



Producing Pigmeat Sustainably

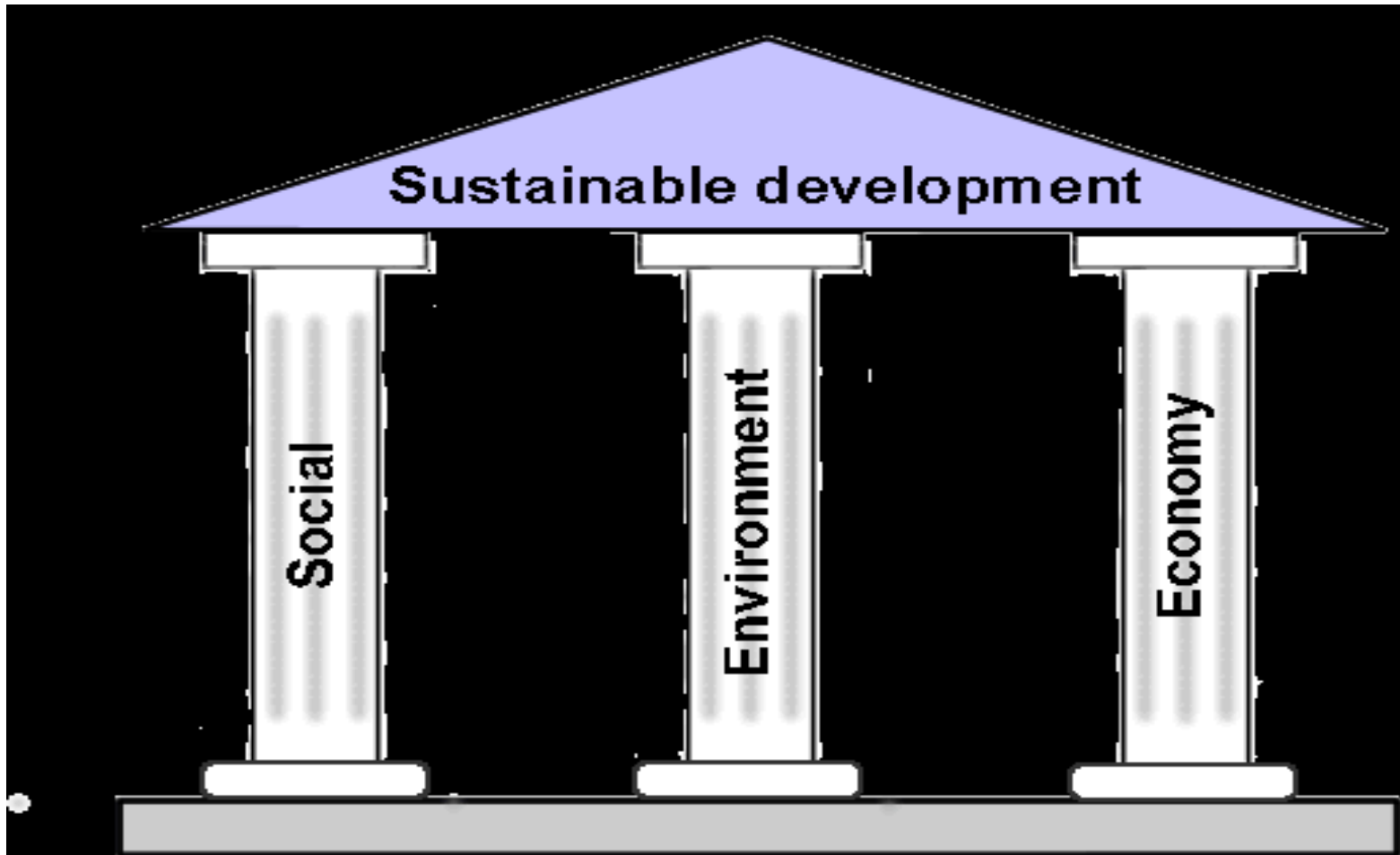
Gerard McCutcheon

World Population

- *1960 3 Billion people*
- *Currently over 7 Billion*
- *9 billion people in 2050*



3 pillars of Sustainability



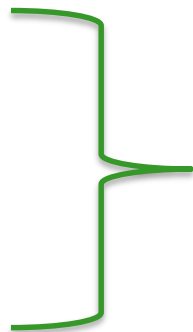
Who wants to be a millionaire



■ Which one of the following gasses contribute most to Irelands Agricultural GHGs

