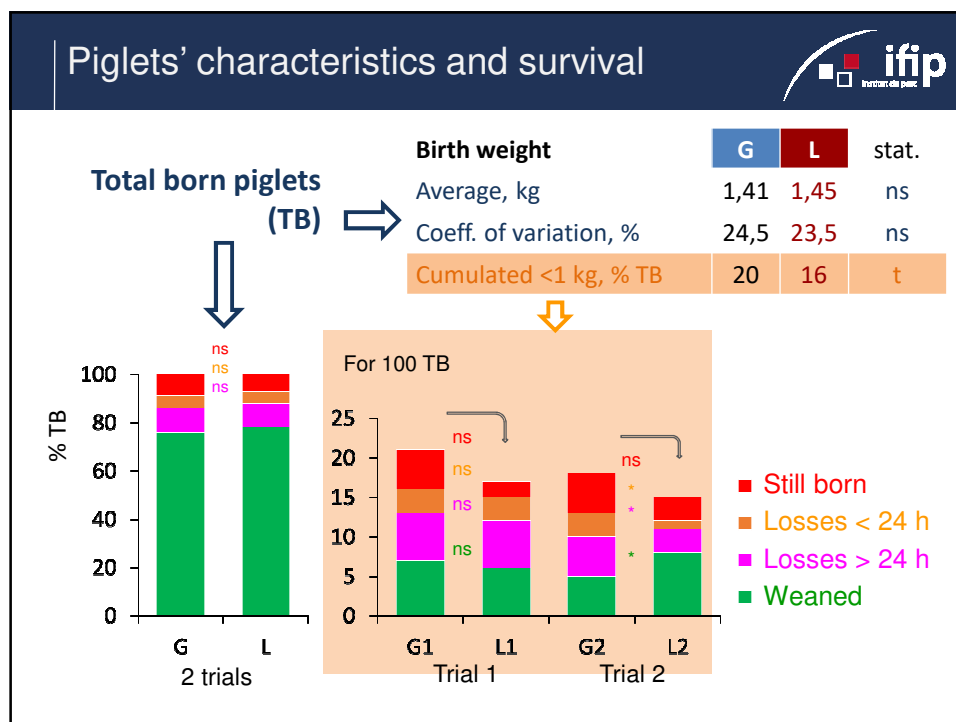
- 1st month: 3 fixed rations based on parity and $P2_{initial}$
- 3 last weeks: 2 fixed rations based on parity
- 28th-94th: ration adjusted on individual requirements

