

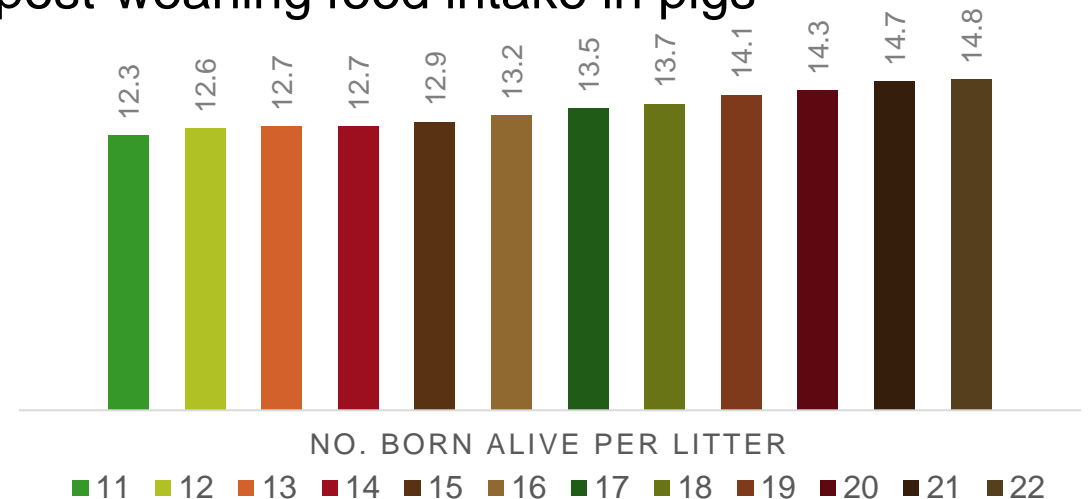
Management and nutritional strategies to increase post-weaning feed intake in pigs

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Teagasc Pig Conference -17 & 18th Oct 2023