- (A) Ammonia
- (B) Nitrous Oxide
- (C) Methane
- (D) Carbon Dioxide

Not GHG – Health and Environment Issues



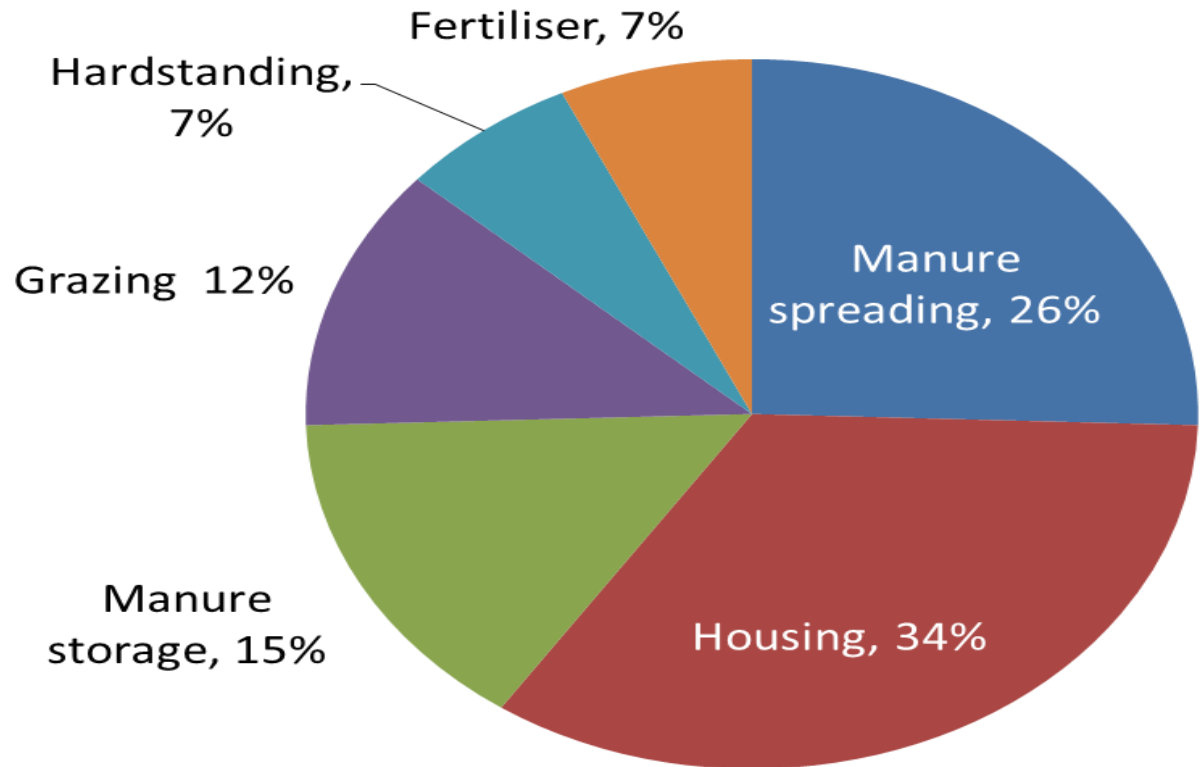
GHGs

■ Answer

C

Ammonia emissions profile

Ammonia



Challenge

- Is the pigmeat production chain sustainable?
- How can we prove this?
- Is this important in the marketplace?????

