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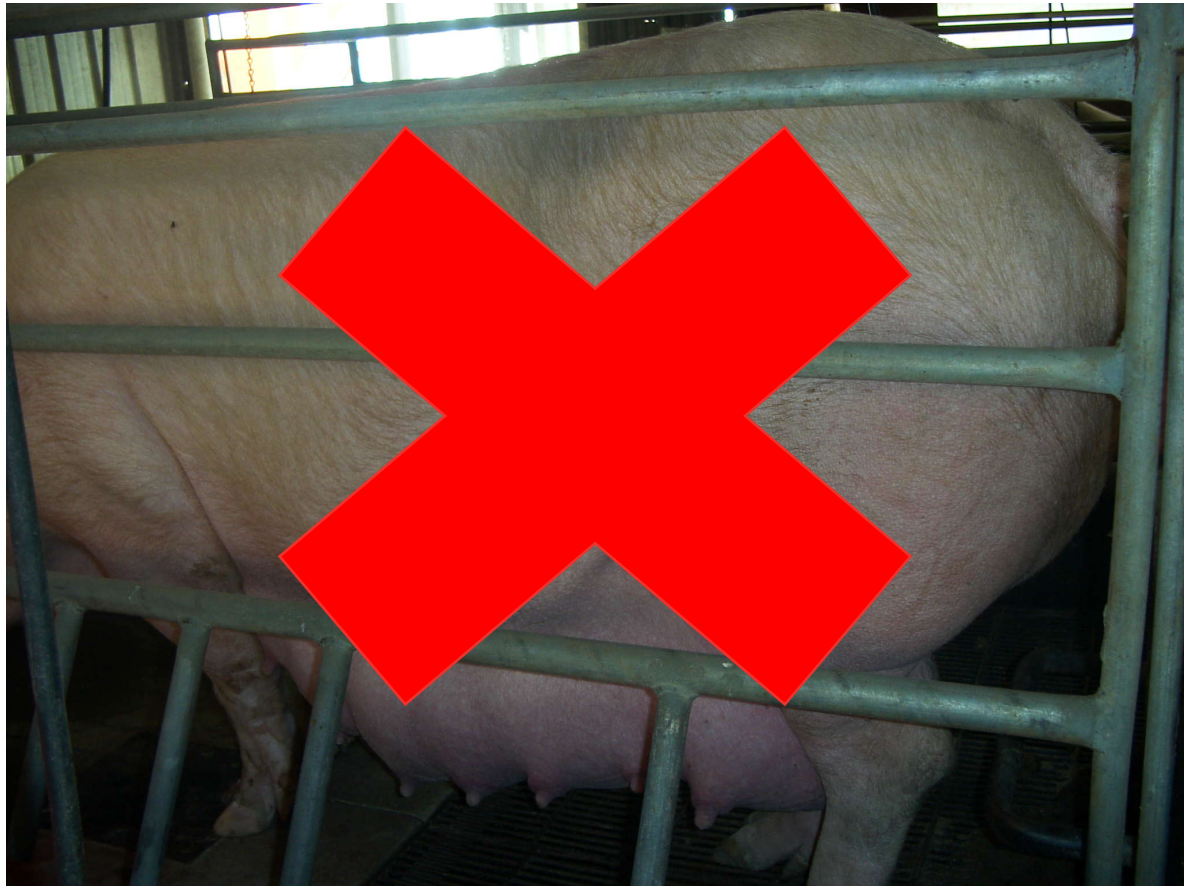
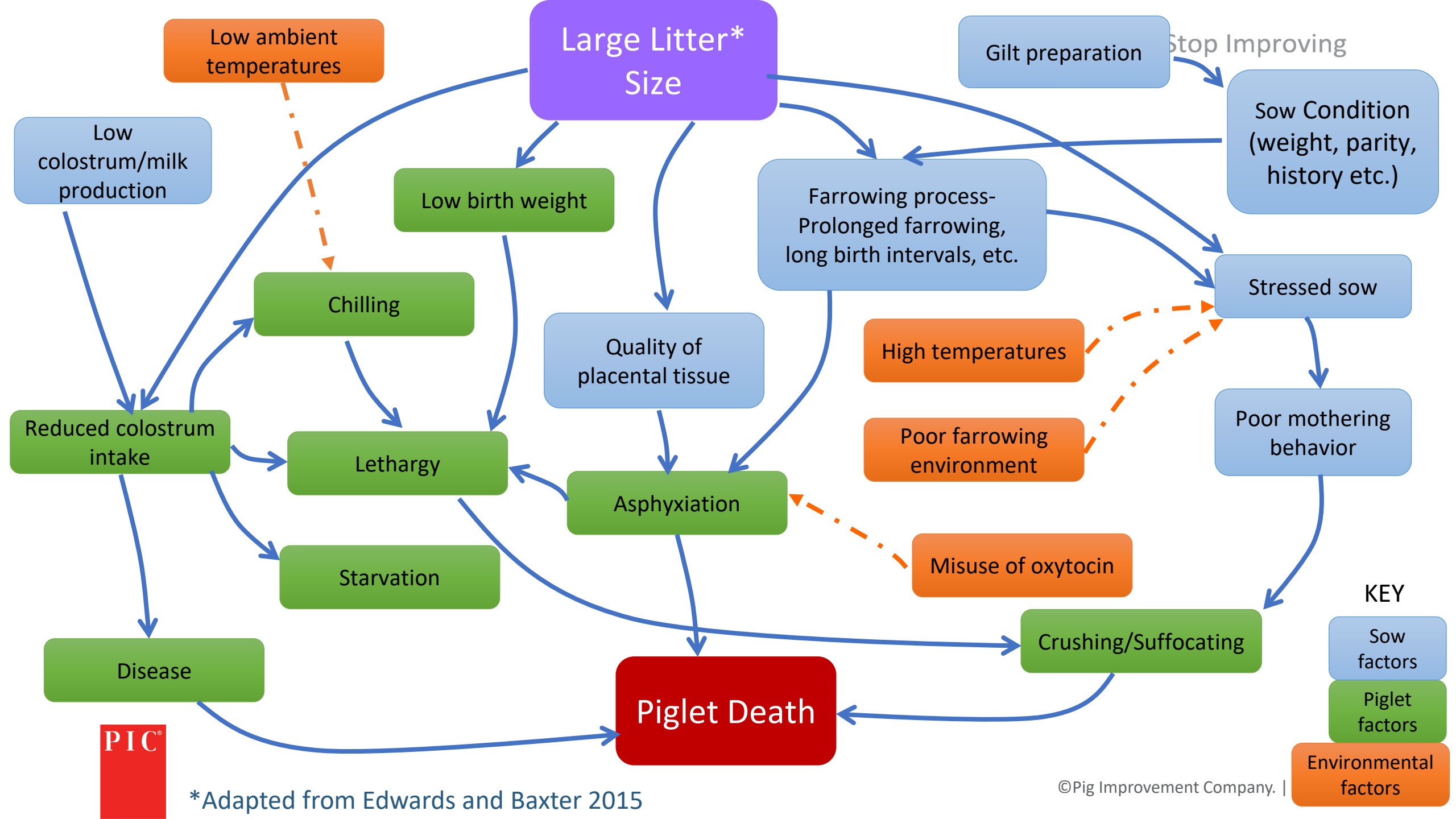
PIC Australia Technical Update & Benchmarking May 2021

