

National Pig Herd Performance Report

2014

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Teagasc Pig Development Department Staff 2015

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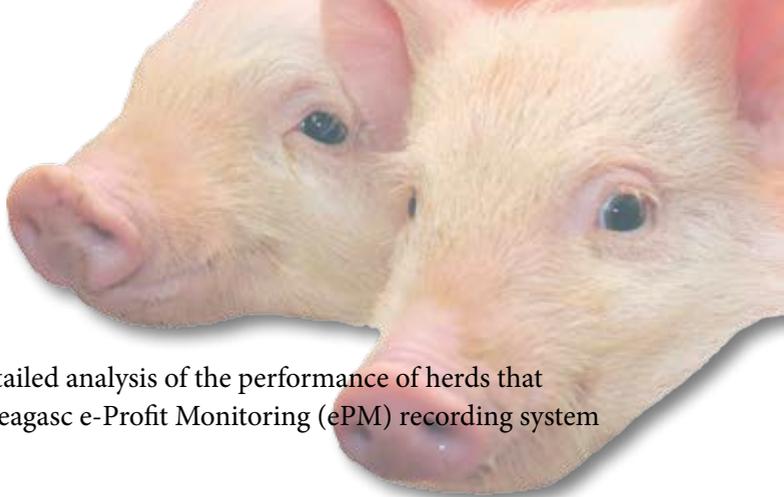
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Introduction

This report is the detailed analysis of the performance of herds that participated in the Teagasc e-Profit Monitoring (ePM) recording system in 2014.

The data available and included in this analysis is from a total of 113 herds representing over 84,000 sows or 56% of the national commercial sow herd. The average size of the herds included is 752 sows and ranged from less than 100 sows to over 2500 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 would 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 2014

Table 1: Sow Productivity 2014

Number of Herds	113
Average Herd Size	752
Average Maiden Gilts %	12.8
Litters per Sow per Year	2.37
Average Weaning Age Days	28
Empty Days per Litter	14
Number Born Alive per Litter	12.73
Number Born dead per litter	0.84
Piglet Mortality %	11.2
Weaner Mortality %	2.61
Finisher Mortality %	2.43
Number of pigs produced per sow per year	25.3
Sow culling rate per annum %	49.6
Sow mortality per annum %	5.1
Feed per sow per year tonnes	1.27

Commentary: The Number of Pigs Born Alive per Litter continues to rise each year. This, allied to 2.37 Litters per Sow per Year, resulted in an increase in the number of Pigs Produced per Sow per Year to 25.3. This has contributed to the output of pig meat per sow per year increasing to 2052kg.

TECHNICAL PERFORMANCE 2014

Number of Herds	104
Average Weaning Weight kg	7.0
Average Live Weight at Sale kg	106.2
Average Dead Weight at Sale kg	81.1
Kill Out %	76.4
Daily Feed Intake g	1670
Average Daily Gain g	670
Feed Conversion	2.49

Commentary: The average dead weight in recorded herds increased by 0.5 kg per pig compared to 2013. This is in line with the trend over more than a decade whereby average slaughter weights have increased by, on average, almost 1 kg per year. While there was no increase in growth rates from weaning to sale, there was a deterioration of 0.03 in the Feed Conversion from weaning to sale compared to 2013.

The average output of pig meat per sow per year in recorded herds was 2052g. This amount of pig meat was produced using 7519kg feed or 3.66 kg feed per kg of pig meat. The Teagasc Pig Department have proposed a target for integrated herds to produce 2000kg of pig meat per sow per year from 7000 kg of feed. We have achieved the 2000 kg but we are above the 3.5 kg of feed per kg of pig meat target.



TECHNICAL PERFORMANCE 2014

Table 3: Weaner Performance

Number of Herds	113
Average Weaning Weight kg	7.0
Average Transfer/Sale Weight kg	36.8
Creep Feed per Weaner kg	3.3
Link Feed per Weaner kg	6.6
Weaner Feed per Weaner kg	44.9
Total Feed per Weaner kg	54.8
Average Daily Feed Intake g	842
Average Daily Gain g	465
Feed Conversion	1.84

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 2013. A reduction in Link feed fed per pig has been offset by increases in Creep feed usage.

The Feed Conversion changed from 1.83 in 2013 to 1.84 in 2014. This might be affected by an underestimation in transfer weights although weaner transfer weights were estimated to be 0.1 kg higher than in 2013.