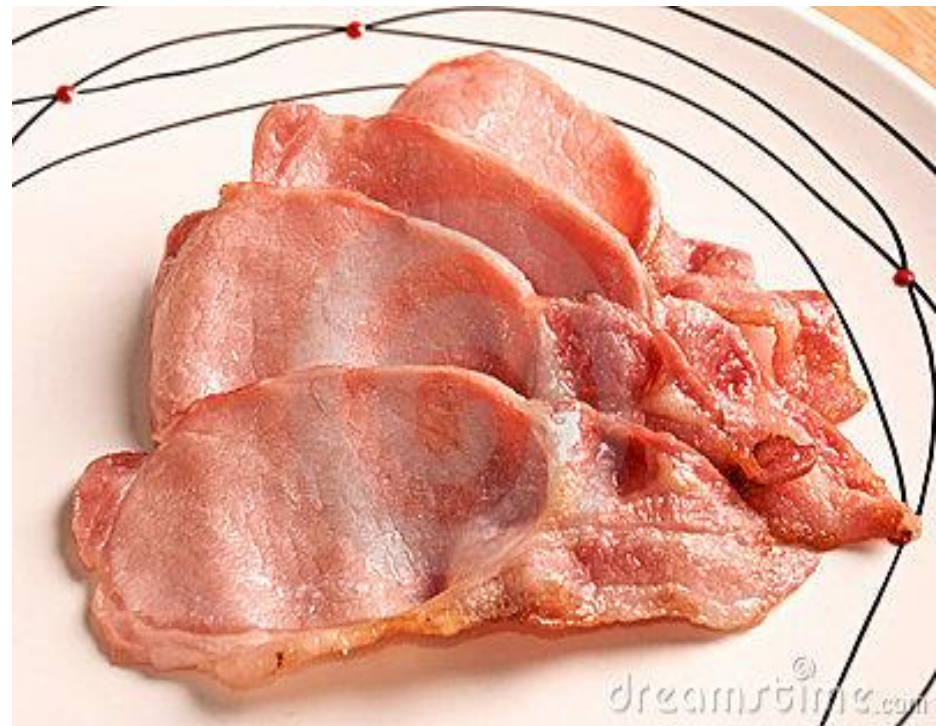
Sustainability of Food Chain



Farm



MARKET



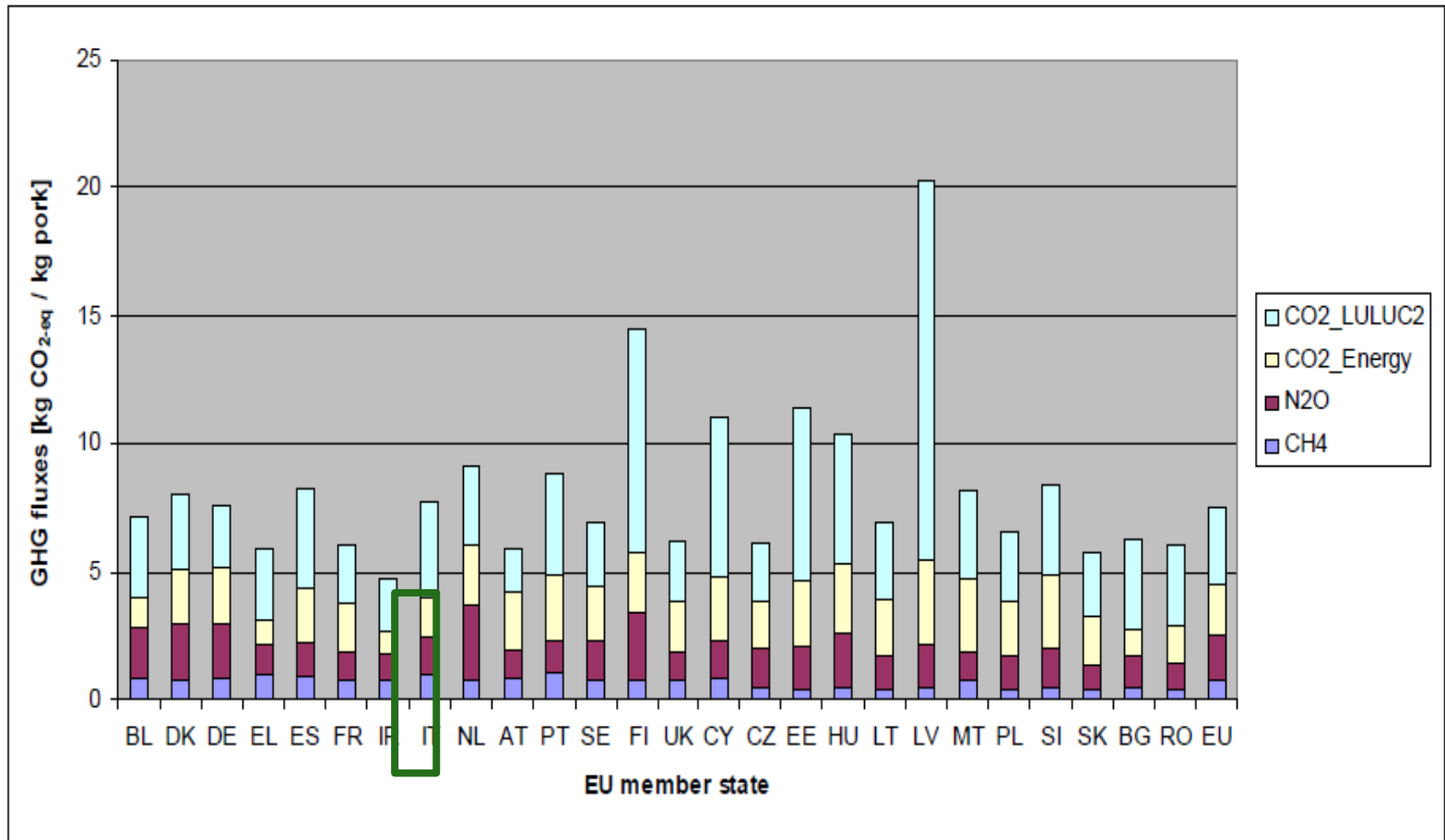


Figure 6.13: Total GHG fluxes of Pork Production in kg CO₂-eq per kg Pork by EU member states and Greenhouse Gases

Future market access

- Sustainability will be more of an issue in the future:
- Carbon footprint – calculations vary depending on what you include
- Study in 2017 had a GWP of 3.5 kg CO₂ equivalent per kg pigmeat.

How can we show the production chain is sustainable?

- **The Carbon Trust has independently validated a model on the beef side,**
- **Teagasc PDD linked with Bord Bia & The Carbon Trust,**
- **Work was done to develop a C Navigator tool for Irish pigmeat production**

Input items

Name of Pig Farm	1 Joe Bloggs	
NPITS Herd Number	2 ZX0058	
Address	3 DUBLIN	
Start Date	4 06/04/2015	To 5 31/05/2016
Total No. of Pigs Produced	6	23753
Average carcass Weight	7	87.6kg
Total Feed Per Pig	8	297kg
FEED SOURCE	9	Purchased Home milling or Purchased Feed
Sow Feed Usage	tonne/sow/year	10 1.31
Weaner Daily Feed Intake	g/Day	11 974
Finisher Daily Feed Intake	g/Day	12 2269
Soya Source	DROPDOWN LIST	13 Argentina
LAND USE CHANGE re SOYA ?	YES/NO Option	14 yes
IF PURCHASED FEED - Distance to Mill	15	25km
Av. Wgt of Weaner at Sale/Transfer	16	46.3kg
Kill-out Percentage	17	76.3%
No. Sow Deaths	18	40
No. Piglet Deaths	19	2551
No. Weaner Deaths	20	508
No. Finisher Deaths	21	740

