

National Pig Herd Performance Report 2017

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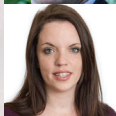
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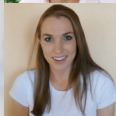
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Introduction

This report is the detailed analysis of the performance of herds that participated in the Teagasc e-Profit Monitoring (ePM) recording system in 2017.

The data available and included in this analysis is from a total of 107 herds representing over 77,000 sows or 52% of the national commercial sow herd. The average size of the herds included is 728 sows and ranged from less than 100 sows to over 2,200 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 2017

Table 1: Sow Productivity	2016	2017
Number of Herds	111	107
Average Herd Size	775	728
Average Maiden Gilts %	12.1	11.6
Litters per Sow per Year	2.38	2.36
Average Weaning Age Days	28	29
Empty Days per Litter	13	14
Number Born Alive per Litter	13.15	13.50
Number Born dead per Litter	0.88	0.92
Piglet Mortality %	10.8	10.7
Weaner Mortality %	2.85	2.91
Finisher Mortality %	2.49	2.21
Number of pigs produced per sow per year	26.25	27.01
Sow culling rate per annum %	50.1	49.3
Sow mortality per annum %	4.9	5.2
Feed per sow per year tonnes	1.31	1.30

Commentary

The Number of Pigs Born Alive per Litter rose again this year. The rise to 13.50 Pigs born alive per litter resulted in a increase in the number of Pigs Produced per Sow per Year compared to 2016. The output of pig meat per sow per year increased from 2,179 to 2,285 kg because the number of pigs produced increased.



Table 2: Growing Pig Performance	2016	2017
Number of Herds	96	87
Average Weaning Weight (kg)	6.8	7.0
Average Live Weight at Sale (kg)	108.6	110.8
Average Dead Weight at Sale (kg)	83.0	84.6
Kill Out %	76.4	76.4
Daily Feed Intake (g)	1,680	1,727
Average Daily Gain (g)	697	708
Feed Conversion	2.42	2.44

Commentary

The average dead weight in recorded herds increased in 2017 to 84.6 kg. There was an increase in growth rate from weaning to sale (697 to 708 g/day), and there was an increase of 0.02 in the Feed Conversion from weaning to sale compared to 2016.

The average output of pig meat per sow per year in recorded herds was 2,285 kg. This amount of pig meat was produced using 8,141 kg feed or 3.56 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	2016	2017
Number of Herds	111	107
Average Weaning Weight (kg)	6.8	7.0
Average Transfer/Sale Weight (kg)	38	38.4
Creep Feed per Weaner (kg)	3.5	3.8
Link Feed per Weaner (kg)	6.3	6.0
Weaner Feed per Weaner (kg)	47.0	47.5
Total Feed per Weaner (kg)	56.8	57.3
Average Daily Feed Intake (g)	873	879
Average Daily Gain (g)	482	490
Feed Conversion	1.82	1.79

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 2016. An increase in creep feed fed per pig was seen while link feed usage dropped relative to 2016.

The Feed Conversion changed from 1.82 in 2016 to 1.79 in 2017. This might be affected by an underestimation in transfer weights although weaner transfer weights were estimated to be 0.4 kg higher than in 2016.



Table 4: Finisher Performance	2016	2017
Number of Herds	96	87
Average Weaner Transfer Weight (kg)	38.1	38.4
Average Live Weight at Sale (kg)	108.6	110.8
Average Dead Weight at Sale (kg)	83	84.6
Kill Out %	76.4	76.4
Average Daily Feed Intake (g)	2,301	2,304
Average Daily Gain (g)	860	866
Feed Conversion	2.69	2.66

The same qualification applies to finisher performance data as weaner transfer weights are usually estimated on pig units. Finisher Growth Rates increased from 860 to 866 g/day from 2016 to 2017. The Feed Conversion improved to 2.66 from 2.69 in 2016.

Pig slaughter weights increased by 1.6 kg dead weight compared to 2016.

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

	2016	2017
Creep	3.5	3.8
Link	6.3	6.0
Weaner	47.0	47.5
Finisher	190	192.6



Production Costs 2017

Table 5: Feed and Non-Feed Costs

	Cost per kg dead c	
	2016	2017
Feed	102	100.6
Non-feed Costs excluding Building and Financial Costs		
Healthcare	6.4	6.3
Heat, Power, Light	4.2	4.2
Transport	1.0	1.3
Artificial Insemination	1.9	1.9
Manure	1.8	1.7
Labour / Management	13.5	14.4
Repairs	2.6	3.0
Administration	0.9	0.9
Environment	0.5	0.5
Insurance	0.9	1.0
Housing Rental	1.4	2.5
Contract Finishing Costs	1.7	2.4
Water	0.5	0.5
Dead Pig Disposal	0.9	0.8
Stock Depreciation	1.9	1.8
Miscellaneous	1.2	1.2
Total Non-feed Costs excluding Building and Financial Costs	41.3	44.4

Commentary

Most of the costs are very similar to 2016. There was a big increase in repairs partially because pig prices were strong in 2017. The items of housing rental, contract finishing costs and water are costs that may not occur on all farms.