TECHNICAL PERFORMANCE 2014

Table 4: Finisher Performance 2014

Number of Herds	104
Average Weaner Transfer Weight kg	36.9
Average Live Weight at Sale kg	106.2
Average Dead Weight at Sale kg	81.1
Kill Out %	76.4
Average Daily Feed Intake g	2308
Average Daily Gain g	824
Feed Conversion	2.81

Commentary: The same qualification applies to finisher performance data as to weaner performance data because weaner transfer weights are usually estimated on pig units. Finisher Growth Rates increased from 817 to 824g/day from 2013 to 2014. The Feed Conversion increased to 2.81 from 2.76 in 2013.

Pig slaughter weights continued to increase – up 0.5 kg compared to 2013.

Total feed per pig from weaning was 249.4 kg consisting of:

Creep	3.3
Link	6.6
Weaner	44.9
Finisher	194.6

PRODUCTION COSTS 2014

Table 5: Feed and Common Costs	
Cost	Cost per kg dead c
Feed	117
Common	
Healthcare	6.3
Heat, Power, Light	4.1
Transport	1.1
Artificial Insemination	1.7
Manure	1.5
Labour/Management	12.4
Repairs	2.4
Administration	0.5
Environment	0.4
Insurance	0.7
Housing Rental	0.9
Contract Finishing Costs	1.3
Water	0.3
Dead Pig Disposal	0.4
Stock Depreciation	1.7
Miscellaneous	1.2
Total Common Costs	36.9

Commentary: Most of the common costs are very similar to 2013. The extra items of Housing Rental, Contract finishing costs, water and dead pig disposal were added in 2014.

PRODUCTION COSTS 2014

Table 6: Herd Specific Costs

Cost	Cost per kg dead c
Herd Specific	
Interest	1.9
Building Depreciation	4.3
Total Herd Specific Costs	6.2

Commentary: Too few farms include data on Interest payments and Building Depreciation to obtain a very reliable indication of Herd Specific 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 2014

Cost	Cost per kg dead c
Feed	117.0
Common	36.9
Herd Specific	6.2
Total	160.1

Commentary: With a repayment (capital + interest) of 7.9c per kg pig producers needed 161.8 c per kg dead weight to cover all payments in 2014. These costs need to be unit specific rather than “average” which can only be useful as guideline.

TOP 25% OF HERDS

Table 8: Selected on the basis of the number of pigs produced per sow per year

	Top 25%	Average
Number of Herds	28	113
Average Herd Size	656	752
No. of pigs produced per sow per year	27.5	25.3
Litters per sow per year	2.42	2.37
Average weaning age days	28	28
Empty days per litter	9	14
No. born alive per litter	13.12	12.73
No. born dead per litter	0.75	0.84
Pig Mortality %	9.6	11.2
Weaner Mortality %	1.81	2.61
Finisher Mortality %	2.03	2.43
Sow culling rate per year %	51.5	49.6
Sow mortality per year %	3.7	5.1
Feed per sow per year tonnes	1.34	1.27



TOP 25% OF HERDS



Commentary: The herds in the top quartile of herds selected on the basis of the number of pigs produced per sow per year produce 2.4 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 26.3 pigs per sow per year. These top performing herds perform better in the various factors that determine sow productivity

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

The herds in the top quartile farrowed 0.05 more litters per sow per year compared to the average of all herds. On a 650 sow unit this translates into an extra 33 farrowings per year.

The herds in the top quartile of recorded herds showed a range between 26.3 to over 31 pigs produced per sow per year. This is due to the greater number of litters 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.

TOP 25% OF HERDS

Table 9: Selected on Feed Conversion Weaning to Sale

	Top 25%	Average
Number of Herds	24	104
Average Herd Size	695	706
Average weaning weight kg	7.0	7.0
Average live weight at sale kg	107.5	106.2
Average dead weight at sale kg	82.3	81.1
Kill out %	76.5	76.4
Average daily feed intake g	1622	1670
Average daily gain g	698	670
Feed conversion	2.32	2.49
Average feed price per tonne €	301	310
Feed per pig weaning to sale kg		
Creep	3.1	3.3
Link	7.9	6.6
Weaner	44.3	44.9
Finisher	174.5	194.6
Total	229.8	249.4



TOP 25% OF HERDS

Commentary: The top quartile of herds selected on the basis of Feed Conversion Weaning to Sale use 19.6 kg feed less per pig than the average of all recorded herds.