Introduction

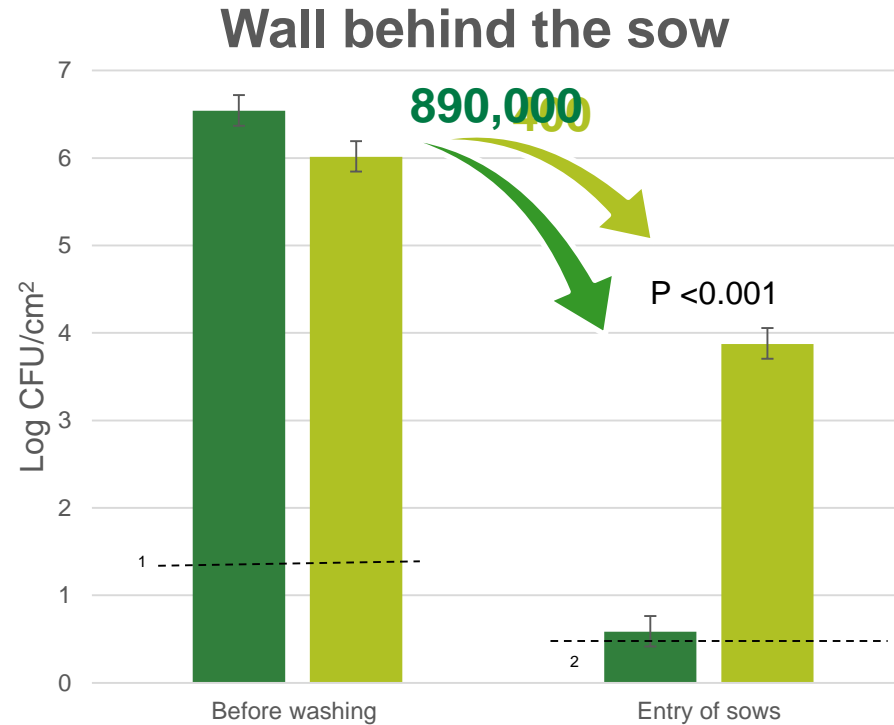
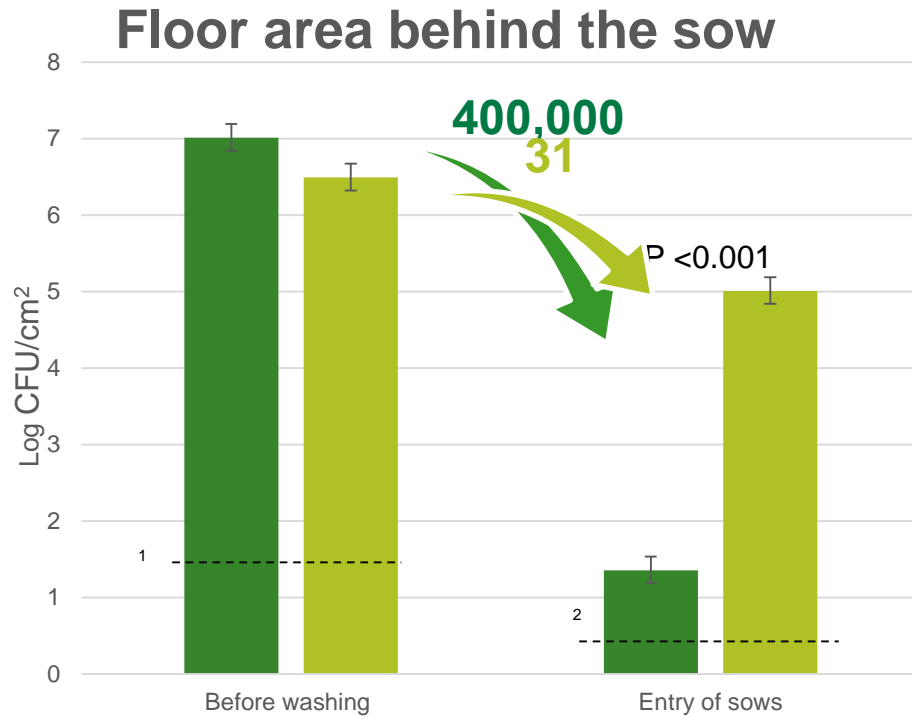
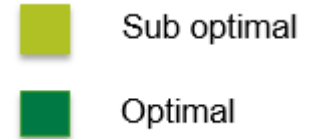
- Post-weaning 'Growth-Check'
- 'Perfect Storm'
 - Restrictions on antibiotic use Jan. 2022 & therapeutic levels of zinc oxide banned June 2022
 - Litter size ↑; putting downward pressure on piglet weight and health to weaning
- Feed intake in first few days post-weaning ↑ Lifetime growth in pigs
- Management and nutritional strategies to increase post-weaning feed intake in pigs
 - AMR reduction
 - ↑ Lifetime growth
 - Financial benefits to producer



Pre-weaning Factors

- Increase Weaning Wt.

Hygiene in Farrowing rooms - TBC



¹ Detection limit for floor area behind sow before washing (1.4 Log CFU/cm²)



² Detection limit for floor area behind sow after washing (0.4 Log CFU/cm²)

¹ Detection limit for wall behind the sow before washing (1.4 Log CFU/cm²)

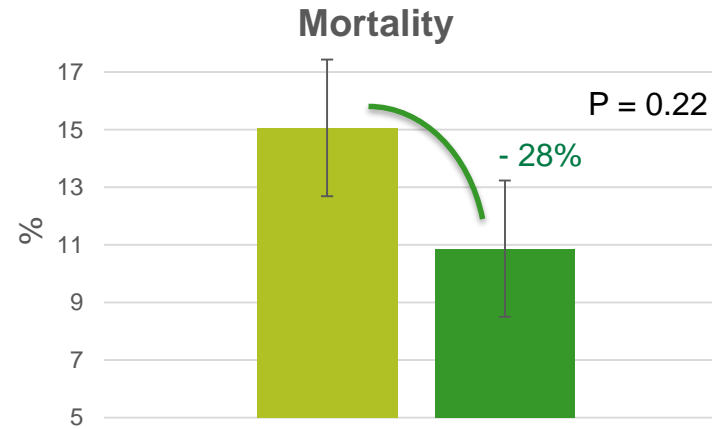
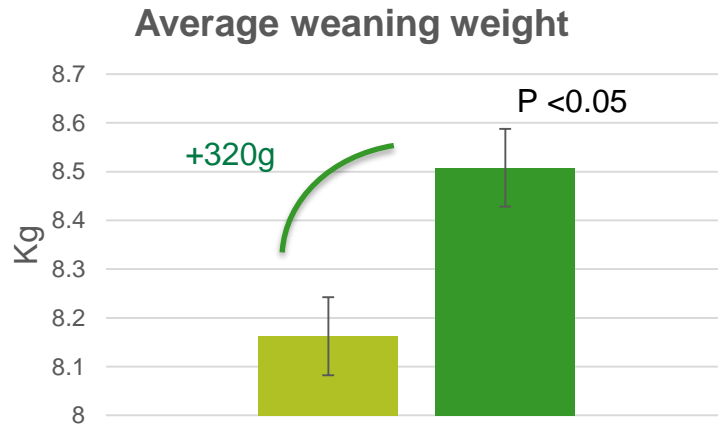
² Detection limit for wall behind the sow after washing (0.4 Log CFU/cm²)

