



# Variations in Kill-Out Percentage

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**Irish Pig Health Society Symposium 2015**

# Aims of the project

- ▶ Identify how kill out percentage is calculated
- ▶ Identify factors influencing variations in kill out percentage
  - ▶ Number of hours feed withdrawal prior to slaughter
  - ▶ Type of feeding system
  - ▶ Slaughter weight
- ▶ Financial implication for producers due to these variations
- ▶ Variation in condemnations & financial implications

# Methodology

- ▶ Questionnaire distributed to random sample of farmers
- ▶ Information provided for 2014 calendar year
- ▶ Sample size
  - ▶ 435,468 slaughter pigs
  - ▶ 32 farmers

# Methodology

- ▶ Information received from producers:
  - ▶ Total number of pigs sold
  - ▶ Average live weight (weighed at factory)
  - ▶ Average dead weight
  - ▶ Kill Out %
  - ▶ Condemnations
  - ▶ Type of feed system (wet/dry)
  - ▶ Hours of feed withdrawal before pigs slaughtered

# What is kill out percentage?

- ▶ Defined as the carcass weight (dead weight) divided by the live weight
- ▶ Live weight: weighed at the factory
- ▶ Dead weight: weight of pig after slaughter
- ▶ Producer paid on cold carcass weight
  - ▶ Hot carcass reduced by 2%

# EU Carcass Specification

- ▶ Pig carcass dressed according to EU dressing specification
- ▶ Before weighing the carcass, the following must be removed:
  - ▶ Tongue
  - ▶ Flare fat
  - ▶ Kidney
  - ▶ Diaphragm

# Results - Kill out percentage

- ▶ Average: 76.57%
- ▶ Highest: 78.31%
- ▶ Lowest: 74.3%
  
- ▶ Taking 700 sow herd producing 25pigs/sow/year
  - ▶ 4.01% variation equates to almost €93,000
  - ▶ 1% difference worth over €23,100

# Slaughter weights

- ▶ Previous research demonstrates that increased slaughter weights lead to improved kill out percentage (Finn, 1996)
- ▶ Similar trend in this study

Live weight	<100kg	100-110kg	>110kg
Kill out %	<b>76.45%</b>	<b>76.57%</b>	<b>76.98%</b>



# Feed withdrawal period

Feed withdrawal period	≤8hours	8-18hours	18-24hours
Kill-out percentage	76.4%	76.65%	77.49%

- ▶ Improved kill out & saving on feed cost
- ▶ 20-24hr feed withdrawal period prior to slaughter saves 2kg of feed per pig at no detriment to carcass yield (Faucinato et al)

# Feed withdrawal period

- ▶ Feed withdrawal 18-24hours prior to slaughter saving 2kg feed per pig
- ▶ €0.59 per 2kg of finisher feed (€294/tonne)
- ▶ 700 sow unit producing 25pigs/sow/year
  - ▶ Worth over €10,000 in feed costs
- ▶ Advantages feed withdrawal 18-24hours
  - ▶ Saving on feed costs to producer
  - ▶ Saving to processor - reduced waste to be disposed
  - ▶ Better meat quality - less likelihood of contamination
- ▶ No variation between type of feed system

# Condemnations

- ▶ Average: 0.35%
- ▶ Highest: 1.34%
- ▶ Lowest: 0.04%
  
- ▶ Difference 1.3%
  - ▶ 700sow unit producing 25pigs/sow/year
  - ▶ €30,217
  - ▶ €1.73/pig
  
- ▶ 0.1% variation in condemnations
  - ▶ €2,324
  - ▶ €0.13/pig
  
- ▶ No correlation between condemnations & kill-out percentage

# Conclusions

- ▶ 1% improvement in kill-out percentage is worth €1.32 per pig
- ▶ Increased carcass weights lead to improved kill-out percentage
- ▶ Improved kill-out percentage when feed withdrawal period 18-24hours prior to slaughter
- ▶ Saving of €0.59 per pig on feed costs when turned off 18-24hours prior to slaughter
- ▶ Reduced disposal cost for factory & less risk of meat contamination
- ▶ Variation in condemnations worth €1.73 per pig
- ▶ 0.1% improvement in condemnations worth €0.13 per pig

Thank you