Based on an average price for finisher feed alone in 2014 of €310 per tonne, this difference of 19.6 kg feed represents €6.08 per pig or 7.5c per kg dead weight in feed cost.

The top quartile herds have significantly higher growth rates from weaning (+28 g per day) but there is only a small difference in slaughter weights.

The top quartile herds used more creep (0.5kg/pig) feed and less link (0.44kg/pig) and weaner feed per pig.

The better Feed Conversion efficiency gave significant savings in terms of the feed cost. It took the Top 25% 144 days after weaning to reach slaughter weight while it took the “average” herds 4 more days to reach a 1.3kg 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%	Average
Number of Herds	12	113
Average Herd Size	472	752
No. pigs produced per sow per year	28.6	25.3
Litters per sow per year	2.41	2.37
Average weaning age: days	28	28
Empty days per litter	7	14
No. born live per litter	13.44	12.73
No. born dead per litter	0.77	0.84
Piglet Mortality %	9.0	11.2
Weaner Mortality %	1.23	2.61
Finisher Mortality %	1.48	2.43
Sow Culling Rate %	47.5	49.6
Sow Mortality	3.7	5.1
Feed per sow per year tonnes	1.33	1.27



TOP 10% OF HERDS

Commentary: The top 10% of recorded herds selected on the basis of the Number of Pigs Produced per Sow per Year produced 3.4 pigs more than the average for all recorded herds.

These top performing herds had:

- More litters per sow per year: 0.04
- Higher number of pigs born alive per litter: 0.71
- Lower mortality among piglets, weaners, finisher: 4.5%
- Lower annual sow replacement rate: 3.5%

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



TOP 10% OF HERDS

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

	Top 10%	Average
Number of Herds	12	104
Average Herd Size	590	706
Average weaning weight kg	7.0	7.0
Average live weight at sale kg	107.5	106.5
Average dead weight at sale kg	82.0	81.1
Kill out %	76.3	76.4
Average daily feed intake g	1549	1670
Average daily gain g	683	670
Feed conversion	2.27	2.49
Feed per pig weaning to sale kg		
Creep	2.9	3.3
Link	6.3	6.6
Weaner	39.6	44.9
Finisher	179.9	195.0
Total	228.7	249.8



TOP 10% OF HERDS

Commentary: The Top 10% of recorded herds selected on the basis of Feed Conversion Weaning to Sale have slaughter weights only slightly lower than the average of all recorded herds. Despite this the Feed Conversion Weaning to Sale (2.27) is considerably better than the average for all recorded herds (2.49). Over the weight range 7-107 kg this difference amounts to 22 kg feed per pig.

Based on an average feed price of €310 per tonne for 2014 this amounts to €6.82 per pig or 8.4c per kg dead weight. The pigs in the herds in the Top 10% had a Growth Rate Weaning to Sale 13g per day higher than the average of all herds.

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



TRENDS IN HERD PERFORMANCE

Table 12: Pig Meat Produced per Sow per Year

	2010	2011	2012	2013	2014
No. pigs produced per sow per year	23.9	24.1	24.5	25.2	25.3
Average Slaughter Weight kg	78.9	78.4	79.3	80.6	81.1
Pig Meat Produced per Sow per Year kg	1886	1889	1943	2031	2052

Commentary: The quantity of pig meat produced per sow per year has increased by 8.8% since 2010 due to a combination of increased number of pigs produced per sow per year (+5.8%) and increased average pig carcass weights (+2.7%). A target of 2000kg 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 80kg.

Table 13: Growing Pig Performance

	2010	2011	2012	2013	2014
Average Daily Gain g	657	638	690	664	670
Feed Conversion	2.48	2.53	2.46	2.46	2.49
Sale Weight Live kg	103.6	102.8	104.5	105.5	106.2

Commentary: Since 2010 growth rates weaning to slaughter have increased by 2%. Feed Conversion weaning to slaughter has fluctuated but has not improved in the past five years.

TRENDS IN HERD PERFORMANCE

Table 14: Production Costs per kg Dead Weight c

	2010	2011	2012	2013	2014
Feed	90.4	110	120	130	117
Common	34.5	33.9	29.8	34.6	36.9
Herd Specific	6.6	8.5	9.3	7.0	6.0
Total	131.5	152.4	159.1	171.6	159.9

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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