Farrowing rooms sanitisation regimes



-  Sub optimal
-  Optimal

Pre-weaning pig growth performance and therapeutic treatments



Increasing Weaning Weight - Creep Feeding – Why?

Why creep feed piglets in the first place?

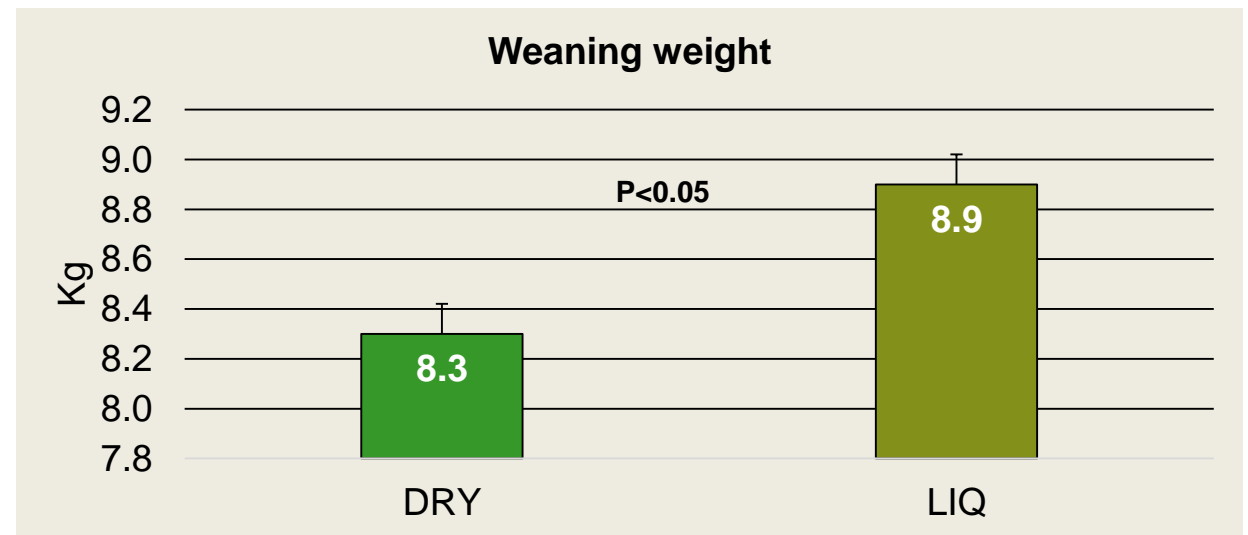
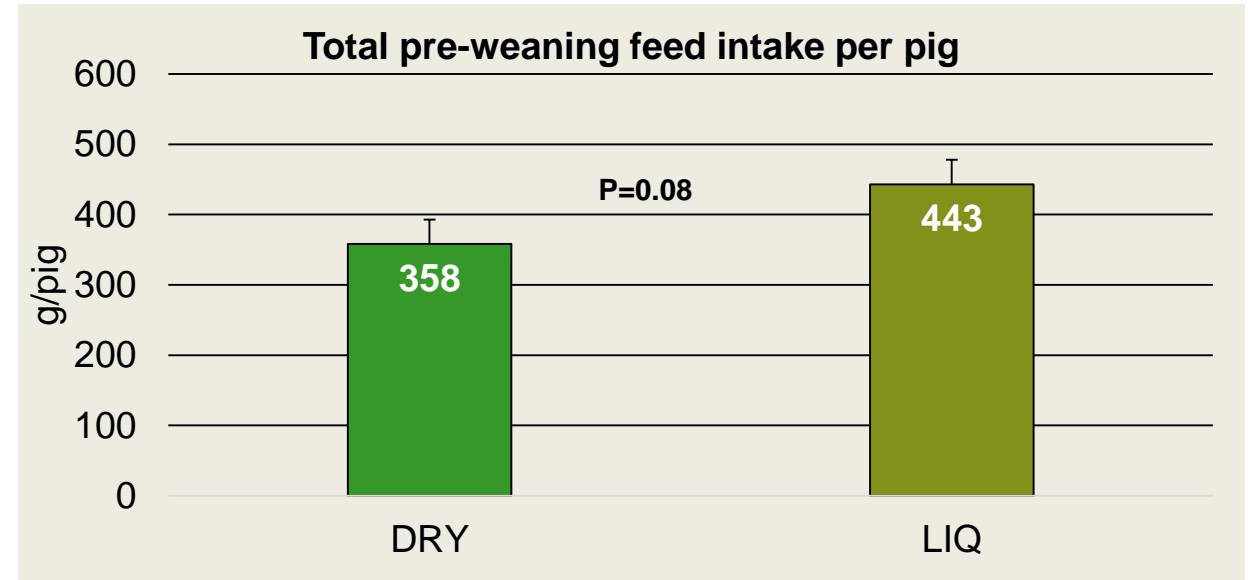
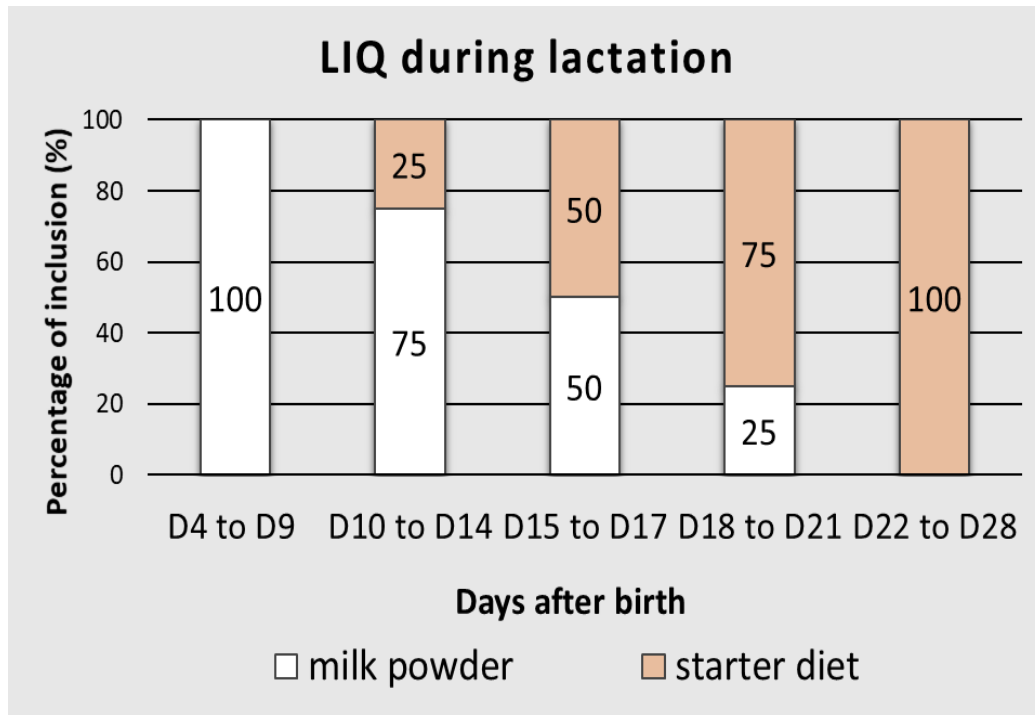
- High feed intake in first week after weaning = high lifetime growth
- Stimulate gut and digestive enzyme development
- Stimulate earlier feed exploration by newly weaned pig - mitigates adverse effects of weaning stress
- Reduce the 'growth lag' normally observed in pigs after weaning
 - Consumption frequently low, but
 - Those that eat have ↑ post-weaning daily feed intake, and ↑ post-weaning growth rates (Sulabo et al., 2010).