Suggested Report



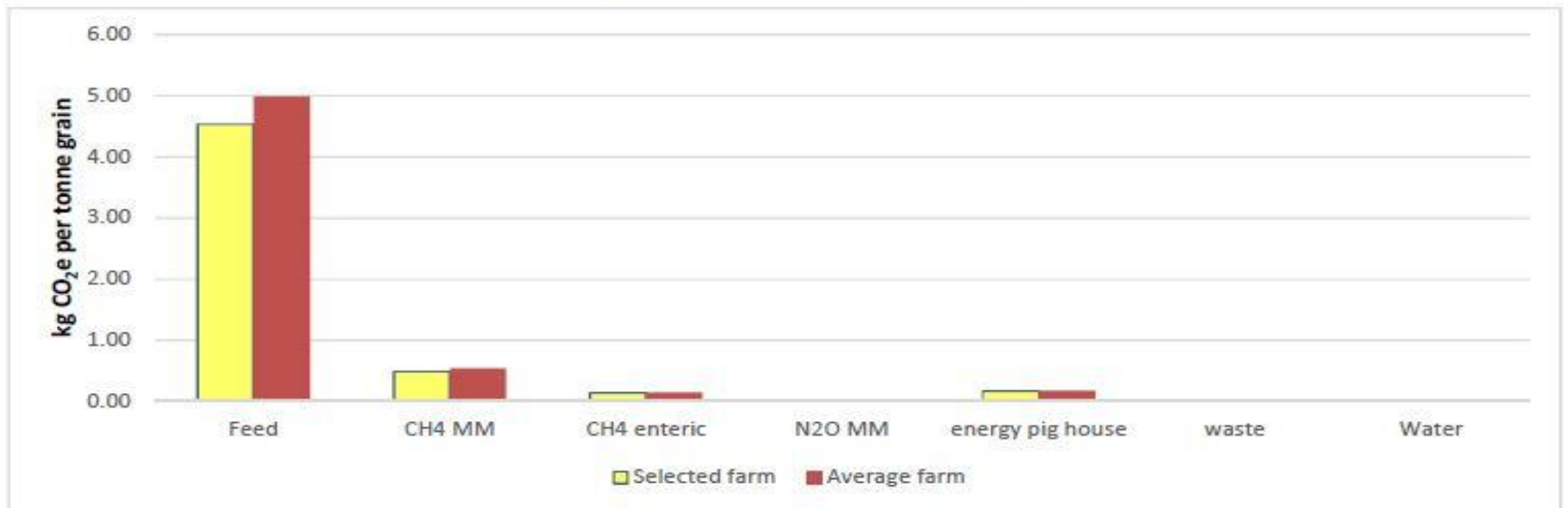
Irish Food Board

Farm Name and ID	Joe Bloggs - ZX0058
NPITS Herd Number	ZX0058
Date of questionnaire	? -
Footprinting Year	2015

Total Number of farms in database	2
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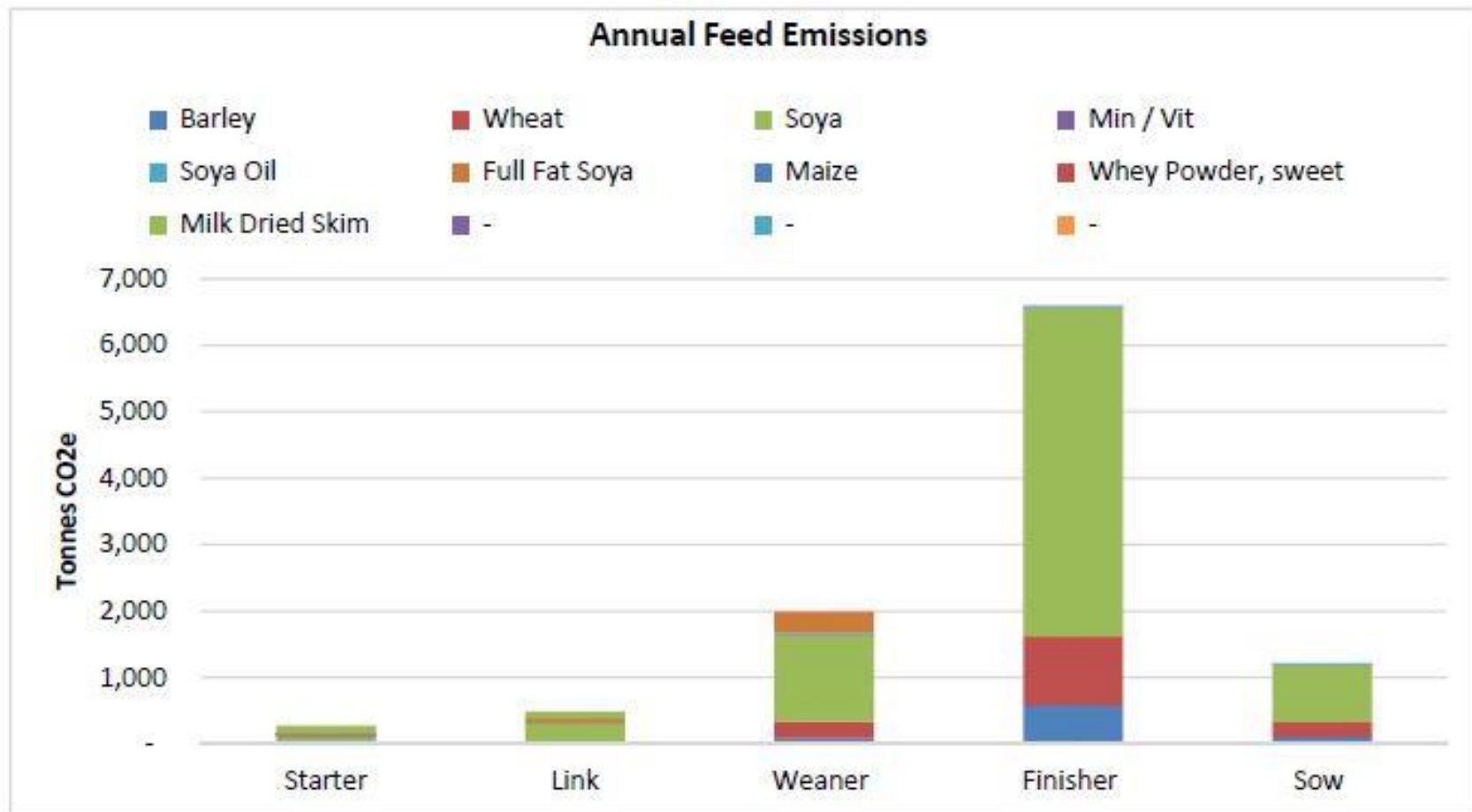
Emissions

	Selected farm	Average	Ranking
Emissions (kg CO₂e per kg liveweight)	5.36	5.87	Top 25%...



