

National Pig Herd Performance Report 2016

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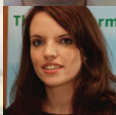
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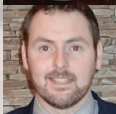
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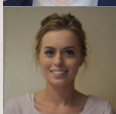
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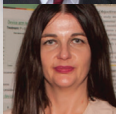


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Introduction

This report is the detailed analysis of the performance of herds that participated in the Teagasc e-Profit Monitoring (ePM) recording system in 2016.

The data available and included in this analysis is from a total of 111 herds representing over 86,000 sows or 57% of the national commercial sow herd. The average size of the herds included is 775 sows and ranged from less than 100 sows to over 2,500 sows.

The performance parameters in this report are the weighted (*by herd size*) average of the participating herds to take account of the large range in size of the participating herds.

Herds participating in the ePM recording system and engaging with the advisory support of the staff of the Teagasc Pig Development Department continue to demonstrate, year on year, improvements in technical performance.

The report also includes some analysis of production costs in a number of the participating herds. However, an increase in participation in this aspect of the system may well provide a more accurate picture of actual costs across the sector. There are indications that those herds that routinely record the full costs of production are the herds with the highest levels of technical efficiency. This would suggest that these herds have lower costs of production than herds which do not routinely check their costs of production.

The Teagasc Pig Development Department welcome more herds to participate in benchmarking using the ePM. Any herd that wishes to participate should contact any of the personnel listed under Knowledge Transfer on the inside front cover of this booklet.



Technical Performance 2016

Table 1: Sow Productivity 2016	2015	2016
Number of Herds	129	111
Average Herd Size	753	775
Average Maiden Gilts %	12.9	12.1
Litters per Sow per Year	2.27	2.38
Average Weaning Age Days	29	28
Empty Days per Litter	15	13
Number Born Alive per Litter	12.86	13.15
Number Born dead per Litter	0.85	0.88
Piglet Mortality %	10.6	10.8
Weaner Mortality %	2.68	2.85
Finisher Mortality %	2.36	2.49
Number of pigs produced per sow per year	24.8	26.25
Sow culling rate per annum %	48.5	50.1
Sow mortality per annum %	4.8	4.9
Feed per sow per year tonnes	1.31	1.31

Commentary

The Number of Pigs Born Alive per Litter rose again this year. The rise to 2.38 Litters per Sow per Year resulted in a increase in the number of Pigs Produced per Sow per Year compared to 2015. The output of pig meat per sow per year increased from 2058 to 2179kg because the number of pigs produced increased.



Table 2: Growing Pig Performance 2016	2015	2016
Number of Herds	108	96
Average Weaning Weight (kg)	7.0	6.8
Average Live Weight at Sale (kg)	108.7	108.6
Average Dead Weight at Sale (kg)	83.0	83.0
Kill Out %	76.4	76.4
Daily Feed Intake (g)	1,689	1,680
Average Daily Gain (g)	694	697
Feed Conversion	2.43	2.42

Commentary

The average dead weight in recorded herds remained the same as in 2015. There was an increase in growth rate from weaning to sale (694 to 697 g/day), and there was an improvement of 0.01 in the Feed Conversion from weaning to sale compared to 2015.

The average output of pig meat per sow per year in recorded herds was 2,179 kg. This amount of pig meat was produced using 7,777 kg feed or 3.57 kg feed per kg of pig meat. The Teagasc Pig Department have proposed a target for integrated herds to produce 2,000 kg of pig meat per sow per year from 7,000 kg of feed. We have achieved the 2,000 kg but we are above the 3.5 kg of feed per kg of pig meat target.