Liquid creep feeding – milk/starter

Creep fed from D4 to weaning

1. Dry pelleted creep feed (DRY)
2. Liquid creep feed (LIQ)



Creep Feeding – Key: ↑ % of eaters and intake

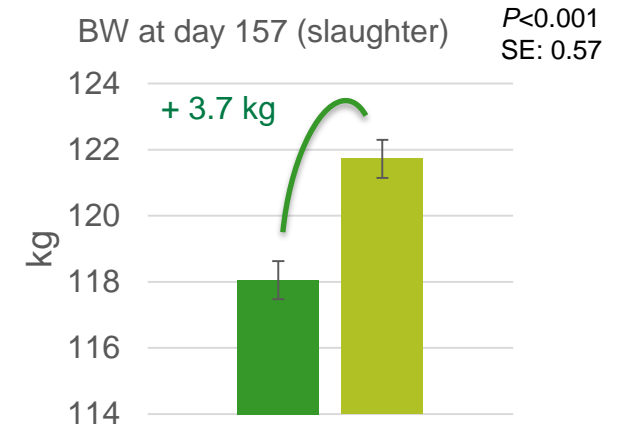
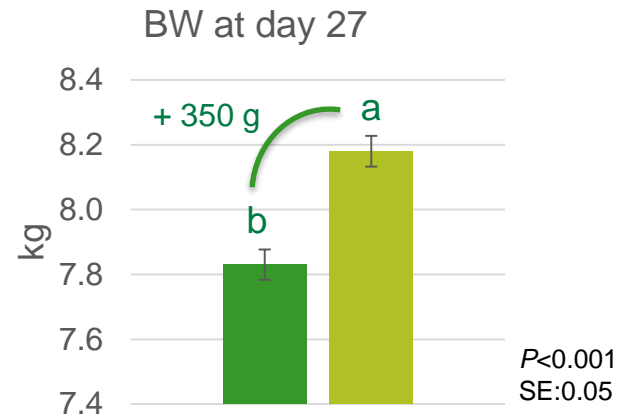
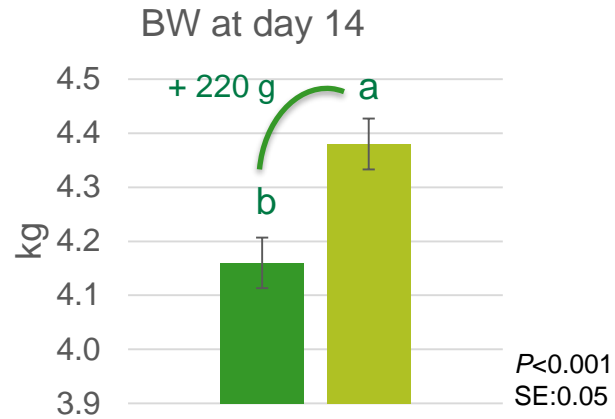
1. Feed a good quality starter diet with a high milk powder content.
2. Provide at least 14 days access to creep feed prior to weaning.
3. ‘Little and often’ basis - feed offered always fresh and always available
4. Always use a feeder for feeding creep feed.
5. Hopper?
6. The creep feeder should be sited to one side of the sow’s head
7. Provide creep feed in an ‘interactive’ or ‘play’ feeder to stimulate earlier and more frequent feed exploration
8. Provide creep feed with a larger pellet size.
9. Ensure that creep feed pellets are not too hard.
10. Feed creep feed in gruel or liquid form



Post-Farrowing Pain Relief for Sows

■ No
■ Yes

Effect of meloxicam on BW:



Results – ROI calculation based on growth

Costs

€24/100 mL



1 injection
4.5 mL/sow → €1.08 /sow

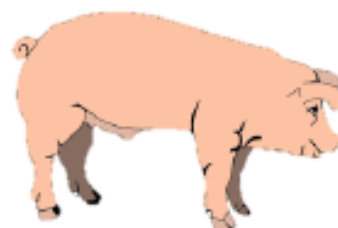


2.27 litter/year → **€2.45 /sow/year**

Teagasc National Pig herd performance report 2021

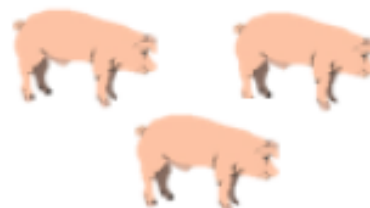
Benefits

5 year Avg. pigmeat price = €1.54 /kg of DW



Meloxicam:
+ 2.5 kg DW /pig sol
+ €3.85 /pig sold

28.1 pigs/sow/year



→ **+ €108.19 /sow/year**

ROI 43:1

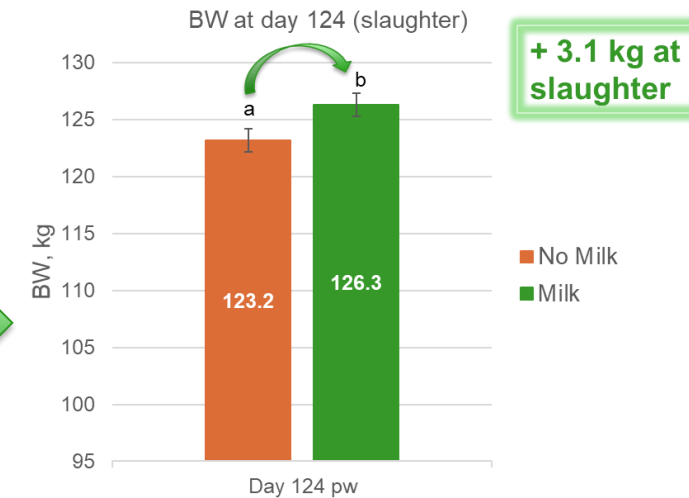
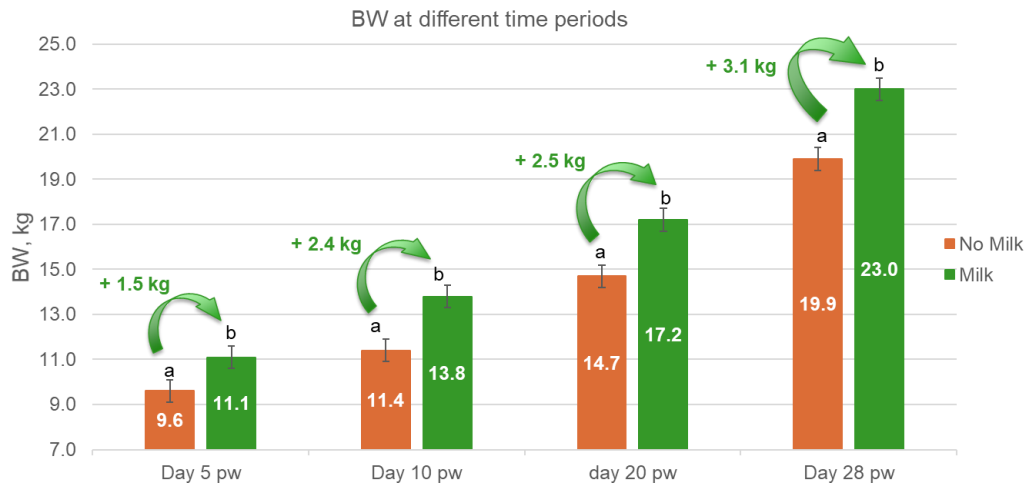
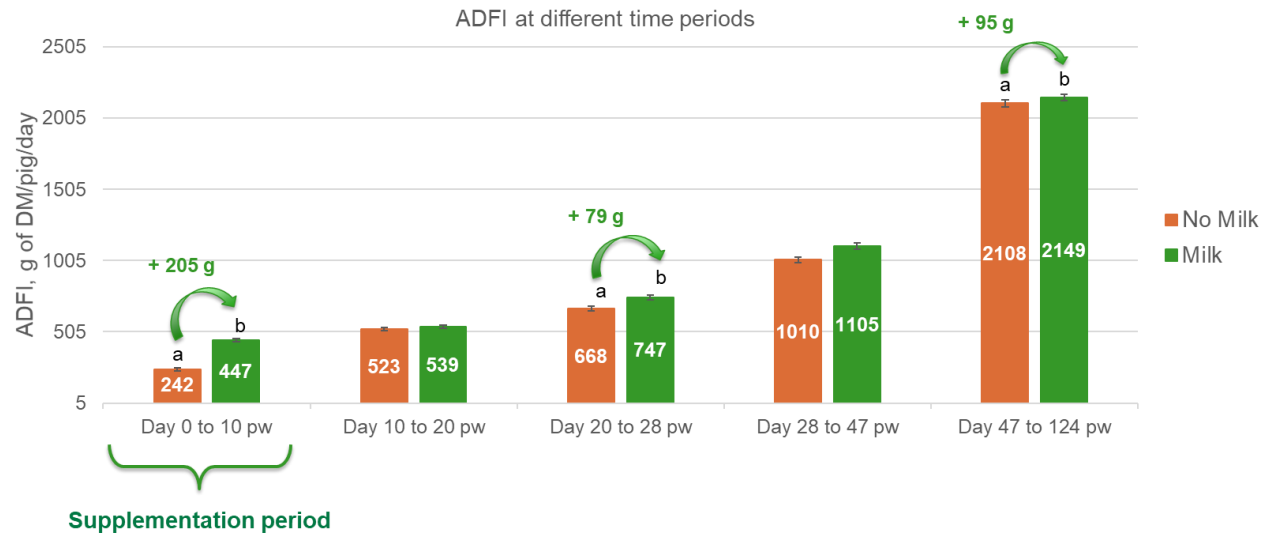
Post-weaning Factors