Diet component shown on the


	Selected farm	Average	Ranking
Kg of Feed per Kg of Carcase	3.39 kg	average e.g. 3.5	below average



Why should we do this?

1. To help compete in the marketing of pigmeat
2. To show the C footprint of pigmeat to consumers
3. Demonstrate that efficient production systems are good for the environment

2.5 Tonne Sow – ? Tonne Feed



PIG RECORDING SYSTEM on e-PM
Pig Detailed Integrated Herd Report

Farmer: [Redacted] Advisor: [Redacted]
Farm Code: [Redacted] Date: 24/04/2011

PERIOD FROM	30/12/2011	30/03/2012	29/06/2012	29/09/2012	30/12/2011	TARGETS
PERIOD TO	29/03/2012	29/06/2012	27/09/2012	27/12/2012	27/12/2012	
NUMBER OF WEEKS	13.0	13.0	13.0	13.0	52.0	

KEY PERFORMANCE INDICATORS						
NO. PIGS PRODUCED / SOW / YEAR	30	32.2	31.7	28.4	38.8	26
PIG MEAT PER SOW PER YEAR Kg	2286	2288	2093	1895	2148	2202
TOTAL FEED PER SOW PER YEAR TONNES	7.87	7.2	7.16	7.89	7.46	6.1

STOCKS AND BALANCES						
TOTAL OPENING STOCKS	5088	4954	5073	5263	5088	
TOTAL CLOSING STOCKS	4954	5073	5263	5195	5195	
TOTAL BALANCE	0	-20	-8	15	-13	
SOW BALANCE	0	2	0	0	2	
PIGLET BALANCE	0	-15	-8	-2	-26	
WEANER BALANCE	0	0	0	-1	-1	
FINISHER BALANCE	0	-7	0	21	14	

PRODUCTION						
AVERAGE HERD SIZE	351.9	355	360.4	345.2	353	
ADJUSTED HERD SIZE	334.3	351.9	355	360.4	350	
AVERAGE MAIDEN GILTS	%	20.9	19.1	16.6	19.3	19
SOW CULLING	%	39.9	39.4	41.1	43.9	41.1
SOW MORTALITY	%	3.4	1.1	3.3	2.3	2.5
NO GILTS SERVED PER WEEK		3.3	3.2	2.7	2.7	3
NO GILTS SERVED PER WEEK		17.1	17.7	16.5	16.9	17.1

- **Target: to produce 2 tonne pigmeat per sow from 7 tonne feed in 2012**
- In 2021:
 - 2,549kg pigmeat per sow
 - 8,815kg feed (3.46)

Pigs produced per sow per year from 2000, 2010 and 2021

YEAR	2000		
Pigs Produced/Sow/Year	21.6		
Average LW at sale kg	90.1		
Average DW at sale kg	68.1		
Kg Pigmeat /sow / year kg	1,471		
Total feed /sow / year	5,385		
Kg of Feed per kg of Pigmeat	3.66		

Source Teagasc Profit Monitor

Pigs produced per sow per year from 2000, 2010 and 2021

YEAR	2000	2010	
Pigs Produced/Sow/Year	21.6	23.9	
Average LW at sale kg	90.1	103.6	
Average DW at sale kg	68.1	78.9	
Kg Pigmeat /sow / year kg	1,471	1,886	
Total feed /sow / year	5,385	6,966	
Kg of Feed per kg of Pigmeat	3.66	3.69	

Source Teagasc Profit Monitor

Pigs produced per sow per year from 2000, 2010 and 2021

YEAR	2000	2010	2021
Pigs Produced/Sow/Year	21.6	23.9	28.1
Average LW at sale kg	90.1	103.6	118.4
Average DW at sale kg	68.1	78.9	90.7
Kg Pigmeat /sow / year kg	1,471	1,886	2,549
Total feed /sow / year	5,385	6,966	8,815
Kg of Feed per kg of Pigmeat	3.66	3.69	3.46

Source Teagasc Profit Monitor

Thanks for your attention!!

Any Questions???