Stepwise Survivability- Sow Factors

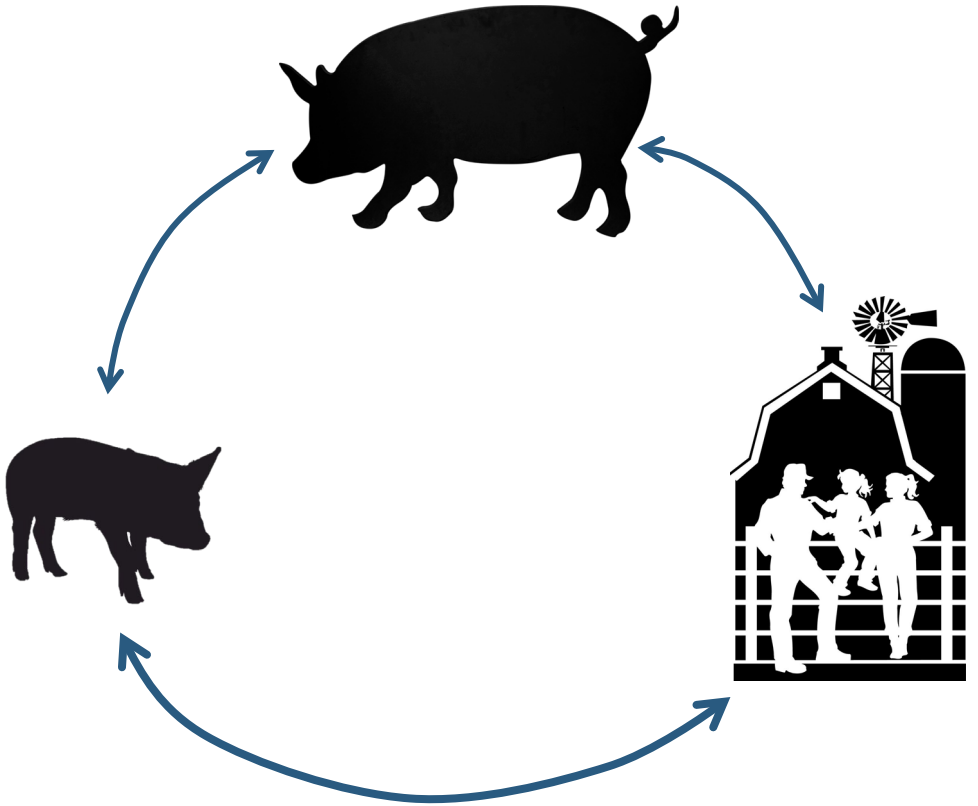
Stepwise Survivability…… not the start….