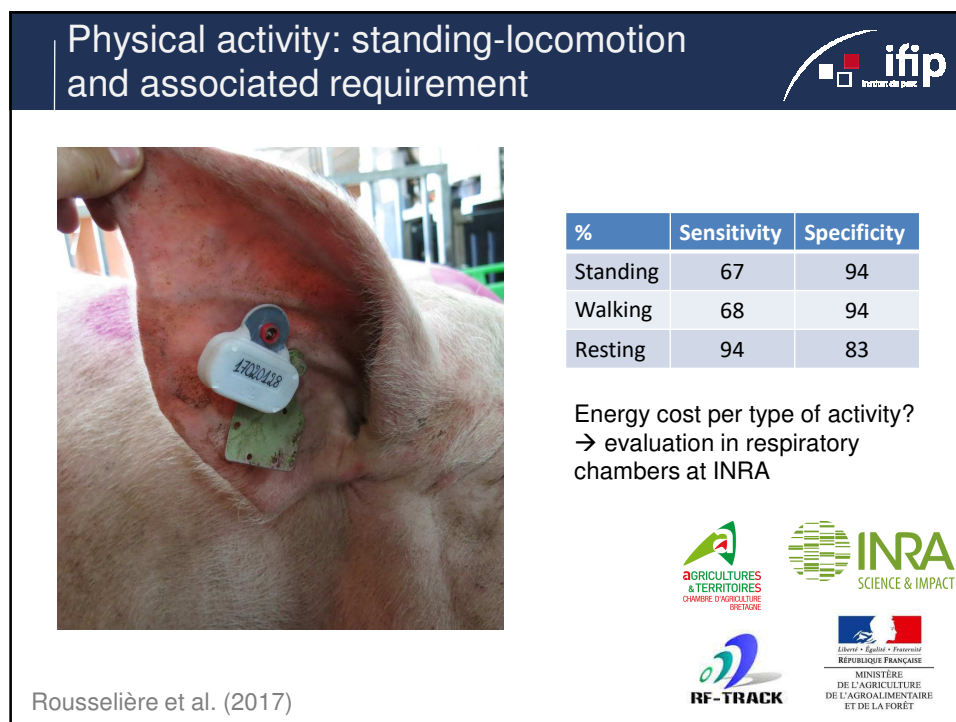
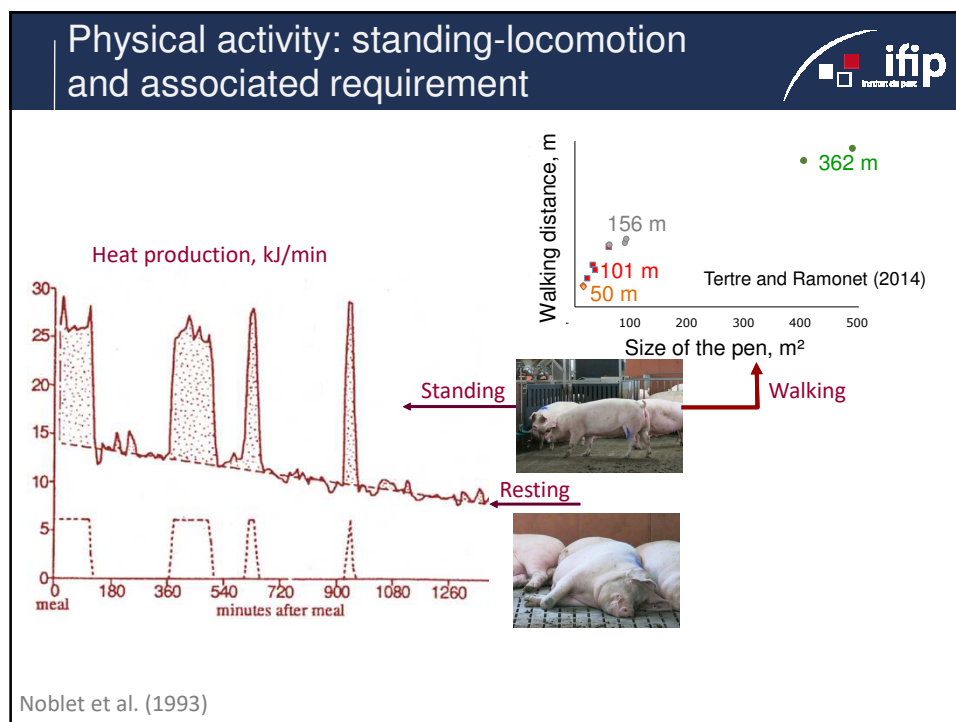


Dynamic of amino acid requirements





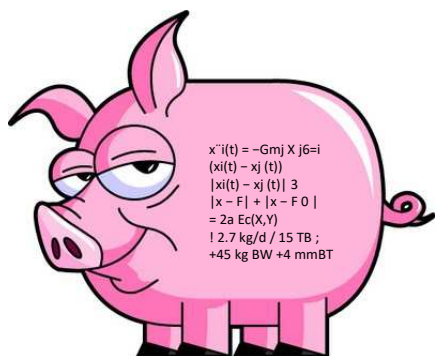




Conclusion → coming soon in (many) farms 

Precision feeding of gestating sows

The right amount (and quality) of feed
to the right animal on the right day



Items required:

- ✓ Stage of gestation
- ✓ Parity
- ✓ Automatic weighing station
- Automatic P2 measurement
- ✓ Physical activity
- ✓ Ambient temperature
- Litter weight at birth
- ✓ Feed delivery to the animal
(or the group of sows)