Table 3: Weaner Performance	2015	2016
Number of Herds	129	111
Average Weaning Weight (kg)	7.0	6.8
Average Transfer/Sale Weight (kg)	37.7	38
Creep Feed per Weaner (kg)	3.1	3.5
Link Feed per Weaner (kg)	6.6	6.3
Weaner Feed per Weaner (kg)	46.0	47.0
Total Feed per Weaner (kg)	55.7	56.8
Average Daily Feed Intake (g)	861	873
Average Daily Gain (g)	477	482
Feed Conversion	1.81	1.82

Commentary

On most farms the weight of weaners transferred to finishing accommodation is estimated. These figures would be much more accurate with increased weighing of weaners at transfer to the finisher section.

There has been a slight increase in the total feed fed to weaners compared to 2015. A slight increase in creep feed fed per pig was seen while link feed usage dropped relative to 2015.

The Feed Conversion changed from 1.81 in 2015 to 1.82 in 2016. This might be affected by an underestimation in transfer weights although weaner transfer weights were estimated to be 0.3 kg higher than in 2015.



Table 4: Finisher Performance	2015	2016
Number of Herds	108	96
Average Weaner Transfer Weight (kg)	37.5	38.1
Average Live Weight at Sale (kg)	108.7	108.6
Average Dead Weight at Sale (kg)	83.0	83
Kill Out %	76.4	76.4
Average Daily Feed Intake (g)	2,342	2,301
Average Daily Gain (g)	864	860
Feed Conversion	2.71	2.69

The same qualification applies to finisher performance data as weaner transfer weights are usually estimated on pig units. Finisher Growth Rates decreased from 864 to 860 g/day from 2015 to 2016. The Feed Conversion improved to 2.69 from 2.71 in 2015.

Pig slaughter weights remained the same as 2015.

Total feed per pig from weaning to sale was as follows:

	2015	2016
Creep	3.1	3.5
Link	6.6	6.3
Weaner	46.0	47.0
Finisher	193.0	190



Production Costs 2016

Table 5: Feed and Non-Feed Costs

	Cost per kg dead c	
	2015	2016
Feed	108	102
Non-feed Costs excluding Building and Financial Costs		
Healthcare	6.2	6.4
Heat, Power, Light	4.2	4.2
Transport	1.2	1.0
Artificial Insemination	1.8	1.9
Manure	1.5	1.8
Labour / Management	13.3	13.5
Repairs	2.2	2.6
Administration	1.0	0.9
Environment	0.4	0.5
Insurance	0.9	0.9
Housing Rental	1.3	1.4
Contract Finishing Costs	1.5	1.7
Water	0.4	0.5
Dead Pig Disposal	0.7	0.9
Stock Depreciation	1.8	1.9
Miscellaneous	1.2	1.2
Total Non-feed Costs excluding Building and Financial Costs	39.6	41.3

Commentary

Most of the costs are very similar to 2015. The items of Housing Rental, Contract finishing costs, water and dead pig disposal are costs that may not occur on all farms.



Table 6: Building and Financial Costs

	Cost per kg dead c	
	2015	2016
Building Depreciation	4.4	4.9
Interest	1.4	1.7
Building and Financial	5.8	6.6

Commentary

Too few farms include data on Interest payments and Building Depreciation to obtain a very reliable indication of these costs. The cost of production per kg as calculated is limited in the absence of more data on these two costs. More importantly, too few herds are having their actual cost of production calculated.

A building depreciation cost should be included based on the value of buildings on each pig farm. Low building depreciation costs reflect a lack of capital investment in many units over the last decade or so.

Table 7: Total Cost of Production

	Cost per kg dead c	
	2015	2016
Feed	108	102
Non-feed Costs excluding Building and Financial Costs	39.6	41.3
Building and Financial Costs	5.8	6.6
Total	153.4	149.9

Commentary

With a repayment (*capital + interest*) cost of 6.5c per kg pig producers needed 149.8 c per kg dead weight to cover all payments in 2016. These costs need to be unit specific rather than “average” which can only be useful as a guideline.