Reduced crude protein diets

- Prevents an excess of undigested protein reaching the large intestine
 - contributes to the growth of pathogens, such as *E. coli* and
 - the production of harmful compounds which negatively affect gut permeability
- Reduces the incidence of diarrhoea
- But
- Requirements of weaned pigs for amino acids are high
 - for growth but also to counteract health challenges
- Therefore, low CP diets must be fortified with synthetic amino acids
- E.g. ↓ CP in post-weaning diets from 20 to 17% with correct synthetic amino acid supplementation ↓ diarrhoea, without affecting weight gain & protein deposition (Bellego and Noblet, 2002)
- Compensatory growth in subsequent stages

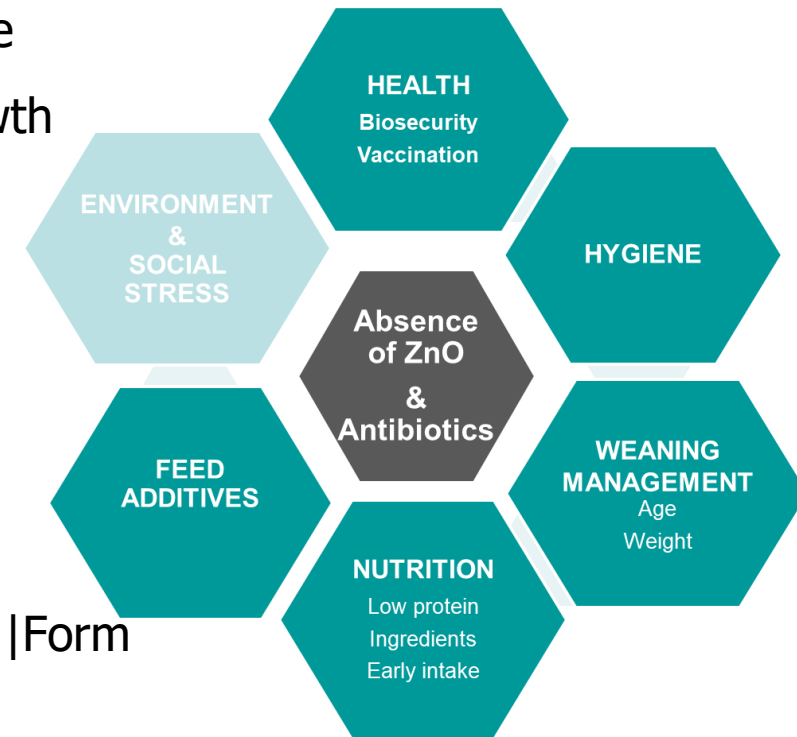


Supplemental milk replacer for 10 days pw.



Summary

- Post-weaning 'Growth check' | Ban on antibiotics & ZnO in 2022 | ↑ litter size
- Intake in the first few days post-weaning strongly related to lifetime pig growth
- Improving pre- and post-weaning management & nutrition
- Pre-weaning
 - Weaning age - Wean at 4+ weeks
 - Hygiene
 - Creep feeding
 - ↑ Weaning weight | earlier feed exploration | ↑ post-weaning intakes | Form
- Post-weaning
 - Earlier feed exploration and increased post-weaning intakes
 - Ensure water quality and availability
 - Diets: Low protein, Low ABC, feed form





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AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY

The Irish Agriculture and Food Development Authority