*Adapted from Edwards and Baxter 2015

Piglet survivability

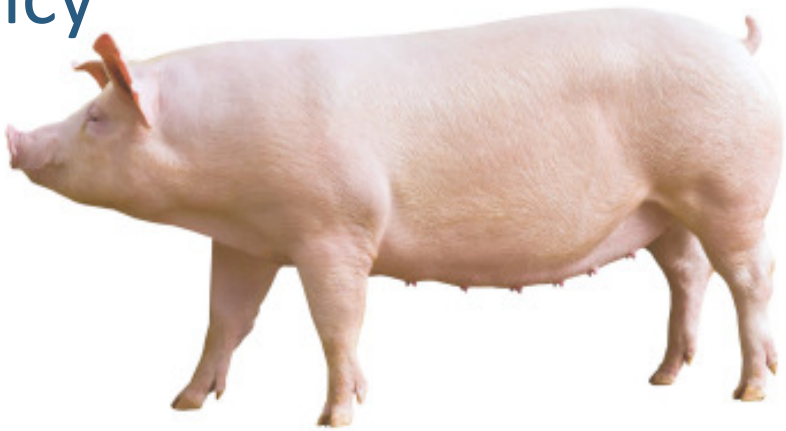


Starts with Gilts

Survivability-Sow Factors

Step 1. Prep & Pregnancy

1. Gilt preparation
2. Gestation
3. WOI



Step 2. Parenthood

1. Farrowing
2. Lactation

Preparing a gilt for parenthood

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Gilt preparation

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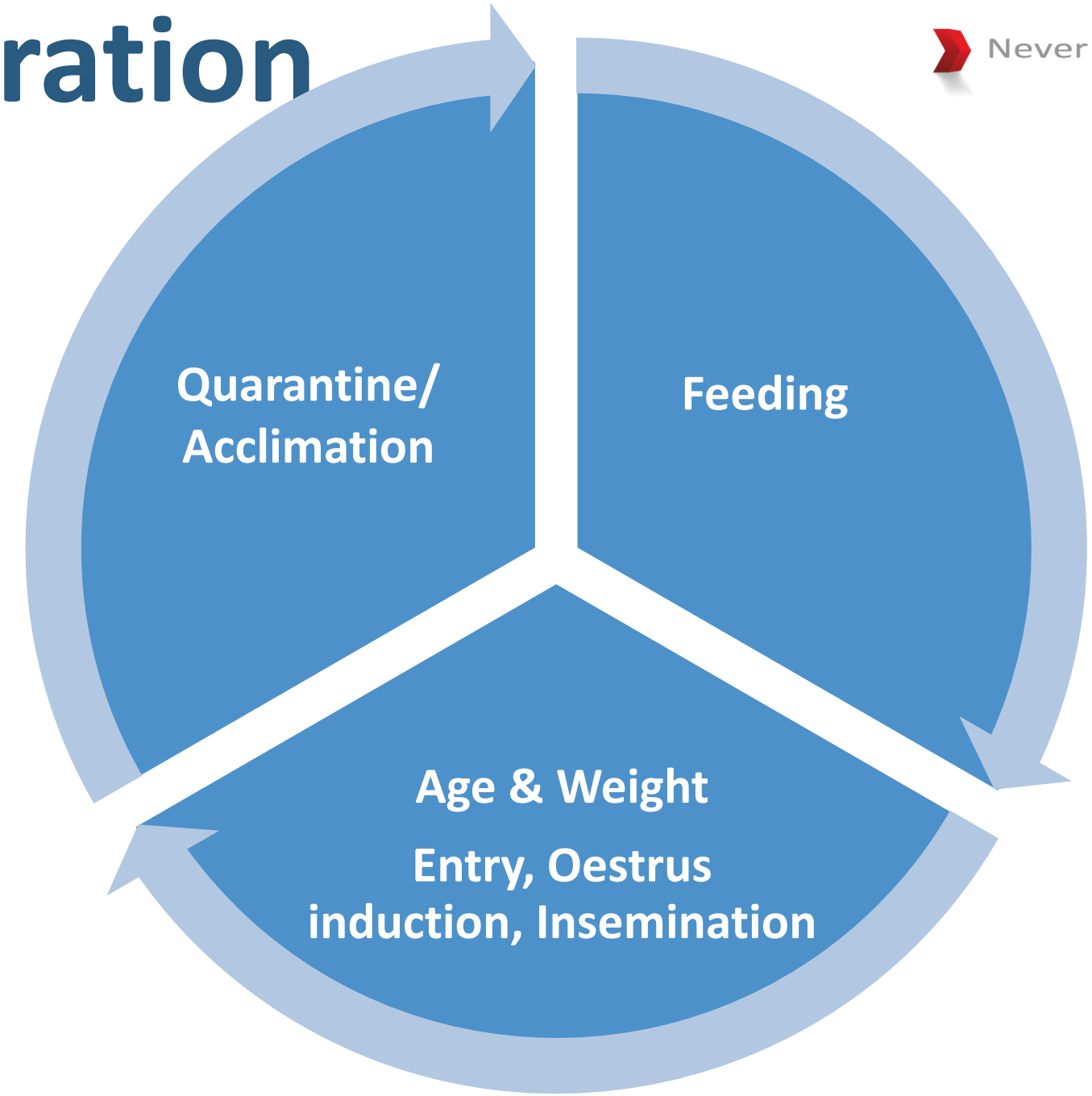
What's happening on your farm?



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1. Gilt preparation recommendations

- Quarantine/acclimation - correct decisions for their weight & age
  - Maximum growth is not the objective
    - Moderate wt gain 600-800g/d (birth to insemination)
  - >90% of gilts to be bred w/n 135-160 kg, from 30 weeks of age
  - P2 at insemination minimum of 14-15 mm,
- Vaccination schedule
- Light
  - Does the area receive enough light? How do we know?
- Space allowance
  - **50-110 kg**: 0.75-1m2/gilt, **110+kg**: 1.5m2/gilt
- Boar Contact

1. Gilt preparation-Boar Contact

How do you manage Boar contact?

Boar Contact Recommendations

- Optimum age for 1st contact is between 150-170 days old
- Time boar contact to get 85-90% of gilts cycling by 30 weeks of age