Top 25% of Herds

Table 8: Selected on the basis of the Number of Pigs produced per sow per year

	Top 25% 2016	Average 2016
Number of Herds	28	111
Average Herd Size	670	775
No. pigs produced per sow per year	28.73	26.25
Litters per sow per year	2.42	2.38
Average weaning age: days	26	28
Empty days per litter	11	13
No. born live per litter	13.62	13.15
No. born dead per litter	0.80	0.88
Pig Mortality %	9.2	10.8
Weaner Mortality %	2.02	2.85
Finisher Mortality %	1.60	2.49
Sow Culling Rate %	49.2	50.1
Sow Mortality	3.8	4.9
Feed per sow per year (tonnes)	1.34	1.31



Commentary

The herds in the top quartile of herds selected on the basis of the number of pigs produced per sow per year produce 2.48 pigs per sow per year more than the average of all herds. Each extra pig produced would have increased the margin over feed per sow by €48 if pig sale weights were maintained.

All the herds in the top quartile produce at least 27.3 pigs per sow per year. These top performing herds perform better in the various factors that determine sow productivity

- Higher born alive per litter
- Mortality at all stages of production.

The herds in the top quartile of recorded herds showed a range between 27.3 to over 31 pigs produced per sow per year. This is due to the higher born alive per litter and also the lower mortality at all stages of production.

It is significant that the Feed per Sow per Year, adjusted to take account of Maiden Gilt numbers, is higher in the Top 25% herds compared with that in all recorded herds. Getting sows to eat more feed particularly in the farrowing house helps push the born alive in the next litter and increase the weaning weights of the suckling piglets.



Table 9: Selected on Feed Conversion Weaning to Sale

	Top 25% 2016	Average 2016
Number of Herds	28	96
Average Herd Size	765	706
Average weaning weight (kg)	7	6.8
Average live weight at sale (kg)	111.5	108.6
Average weight at sale (kg)	85	83.0
Kill out %	76.3	76.4
Average daily feed intake (g)	1,668	1,680
Average daily gain (g)	742	697
Feed conversion	2.24	2.42
Average feed price per tonne (€)	287	286
Feed per pig weaning to sale (kg)		
Creep	3.5	3.5
Link	7.0	6.3
Weaner	43.4	47.0
Finisher	180.1	190.0
Total	234.0	246.8



Commentary

The top quartile of herds selected on the basis of Feed Conversion Weaning to Sale use 12.8 kg feed less per pig than the average of all recorded herds.

Based on an average price for finisher feed alone in 2016 of €286 per tonne, this difference of 12.8 kg feed represents €3.66 per pig or 4c per kg dead weight in feed cost. This does not account for the heavier pig that the top 25% sold which will further increase their profitability.

The top quartile herds have significantly higher growth rates from weaning (+25 g per day) and there is a 2.9 kg LW difference in slaughter weights.

The top quartile herds used the same creep feed and more milk (0.7kg/pig).

The better Feed Conversion efficiency gave significant savings in terms of the feed cost. It took the Top 25% 141 days after weaning to reach slaughter weight while it took the “average” herds five more days to reach a 2.9 kg lighter sale weight .



Top 10% of Herds

Table 10: Selected on the basis of the Number of Pigs produced per sow per year

	Top 10% 2015	Average 2016
Number of Herds	11	111
Average Herd Size	541	775
No. pigs produced per sow per year	30.73	26.25
Litters per sow per year	2.46	2.38
Average weaning age (days)	25	28
Empty days per litter	9	13
No. born live per litter	14.05	13.15
No. born dead per litter	0.82	0.88
Piglet Mortality (%)	7.9	10.8
Weaner Mortality (%)	1.51	2.85
Finisher Mortality (%)	1.68	2.49
Sow Culling Rate (%)	42.0	50.1
Sow Mortality	3.6	4.9
Feed per sow per year (tonnes)	1.37	1.31



Commentary

The top 10% of recorded herds selected on the basis of the Number of Pigs Produced per Sow per Year produced 4.5 pigs more than the average for all recorded herds.