Table 6: Building and Financial Costs

	Cost per kg dead c	
	2016	2017
Building Depreciation	4.9	4.3
Interest	1.7	1.4
Building and Financial	6.6	5.7

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	
	2016	2017
Feed	102	100.6
Non-feed Costs excluding Building and Financial Costs	41.3	44.4
Building and Financial Costs	6.6	5.7
Total	149.9	150.7

Commentary

With a repayment (*capital + interest*) cost of 6.3c per kg pig producers needed 151.3 c per kg dead weight to cover all payments in 2017. 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% 2017	Average 2017
Number of Herds	25	107
Average Herd Size	702	728
No. pigs produced per sow per year	29.07	27.01
Litters per sow per year	2.35	2.36
Average weaning age: days	28	29
Empty days per litter	15	14
No. born alive per litter	14.00	13.50
No. born dead per litter	0.85	0.92
Pig Mortality %	9.4	10.7
Weaner Mortality %	1.88	2.91
Finisher Mortality %	1.52	2.21
Sow Culling Rate %	52.6	49.3
Sow Mortality	4.0	5.2
Feed per sow per year (tonnes)	1.31	1.30

Commentary

The herds in the top quartile of herds selected on the basis of the number of pigs produced per sow per year produce 2.06 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.

The herds in the top quartile of recorded herds showed a range between 27.9 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.



Table 9: Selected on Feed Conversion Weaning to Sale

	Top 25% 2017	Average 2017
Number of Herds	25	87
Average Herd Size	578	695
Average weaning weight (kg)	7.1	7.0
Average live weight at sale (kg)	112.3	110.8
Average dead weight at sale (kg)	85.5	84.6
Kill out %	76.2	76.4
Average daily feed intake (g)	1,695	1,727
Average daily gain (g)	737	708
Feed conversion	2.3	2.44
Average feed price per tonne (€)	287	286
Feed per pig weaning to sale (kg)		
Creep	3.4	3.8
Link	6.6	6.0
Weaner	44.8	47.5
Finisher	186.7	192.6
Total	241.5	249.9



Commentary

The top quartile of herds selected on the basis of Feed Conversion Weaning to Sale use 8.4 kg feed less per pig than the average of all recorded herds.

Based on an average price for finisher feed alone in 2017 of €286 per tonne, this difference of 8.4 kg feed represents €2.40 per pig or 3c 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 (29 g per day) and there is a 1.5 kg live weight (0.9 kg dead weight) difference in slaughter weights.

The top quartile herds also used less creep feed (-0.04 kg per pig) and more link feed (0.6 kg per pig) than the average herd.

The better Feed Conversion efficiency gave significant savings in terms of the feed cost. It took the Top 25% 143 days after weaning to reach slaughter weight while it took the “average” herds four more days to reach a 1.5 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% 2017	Average 2017
Number of Herds	10	107
Average Herd Size	578	728
No. pigs produced per sow per year	31.1	27.01
Litters per sow per year	2.36	2.36
Average weaning age (days)	28	29
Empty days per litter	14	14
No. born live per litter	14.48	13.50
No. born dead per litter	0.92	0.92
Piglet Mortality (%)	9.0	10.7
Weaner Mortality (%)	2.11	2.91
Finisher Mortality (%)	1.67	2.21
Sow Culling Rate (%)	49.3	49.3
Sow Mortality	4.2	5.2
Feed per sow per year (tonnes)	1.33	1.30



Commentary

The top 10% of recorded herds selected on the basis of the Number of Pigs Produced per Sow per Year produced 4.1 pigs more than the average for all recorded herds.

These top performing herds had:

- The same number of litters per sow per year
- Higher number of pigs born alive per litter: 0.98
- Lower mortality among piglets, weaners, finisher: 3.04%



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

	Top 10% 2017	Average 2017
Number of Herds	10	87
Average Herd Size	608	695
Average weaning weight (kg)	6.9	7.0
Average live weight at sale (kg)	111.6	110.8
Average dead weight at sale (kg)	85.2	84.6
Kill out (%)	76.4	76.4
Average daily feed intake (g)	1,585	1,727
Average daily gain (g)	703	708
Feed Conversion	2.25	2.44
Feed per pig weaning to sale (kg)		
Creep	3.9	3.8
Link	6.8	6.0
Weaner	44.9	47.5
Finisher	179.7	192.6
Total	235.3	249.9



Commentary

The Top 10% of recorded herds selected on the basis of Feed Conversion Weaning to Sale had slaughter weights that were 0.8 kg heavier than the average of all recorded herds. Despite this the Feed Conversion Weaning to Sale (2.25) is considerably better than the average for all recorded herds (2.44). They used 14.6 kg of feed per pig less to bring the pigs to a 0.8 kg heavier liveweight.

Based on an average finisher feed price of €286 per tonne for 2017 this amounts to €4.17 per pig or 5c per kg dead weight. The pigs in the herds in the Top 10% had a Growth Rate Weaning to Sale of 3 g lower than the average of all herds.

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



Trends in Pig Herd Performance

Table 12: Pig Meat Produced per Sow per Year							
	2011	2012	2013	2014	2015	2016	2017
No. pigs produced per sow per year	24.1	24.5	25.2	25.3	24.8	26.25	27.01
Average Slaughter weight (kg)	78.4	79.3	80.6	81.1	83.0	83	84.6
Pig Meat Produced per Sow per Year (kg)	1,889	1,943	2,031	2,052	2,058	2,179	2,285

Commentary

The quantity of pig meat produced per sow per year has increased by 21% 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 was 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	2017
Average Daily Gain (g)	638	690	664	670	694	697	708
Feed Conversion	2.53	2.46	2.46	2.49	2.43	2.42	2.44
Sale Weight Live (kg)	103.6	104.5	105.5	106.2	108.7	108.6	110.8

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	2017
Feed	110	120	130	117	108	102	101.6
Total Non-feed Costs excluding Building and Financial Costs	33.9	29.8	34.6	36.9	39.6	41.3	44.4
Building and Financial Costs	8.5	9.3	7.0	6.0	5.8	6.6	5.7
Total	152.4	159.1	171.6	159.9	153.4	149.9	150.7

Commentary

Feed normally represents about 70% of production costs as reported in the Teagasc 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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