    - Bring the boar to gilts every day including weekends and public holidays
    - At least 10-15 minutes interaction daily
    - In pen contact is better than fence line contact
    - Don’t pen gilts near the boars
- Inseminate on second heat
- Daily, positive human contact

2. Gestation

What are our objectives?

2. Gestation Recommendations

- Be critical-look at your sows
- Feeding objectives
  - Recover body reserves in early gestation
  - Control body weight gain during mid/late gestation-fit not fat
  - To minimize embryo losses and have good birth weights
  - Ensure
    - Ease of farrowing
    - A good start to lactation
    - A high feed intake and milk yield during lactation
  - Bump feeding ….yes or no…..
    - NO-sows, perhaps (probably not)for gilts in ideal condition, NO for fat gilts

Feeding Curve for gestating sows at PIC Grong Grong

	Gestation stage	Kg/d
	Breed – 30 days	2.2
	31 days - farrow	1.9
Thin sows	Insemination to placement in farrowing	2.5
Fat sows	Insemination to 15 days post-insemination	2.2
	16 days post Insemination to placement in farrowing	1.8

Feeding Curve for gestating gilts at PIC Grong Grong

Gestation stage	Kg/d
Breed – 10 days	2.5
11 days – 15 days	2.4
16 days – 30 days	2.2
29 days - farrow	1.9