These top performing herds had:

- Higher number of litters per sow per year: 0.08/litter
- Higher number of pigs born alive per litter: 0.9
- Lower mortality among piglets, weaners, finisher: 5.05%

These top 10% of herds reported higher annual usage of sow feed per sow suggesting a strong link between overall sow nutrition / feeding levels and sow productivity.



Table 11: Top 10% of herds selected on the basis of Feed Conversion Weaning to Sale

	Top 10% 2016	Average 2016
Number of Herds	11	96
Average Herd Size	930	706
Average weaning weight (kg)	7	6.8
Average live weight at sale (kg)	114.2	108.7
Average dead weight at sale (kg)	87.5	83
Kill out (%)	76.6	76.4
Average daily feed intake (g)	1,627	1,680
Average daily gain (g)	749	697
Feed Conversion	2.17	2.42
Feed per pig weaning to sale (kg)		
Creep	3.7	3.5
Link	7.8	6.3
Weaner	44.0	47.0
Finisher	176.2	190.0
Total	231.7	246.8



Commentary

The Top 10% of recorded herds selected on the basis of Feed Conversion Weaning to Sale had slaughter weights that were 5.5 kg heavier than the average of all recorded herds. Despite this the Feed Conversion Weaning to Sale (2.17) is considerably better than the average for all recorded herds (2.42). They used 15.1 kg of feed per pig less to bring the pigs to a 5.5 kg heavier liveweight.

Based on an average finisher feed price of €286 per tonne for 2016 this amounts to €4.31 per pig or 5c per kg dead weight. The pigs in the herds in the Top 10% had a Growth Rate Weaning to Sale 52 g per day higher than the average of all herds.

They used more creep, link, and less weaner and finisher feed per pig.

Table 12: Pig Meat Produced per Sow per Year

	2011	2012	2013	2014	2015	2016
No. pigs produced per sow per year	24.1	24.5	25.2	25.3	24.8	26.25
Average Slaughter weight (kg)	78.4	79.3	80.6	81.1	83.0	83
Pig Meat Produced per Sow per Year (kg)	1,889	1,943	2,031	2,052	2,058	2,179

Commentary

The quantity of pig meat produced per sow per year has increased by 15% since 2011 due to a combination of increased number of pigs produced per sow per year and increased average pig carcass weights. A target of 2,000 kg of pig meat produced per sow per year for every integrated unit has been proposed by the Teagasc Pig Department. This is based on producing 25 pigs per sow per year with an average carcass weight of 80 kg.



Table 13: Growing Pig Performance

	2011	2012	2013	2014	2015	2016
Average Daily Gain (g)	638	690	664	670	694	697
Feed Conversion	2.53	2.46	2.46	2.49	2.43	2.42
Sale Weight Live (kg)	103.6	104.5	105.5	106.2	108.7	108.6

Commentary

Since 2011 growth rates from weaning to sale have increased by 9%. Feed conversion from weaning to sale has fluctuated in the past five years. .

Table 14: Production Costs per kg Dead Weight c

	2011	2012	2013	2014	2015	2016
Feed	110	120	130	117	108	102
Total Non-feed Costs excluding Building and Financial Costs	33.9	29.8	34.6	36.9	39.6	41.3
Building and Financial Costs	8.5	9.3	7.0	6.0	5.8	6.6
Total	152.4	159.1	171.6	159.9	153.4	149.9

Commentary

Feed normally represents about 70% of production costs as reported in PigSys and now ePM recorded herds. Feed costs per kg fluctuate in line with the cost of feed ingredients which determines the price of pig feed. The feed costs each year have been close to the costs as collected in the Teagasc Monthly Feed and Pig price Monitor.

It is critical that each farm monitors its own production costs. These costs are critical to the overall management of the pig unit. Every farm can and should benchmark their performance and production costs on the ePM now. This will allow each farm compare their performance figures with the Average, Top 25% and Top 10% of farms keeping records on the ePM.

Talk to your Advisor today on accessing the ePM to view and benchmark your own records.

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