2. Gestation-Key to success

- Treat the sows as individuals and
- Make sure they are getting the recommended feed allowance for their condition and stage of gestation.
  - Transitional diets

3. WOI interval

- Feeding
- Grouping/ space allowance
- Sow condition

3. Wean-to-oestrus interval

What is th
important
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3. Wean-to-oestrus interval

- Feed ad-lib between weaning and insemination
- Maximizing feed intake
  - Increases follicle size and quality
  - Increases ovulation rate and embryo survival
  - Glucose plays a role
  - Quality follicle-quality embryo-quality piglet

4. Farrowing

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What are the challenges of these big litters?

- Longer farrowing
- Hypoxic piglets-lowered viability
- Piglet serum IgG decreases with increasing birth order
- Production and length of availability of Colostrum
- Sows run out of energy

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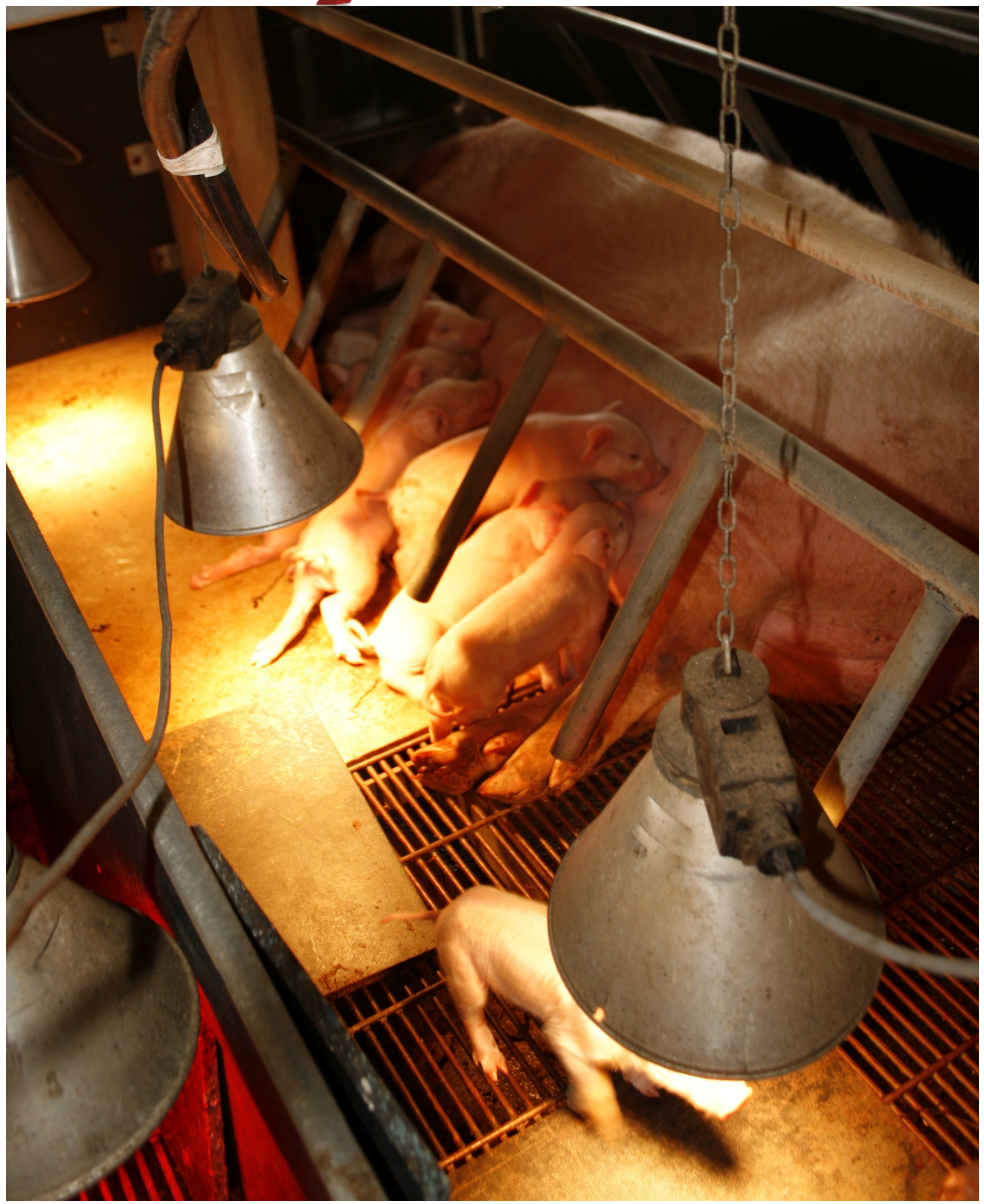
4. Farrowing

- “Fit to Farrow”
- Good Gilt and Pregnancy Preparation
- Supervision is crucial
- Lutalyse?
- Carlos is going to discuss & summarise this area in his presentation



5. Lactation-Udder Development

- Nutrition of sows in gestation/lactation affects udder development of their offspring
- From 90 days until puberty
  - If feed is restricted, udder development will be restricted
  - But we ad-lib ……don't we?
- Last third of gestation-Fit not fat
  - Overly fat gilts
    - similar udder weights to leaner gilts but
    - less mammary cells ➔reduced milking ability
- Throughout Lactation maximizing udder growth must be supported via nutrition and feeding levels

5. Lactation-Udder Development

Will a teat dry up if its not suckled for

- 24 hours?
- 72 hours?

5. Lactation-Udder Development

- Teat not suckled for first 24 hours
  - Teat regression is reversible
  - Teat size about the same as regularly suckled teats
  - Milk produced will be slightly lower
- Teat not suckled for first 3 days
  - Still may work but regression does occur
  - Milk production much less than teats that were suckled from the start
- Suckling intensity is also important for udder regression.

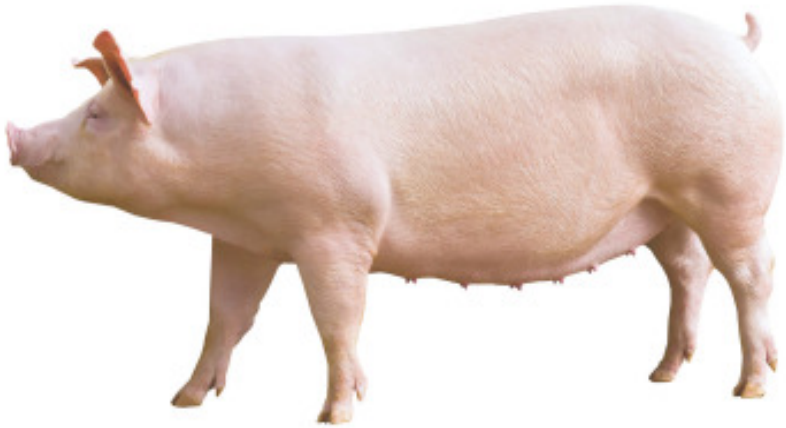
Udder Development & previous lactations

- How well the udder grows and lactates in lactation affects all subsequent lactations
  - Especially true for gilts
- Non-suckling of a teat in first parity impairs its development in second parity
- Load up gilts

Sow Factors

Prep and Pregnancy

1. Gilt preparation
2. Gestation
3. WOI



Parenthood

1. Farrowing
2. Lactation

Sow Factors Summary

Gilt Preparation

- Moderate wt gain 600-800g/d from birth to insemination
- >90% of gilts to be bred w/n 135-160 kg, from 30 weeks of age
- Ensure they have enough space
- Gilt age for 1st contact with boars 150-170 days old
- Daily Boar contact 10-15 minutes
- Positive human contact

Gestation & WOI

- Treat sows as individuals
- During gestation, feed to
  - Recover body reserves in early gestation
  - Control body weight gain mid/late gestation
  - Minimize embryo losses and have good birth weights
- Maximize feed intake during WOI

Parenthood Summary

- Listen carefully to Carlos
- From 90 days until puberty don’t restrict feed intake
- Last third of gestation-Fit not fat
- Load gilts up
- Maximise udder stimulation especially in young sows (P 0-3)

Questions?

Agenda

Drilling down on the production figures-Focus on Survivability (Pat Mitchell, PIC)

What does a dead pig cost? (Rob Johnston PIC)

Stepwise Survivability-Sow factors (Pat Mitchell, PIC)

Afternoon Tea

Stepwise Survivability-Preparation for Farrowing and Neonatal Pig Care (Carlos Gonzalez, PIC)

Stepwise Survivability-Fostering (Pat Mitchell, PIC)

Evaluation and Roundup (Pat Mitchell, PIC)